



PROCEEDING INTERNATIONAL HEALTH SEMINAR



**PROCEEDING
INTERNATIONAL HEALTH SEMINAR**

**HEALTHY FAMILY, HEALTHY ENVIRONMENT,
HEALTHY COUNTRY AND FREE FROM VIOLENCE**

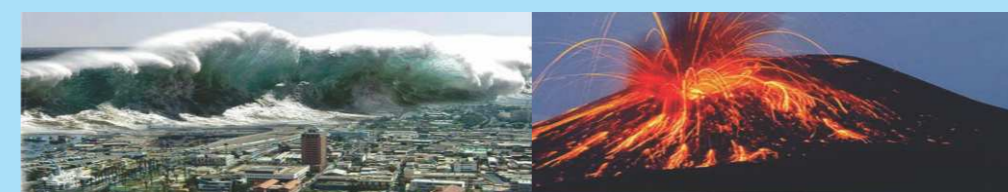
PADANG, DESEMBER 20TH 2017



**HEALTHY FAMILY, HEALTHY ENVIRONMENT,
HEALTHY COUNTRY AND FREE FROM VIOLENCE**



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**PADANG HEALTH POLYTECHNIC
COOPERATION WITH
HEALTH ORGANIZATION
(PPNI, IBI, HAKLI, PERSAGI AND PPGI)**





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Editors

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**Padang Health Polytechnic
Jalan Raya Siteba Pondok Kopi**

Padang - West Sumatera

<http://poltekkespadang.ac.id>

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**Manuscript
Oral Presentation**

DESCRIPTIVE STUDY OF DENTAL HEALTH STATUS IN ANDALAS 1st YEAR STUDENTS

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ABSTRACT

College students are generally have higher educational level and motivated to maintain good oral health. Therefore the goal of this study is as evaluation of young adults caries status which will provide an opportunity to acknowledge their oral health status. This descriptive study was conducted on June 2017 in Medika Andalas Clinic, Andalas University. The study population consisted of 300 males and 300 females undergraduate students of Andalas University with age range of 16-21 years. DMFT was obtained by calculating the number of decayed (D), missing (M) and filled (F) teeth (T). The software used included MS Office Excel 2010 and IBM SPSS Statistics 17. The result of this study is mean of DMFT in male group is 1.76 ± 1.954 . In female group, DMFT mean is 2.87 ± 2.55 . We conclude that Mean of DMFT on males Andalas University student was higher than females DMFT, also whole DMFT of Andalas University students was lower than whole West Sumatera and Indonesia DMFT as well. By doing this study we hope on the young adult group the growing knowledge and professional habits students get enough motivation to have their own teeth treated.

Key Words: DMFT, caries, young adult

INTRODUCTION

Dental health is a highly individualized concept the perception of which is very much affected by an individual's culture and socioeconomic status. The attitude of people towards their own teeth, and attitudes of dentists who provide dental care, play an important role in determining the oral health condition of the population (Naz & Yousuf 2013). During the last decade studies have indicated that caries comprise a major problem in the adult population of both developing and industrialized countries (Namal et al. 2008). Dental caries is the most common chronic disease of the oral cavity, which affects the population in general, from children to adults and seniors. Based on current knowledge of cariology and on the principles of minimal intervention, the treatment of carious lesions in the early stages occurs in a non-operative manner, avoiding the need for more complex and costly treatments (Melgar et al. 2016).

Based on the minimal intervention concept, as well as in the possibility of paralyzing and reversing dental caries in the early stages, one should not restrict the detection of disease to cavitated lesions. Thus, the use of a method capable of identifying spot lesions and their progression over time in an epidemiological level may be relevant considering the objective to be achieved in a study. The need for operative treatment at the population or individual level may be measured by the DMF index (Melgar et al. 2016). The Decayed (D), Missing (M), Filled (F) teeth index has been used since 1938 [1] and is well established as the leading measure of caries in dental epidemiology. It has been developed by the WHO [6] to be recommended as a framework of reference to index dental caries. The index expresses the number of decayed, missing and filled teeth in a group of individuals. (Khamis 2016). The DMFT values will be interpreted according to DMF scoring scale. According to this scale a

DMFT value between 0-4 is considered low caries status, the value in the range of 5-9 is moderate caries status and value greater than 9 is high caries status (Naz & Yousuf 2013). College students are generally have higher educational level and motivated to maintain good oral health. Researcher have found that most of the students showed improved oral hygiene following dental health education and the overall DMFT score were reduced(Nadeem et al. 2011). Therefore evaluation of their caries status will provide an opportunity to acknowledge their oral health status.

METHOD

The study population consisted of 300 males and 300 females first year undergraduate students of Andalas University with age range of 16-21 years. The students consent was taken before the examination . The examination was done in unit light in Medika Andalas Clinic. There is no exclusion criteria on this study. The instrument was calibrated for intra and interexamination reliability by a senior faculty member. Each student being examined was seated in the upright position. DMFT (for permanent dentition) describe the number, or the prevalence, of caries in an individual. DMFT is method to numerically express the caries experience and is obtained by calculating the number of decayed (D), missing (M) and filled (F) teeth (T). DMF-T group based on WHO; very low (0,8-1,1), low (1,2-2,6), medium (2,7-4,4), high (4,5-6,5), very high (>6,6). Statistical data was processed using a personal computer with MS Windows 10 operating system. The software used included MS Office Excel 2010 and IBM SPSS Statistics 17.

RESULT

Table 1. Distribution of components of decayed, missing and filled teeth index (DMFT)

	Mean	±SD	Minimum	Maximum
Male	1.76	1.954	0	8
Female	2.87	2.550	0	11

Mean of DMFT in male group is 1.76 ± 1.954 , with the lowest DMFT 0 and the highest is 8 . In female group , DMFT mean is 2.87 ± 2.550 with the highest DMFT is 11 and the lowest is 0. Males mean DMFT was lower than females DMFT .

DISCUSSION

Dental caries (i.e., tooth decay) is the most common chronic disease world wide, and one that exhibits profound disparities between affluent and impoverished nations and between privileged and disadvantaged populations within wealthy nations(Shaffer et al. 2015). Healthy teeth and oral tissues and the need for oral health care are important for any section of society. Oral disorders can have a profound impact on the quality of life. Good oral health has real health gains, in that it can improve general health and quality of life and contribute to self image and social interaction.(Shabani et al. 2015). In the oral cavity, therapeutic edentulation was common as a result of the popularity of the focal infection theory. It has become increasingly clear that the oral

cavity can act as the site of origin for dissemination of pathogenic organisms to distant body sites, especially in immunocompromised hosts such as patients suffering from malignancies, diabetes, or rheumatoid arthritis or having corticosteroid or other immunosuppressive treatment. A number of epidemiological studies have suggested that oral infection, especially marginal and apical periodontitis, may be a risk factor for systemic diseases.(Li et al. 2000)

Based on the results of Riskesdas 2013 caries prevalence in Indonesia is 76.2% and DMF-T 4.5. The condition of DMF-T Indonesia is still high, seen from most provinces for DMF-T index still in high condition. The provinces with high DMF-T are as follows: Bangka Belitung (8,5), South Kalimantan (7,2), West Kalimantan (6.2), South Sulawesi (6.6) and Daerah Istimewa Yogyakarta (5.9) including West Sumatra (6.2). Based on Basic Health Research (Riskesdas) in 2007, age group 10-24 years more suffering caries 66,8-69,5%. This situation shows that dental caries occurs in many productive ages. It is highly visible from the prevalence of the average Indonesian dental and mouth performance of 23.4%. (Riskesdas 2013). The result of our descriptive study showed that mean of DMFT in male group is 1.76 ± 1.954 , with the lowest DMFT 0 and the highest is 8 . In female group , DMFT mean is 2.87 ± 2.550 with the highest DMFT is 11 and the lowest is 0. Males mean DMFT was lower than females DMFT ..

The result of this study showed that DMFT was low and lower than whole Indonesia DMFT (4.5) as well. This study agrees with study by Nadeem et al (2011) showed that the number of decayed teeth was decreasing together with the increase amount of knowledge and the year of studies (Nadeem et al. 2011). Today it is believed that an environment with its typical culture, socioeconomic status, life style and dietary pattern can have a greater impact on caries resistance or development than the so-called inherent racial attributes (Naz & Yousuf 2013).

CONCLUSIONS

Mean of DMFT on males Andalas University student was higher than females DMFT , also whole DMFT of Andalas University students was lower than whole West Sumatera and Indonesia DMFT as well. Many factors which contribute in caries formation, such as gender, saliva, diets, education level, time, and genetic factor. So by doing this study we hope on the young adult group the growing knowledge and professional habits students get enough motivation to have their own teeth treated.

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ADAPTATION OF COMMUNITY REGIONAL STRATEGY MODEL BEACH AND MOUNTAINS IN DEALING WITH CLIMATE CHANGE IN WEST SUMATRA PROVINCE (CASE STUDY: VULNERABILITY AVAILABILITY DISEASE BASED ON WATER AND ENVIRONMENT)

Muchsin Riviwanto, Magzaiben Zainir
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ABSTRACT

Some regional vulnerabilities clean water. If the vulnerability is not treated immediately clean water will turn into a disaster. The community needs to do a defense mechanism of adaptation. Each individual will adapt to suit adaptive capacity each. It is necessary to investigate the vulnerability of water and environment-based disease models and find the right strategy. Results showed the vulnerability occurs in coastal and mountainous areas. Vulnerability adaptive capacity of the most vulnerable in coastal areas, most vulnerable sensitivitas susceptibility and vulnerability of coastal areas most vulnerable outcrop in coastal areas. Model adaptation strategies clean water vulnerability using an economic dimension. While in the mountainous areas using social dimension.

Need to increase social capital in the communities with programs of integrated and sustainable. Also required a comprehensive and holistic policy by involving the various *stakeholders*.

Keywords: vulnerability, clean water, and disease models

INTRODUCTION

The world's climate as a whole are being destroyed as a consequence of human activity. It is caused by an increased concentration of gases that block sunlight reflected from the Earth's energy that causes the greenhouse effect and lead to an increase in the earth, the planet we inhabit becomes hotter. The last report of the Intergovernmental Panel on Climate Change (IPCC, 2001) states that the scientific knowledge on climate change will change gives an overview of greenhouse gas emissions in the future. The report also estimates that global temperature changes between 1.4°C and 5.8°C by the end of 2100. The international policy makers aimed at keeping global temperature increase below 2range°Cthe IPCC discovery earth's surface temperature is projected to increase by between 1.4°C to 5.8°C as a global average range of 1990 to 2010 (Keman, 2004). The increase in air temperature on Earth that caused the event to climate change, so that an impact on weather patterns outside the cycle during normal conditions.

Some areas are susceptible to clean water. If the vulnerability of clean water is not treated immediately will turn into a disaster. People need to do the business of self-defense by means of adaptation. Each individual will adapt according to the adaptive capacity of each. If the adaptive capacity of both the defense against changing conditions, the better.people coastal areas to adapt due to tidal flood, while the mountain community to adapt because the river is polluted. Therefore, the vulnerability of communities to climate change is an important part of providing complex information in different areas, as well as material planning adaptation measures that increase the adaptive capacity of the system (Watkissetal.,2010; *Intergovermental Panel onClimateChange,2001*)

It is necessary adaptation strategies formulated in the face of climate change on disease risk reduction based on coastal environments and areas mountains. Based on the above, the study aims to determine the level of vulnerability of clean water and disease-based communities in coastal areas and mountains due to climate change. And to determine the model of climate change adaptation strategies based on economic, social and technological.

METHOD

This research type is a mix of quantitative and qualitative methods implemented in the districts of South Solok and Padang West Sumatera Province in 2017. The population is coastal and mountain communities with a sample of 75 heads of families consisting of 45 heads of families and 30 Head Beach area family mountain areas, taken at random cluster. Collection of secondary data obtained from the geophysical meteorological station gutters and Tabing Padang mountain consists of data of rainfall, temperature and humidity as well as profile data clinic. The primary data using questionnaires and in-depth interviews. Data processing using a computer program and analyzed quantitatively and qualitatively.

RESULTS

Table 1. Distribution of vulnerability variable adaptive capacity at the local beach and the mountains in the province of West Sumatra 2017

Adaptive capacity	Beach	Mountains
1. Average Number of dependents (people)	4.6	4.3
2. Family income (Rp.)	3,322,222	1,276,666
Expenditure (Rp.)	3,635,555	1,393,333
3. Educationhouseholds (%)		
- Not Tamad SD	12.9	11.1
- SD graduate	35.0	26.7
- junior high graduate	20.7	17.8
- Tamad high school	29.8	28.9
- University graduate	15.5	1.3
4. Ability to pay (Rp.)	33 870	5670
5. perceptions ofcatastrophic		
- Climate Change	93.3	36.7
- human activities	4.4.	23.3
- cycle of	2.2	1.3
- weather events, a regular	0.0	40.0
6. The role of women in water management (%)		
-	91.1	43.3
- Married	6.7	50.0
- Boys	2.2.	0.0
- Others	0.9	6.7
7. social capital	The lowsocial interaction	social interaction magnitude

Table 1 shows the number of dependents of heads of families are coastal (4.56 persons) is greater than the mountainous areas of society (4.30 persons). The average income of the head of the community friendly beach area (Rp. 3,322,222) is bigger than the mountainous areas of society (Rp. 1,276,666). Average expenditure head of

the family community beach area (Rp. 3,635,555) is bigger than the mountainous areas of society (Rp. 1,393,333). Higher levels of education in Turkish society than in the mountain community. On average ability to pay the clean water community family head beach area (Rp. 33 870) is greater than the mountainous areas of society (Rp. 5,670). Perception / understanding of the causes of the disaster community that comes from climate change is higher in Turkish society (93.3%) than in the mountain community (36.7%). The role of women in the responsible management of water higher in Turkish society (91.1%) than in the mountain community (43.3%). Social capital appears customary activities as a reflection of cognitive social capital in society mountainous areas. The beach area has a social capital of a small interaction between community members.

Table 2. Distribution of variable sensitivity vulnerability in coastal areas and mountains in the province of West Sumatra in 2017

sensitivity	Coastal	Mountains
1. Diversity clean water sources(%)		
- drinking water institution		
- well	91.1	90.0
- River	26.7	0.0
- PAH	8.9	10.0
- gallon water	6.7	0.0
- Other	4.4	0.0
		6.7
2. the time necessary to clean water sources (min)	2.36	4.70
3. Distance to a clean water source (meters)	20.2	32.3
4. Use of water (type)	- drinking water	- drinking water
	- washing	- washing
	- bath	- bath
	- Cooking	- Cooking
	- Privy	- Privy
	- other	- other

Table 3 shows the diversity of sources of clean water to the community is more diverse than in the mountains area community. The average time required for water resources community friendly beach area (2.36 min) is smaller than the mountainous areas of society (4.70 minutes). Water use more diverse beach area beach area of mountainous terrain. The average distance needed to clean the water source community friendly beach area (20.2 meters) closer than the mountainous areas of society (32.3 meters)

Outcrop

Table 3. Distribution of vulnerability variables outcrop in coastal areas and mountains in the province of West Sumatra in 2017

	outcrop	Coastal	Mountains
1. Climate			
- rainfall (mm / month)		289.85	222,7
- Temperature(°C)		21.6 to 32, 1	20° - 33
- Humidity (%)		77-94	80
2. Density (people /km2)		632.99	61.67inhabitants / km2
3. incident		- floods	- Flood
		- tidal flood	- avalanche
		- wavehigh	
		- abrasion	
4. environmentally based disease		- ARI	ARIdiseases
		- Diarrhea	Skin disease
		- Skin	

Table 3 show a higher mountain areas precipitation of the beach area, beach area (Bungus) is 239 people / km² and mountainous areas (Sangir) is 67 inhabitants per kilometer. Catastrophic events coastal areas more than the mountains. Disease-based environment is still at the 10 most prevalent diseases and diseases with respect to the availability and quality of water such as diarrhea and skin diseases

DISCUSSION

Vulnerability Lack of water and environment-linked diseases

At dimensional adaptive capacity, the higher the number of dependents, the more vulnerable, the coastal areas most vulnerable to water shortages. The lower the income the more vulnerable especially mountainous areas. Low education levels lead to the level of knowledge of the population lacking especially mountainous areas. Ability to pay to clean water, especially the most vulnerable mountain areas. The more people understand what it faces the increasingly vulnerable to water shortages and environmental based diseases, especially the most vulnerable mountainous areas. The role of women is vital because there is still something of a tradition that the fulfillment of domestic water for household needs would be better if it is done by women. Mountain areas most vulnerable communities. The role of social capital is very important to use in measuring the vulnerability because it is related to the level of *trust* among citizens, social networks, both internal and external communities outside the community, and norms among citizens. The most vulnerable coastal communities

Dimensionsensitivity

diversity of sources of waterindicator indicates that the less the number of types of water sources, the higher the level of vulnerability to the water source. Mountain areas most vulnerable communities. The longer the travel time from home to the old water source, it will be increasingly high levels of vulnerability. Then the mountainous areas most vulnerable communities. The higher the volume of water use, the higher the level of vulnerability. The most vulnerable coastal communities

Dimensions outcrop

higher annual rainfall in an area, the lower the level of vulnerability. Communities vulnerable coastal areas. The more densely populated an area, the higher the level of vulnerability. The most vulnerable coastal communities. The more the number of natural disasters in the location, the higher the level of vulnerability.

Model adaptation strategies

of adaptation How they are also very likely continue to grow with the changing dynamics of the physical environment of pressure on their social life. In the social structure and culture in the lives of those who regulate the functions they need (Ritzer, 2001), the structure and culture of this in a functional perspective will continue to evolve according to the changing functions needed. The adaptive capacity of society, the better will determine their resilience in the face of vulnerable water crisis conditions they experience. Community resilience of the water crisis as a basic condition of local wisdom in a society, which is seen from the dimensions of social capital and economic capital, or both. But it is likely that the chosen approach is not entirely based on the results of a thorough investigation, in particular in terms of *feasibility* and *sustainability*, whether technological approach feasible in certain locations with the characteristics and to the "typical" populations are different, as well as whether the socio-economic conditions of the community to ensure sustainability in the use of technology.

CONCLUSIONS

Not all dimensions of vulnerability occurs in areas of the beach or the mountains. The dimensions of the adaptive capacity of the most vulnerable in coastal areas, the dimensions of the sensitivity of the most vulnerable in coastal areas, and the dimensions of the outcrop of the most vulnerable in coastal areas. Model adaptation strategies in communities coast to face water crisis alebih right by using economic dimension .Andmountainous areas is to use the social dimension.

ADVICE

Need implemented programs that can be integrated in a sustainable manner. Also required a comprehensive and holistic policy by involving the various *stakeholders*. In planning, in order to maximize the social capital in choosing a program.

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RELATIONSHIP OF KNOWLEDGE, ATTITUDES AND COMMUNITY MOTIVATION WITH THE IMPLEMENTATION OF CLEAN AND HEALTHY BEHAVIOR HOUSEHOLD ARRANGEMENT AT LEGOK VILLAGE WORK AREA OF PUTRI AYU PUBLIC HEALTH CENTER JAMBI CITY 2017

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ABSTRACT

The practice of healthy living is one form of the Mental Revolution. GERMAS invites people to grow a healthy life, in order to change habits or unhealthy behavior⁵. Based on data from Jambi City Health Office 2016, the number of households examined 34,455 households berPHBS as many as 14,018 households (40,68%) 2 Legok Village Work Area of Putri Ayu Public Health Center is a fairly dense population and located on the outskirts of the river Batang. Day, this will lead to environmental health problems and lack of clean water. This condition will worsen if people do not pay attention to aspects of clean and healthy life behavior will facilitate the spread of disease. good. 48 (60.8%) poor knowledge and 31 (39.2%) good knowledge. 37 (46,8%) bad attitude and 42 (53,2%) good attitude, 34 (43,0%) bad motivation and 45 (57,0%) good motivation. There is a relationship of knowledge with p value = 0,000 (p <0,05), attitude with p value = 0,000 (p <0,05), and motivation with p value = 0,000 (p <0,05). The conclusion that Community Health Care will immediately apply the problem of PHBS intervention in the implementation of household arrangement by always providing information and monitoring to the community about PHBS implementation of the household order continuously, so that can be reached by society do PHBS maximally.

Keywords: Knowledge and Attitude, Motivation, PHBS

INTRODUCTION

Ministry of Health reminds the public to maintain health through the movement of healthy society (GERMAS) in order to realize the healthy Indonesia. The implementation of GERMAS should be started from the family, because the family is the smallest part of society that makes up the personality. The practice of healthy living is one form of the Mental Revolution. GERMAS invites people to grow a healthy life, in order to change habits or unhealthy behavior⁵. Based on data from Jambi City Health Office 2016, the number of households examined 34,455 households berPHBS as many as 14,018 households (40,68%) 2 Legok Village Work Area of Putri Ayu Public Health Center is a fairly dense population and located on the outskirts of the river Batanghari , this will lead to environmental health problems and lack of clean water. This condition will worsen if people do not pay attention to aspects of clean and healthy life behavior will facilitate the spread of disease

Based on preliminary observation that writer do in Legok Village Work Area of Putri Ayu Public Health Center, Of 10 head of family known only 3 father know about PHBS Household arrangement while 7 people do not know understanding, benefit, aim, target and indicator of PHBS arrangement households, 7 people do not have a good attitude towards PHBS household order. Based on the observations obtained by the father smoking in addition to infants and children in the house, and 7 heads of families are not motivated to be friendly and healthy with the question of PHBS 7 people is not recommended to do PHBS.

METHODS

This research is a quantitative research with cross sectional 1 research design which aims to know the correlation of knowledge and attitude and motivation of society with the implementation of clean and healthy life behavior of household order in kelurahan legok working area of Puskesmas Ayu. The study was conducted in June 2017.

The study population were all family members (father / mother) in Legok Subdistrict, Purdji Health Public Health work area, 619 households and random sampling by visiting home house, amounted to 79 respondents. consisting of 63 men, and 16 women. Analysis used univariate and bivariate 1.

RESULTS

Table 1. Distribution of clean and healthy living behavior of the household order

Variabel	Frequency	%
PHBS		
Not Good	37	46.8
Good	42	53.2
Knowledge		
Bad	48	60.8
Good	31	39.2
Attitude		
Not favorable	37	46.8
Good	42	53.2
Motivation		
Not Good	34	43.0
Good	45	57.0

Based on the above table, it was found that the number of respondents with PHBS is not good 37 (46,8%), good PHBS is 42 (53,2%) bad knowledge 48 (60,8%), and good knowledge 31 (39, 2%) not favorable Attitude 37 (46,8%) good attitude 42 (53,2%) and motivation not good 34 (43,0%) and work motivation 45 (57,0%)

Table 2. Result of analysis Relationship of public knowledge with the implementation of clean and healthy life behavior of the household arrangement Legok urban village working area Perti Ayu Puskesmas

Variabel	Application of PHBS				Ammount		p-value
	Not Good		Good		n	%	
	n	%	n	%			
Bad Knowledge	32	66.7	16	33.3	48	100	0.000
Good Knowledge	5	16.1	26	83.9	31	100	
Bad Attitude	26	70.3	11	29.7	37	100	0.000
Good Attitude	11	26.2	31	73.8	42	100	
Bad Motivation	26	76.5	8	23.5	34	100	0.000
Motivation	11	24.4	34	75.6	45	100	

Based on the above table it can be seen that the knowledge of the community with the application of clean and healthy living behavior of the household order shows that as many as 48 respondents have poor knowledge, it is seen from the poor people in doing PHBS there are 32 (66,7%) respondents, and there 16 (33,3%) of respondents doing PHBS. While good knowledge there are 31 respondents, namely PHBS 26 (83.9%) and only 5 (16.1%) of respondents who do not do PHBS. The result of chi-square statistic test obtained p value = 0,000 ($p < 0,05$) The result of correlation analysis of motivation with the implementation of clean and healthy life behavior of household indicate that as many as 34 respondents have less good motivation, it can be seen from bad society in doing PHBS that there are 26 (76,5%) responder and there are 8 (23,5%) of respondents who do PHBS. While good motivation was 45 respondents, who did PHBS 34 (75,6%) and only 11 (24,4%) of respondents did not do PHBS, result of chi-square statistic test obtained p value = 0,000 ($p < 0,05$).

DISCUSSION

Results of PHBS study were illustrated by respondents' results, 73 (92.4%) of infants were not exclusively breastfed, 71 (89.9%) were not smoke-free, and 67 (84.8%) did not use healthy dietary latrines. The results of this study contradict the opinion of the MOH RI, 5 that the PHBS indicator should be given exclusive breastfeeding 0-6 months old who only get breast milk alone. Breast milk is a natural food of fluid with adequate levels of nutrition and is suitable for the needs of babies, so the baby grows and develops well. Also contrary to the opinion of 4 non smoking indicators PHBS indoors because cigarettes can cause mental disorders and natural feelings as well as psychomotor disorders, and should use healthy latrines to meet health needs.

The results of this study are supported by 7 factors related to the Implementation of Clean and Healthy Behavior of Household Sector of KIA in the Working Area of Rimbo Bujang IX Health Center of Rimbo Ulu Subdistrict of Tebo Regency in 2012, with most of the respondents good about PHBS. Further research results are also illustrated by the results of the responses of respondents, among others, most of the fruit and vegetables every day, most of the delivery assistance by health workers, perform physical activities every day. It is advisable especially mothers who have babies to breastfeed only until the baby is 6 months old, because breast milk is a

natural food with adequate nutritional content and suitable for the needs of the baby, so the baby grows and develops well, and can. fostering the physical and intellectual development of children, to the household head for a smoke-free home, can provide healthy latrines for family members.

The result of knowledge of the respondent mostly know that PHBS of household order for mother who will give birth is to help delivery to health manpower. According to 5 births conducted by a mother assisted by health professionals such as doctors, midwives, midwife assistants, health nurses, this is so that mothers who perform childbirth can safely run the birth and babies born healthy and safe. The results of this study support the opinion of the 6 knowledge that becomes the result of knowledge, and this occurs after the person senses a particular object. Sensing takes place through the five human senses, namely the sense of sight, hearing, smell and touch. Much of human knowledge is gained through the eyes and ears. Knowledge or cognition is a very important domain in shaping one's actions.

The results of motivational research were taken from good respondents, among others, 23 families exclusively breastfeeding up to 6 months of age as they are encouraged to want healthy babies, 26 feeding babies for pushing for adequate nutritional content and as needed. from infants, so babies grow and thrive, use clean and healthy toilets because they want to be clean and healthy, and throw garbage in place because of their inner desire. According to the researchers the possibility of the respondents motivation and not hesitate to agree to exercise every day may be because they do not have enough time because it is still important to go kesawah from morning and come home when it was late afternoon. Not bringing a child to a posyandu is possible because the mother has to go to the paddy field or the toddler has been taken to the puskesmas or midwife home.

CONCLUSIONS

The conclusion of the research result is (46,8%) PHBS is not good and 42 (53,2%) PHBS good. 48 (60.8%) poor knowledge and 31 (39.2%) good knowledge. 37 (46,8%) bad attitude and 42 (53,2%) good attitude, 34 (43,0%) bad motivation and 45 (57,0%) good motivation. There is a relationship of public knowledge with the application of clean and healthy living behavior of household order in Legok Subdistrict of Purti Ayu Public Health work area in 2013, p value = 0,000 ($p < 0,05$). Attitude relationship with the household order PHBS p value = 0,000 ($p < 0,05$). Relationship of motivation with PHBS of household order, p value = 0,000 ($p < 0,05$). Suggestion for Puskesmas to immediately apply the problem of PHBS intervention in the implementation of the household order by always providing information and monitoring to the community about PHBS implementation of the household order continuously, so that can be reached by the community berPHBS maximally.

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THE EFFECT OF SOCIAL SKILL TRAINING AND FAMILY PSYCHO-EDUCATION IN THE PREVENCE OF BULLYING BEHAVIOR IN STUDENT OF ELEMENTARY SCHOOL IN PADANG

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ABSTRACT

Bullying seems to have become an integral part of the lives of children today. The high incidence of bullying behavior in primary school-aged children in the family, school, and surrounding environment indicates the need for immediate interventions to address the problem of school-aged children. Some efforts should be made in the form of prevention, treatment and rehabilitations for victims of bullying behavior. One form of intervention that can be developed as an effort to prevent bullying behavior in school-aged children is Social Skill Training and Family Psycho education therapy. Through Social Skill Training and Family Psychoeducation can improve cognitive, psychomotor and affective school-aged children to prevent bullying behavior. Social Skill Training and Family Psycho education can be developed as a model in the prevention of Bullying behavior in school-aged children

Keywords: Social Skill Training, Family Psychoeducation, Bullying Prevention

INTRODUCTION

Some research results showed that bullying behavior was a serious problem that occurs in children. The findings of C. S Mott Children's Hospital National found that bullying is included in 10 worrying health problems in children Goodwin, D. (2010). The possible phenomenon of bullying in elementary schools will be increasingly encountered, and became a phenomenon of icebergs. This was because most parents and school did not realize that there has been bullying in school. Often, this bullying behavior escaped the attention of parents and the school. Generally, parents and school parties assumed that mutual mocking, fighting, or interfering with other children is common to schoolchildren and not a serious problem (Latifah, 2012).

Seeing the various impacts caused by the behavior of bullying in children, efforts should be made in the form of prevention, treatment and rehabilitation for victims of bullying behavior. One form of intervention that can be developed as an effort to prevent bullying behavior in school-aged children is social skill training therapy. Social skills training is a method based on social principles and uses role playing techniques, practices and feedback in an effort to improve one's ability to solve problems (Kneisl & Varcarolis, 2008).

Early handling of bullying behavior to avoid serious problems not only comes from their own children but is also required from the family. Many families who experience stress due to ignorance about bullying experienced by their children due to not knowing the problem and how to handle bullying behavior. Family therapy that can be used in overcoming bullying can be family psycho education therapy (Stuart 2013). This therapy is in the form of information and education through therapeutic communication involving family. With the provision of family psycho education, families are expected to understand the problems experienced by family members, able to overcome the problems in themselves that arise because of family members with

bullying behavior and able to overcome the burden and utilize facilities in the community. The Indonesian Child Protection Commission's (KPAI) statistics report that there has been an increase in violence cases received by the National KPAI in the last five years. In 2011 there were 2,413, rising to 2,508 in 2012, in 2013 increasing 2,637, increasing in 2014 at 2,792 and 2015 as many as 3,339 cases and other cases of child abuse not yet recorded in KPAI. (Sirait, 2016).

The Commission for the Protection of Indonesian Children (KPAI) of West Sumatera in 2016 reported that the most Bullying areas were the cities of Padang, Payakumbuh and Solok with the prevalence of over 71% of students ever experienced bullying. 57% of children have experienced bullying either directly or indirectly. The researchers conducted a study at the State Elementary School No. 05 Surau Gadang Nanggalo Padang that has been accredited B. Elementary School No. 05 Surau Gadang located Jalan Raya Siteba Surau Gadang Nanggalo Padang, a dense area and adjacent to the motorbike rickshaw and public transportation. The school consisted of 12 classes, with 362 students.

METHODS

Quasi-experimental research design is used with approach of pretest posttest with the control group. Research conducted at SDN 05 Surau Gadang Nanggalo Padang from March to November 2017. The sample was 64 students of SMAN 5 Padang City School Year 2016 / 2017 with purposive sampling (Lemeshow, 1997). The data is processed and analyzed by univariate analysis with descriptive statistics and bivariate analysis using independent test, sample T-test and ANOVA test

RESULT

Table 1. Distribution of Respondents by Group of Controls and Interventions at Primary School 05 in Padang City 2017

Intervention group (N=31)	Performer (6) 19,3%	Victims (13) 41,9%	Witness (7) 22,6 %	No Performer Victim Witness (5) = 16,2%
Control Group (N=31)	Performer (8) 25,8 %	Victims (12) 38,7%	Witness (6) 19,3 %	No Performer Victim Witness (5) = 16,2%

Based on table 1 in the abuser control group there were 25.8% with 38.7% victims and in the intervention group there were 19.3% offenders and 41.9% were victims.

The result of equality analysis between the two groups is normally distributed and equal to $p > 0,05$

Table 2. The Mean of Bullying Prevention After Giving Action at SDN 05 Kota Padang Year 2017 (n = 62)

Prevention	Intervention Group (n = 31)			Control Group (n = 31)		
	Mean	SD	Min – mak	Mean	SD	Min- mak
1. Student cognitive against Bullying Prevention	10.48	2.987	5 – 14	8.10	1.446	5 – 11
2. Affective of students against Bullying Prevention	33.06	3.162	37 – 51	40.23	3.757	32 – 48
3. Psychomotor students against the prevention of Bullying	3.10	0.94 4	2 – 5	2.87	0.885	2 – 5

Based on table 2 mean of cognitive and psychomotor of student to prevention of bullying higher in intervention group conducted Social Skill Training and family psychoeducation (10,48) for cognitive and 3,10 for psychomotor compared to cognitive and psychomotor of student who only given Social Skill Training

Table 3. Mean Differences of Bullying Prevention Before & After Action In Group Intervention and Control at SDN 05 Kota Padang Year 2017 (n = 62)

Prevention of Bullying	Group	Mean after	Mean before	Difference	Pvalue
<i>Cognitive students against the prevention of Bullying</i>	Intervention	10.48	6.10	4.38	0.000
	Control	2.71	1.90	0.81	
<i>Affective Students against the prevention of Bullying</i>	Intervention	44.84	33.06	11.78	0.013
	Control	40.00	29.84	10.16	
<i>Psychomotor students against the Prevention of Bullying</i>	Intervention	3.10	2.06	1.04	0.038
	Control	2.87	2.03	0.84	

Based on table.3 The result of statistical test showed that there was an increase of cognitive ability in prevention of bullying before and after given Social Skill Training and family psycho education program with p = 0,000 (P Value <0,05). The result of statistical test shows that there is an increase of affective and psychomotor ability in prevention of bullying before and after given Social Skill Training and Psiko Family Education with p value <0,05

DISCUSSION

The results of the analysis showed that cognitive, affective, and psychomotor school-aged children who participated in Social Skill Training and Family Education Psiko increased significantly in the prevalence of bullying in school-aged children with P value <0.05). The cognitive, affective, and psychomotor of school-aged children who attended Social Skill Training and Family Psycho-Education were higher than school-aged children who only received Social Skill Training. Based on the result of the research, it was found that the increase of knowledge and the improvement of attitude toward the prevention of bullying is the best, the elementary school students get Social Skill Training and Psiko Family Education. The results of most of the students found that understanding of bullying behaviors was more about violent behavior, especially to physically harmful acts, while using a bad nickname, harsh words are considered joke and wrong one way to get mentally strong. Researchers analyzed that most of the primary school students did not have sufficient knowledge about Bullying behavior, be it physical, verbal, and relational. Students thought the nickname given his keteman was normal and common.

The results of the research have proved that Social Skill Training and family psychoeducation have an effect on improving cognitive, affective and psychomotor of students in prevention of Bullying compared to students only given Social Skill Training. Improved cognitive, affective and psychomotor abilities of students supported the implementation of openly communicated exercises with students, clear contracts and positive reinforcement always given to students.

CONCLUSIONS

Based on the results of this study, it can be concluded that there is a significant decrease in the bullying behavior of elementary school students before and after being given Social Skill Training and family education psycho. The results of the analysis showed that cognitive, affective, and psychomotor school-aged children who participated in Social Skill Training and Family Psycho Education to increase significantly in the prevalence of bullying in school-aged children with P value <0.05). Improvement of cognitive, affective and psychomotor abilities of primary school students against the prevalence of bullying is best, found in elementary school students who get Social Skill Training and Family Psycho Education.

RECOMMENDATIONS

It is recommended that nurses working in public health especially school health program holders need to receive training on Social Skill Training and Family Psycho Education in order to apply it to the health school activities in the school age group in Bullying Prevention based on existing Social Skill Training and Family Psycho Education. Through the Education Office of Padang City in order to recommend elementary school teachers especially class teachers get training on Social Skill Training and Family Psycho Education based on existing modules

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THE RELATIONSHIP OF RISK FACTORS WITH THE OCCURRENCE OF PREECLAMPSIA MILD IN PREGNANT WOMEN IN RSUD ABDUL MANAP JAMBI CITY 2017

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ABSTRACT

Preeclampsia and eclampsia is the cause of the death of the mother of 14% every year and is associated with mortality and morbidity of neonatal and maternal mortality are still high. Based on the Indonesian demographic health survey (IDHS) in 2012, one of the causes of the death of the AKI directly is bleeding 42%, eclampsia/preeclampsia 13%, abortion 11 %, infections 10 %, prolonged labor/obstructed labor 9%, and other causes 15%. Preeclampsia is a syndrome characterized by the presence of increased blood pressure and proteinuria occurring in the second trimester of pregnancy and then disappears in the postnatal period. Mothers who experience pregnancy-induced hypertension and 1-2% have hypertension chronic. This study aims to show the relationship between risk factors with the occurrence of preeclampsia mild in pregnant women in RSUD Abdul Manap Jambi City 2017. The results showed no significant relationship between age with the occurrence of preeclampsia mild in pregnant women. So also with the parity there was no significant relationship with the occurrence of preeclampsia mild. But there is a significant relationship between obesity with the occurrence of preeclampsia mild in pregnant women to RSUD Abdul Manap Jambi City 2017. Expected to RSUD Abdul Manap Jambi City to provide quality service to mothers in order to prevent occurrence of preeclampsia.

Keywords : Risk a Factors, Preeclampsia

INTRODUCTION

Maternal mortality maternity ward and the mortality rate perinatal is very important thing so used as one the indicator to assess the success in the health, especially for the health of a mother and child (depkes, 2008). The high rate of maternal deaths in Indonesia namely reached 359 by the 100.000 the birth of life (KH), is still far from the target millenium development goals (MDGS) in 2015 is AKI until on 102.000 by the 100.000 KH ¹ One of the cause of maternal mortality is the preeclampsia and eclampsia is the cause of death of the mother as much as 14% every year and connected with the mortality and morbiditas neonatal as well as maternal mortality that is still high ²

Preeclampsia is a syndrome characterized by the existence of an increase in blood pressure and proteinuria occurs in a pregnancy the second trimester then disappeared in the period postnatal. Preeclampsia who do not be handled quickly can lead to the eclampsia. The mother who experience hypertension due to pregnancy revolves around 10%, then 3-4% of them are preeclampsia, while 5% have hypertension and 1-2% have hypertension chronic ³

A risk factor preeclampsia others like obesity can be influenced by lifestyle the behavior of modern life with the habit of diet high calories, fat, cholesterol, smoking, drank alcohol can cause a variety of diseases like hypertension and diabetes militus ⁶ based on the results of research first in 2010 against primigravida, found the results of asignificant between obesity with the incident hypertension in the pregnancy. The

relationship between weight pregnant women and the risk of preeclampsia are progressive. This is evidenced by the increase in the incident preeclampsia of 4,3% in the mother with IMT $< 19,8\%$ kg/m² be 13,3% in pregnant women with IMT > 35 kg/m²⁵

METHODS

This study is the research quantitative with the design of the study *cross sectional* with the approach analitic. This study aims to know the relationship between the two variable to know the extent to which the factors that associated with the preeclampsia light in pregnant women ⁷This study was conducted in RSUD Abdul Manap Jambi City. The study conducted in the month Mei-November 2017. The population in this study is all pregnant women who visit to RSUD Abdul Manap Jambi City in 2017. Collecting data do with the primary data. Samples in this study is pregnant women who come to visit to the poly midwifery RSUD Abdul Manap Jambi City in 2017 filled criteria of inclusion and exclusion. A sample of technique in this study is with probabality sampling a sample of based on random simple with sampling quota. Samples that meet the criteria of inclusion and exclusion chosen in accordance with the amount of samples needed⁷.

RESULTS

Table 1. Distribution frequency preeclampsia mild in pregnant women in RSUD Abdul Manap Jambi City 2017

Occurrence of Preeclampsia	Frequency	Presentation
Experiencing Preeclampsia	25	38,5
Do not Experience Preeclampsia Mild	40	61,6

Table 2. Relationship age with the occurrence of preeclampsia mild in pregnant women in RSUD Abdul Manap Jambi City 2017

	Preeclampsia Mild	Not Preeclampsia	Total	P value
Age a Risk	11	12	23	0,17
	8,5	14,5		
Age not a Risk	13	29	42	
	15,5	26,5		

Table 3. Relationship parity with occurrence preeclampsia mild in pregnant women in RSUD Abdul Manap Jambi City 2017

	Preeclampsia Mild	Not Preeclampsia	Total	P value
Parity a risk	8	14	22	0,94
	8,1	13,9		
Parity not a risk	16	27	43	
	15,9	27,1		

Table 4. Relationship genetics (history a hypertension in family) with occurrence preeclampsia mild in pregnant women in RSUD Abdul Manap Jambi City 2017

	Preeclampsia Mild	Not Preeclampsia	Total	P value
Genetics (there is a history of hypertension)	12 6,6	6 11,4	18	0,02
Genetics (there is no history hyperten)	12 17,4	35 29,6	47	

Table 5. relationship obesity with occurrence preeclampsia mild in pregnant women in RSUD Abdul Manap Jambi City 2017

	Preeclampsia Mild	Not Preeclampsia	Total	P value
Obesity (Experiencing Obesity)	13 7	6 12	19	0,01
Obesity (Not Experiencing Obesity)	11 17	35 29	47	

DISCUSSION

Based on the results of the study obtained as the respondents did not experience preeclampsia mild in RSUD Abdul Manap Jambi City 2017. And most of the respondents experienced preeclampsia mild in pregnant women. This is because preeclampsia is a collection of various symptoms that occur in pregnant women, maternity, and in the postpartum period that consists of the triad of hypertension, proteinuria, and oedema which is sometimes accompanied by the onset of convulsions to coma ⁸According to Sarwono (2010) preeclampsia is one the complications that occur in pregnancy accompanied by high blood pressure at 20 weeks gestation and be indicative of preeclampsia. So that when not treated can harm the mother and fetus. In addition preeclampsia is one of the cases of mortality in the mother and fetus ⁵

Relationship Age with the Occurrence of Preeclampsia Mild in Pregnant Women in RSUD Abdul Manap Jambi City 2017

Based on the results of the research obtained results that there is no relationship between the age with the occurrence of preeclampsia mild in pregnant women in RSUD Abdul Manap Jambi City 2017, in this study age of respondents is the age that is not at risk (20-35 years) and did not experience preeclampsia mild. Age is one important factor to determine the condition of a person's health status. So it will affect at the time of pregnancy and childbirth, a good lifespan for the period of pregnancy and childbirth is 20-30 years because at that age the tools of women's reproductive already developed and functioning in a maximum ⁹ But the opposite in women with age less than 20 years and more than 35 years less good for the period of pregnancy and childbirth because if a woman with a pregnancy at this age will be at high risk to health. In women with older age have a risk level of complications is higher when compared with younger age ⁹

Relationship Parity With Occurrence Preeclampsia Mild in Pregnant Women in RSUD Abdul Manap Jambi City 2017

The results of this study showed that most respondents with no parity at risk for the occurrence of preeclampsia mild. This happens because the respondents more with the parity that is safe or not at risk. The incidence of preeclampsia in pregnant women with nulliparous ranged from 3-10%, while in pregnant women with multiparous women the incidence of preeclampsia vary greatly but the risk of maternal mortality is high in pregnant women multiparous women when compared with pregnant women with nulliparous⁸ Parity is the number of fetuses with body weight more or equal to 500 grams of ever born good life or die¹¹ according to Sarwono (2008) parity which is more secure when viewed from the case mortality mother is parity 2-3⁵

Relationship Genetics (history a hypertension in family) with occurrence preeclampsia mild in pregnant women in RSUD Abdul Manap Jambi City 2017

The results of this study showed that most respondents with a genetics risk for the occurrence of preeclampsia mild so this study there was a significant relationship between genetics with the occurrence of preeclampsia mild. This happens because pregnant women with a history of hypertension have a greater risk to experience super imposed preeclampsia, in addition, also when a mother had hypertension since before pregnancy then it will lead to disruption/damage to important organs in the body, coupled with the presence of pregnancy then the body work will gain weight it can lead to disruption/damage more weight⁸

In this study, more respondents with a genetics risk for the occurrence of preeclampsia. This is because preeclampsia is a disease of multifactorial and polygenic so the risk for the incidence of preeclampsia by 20-40%. In children of mothers who never experienced preeclampsia whereas when obtained from a sister is 11-37%. The tendency of hereditary it is due to the interaction of hundreds of genes that are inherited both fathers and mothers controlling a large number of metabolic functions and enzymatic of each organ system⁸

Relationship obesity with occurrence preeclampsia mild in pregnant women in RSUD Abdul Manap Jambi City 2017

The results of this study more respondents with obesity who are at risk for the occurrence of preeclampsia. This is because obesity in pregnant women is a serious threat and can result in the occurrence of various complications in pregnancy such as diabetes mellitus, hypertension, and heart disease. Hypertension is closely associated with obesity because as much as 60% of patients with hypertension are people who are obese¹¹ The results of this study in line with research conducted by Mbah (2010) which stated that pregnant women with obesity have a risk three times more likely to experience preeclampsia¹²

CONCLUSION

Based on the research results it can be concluded there is no significant relationship between age with the occurrence of preeclampsia mild in pregnant women in RSUD Abdul Manap Jambi City 2017, there is also no significant relationship between parity with the occurrence of preeclampsia mild in pregnant women in RSUD

abdul Manap Jambi City, but there is a significant relationship between genetic with the occurrence of preeclampsia mild in pregnant in pregnant women in RSUD Abdul Manap Jambi City 2017. And there is a significant relationship between obesity with the occurrence of preeclampsia mild in pregnant women in RSUD Abdul Manap Jambi City 2017. Expected to RSUD Abdul Mana Jambi City in order to give antenatal care to expectant mothers so as to prevent the occurrence of preeclampsia mild in pregnant women.

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THE EFFECT OF SOYBEAN ON BLOOD GLUCOSE AND MASS BODY INDEX (IMT) ON DIABETES MELITUS TYPE 2

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ABSTRACT

Type II Diabetes Mellitus (DM) is a chronic disease that occurs when the body can not produce enough insulin or can not use insulin effectively (IDF, 2013). In the Atlas of Diabetes 7th Edition issued in 2015 by the International Diabetes Federation (IDF), the number of Type II DM patients are 415 million people in the world and it is predicted in 2040 the prevalence of diabetes mellitus will be 642 million people. Soy diets are the best choice for people with type II diabetes because it effects can decrease the incidence of renal hyperfiltration, proteinuria and renal acid burden and reduce the risk of other kidney disease due to diabetes in diabetes type II patient. Isoflavones in soybeans has proven to increase insulin secretion and can help to reduce insulin resistance in type II DM. The result of statistical test of blood glucose by using t-test got p value = 0,037 ($p \leq 0.05$). The result of statistical test of body mass by using t-test obtained p value = 0.041 ($p < 0,05$). The conclusion of this study is that there is a significant difference between blood glucose and body mass index before treatment and after treatment.

Key Words: Soybeans, Blood Glukosa, Mass Body Index

INTRODUCTION

Type II Diabetes mellitus is a chronic disease that occurs when the body can not produce enough insulin or can not use insulin effectively (IDF, 2013). In the Atlas of Diabetes 7th Edition issued in 2015 by the International Diabetes Federation (IDF), the number of Type II DM patients are 415 million people in the world and it is predicted in 2040 the prevalence of diabetes mellitus will be 642 million people. In Indonesia, type II diabetes mellitus is on the 5th rank of total deaths from non-communicable diseases (WHO, 2016). According to WHO estimates (2016) 7.0% of the population in Indonesia has diabetes mellitus.

Obesity is one of the factors that influence the incidence of type II DM. Fat deposits in the body can cause the insulin resistance that is affected blood sugar levels in people with diabetes mellitus. Eight out of ten people with type II diabetes mellitus are people who are overweight. Consuming more calories than the body needs causes extra calories that will stored in the form of fat. Obesity is a state of excess body fat in absolute or relative. Excess body fat generally cause a weight and body mass index (BMI) gain. People with BMI of 30 kg / m² would be 30 times more susceptible to DM than people with a normal BMI (22 Kg / m²). If IMT ≥ 35 Kg / m², the chances of having DM raise to 90 fold. The previous studies found an increased risk of type II diabetes mellitus in people with increased BMI and waist circumference 90 cm (Bustan, 2015).

In Evi Sinaga 2012 study, it showed that soy consumption, soy protein, and isovlavan can reduce fat in people with type II diabetes mellitus. Giving 5 ml of soybean milk and soy milk powder in DM mice for 14 days can loss weight significantly. Research on humans that giving of soy milk in the diet of DM patients in RS.Saiful Anwar Malang also showed a significant decrease in fasting blood glucose and blood

glucose 2 hours post prandial. The consumption of soybeans containing high isoflavones and high proteins can lower glucose levels in diabetes mellitus. In addition, isoflavones in soybeans are also able to increase insulin secretion and has antioxidant effects in the body (Lu MP et al, 2008).

Soy diets are the best choice for people with type II diabetes because it effects can decrease the incidence of renal hyperiltration, proteinuria and renal acid burden and reduce the risk of other kidney disease due to diabetes in type II diabetics. Isoflavones in soybeans has been proved to increase insulin secretion and can help reducing insulin resistance in Type II DM (Lu et al, 2008). The decrease of blood glucose levels with soybean milk can be explained through two mechanisms: intrapancreatic and extrapancreatic. Intrapancreatic mechanisms work by regenerating damaged cell and extrapancreatic protect cells from further damage, this ability is owned by lechitin. Lecithin as an antioxidant is able to keep cells in the pancreas not to damage due to oxidation, and able to regenerate damaged cells quickly so that when the pancreas is given additional lecithin then pancreatic cells will function well again and by lecithin too, insulin can be reproduced well. While polysaccharides contained in soybeans can suppress postprandial glucose and triglyceride levels, and decrease the postprandial insulin-velocity ratio (after eating).

Based on those data and backgrounds, the purpose of this study is to verify the truth about how the effect of soybean milk on blood glucose level and BMI in patients with type II diabetes mellitus in Andalas Health Center Padang 2017.

METHODS

The tools and materials used in this study were blood glucose measurements (gluco test), glucose test strips, soybean powder (Glycine Max), sheets of soybean powder (Glycine Max) into a beverage, and sheets of blood glucose measurement. This research used Quasy Exsperiment design with Two Group Posttest. This research was conducted in Andalas Health Center Working Area in 2017. Population in this research was DM Type II patient who have check monthly, in 2016 which amounted to 213 people. The sample of this research was DM Type II patient who routinely visits to health center which is determined by purposive sampling as many as 16 patients in Andalas health center Working Area 2017 which fulfill the inclusion criteria: Patient type II DM, blood glucose level when visit > 200 mg / dl, type II DM patient who regularly visit andalas health center in 2017, completeness of self identity such as full name and address, willing to become respondents. Data was analysed by using T test.

RESULTS

Table 1. Effect of Soy Powder (Glycine Max) on Blood Sugar Levels of Type II Diabetes Mellitus Patients in Andalas Health Center Working Area 2017

Variabel	Mean	Std. Deviation	95% confidence interval of the difference		t	df	p value
			Lower	Upper			
Group of intervention-control groups	112.750	124.030	9.059	216.441	2.571	7	0,037

Based on table 1, it was found that the mean difference of blood glucose level in the intervention group and control group of type II diabetes mellitus was 112.750 mg / dL with standard deviation 124.030 mg / dL. The result of statistical test by using t-test test obtained p value = 0,037 ($p \leq 0,05$). it means that there is influence between giving of soybean powder and decreasing blood glucose level.

Table 2. Effect of Soy Powder (Glycine Max) on Body Mass Index of Type II Diabetes Mellitus Patients in Andalas Health Center Working Area 2017

Variabel	Mean	Std. Deviation	95% confidence interval of the difference		t	df	p value
			Lower	Upper			
Group of intervention-control groups	0.9250	1.0471	0.0496	1.8004	2.499	7	0.041

Based on table 2, the mean difference of body mass index of type II diabetes mellitus between treatment group and control group was 0.9250 kg / m² with standard deviation 1,0471 kg / m². The result of statistical test by using t-test test obtained p value = 0.041 ($p < 0,05$). It means that there is significant difference between body mass index before treatment and after treatment.

DISCUSSION

Giving soybeans containing 54 mg / day of genistein can lower blood glucose levels and increase glucose tolerance and insulin sensitivity. Daily isoflavone intake (100 mg of aglycone) for one year can increase insulin sensitivity and blood lipid parameter and reduce the risk of cardiovascular disease. Twelve week soybean supplementation (30 gr isolated soybean protein) can decrease fasting insulin, insulin resistance, hemoglobin (A1C) and LDL cholesterol (Elizabeth et al, 2014). The result of this study is similar to the research (Yukako et al, 2013) titled *Effects of soybean product intake on fasting and postload hyperglycemia and type 2 diabetes in Japanese men with high body mass index*: the Saku Study showed the body mass index of the control group did not show significant change with $P = 0.15$ ($P > 0.05$). The results of this study are similar to the research (Gertraud et al, 2008) titled *Soy Intake is Related to a Lower Body Mass Index in Adult Women* that there was a relationship between

nutritional soybean consumption and reducing of cholesterol levels in blood, skin protector, anti-tumor, anti-diabetes, and as a natural antioxidant present in soybeans. With a decreasing in body mass index in type II DM patients with an average body mass index of 21 kg / m² with P = 0.02 (p <0.05).

Soybean is a source of vitamins and minerals that can lower cholesterol levels in the blood, skin protector, anti-tumor, anti-diabetes, and a natural antioxidant. Lecithin as an antioxidant can keep cells in the pancreas not to damage due to oxidation, and able to regenerate damaged cells quickly so that when the pancreas is given additional lecithin then the pancreas cells will function well again and with the help of lechitin, insulin can reproduced well. While polysaccharides contained in soybeans can suppress postprandial glucose and triglyceride levels, and decrease the postprandial insulin-velocity ratio (after eating). This proves that the content of polysaccharides in soybeans can control blood sugar levels beyond the limit (Bansal et al, 2010).

When a person consumes foods that contain lots of fiber, the person will feel full faster. As there is a dietary fiber, the chewing time will be longer and it will stimulate salivary excretion and more gastric juices. Excessive secretion will cause the stomach feel full. In addition, with dietary fiber, the absorption of nutrients (starch, sugar, protein, fat) will be blocked, so the amount that should be oxidized into energy is reduced.

CONCLUSIONS

Provision of soybean can lower blood glucose level and IMT in patients with type II diabetes mellitus because soybeans contain a good dietary fiber, reduce the absorption of glucose in the intestine and has isoflavone compounds that have anti-inflammatory effect, thus reducing complications due to diabetes mellitus

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THE RELATED FACTORS WITH SEXUALLY TRANSMITTED INFECTIONS AT PUBLIC HEALTH CENTER SEBERANG PADANG IN 2017

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ABSTRACT

Sexually Transmitted Infections (STI) is mostly transmitted through sexual intercourse with a partner who has infected virus, bacterial, parasite passing through oral, vaginal and anal. Based on report of Padang Health Service in 2016 was found the number of cases of Sexually Transmitted Infections as many as 1434 cases. Public Health Centre most cases of Sexually Transmitted Infections was Public Health Centers Seberang Padang was found 599 cases with prevalence 41,77%. The purpose of this study was to find the factors related to sexually transmitted infections at Public Health Centre Seberang Padang in 2017. The results of research were level of education ($p = 0,000$), marital status ($p=0,001$) and risk behaviors ($p=0,002$) related to Sexually Transmitted Infections (STI) incidence. The significant factors influencing sexually transmitted infections were behavioral factors. Respondents with low education, unmarried status, and have risk sexual behavior also influence on the sexually transmitted infections. Respondent with higher levels of education, mature adult of sexual activity will be able to reduce the incidence of STI. Health officer need to activated community participation to prevent of Sexually Transmitted Infections (STI).

Keywords : Sexually Transmitted Infections, Education, Marital Status, Behavior

INTRODUCTION

Sexually Transmitted Infection (STI) are sexually transmitted infections either vaginally, anal, or orally (Permenkes No. 21 of 2013). IMS is caused by over 30 different bacteria, viruses, and parasites which can be caused by contact sexual and most of these infections are asymptomatic or show no symptoms at all (WHO, 2013).

Occurrence of Sexually Transmitted Infections in Southeast Asia about 78.5 million of the population 945, 2 million in adults aged 15-49 years. State of Indonesia based on reports of disease control and environmental sanitation in 2015 obtained total cases of STIs handled on 2015 as many as 140,803 cases. Death due to AIDS until the year 2015 as many as 3,362 deaths (Ministry of Health, 2015). Based on the annual report of Padang City Health Office, the case of STI in 2016 was 1434 cases. Data of cases of sexually transmitted infections in DKK Padang city at most in at Public Health Center Seberang Padang in 2016 is 599 cases with 41,77% prevalence IMS sufferer (DKK Padang, 2016).

The risk factors of STI are the level of education, marital status (marital status have more than one pair), pregnancy status, number of sexual partners, condom use, and rinse the vagina (*Vaginal Douching*), socioeconomic factors and factors culture (Ministry of Health RI, 2011). Based on the above background researchers are interested to examine the "Factors associated with the incidence of Sexually Transmitted Infections at Public Health Center Seberang Padang in 2017". Risk behavior of contact with an infected partner and or having sexual intercourse with an unauthorized spouse.

METHODS

The type of research used is an *analytical* approach with *Cross Sectional Study*, where the independent variable (level of education, marital status, and risk behavior) and the dependent variable (the incidence of STI) was analyzed simultaneously (Notoatmodjo, 2012). The population in this study were all patients suffering from STI during the last three months in Public Health Center Seberang Padang. The number of patients suffering from IMS were 189 people. Techniques of sampling used accidental sampling. The sample minimum in this research were 72 patients. The independent variables were level of education and level of knowledge while the dependent variable was the incidence of STI.

RESULTS

Table 1. Frequency of incidence STI at Public Health Center Seberang Padang in 2017

No.	STI events	<i>f</i>	%
1.	Positive	36	54.5
2.	Negative	30	45.5
Total		66	100

Based on table 1 was found that more than half (54.5%) positive patients experienced STI events at Public Health Center Seberang Padang in 2017.

Table 2. Frequency of Level Education at Public Health Center Seberang Padang in 2017

No.	Level of Education	<i>f</i>	%
1.	Low	31	47.0
2.	High	35	53.0
Total		66	100

Based on table 2 was found that more than half (53.0%) of patients have high education level in the working area of at Public Health Center Seberang Padang in 2017.

Table 3. Frequency of Marital Status at Public Health Center Seberang Padang in 2017

No.	Marital status	<i>f</i>	%
1.	Not Married	39	59.1
2.	Married	27	40.9
Total		66	100

Based on table 3 was found that more than half (59.1%) patients had unmarried status in Public Health Service Seberang Padang 2017.

Table 4. Frequency of Patient Behavior at Public Health Service Seberang Padang in 2017

No.	Behavior	<i>f</i>	%
1.	At risk	35	53.0
2.	Not at Risk	31	47.0
Total		66	100

Based on table 4 was found that more than half (53.0 %) of patients had risk behaviors for STI at Public Health Service Seberang Padang in 2017.

Table 5. Relationship between Level of Education with STI incidence at Public Health Center Seberang Padang in 2017

No.	Level of education	STI incidence				Total	<i>p-value</i>
		Positive		Negative			
		<i>f</i>	%	<i>f</i>	%		
1.	Low	27	87.1	4	12.9	31	0,000
2.	High	9	25.7	26	74.3		
Total		36	54.5	30	45.5	66	

Based on statistical test result with *Chi-Square* test showed *p-value* = 0, 000 ($p < 0,05$), it means there is correlation between level of education with STI incidence at Public Health Center Seberang Padang in 2017.

Table 6. Relationships between Marital Status with STI Incident at Public Health Center Seberang Padang in 2017

No.	Marital status	STI incidence				Total	<i>p-value</i>
		Positive		Negative			
		<i>f</i>	%	<i>f</i>	%		
1.	Not Married	29	74.4	10	25.6	39	0,000
2.	Married	7	5.9	20	74.1		
Total		36	54.5	30	5.5	66	

Based on statistical test result with *Chi-Square* test showed *p-value* = 0, 001 ($p < 0,05$), it means there is a relationship between marital status with the incidence of STI at Public Health Center Seberang Padang in 2017.

Table 7. Relationship between Behavior with STI's incidence at Public Health Service Seberang Padang in 2017

No.	Behavior	STI Incidence				Total	<i>p-value</i>
		Positive		Negative			
		<i>f</i>	%	<i>f</i>	%		
1.	At risk	29	74.4	6	25.6	35	0,002
2.	Not at Risk	7	25.0	24	75.0		
Total		36	54.5	30	45.5	66	

Based on statistical test result with *Chi-Square* test showed *p-value*=0,002 ($p < 0,05$), there was correlation between risk behavior with the incidence of STIs at Public Health Center Seberang Padang in 2017.

DISCUSSION

Based on statistical test showed level of education, marital status, and behavior were related factors with Sexual Transmitted Infection. The results of this study are in accordance with research conducted by Puspita (2017) on factor analysis related to the incidence of sexually transmitted infections in female sexual workers at mobile VCT clinics Puskesmas Sukaraja Bandar Lampung City, found a correlation of education level with the incidence of STIs (*p value* = 0.040).

The level of education influences the respondent in making decision for having sex with safe or at risk condition. The level of education is also very influential respondents to care about the transmission of STIs and HIV as it behaves that is not potentially infectious and transmitted, also affect the search for help as well as the stigma of STIs and HIV. There is a lack of education in the can by STI patients in a place of residence then the risk of infectious diseases infected the higher. Based on the theory of education is the process of changing attitudes and behavior of a person or group of people in an effort to mature man through the efforts of teaching and training (Windi, 2006).

Based on the results of research, it is found that more than half (59.1%) of patients have unmarried status. Analysis based on marital status of wife and husband with STI incidence in Bukittinggi obtained significant results. There is correlation between status marriage with STI ($p\text{-value}=0,014$) (Gani, 2013). According to research, more than half the patients have unmarried marital status. Patients who are not married status provide opportunities greater risk for STIs compared to married respondents because unmarried patients have the opportunity to have activities that would be at risk for STIs. But this marital status variable can explain the number of sexual partners of the respondents of the ages his life, whether including risky or not.

This matter according to some opinions that say that one of the risk factors on STI is having sexual partners who suffer from STI, having more than 1 sexual partner (Cao, 2009). Fishbein et al states that the intervention in the management of STIs in individuals is; 1) Early detection and Treatment; 2) behavioral research and research; 3) IMS Screening with questions on potential behavior.

CONCLUSIONS

Based on the result of the research, it can be concluded that there is relationship of level education, marital status, and behavior with the incidence of STI. It is expected to the health officer to enable the participation of the community (health cadres) in the effort of prevention of STI transmission.

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THE DIFFERENCE PLAQUE INDEX OF PATIENT HYGIENE PERFORMANCE OF STUDENTS WHO GARGLE WITH STRAWBERRY EXTRACTS AND GRAPE EXTRACTS IN SMPN 2 TILATANG KAMANG

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ABSTRACT

Plaque is the cause of caries and gingivitis. One of the efforts that can be done in preventing and controlling plaque formation is by doing a chemical action in the form of gargling with a bacteriostatic mouthwash. Extracts and juices from fruits and plants are preferred as herbal medicines in gargling. Strawberries and grapes contain antibacterial substances which can inhibit the growth of plaque bacteria called *Streptococcus* and *Staphylococcus*. The purpose of this research was to determine the difference of Plaque Index of *Patient Hygiene Performance (PHP)* Students who gargle with strawberry and grape extract. The results showed that there were significant differences after rinsing strawberry extracts and after rinsing with grape extracts with $p \text{ value} = 0.017$ ($p \text{ value} < 0.05$). It is suggested for students to use strawberry extracts as a herbal mouthwash to reduce plaque in the mouth and to prevent tooth cavities.

Keywords: Plaque, Strawberry, Grape

INTRODUCTION

Plaque is a thin, colorless, and soft layer composed of over 700 bacterial species and is firmly attached to the tooth surface. Lack of dental care and oral hygiene can result in increasing plaque. Plaque can be inhibited by reducing the bacteria that form dental plaque. One of the prevention of dental plaque that can be done chemically is by gargling with bacteriostatic mouthwash. One of the plants that can be used as an alternative to reduce the use of chemicals is strawberry. Strawberries contain polyphenols which composes of ellagic acid, anthocyanin and catechins. Catechins can prevent the occurrence of dental caries. Catechins inhibit the growth of *Streptococcus mutans* in two ways, namely as bactericidal and by inhibiting the glycosylation process (Hasim, 2016).

In addition to strawberries, grapes also have good nutrition such as vitamins, minerals, carbohydrates and phytochemical compounds. Polyphenols are phytochemical components contained in grapes because they have biological activity and are beneficial to health. *Polyphenol* components include *anthocyanin*, *flavonoids*, *tannins*, *resvetarol* and *phelonic acids* (Putro, 2014). Strawberries and grapes contain lots of water, and have an acidic sweet taste and refreshing sweet taste. Aside from the fact that they can be consumed directly, those fruit can also be consumed as extract and juice. Fruit extract is obtained by pulverizing the fruit as well as its skin and then it is filtered (Pratiwi, 2014). This research aimed to determine the differences in plaque index of *PHP* Students who gargle with Strawberries and Grapes in SMPN 2 Tilatang Kamang in Agam Regency. This research hypothesis was there was difference in plaque index of *Patient Hygiene Performance (PHP)* students who gargle with strawberry extracts and those who gargle with grape extracts in SMPN 2 Tilatang Kamang in Agam Regency.

METHODS

The type of this research was pre experiment with "pre-test and post-test" design (Sastroasmoro, 2014). The subjects of this research were students of class VIII in SMPN 2 Tilatang Kamang in Agam regency, amounting to 64 people. The samples were taken by using simple random sampling technique which then divided into 2 (two) groups, each group amounted to 34 people. PHP plaque index measurements were performed before and after gargling using PHP plaque index by Podshadley and Haley. Each surface of tooth index is divided into 5 parts, and only the facial and lingual surface of the index tooth were examined after the tooth surface is smeared with disclosing solution. Instruments used were diagnosis set, nierbekken, power juicer, checking format and mouthwash.

The data were analyzed by univariate and bivariate analysis using *Student t-test* i.e. *paired t-test* performed before and after gargling with strawberries and grapes extracts and *independent t-test* test after gargling with strawberries and grapes extracts. The result of normality data was normal distributed data (Sastroasmoro and Ismael, 2014).

RESULTS

Table 1. Test Result of Paired t-test Gargling with Strawberry Extracts and Grape Extracts to Students SMPN 2 Tilatang Kamang Regency of Agam in 2017

Gargling with Fruit Extracts	The average of PHP IP	P value
Before gargling with strawberries	2,073	0,000
After gargling with strawberries	1,287	
Before gargling with grapes	2,177	0.036
After gargling with grapes	1.847	

The table above explained the result of paired t-test before and after gargling with strawberry extracts which obtained p value = 0,000 (p value < 0,05) H_a is accepted; it means there was difference of PHP index before and after gargling with strawberries. As for before and after gargling with grape extracts p value obtained was = 0,036 (p value < 0,05) then H_a was accepted, which means there was difference of PHP index before and after gargling with grape extracts.

Table 2. Test Result of Independent T-Test after Gargling with Strawberry Extracts and Grape Extracts to SMPN 2 Students Tilatang Kamang Regency of Agam in 2017

Gargling with Fruit Extracts	The average of PHP IP	The difference of Average PHP IP	P value
After Gargling with Strawberry	1,287	0.79	0.017
After Gargling with Grape	1.847	0.33	

Through table 2, it is known that the test result of independent t-test obtained p value = 0,017 (p value < 0,05), which means that there is significant difference between index of PHP plaque after gargling with strawberry extracts and after gargling with grape extracts.

DISCUSSION

The Difference in average plaque index of PHP students before and after gargling with strawberry extracts is 0,79 . The result of statistical test using paired *t*-test obtained *p* value = 0,000 (*p* value <0.005), then H_a is accepted and it means that there is significant difference between the PHP plaque index of students before and after gargling with strawberry extracts. Strawberry contains flavanols which are flavanoid types that play an important role in preventing pathological conditions. The flavanols can act as antioxidants inhibiting the anti-bacterial agent. The flavanols agent in strawberries mostly contain catechins. Catechins have disinfection, antiseptic, bacteriostatic bactericidal and properties (Terry, 2011).

The average difference of plaque index of PHP students before and after gargling with grape extracts is 0,33. The statistical test result using *paired t*-test obtained *p* value = 0,036 (*p* value <0,005), then H_a is accepted; so it can be interpreted that there is significant differences between plaque index of PHP students before and after gargling with grape extracts. The effect of inhibiting the formation of plaque from grape extracts can occur because in red grapes there are compounds called *flavanoid* compounds such as *catechins* and *polyphenol* compounds in the form of *tannins* . (Tilong, 2012). *Catechin* is a *flavanoid* compound that inhibits plaque formation on tooth surface by inhibiting *glucosyltransferase* enzyme which catalyzes sucrose into adhesion material in the form of glucan by bacterium called *streptococcus mutans* (Amiati, 2011).

The research findings stated plaque index of PHP before gargling with strawberries and grape extracts are the most apparent in the medium category. The declining average difference of PHP plaque index before and after gargling with strawberry extracts was 0.79 , whereas the average difference of PHP index of students before and after gargling with grape extracts was 0,33. Based on independent *t*-test , it was obtained that *p* value = 0.017 (*p* value < 0.05) , then H_a was accepted which meant there was a significant difference between the plaque index of PHP students after gargling with strawberry extracts and after gargling with grape extracts.

Strawberries contain *flavonoids* active substance which is the large group of antioxidants along with *polyphenols*. *Polyphenols* contained in strawberries are elagic acid, anthocyanin, and catechin (Kusumaningsih, 2011). Catechins have the ability to reduce the formation of dental plaque mainly caused by *Streptococcus mutant* in bactericidal way. A significant antibacterial effect is gotten from *streptococcus mutans* (Milati, 2009). Grapes also contain *polyphenols* in the form of *resveratrol*, *tannin* , *flavonoids*, *quercetin*, catechins, and antioxidants (Metaliri et al, 2010). Another *polyphenol* component contained in grapes is tannins. Catechins and *tannins* have an antimicrobial ability that acts as a glucoating inhibitor in the plaque formation process so that it can be used as an antibacterial alternative in the prevention of caries formation (Terry, 2011).

CONCLUSIONS

The conclusion of this research is that there is a significant difference between plaque index of PHP students after gargling with strawberry extracts and after gargling with grape extracts with p value = 0.017 (p value < 0,05), and gargling with strawberry extracts is more effective in lowering the index of PHP plaque. It is recommended for students to gargle with the strawberry extracts in order to be able to lower plaque in the mouth to prevent cavities.

RECOMMENDATIONS

In addition, it is also suggested to cultivate the use of strawberry extracts as a herbal mouthwash because the fruit is easy to be eaten and to be extracted.

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FACTORS AFFECTING ANEMIA IN ADOLESCENT TEENS IN JAMBI PROVINCE

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ABSTRACT

Anemia in adolescent girls is at high risk for maternal mortality due to impact on health during pregnancy, especially still many age of marriage at young age (<20 years). The result of Riskesdas in 2013, the proportion of anemia in the 15-24 year age group reaches 18.4%, while the Maternal Mortality Rate (AKI) 359 per 100,000 live births is still far from the target of Sustainable Development Goals (70) per 100,000 births live, as well as in Jambi Province in 2013 with 90 per 100,000 live births. The result of the study showed that the prevalence of anemia was 60,45% with significant relation factor that is parent job, mother education level, family income, breakfast habit, consumption of inhibitor factor, consumption of inancer factor, energy intake, protein intake, intake of Fe, C, vitamin A intake. The dominant factors associated are vitamin C and Fe. Factors as prediction model of anemia occurrence in adolescent girls are parent job, energy intake, protein Fe, vitamin C, vitamin A, vitamin B6, factor inhibitor and inancer. An immediate countermeasure action is needed by encouraging policies related to the provision of Tablet Add Blood (TTD) and strengthening prevention and prevention programs within School Health Effort (UKS) programs.

Keywords: Anemia, Young Women, Adolescent Teens, Jambi Province

INTRODUCTION

Anemia in adolescent girls is at high risk for maternal mortality, high incidence of low birth weight, high prenatal mortality and risk of fertility. Kaur, Deshmukh, Garg, 2006 states that it is important to control anemia in pregnant women is to ensure the needs of iron in adolescents are met. Meanwhile, young women are one of the groups who are prone to anemia, because at that time they experience menstruation, especially if their knowledge of anemia is lacking. Hallberg, Rossander, 1991 explains that as teenagers first experience menstruation, they need more iron to replace iron loss during the menstrual cycle. The amount of iron loss during one menstrual cycle (about 28 days) is approximately 0.56 mg.

Anemia causes insufficient blood to bind and transport oxygen from the lungs throughout the body. If the required oxygen is not enough, it will result in the difficulty of concentration, so that learning achievement decreases, low physical endurance so easily tired, decreased physical activity, easily sick because of low endurance, consequently rarely attend school or work (MOH, 2008). In addition, anemia in adolescence will result in adolescents becoming prospective mothers with high risk (Fransis, 2008).

Young women generally have characteristics of unhealthy eating habits. Among other habits do not eat breakfast, lazy to drink water, unhealthy diet because it wants to slim (ignore the source of protein, carbohydrates, vitamins and minerals), the habit of snacking low-nutrient foods and eating fast food. So that adolescents are not able to meet the diversity of nutrients needed by the body for the synthesis of hemoglobin formation (Hb). If this happens over a long period of time it will cause the Hb level to

continue to decrease and cause anemia (Brown et al., 2004). Factors associated with the occurrence of iron deficiency anemia include low iron intake, poor iron absorption, increased need, and loss of iron, including loss due to bleeding by intestinal worms in the intestine (Masrizal, 2007). Dewi and Susilowati research results, 2005, states there is a significant relationship between education, age, breakfast habits, smoking, energy consumption, infectious diseases, and weight loss. Another study by Hasrul, Veni and Citrakesumasari in 2007, found that the most powerful factors affect the occurrence of anemia in young women is the work of mother and source and facilitate the absorption of iron

METHODS

This research method uses quantitative method of cross sectional design, by measuring the prevalence of anemia in adolescent girls in Jambi Province and knowing the factors that influence it. Sampling technique based on multistage random sampling. Bivariate analysis test using Chi-Square test to see the results of significance, statistical calculation used the significance limit of 0.05, multivariate analysis using multiple logistics analysis, with the aim of obtaining a regression model capable of explaining factors related to the incidence of anemia in young women in Jambi Province.

RESULT

Table 1. Relationship Status of Occupation of Head of Family, Maternal Education Level, and Family Income with Anemia Occurrence on Young Wome

Variable	Anemia				Amount		OR 95%	p
	Yes		No		n	%		
	N	%	n	%				
Occupation								
Informal	211	52.60	190	47.40	401	100	0.42 (0.30-0.59)	0.000
Formal	191	60.50	73	27.70	264	100		
Education Level								
Low	140	53.60	121	46.60	261	100	0.62 (0.45-0.86)	0.005
High	262	64.90	142	35.10	404	100		
Family income								
< UMP	215	56.60	165	43.40	380	100	0.68 (0.49-0.94)	0.023
≥ UMP	187	65.60	98	34.40	285	100		
Amount	402	60.50	263	39.50	665	100		

Table 2. Respondent's Knowledge Base Level, Breakfast Morning Practice, Inhibitor Factor Consumption, Inhancer Factor Consumption, Infectious Disease History with Anemia Occurrence in Young Women in Jambi Province

Variable	Anemia				Amount		OR 95%	p
	Yes		No		n	%		
	n	%	n	%				
Level of Knowledge							1.00	
Low	213	60.50	139	39.50	352	100	(0.74-0.89)	1
High	189	60.40	124	39.60	313			
Morning Habbit							0.69	
Breakfeast							(0.48-0.99)	0.05
No	284	58.20	204	41.80	488	100		
Yes	118	66.70	59	33.30	177	100		
Inhibitor Factor							1.58	
Yes	322	63	189	37	511	100	(1.09-2.27)	0.018
No	80	51.90	80	74	154	100		
Inhancer Factor							1.439	
No	182	65.50	96	34.50	278	100	(1.046-1.979)	0.031
Yes	220	56.80	167	43.20	387	100		
Non Communicable							0.83	
Desease							(0.60-1.15)	0.297
Yes	244	58.80	171	41.20	415	100		
No	158	63.20	92	36.80	250	100		
Amount	402	60.50	263	39.50	665	100		

Table 3. Relationship of Energy Supply, Protein, Fe, Vitamin C, Vitamin B6, Vitamin A with Anemia Occurrence in Young Women in Jambi Province

Variable	Anemia				Amount		OR 95%	p
	Yes		No		n	%		
	n	%	n	%				
Energy Supply								
Low	377	65.10	202	34.90	579	100	4.56 (2.77-7.48)	0.000
High	25	29.10	61	70.90	86	100		
Protein Supply								
Low	333	64	187	36	520	100	1.96 (1.35-2.84)	0.000
High	69	47.60	76	52.40	145	100		
Fe Supply							25.01	
Low	397	66.50	200	33.50	597	100	(9.90-63.16)	0.000
High	5	7.40	63	92.60	154	100		
Vit. C Supply								
Low	357	65.40	189	34.60	546	100	3.10 (2.06-4.68)	0.000
High	45	37.80	74	62.20	119	100		
Vit. B6 Supply								
Low	334	60.40	219	39.60	553	100	0.99 (0.65-4.68)	1
High	68	60.70	44	39.30	112	100		
Vit. A Supply								
Low	324	63.20	189	36.80	513	100	1.63 (1.13-2.34)	0.011
High	78	51.30	74	48.70	152	100		
Jumlah	402	60.50	263	39.50	665	100		

Table 4. Multivariat Analysis Regresion between Occupation KK, Energi Supply, Protein Supply, Fe Supply, Vitamin C Supply, Vitamin A Supply, Vitamin B6 Supply, Inhibitor Factor and Inhancer Factor

Variable	P Wald	OR	95% CI
Occupation KK	0.000	0.458	0.316-0.664
Energi Supply	0.077	2.290	0.913-5.742
Protein Supply	0.252	0.662	0.326-1.342
Fe Supply	0.000	21.157	6.850-65.347
Vitamin C Supply	0.000	22.335	7.257-68.739
Vitamin A Supply	0.072	.603	0.347-1.047
Vitamin B6 Supply	0.109	.599	0.320-1.122
Inhibitor Factor	0.176	1.326	0.881-1.997
Inhancer Factor	0.017	1.548	1.081-2.216

DISCUSSIONS

The result of the study showed that there was a significant correlation between the status of parent's job with the incidence of anemia in adolescent girls in Jambi Province, and the percentage of respondents suffering from anemia, more experienced by the respondents with the working status of parents who work formal, which is dominated by civil servants. The results showed there was a significant relationship between maternal education level with the incidence of anemia in adolescent girls. According to Pranadji (1988) in Citrakesumasari, 2012, a person's formal education can affect his nutritional knowledge. Someone who has a high level of formal education can have a high knowledge of nutrition as well. The level of education will affect the level of food consumption of a person in choosing food for his life needs. People who have higher education tend to prefer better food in quantity than with low-educated people. The results showed there was a significant relationship between family income level with the incidence of anemia in young women in Jambi Province. The socio-economic condition of the family is closely related to the consumption of family or individual food. The financial situation affects the food provided. Families of high economic circles are better able to provide diversified food and meet their nutritional needs than low-income families (Handayani, 2010).

The results showed no significant relationship between the level of knowledge with the incidence of anemia. Knowledge about health especially about nutrition will give effect to behavior of eating habit. Although knowledge is part of a behavioral area, it will not guarantee that a person with sufficient knowledge possesses the same behavior. Most teenagers have heard of anemia but the level of adolescent knowledge about anemia is largely unfavorable, especially about the dose of tablets plus blood all answered do not know and never consume.

The analysis showed that girls who did not have breakfast habits were higher in prevalence of anemia than those who had breakfast habits. Breakfast is an important activity before doing physical activity on that day because breakfast gives nutrition about 15-30% calorie from number of nutritional requirement a day. The result of the analysis of the association between inhibitor factor and the occurrence of anemia was found that the respondents who consumed the greater prevalence of anemia with the probability of 1.58 times compared to the respondents who consumed less inhibitor factor.

Meanwhile, the results of an analysis of the association of an enhancer factor with the incidence of anemia in adolescent girls showed a significant association, with an opportunity of 1.44 times for adolescents with less inhaled intake to have anemia than good inhaled intake. by changing the shape of the ferry into an easily absorbed fero. Result of analysis of correlation of history of infectious diseases with the incidence of anemia in adolescent girls in Jambi Province showed no significant relationship. In the group of respondents who claimed to have never experienced symptoms of infectious disease infection, it was found more suffered anemia as much as 63.2% compared to those who claimed to have infectious diseases. INF in 1999 stated the cause of iron deficiency one of them is blood loss related infection especially hookworm infection. However, the results do not show this, probably because it is based on the recognition of respondents.

The result of the analysis of the relationship between energy intake and the incidence of anemia was found that respondents with poor energy intake were more prevalent with anemia compared with good energy intake, and 1 times more likely to suffer from anemia. The results of the analysis of the relationship between iron intake (Fe) and the incidence of anemia in adolescent girls in Jambi Province have significant relationship, with 25 chance to experience anemia compared to good intake. The result of analysis of the relationship between vitamin C intake with the incidence of anemia was obtained by respondents with poor vitamin C intake greater prevalence of anemia compared with good consumption, with 3 chance to suffer anemia. Results of analysis of the relationship between vitamin B6 intake with the incidence of anemia found no significant relationship. The result of the analysis showed that there was a significant relationship between vitamin A intake and the incidence of anemia, where respondents with poor intake had greater prevalence than good intake. The results of this study are in line with the results of Sahana and Sumarmi (2017) studies which states that vitamin A intake correlates with hemoglobin levels. Several studies have shown that poor vitamin A status is associated . with hemoglobin rate.

CONCLUSIONS

From the research we can conclude that The dominant factor associated with the incidence of anemia in young women in Jambi Province is vitamin C and Fe intake. While factors that can be used as models of predictive factors of anemia occurrence in adolescent girls in Jambi Province are parent's job, energy intake, protein intake, intake of Fe, vitamin C intake, vitamin A intake, vitamin B6, inhibitor factor and inhancer factor, where there is an interaction between energy intake, protein, vitamin C, vitamin A with iron intake in determining blood hemoglobin level of adolescent girls in Jambi Province..

RECOMMENDATIONS

From the research we can recommended that : Immediate action is needed to overcome by pushing immediately the issue of regional policy / policy related to prevention and prevention programs of anemia in young women in Jambi Province. Local government in this case Health Office, Education Office, Kesramas Bureau at each level (Provincial, District, City) through umbrella UKS coordinate the sectors involved in advocacy to Bappeda and CSR program related to budget development and provision of TTD in district / city respectively, on the basis of recommendations of interventions for regions with a prevalence of $\geq 40\%$ issued by WHO 2016. The school side in collaboration with the health sector can coordinate community empowerment involving school committees to coordinate the provision of TTD independently and make the TTD drinking movement simultaneously at school, shared breakfast and regular Hb checks at school.

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MODIFICATION OF TOTAL SANITATION TEMPERATURE BASED ON COMMUNITY LEAD TOTAL SANITATION COMMUNITY TO CHANGE COMMUNITY BEHAVIOR IN DECREASING THE EVENT OF BLOOD FEVER IN NANGGALO

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ABSTRACT

From 20 Health Centre in Padang city, Nanggalo Health Centre including Health Centre which is the highest number of DHF cases in 2015 as many as 9 cases (Health Office of Padang City, 2012). Seeing the success of the STBM initiative in changing the behavior of the better society in the ownership of latrines and increasing the achievement for the community to not defecate in any place, which in turn can reduce the incidence of diarrhea better, the authors are interested to conduct an experiment in the form of modify triggering the CLTS into a trigger intended to change the behavior of the community in controlling the breeding of aedes aegypti mosquitoes as a vector of dengue fever by eradicating the mosquito's nest in the Household and the settlement environment. There is influence of CLTS trigger modification to level of Knowledge, Attitude and Respondent Action prior to being given intervention with CLTS Sparking modification. In order to reduce the incidence of DHF in the working area of Nanggalo Puskesmas, modification of CLTS trigger can be used as an alternative that can be developed and implemented by the infectious disease program holder at Puskesmas Nanggalo.

Keywords: Total Sanitation Temperature, Lead Total Sanitation, Immunity Behavior, Blood Fever

INTRODUCTION

The increasing number of residents and the number of settlements that do not meet the health requirements greatly accelerate the occurrence of the transmission of disease from person to person. Population growth factors and inter-regional population mobility also influence the epidemiological picture changes as well as the virulence of certain infectious diseases (Chin, 2000). Dengue Hemorrhagic Fever (DHF) is an acute febrile disease first discovered in the 1780s simultaneously in Asia, Africa, and North America. The disease was later identified and named in 1779. A major global outbreak began in Southeast Asia in the 1950s and by 1975 dengue fever has been the leading cause of death among children in the area (MOH, 2006).

In Indonesia Dengue Hemorrhagic Fever (DHF) is one of the endemic diseases and until now the number of dengue fever tend to increase and the extraordinary incidence (KLB) is still common in various regions in Indonesia (MOH, 2005). DHF was first discovered in Surabaya in 1968, but a new virological confirmation was obtained in 1970. In Jakarta, the first case was reported in 1969. Subsequent DHFs were reported in Bandung and Yogyakarta (1972) (MOH, 2002) . Since then the disease spread which was originally considered to be a five-year cycle, now annually epidemic in various regions and the sufferer is no longer children but more and more adults, so until 1980 all provinces in Indonesia except east-east has been infected by disease (Wulandari,2004).

Seeing the success of the CLTS initiative in changing the behavior of the better society in the ownership of latrines and increasing the achievement for the community to not defecate in any place, which in turn can reduce the incidence of diarrhea better, the authors are interested to conduct an experiment in the form of modify triggering the CLTS into a trigger that is intended to change the behavior of the community in controlling the breeding of aedes aegypti mosquitoes as a vector of dengue fever by eradicating the mosquito's nest in the Household and the settlement Environment.

The initial step of the authors will create a modified trigger framework of the CLTS trigger and the author will apply in the working area of Puskesmas Nanggalo Padang, where the Padang City Health Office in 2012 reported cases of dengue fever occur 1,586 cases and 8 of them died, in 2013 as many as 1045 patients, in 2014 as many as 965 people and 6 of them died, and in 2015 was reported as many as 1.626 people, and 10 of them died. Based on this report the researchers obtained information that from 20 health centers in Padang city, Nanggalo Health Centre including Puskesmas the highest number of dengue cases in 2015 as many as nine cases (Health Office of Padang City, 2012).

It is suspected that the high number of DHF incidents is caused by many mosquito breeding places such as bathtub, bucket, barrel, water reservoir which is not for daily necessities such as flower vase, used tire, garbage bin, bird drinking place, etc. natural water reservoirs, tree holes, taro leaves, stone holes, and others (MOH, 2009).

The increasing number of dengue fever cases and the increasing of area infected from time to time in Indonesia caused by multi factor, among others the progressive of public transportation, density of human settlement, human behavior like habit of collecting water for daily need such as collecting rain water, water wells, making tubs or drums, jars as mosquito breeding places, the habit of storing used or under-inspecting items of water contained in containers, lacking hygiene and 3M Plus, the presence of Aedes aegypti mosquitoes as the main vectors of the disease Dengue in almost all corners of the country, as well as the existence of four types of dengue virus that circulates every year (Ministry of Health RI, 2004).

METHODS

This research is experimental research using One Group Pre test design - Post Test design (Siswanto, et al, 2014) The design of this study was chosen because it is in accordance with the objectives of research who want to Know the change of community behavior in reducing the incidence of dengue fever by meelaksanakan modification intervention CLTS trigger . This research was conducted in Nanggalo Puskesmas Working Area. The population in this study were all housewives in Surau Gadang Village consisting of 23 RW, Kurao 4 RW, Laweh 3 RW. Samples were taken by purposive sampling, which was taken by Surau Gadang area 3 treatment group, Laweh Desert 1 group, and Kurao 1 group. which is divided into trigger groups, where 1 trigger group is between 15-20 people.

Data collection techniques used: Pre Test (O1): Observe the behavior of the community in decreasing the incidence of dengue fever without done intrvensi Pengicuan Modik Pemicuan CLTS. Post Test (O2): observation of community behavior in the decrease of dengue occurrence some time after intervention triggered CLTS

trigger modification, while Deled community action eradication of *Aedes aegypti* mosquito nest observed a month after intervention. Implementation of CLTS Sparking Modified Pandemic Intervention. The analysis used in this research is univariate, bivariate and multivariate analysis.

RESULT

Table 1. Distribution of Respondents Based on Respondent Characteristics (Education Level, Type of Occupation)

Variable	(f)	(%)
Level Of Education :		
Primary School	1	2.5
Junior High School	10	25.0
Senior High School	24	60.0
University	5	12.5
Work :		
Housewives	39	97.5
Private	1	2.5

Based on the above table it can be seen that the proportion of respondent's level of education is high school (60%), but there are still low educated elementary school (2.5%) and junior high school (25%). Furthermore, it is seen that most respondent's job is housewife (97,5%).

Table 2. Average Knowledge of Respondents on Dengue Fever Before Being Modified CLTS Sparking

Knowledge of Mother	Mean	SD	Min	Mak	n
Pre Test	15.15	3,860	6	23	40

Based on table 2 result of mean analysis of mother knowledge about stimulation of child growth before given treatment 15.15 with standard deviation 3,860 minimum value 6 and maximum value 23.

Table 3. Average Knowledge of Respondents on Dengue Fever Disease After being given Pickup of STBM Sparking Modification

Knowledge Respondent	Mean	SD	Min	Mak	n
Post Test	22,82	3.09	14	28	40

Based on Table 3 the results of the average analysis of maternal knowledge about Dengue Disease after treatment given 22.82 with standard deviation 3.09 minimum value 14 and maximum value 28.

Table 4. Average Mother's Attitude of Dengue Disease Before Being Modified Intervention Modified STBM

Mother's Attitude	Mean	SD	Min	Mak	N
Pre Test	5,98	2,74	1	10	60

Based on Table 4 the results of the average analysis of Respondent Attitudes toward Dengue Fever before treatment is given 5.98 with standard deviation 2.74 minimum value 1 and maximum value 10.

Table 5. Average Attitude of Respondents Against Dengue Fever Disease After being given STB Modification Pick Up

Rough Motor Development	Mean	SD	Min	Mak	n
Post Test	9,18	0,96	7	10	40

Based on table 5 analysis results Average Attitude of Respondents Against Dengue Disease After given CLTS Modification of trigger is 9,18, with standard deviation 0,96 minimum value 7 and maximum value 10.

Table 6. Mean Action Respondents in efforts to prevent Dengue Fever Before getting Intervention Pemicuan

Action	Mean	SD	Min	Mak	n
Pre Test	5.82	2.47	1	7	60

Based on Table 6 the results of analysis of the average development of fine motor children after given treatment 5.82 with standard deviation 2.47 minimum value 1 and maximum value 7.

Table 7. Mean Action of Respondents in Prevention of Dengue Fever After Intervention Modified Picking CLTS

Rough Motor Development	Mean	SD	Min	Mak	n
Post Test	6,45	0,872	4	7	60

Based on table 7 result of mean analysis gross motor development of children after treatment given 6.45 with standard deviation 0.872 minimum value 4 and maximum value 7.

Table 8. Mean Differences of Mother Knowledge Before and After Treatment

Knowledge Of Mother	Mean	SD	Std. Error	P. Value
Pre test	15,15	3,860	0,610	0,000
Post test	22,82	3,088	0,488	
Difference	7,675			

Based on table 8 further analysis results are known from 40 respondents, 40 respondents, knowledge Post test > pre test (100% increase knowledge after given intervention).

Table 9. Mean Differences of Mother Attitude Before and After Treatment

Mother Attitude	Mean	SD	Std. Error	P. Value
Pre test	5,98	2,741	0,433	0,000
Post test	9,18	0,958	0,151	
Difference	3,2			

From table 9 further analysis results are known from 40 respondents, 36 respondents, Post Attitude test > pre test (90% increase knowledge after given intervention).

Table 10. Mean Difference of Mother Action Before and After Treatment

Mother Action	Mean	SD	Std. Error	P. Value
Pre test	5,42	2,469	0,390	0,000
Post test	9,32	1,685	0,,266	
Difference	3,2			

From table 10 further analysis results are known from 40 respondents, 40 respondents, Post Test actions> pre test (100% increase in Mother Action in efforts to prevent dengue after intervention).

DISCUSSION

Dengue fever and dengue hemorrhagic fever are viral diseases that are widespread throughout the world, especially in the tropics. Sufferers mainly are children under 15 years, but now many adults are also infected with this viral disease. The main source of transmission is human and primate, while the transmitter is Aedes mosquito (Soedarto, 2009). Community-Lead Total Sanitation (CLTS) in the dilator has been a failure in rural sanitation development programs. From several evaluation studies on several rural sanitation development programs it was found that many of the facilities built were not used and maintained by the community. Many factors cause the failure, one of them is the absence of demand or needs that arise when the program implemented. CLTS is an approach in rural sanitation development. This approach originated in several communities in Bangladesh and is currently being massively adopted in the country. Even India, in one state of Maharashtra province has adopted the CLTS approach into a mass government program called the Total Sanitation Campaign (TSC) program. Several other countries such as Cambodja, Africa, Nepal, and Mongolia have implemented in smaller portions.

CONCLUSIONS

From the research we can conclude that : The average score of knowledge of the mother before the treatment was treated 15.15 and after being given the skort treatment the knowledge value increased to 22.82. The average attitude skill of Mother before treatment was 5.98 and after treatment got increased to 9.18. The average maternal treatment scort before treatment was 5.82 and after treatment was increased to 9.32. There is an effect of modification of CLTS modification on maternal knowledge level in preventing the occurrence of DHF incidence in the working area of Puskesmas Nanggalo Padang. There is an effect of modification of CLTS modification on mother's attitude in preventing DHF incident in working area of Nanggalo Puskesmas Padang. There is an effect of modification of CLTS triggering on the mother's Action level in preventing the occurrence of DHF incident in the working area of Puskesmas Nanggalo Padang.

RECOMMENDATIONS

From the research we can recommended that : In order to reduce the incidence of DHF in the working area of Nanggalo Health Centre, modification of CLTS trigger can be used as an alternative that can be developed and implemented by infectious disease program holder at Nanggalo Health Centre. Can be socialized CLTS trigger module in various activities to reduce the incidence of DHF disease, especially in the working area of Nanggalo Health Centre.

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EFFECTIVENESS OF HEALTH EDUCATION BY VIDIO ON IMPROVEMENT OF KNOWLEDGE AND ATTITUDE IN THE EARLY CERVICAL SERVICES WITH IVA ON WOMEN IN CHILDBEARING IN BUKITTINGGI

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ABSTRACT

Cervical cancer is a health problem affecting women around the world, with nearly 500,000 new cases occurring every year worldwide. Every year an estimated 250,000 women from the disease with nearly 80% of deaths occur in developing countries. Therefore, the community in this case women are expected to conduct regular checks and periodically as an effort to prevent and early detection of cancer. The Health Trust Model is one of many models used as a guiding framework for behavioral health intervention, especially cervical screening behavior. The purpose to find out the effectiveness of health education through Vidio against prevention of cervical cancer with IVA method in Bukittinggi. The results showed that there was difference of score before and after health education both on knowledge and attitude of women of childbearing age ($p = 0,000$) and there was difference of health education influence using lecture + vidio method with health education method only on knowledge and attitude of WUS ($p < 0,05$). Conclusion, educational with vidio methods should be developed to promote of good behavior in early detection of cervical cancer.

Keywords: IVA, Education Health , WUS

INTRODUCTION

Cervical cancer is a health problem affecting women around the world, with nearly 500,000 new cases occurring every year worldwide. Every year an estimated 250,000 women from the disease with nearly 80% of deaths occur in developing countries. This cancer is a cancer killer of women in developing countries and is the second most severe that occurs in women worldwide after breast cancer (WHO, 2011). The high incidence is due to the lack of and inadequate screening programs as well as the lack of knowledge and awareness about the disease especially in less developed countries.

The coverage of IVA in Bukittinggi City in 2016 only reached 3.2%, this figure is below the target of 10%. Where the age of women who checked themselves at the age of 30-39 years and a positive result obtained as much as 1.6%. According to the study Kang, et.al, 2011 found that detection early affected by knowledge is bad, wrong behavior and related conviction with cancer screening cervix on women. Behavior and confidence the maybe have a significant impact to making decisions to take early preventive measures to cancer cervix. Early detection of cancer in women in the form of cervical cancer screening with Visual Inspection method with *Acetic Acid* (IVA) and breast cancer with Clinical Breast Examination (SADANIS). It has also been supported by BPJS in which members of BPJS benefit to be given the service of early detection of IVA examination at puskesmas for free. Therefore one of the important people can be a participant BPJS. However, the awareness of women in cities in the city of Bukittinggi is also still lacking for early detection of cervical cancer. This is seen with the number of WUS coverage to do early detection in 2016 only amounted to 1.52%. amount this still

far of the specified target by Service Health City Bukittinggi 10% of WUS do detection early cancer cervix IVA methods , and very far when compared with a national target that is 1 0%. One attempt to change the behavior of the community is to increase knowledge. This study was conducted to test the video-based culture as a media based on a model of health trust on the prevention of cervical cancer with IVA method in WUS in BukittinggiCity.

METHODS

This type of research is *Quasi Eskperimen* research with *pre-test post-test designwith control group*. The location of this study is in Bukittinggi in March-Novemver 2017. The population in this study as many as 11.117 woman age fertile and sample used in this research as much 30 the experimental group and 30 controls. Sampling technique with *simplerandom sampling*. The type of data used is quantitative data using the instrument kuesioner.Selanjutnya data obtained were analyzed by univariate and bivariate with Microsoft Excel 2010.

RESULT

Table 1. Pre Test Results and Post Test of WUS Knowledge Level

Knowledge level	Pre-test		Post-test	
	n	%	n	%
Video				
High	10	33.3	24	80
Low	20	66.7	6	20
Amount	30	100	30	100
Lecture				
High	9	30	13	43.3
Low	21	70	17	56.7
Amount	30	100	30	100

Table 1 shows that there was an increase in knowledge between before and after health education in the high category in the experimental group that was 10 people (33.3%) increased to 24 people (80%). Knowledge in the low category decreased, as many as 20 people (66.7%) decreased to 6 people (20%). In line with the control group there was an increase in knowledge between before and after being given health education in the high category in the control group of 9 (30%) to 13 people (43.3%). Knowledge in the low category decreased, initially in the control group as many as 21 people (70%) decreased to 17 people (56.7).

Table 2. Pre-Test Results and Post-Test WUS Attitudes

Attitude	Pre-test		Post-test	
	n	%	n	%
Video				
Favorable	17	56.7	25	83.3
Unfavorable	13	43.3	5	16.7
Amount	30	100	30	100
Lecture				
Favorable	14	46.7	11	36.7
Unfavorable	16	53.3	19	33.3
Amount	30	100	30	100

Table 2 shows that there is an increase of WUS attitudes toward IVA between before and after health education, for the supportive attitude category in the experimental group is the initial increase of 17 people (56,7%) to 25 people (83,3%). In the category of non-supportive attitude decreased, from 13 (43.3%) to 5 people (16.7%). In line with the experimental group, there was also an increase in the attitude of WUS in the control group by 34 people (52.3%) increased to 44 people (67.7%). In the less attitude category decreased, for the control group 14 people (46.7%) to 11 people (36.7%).

Table 3. Difference Score of Knowledge Level and Attitude About IVA

Knowledge	Pre-test		Post-test	
	n	%	n	%
Video				
High	10	33,3	24	80
Low	20	66,7	6	20
Amount	30	100	30	100
Discourse				
High	9	30	13	43,3
Low			21	70
Amount			30	100

Table 3 Show that there is a 3 point increase between the *mean* WUS knowledge level of IVA and *Pap-smear* before and after being given health education by lecture method + leaflet berkalendar ($p = 0.0001$) in the experimental group. But happen decrease 1 point on control group between the *mean* level of knowledge about IVA and *Pap-smear* before and after being given health education by lecture method with ($p = 0.0001$). Based on the above description there are differences in WUS knowledge score on *pre-test* and *post-test* of health education both experimental group and control group on IVA and *Pap-smear* in early detection of cervical cancer.

DISCUSSION

L Green that behavior health someone determined or formed by 3 factors that is factor predisposition , factor supporters (*enabling factors*) and factor plunger (*reinforcing factors*) (Priyoto, 2014). Corresponding with research conducted by Srisuwanet al (2015), that with good knowledge and a positive attitude after get information about detection early cancer cervix then take effect to behavior woman in detection early cancer cervix. Likewise research by Interis,et al (2015) that 50 (40 , 7 %) of 123 women do screening for detection early cancer cervix after existence intervention education based theory so increased on significant.

Enhancement significant knowledge the: media exposure or source information. Giving the right information about cancer cervix and IVA test make knowledge on woman increases in prevention cancer cervix be more good. Based on results test statistics obtained that there is difference enhancement knowledge and attitude on woman age before and after given education health with media vidio for detection early cancer cervix with IVA method ($0.0001 < 0.05$). There enhancement knowledge and attitude make woman in do examination health in p this is detection early cancer cervix through IVA test more increased compared with method promotion health with

lecture . Someone will more receive and absorb something information through senses hearing.

Results research this support research previously done Saraswati (2011) where obtained results promotion health with more movies effective on significant compared method promotion health leaflets for improve knowledge about cancer cervix and participation woman in detection early cancer cervix in Mojosongo RW 22 Surakarta where could withdrawn conclusion promotion involving health two senses vision and hearing will more effective than just that involves 1 senses only. Meaning enhancement knowledge and WUS attitude will be more effective accompanied with video will more effect good than just that with lecture only.

CONCLUSIONS

From the research we can conclude that: There are differences in WUS knowledge score before and after health education by lecture method + video about IVA in the early detection of cervical cancer in the experimental group ($p = 0.0001$). There were differences in women of childbearing age attitude scores before and after health education by the lecture method + Video on IVA in the early detection of cervical cancer in the experimental group ($p = 0.0001$). There is a difference in women of childbearing age knowledge score before and after health education by lecture method on IVA in an effort early detection of cervical cancer in the control group (p value = 0.0001). There were differences in WUS attitude scores before and after health education by lecture method on IVA and Pap-smear in the early detection of cervical cancer in the control group ($p = 0.0001$). There is an influence of health education by the lecture method + VIDEO to the knowledge of WUS on IVA in the early detection of cervical cancer ($p = 0.0001$). There is an influence of health education with lectures + Video method against the attitude of WUS on IVA in the early detection of cervical cancer ($p = 0,013$).

RECOMMENDATIONS

From the research we can recommended that: Health Office is expected to coordinate with various cross-sectoral parties to support health education to women, especially about cervical cancer. Health Centre is expected to conduct reproductive health education of women especially cervical cancer in a structured and periodically in an effort to suppress the incidence of cervical cancer. Health education not only to provide advice or appeal to the community but should also be an invitation to participate. The community, especially women, should be more actively involved in getting information so that it will increase knowledge about reproductive health through electronic media and print media, and also participate in prevention and early detection of cervical cancer by doing IVA. This study as knowledge and attitudes, it is hoped further research can review more factors relating to the detection of cervical cancer by women such as internal factors and external form of motivation in the form of support for her husband.

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EFFECTIVENESS OF MODIFICATION OF GREEN BEAN JUICE AND VITAMIN C ON HAEMOGLOBIN (HB) RESPECT TO HIV/AIDS PATIENTS IN FOUNDATION OF LANTERA MINANGKABAU PADANG DISTRICT IN 2017

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ABSTRACT

HIV is one of the deadly diseases caused by the decline in the immune system. The mortality rate of HIV patients with anemia is very high. Anemia in HIV-AIDS is multifactorial, a combination of several factors such as changes in cytokine production that interfere with hemopoiesis, infection, malignancy, malnutrition, haemorrhage, hemolysis, and polypharmacy and use of antiretroviral drugs. Efforts that can be done to overcome anemia is the treatment and intake of foods such as green bean juice and to help the absorption process added Vitamin C. Objectives Of this study is the effect of green bean juice and vitamin C on Hemoglobin levels of HIV / AIDS patients at the foundation of lantera Minangkabau Padang. The results of this study indicate that the mean HB rate of HIV patients before get green bean juice was 13.01 gram%, with a standard deviation of 2.26 gr%. The mean HB level of HIV patients after getting green bean juice and vitamin C was 13.76 gram%, Most (90%) Hb of HIV patients after getting green bean juice and Vitamin C increased (greater) than Hb prior to Green Bean Juice and Vitamin C. From the Wilcoxon Signed Ranks test it is seen that $p = 0.009$ means that there is a significant difference between Hb before and Hb after the patient get a green bean juice and Vitamin C, it can be concluded that the provision of green bean juice and Vitamin C has the effect to increase Hb of HIV patients. Nurses are advised to inform patients of HIV patient to drink green beans and vitamin C juice in accordance with the module made.

Keywords: Green Bean Juice, Vitamin C, Anemia

INTRODUCTION

One of the deadliest diseases in the world that later became an international outbreak or world disaster since its first presence was HIV / AIDS. Acquired Immune Deficiency Syndrome (AIDS) is a set of symptoms that arise from the decline of the human immune system, caused by Human Immunodeficiency Virus (HIV) (Lewis, Heitkemper, & Dirksen, 2000). Travel infection HIV virus in the body attacks the cell Cluster of Differentiation 4 (CD4) resulting in a decrease in the body's defense system. Continuous viral replication results in heavier immune system damage and is more susceptible to opportunistic infections (OIs) that will result in death. (Lemone & Burke, 2008).

Studies have shown that anemia is an independent risk factor for death in patients with advanced AIDS. According to Belperio and Rhew in 2012 higher mortality rates occur in HIV-AIDS with anemia than without anemia. In the EuroSIDA study, the HIV-AIDS mortality rate without anemia in one year was 3.1%, whereas with mild anemia ie Hb between 8-12 g% of mortality in one year 15.9% and in severe anemia with Hb <8 g % mortality rate in one year 40.8% (Hayden, eastwood.2009). Anemia in HIV-AIDS is multifactorial, a combination of several factors such as changes in cytokine production that interfere with hemopoiesis, infection, malignancy, malnutrition, bleeding, haemolysis and polypharmacy, side effects of ARV treatment

(Price.EA.2008). Various efforts have been made to overcome anemia, either through treatment or through increased food intake. Given that the ingredients necessary for the formation of blood cells include folic acid, iron, cobalt, magnesium, zinc, amino acids, vitamin B, C (Bakta, 2007, pp. 6). Green bean juice is one of the foods that contain substances needed for the formation of blood cells that can overcome anemia.

Vitamin C is a type of antioxidant and natural that can ward off free radicals cause dangerous diseases, so it can boost the immune system. Vitamin C also helps speed up the process of drug absorption. One of the natural ingredients that contain high Vitamin C is lime.

Cumulatively HIV and AIDS since 2005 s / d 2015 number of cases of Hiv as many as 184,929 cases and Aids as much as 68,917 cases (DG of Communicable Disease Control & Health Ministry RI .2015). Health Officials of West Sumatra recorded the number of HIV / AIDS sufferers until the end of 2015 is 923 cases HIV and 1,173 AIDS cases, since it was first discovered in 1992 in Ranah Minang. Number of HIV AIDS Cases in West Sumatra It is ranked 11th out of 34 provinces in Indonesia.

In West Sumatra there is one foundation that provides support and attention to HIV / AIDS patients, namely Lantera Minangkabau Foundation Based on the results of the preliminary survey of researchers on January 25, 2017 at the Minangkabau Lantera Foundation there are 240 PLHIVs who are supported by the Minangkabau Lantera Foundation consisting of various cities / regencies in West Sumatra including Padang. Another result in the initial survey of researchers, obtained data that of 10 people living with HIV found 7 people experiencing anemia. This study aims to determine the effect of green bean juice and vitamin C on Hemoglobin levels of HIV / AIDS patients in the foundation of Minang Kabau lantera Padang.

METHODS

The design of this research is Quasi experiment, the design used is one group pretest and posttest. The research was conducted in Yayasan lantera Minang Kabau Padang which changed its name to Taratak Foundation. The study time starts from March to December 2017. Data collection time for 1 week on 23 October to 31 October 2017 Population is all HIV AIDS patients registered in Lantera Minang Kabau Padang. The sample in this research is 10 people. The sampling technique used is purposive sampling which is the determination of the sample by selecting the sample among the population according to the inclusion criteria so that the sample can represent the characteristics of the known population. The sample inclusion criteria are: patients aged 30-65 years, patients are willing to sign informed consent, patients do not have blood cancer / bone marrow, get ARV drugs, can understand the communication well. Serve warm or cold. The most appropriate time to consume the juice is at least 2 times a day and drink before eating is preferably at 10 am and 16.00 hours. Data collection techniques in this study filled out questionnaires that have been provided and for the measurement of hemoglobin (Hb) levels performed at the Regional Health Laboratory of West Sumatra Data were analyzed in the form of univariate analysis, and bivariate using Wilcoxon Ranks Test

RESULT

Table 1. Hemoglobin Level Before Get Green Bean Juice And Vitamin C

Variable	Mean	SD	Minimal-maximal	95% CI
Hb Rate	13,01	2,26	9 – 16,4	11,38 - 14,64

From the table above the average hb rate of hiv patients before get green bean juice was 13,01 grams %.

Table 2. Hemoglobins Level After Get Green Bean Juice

Variable	Mean	SD	Minimal-maximal	95% CI
Hb rate	13,76	2,61	8,8 – 17	11,89 -15,63

From the table above shows that the average HB levels of HIV patients after administration of Green bean Juice and Vitamin C was 13.76 grams%.

Table 3. Effect of Green Beans Juice and Vitamin C On Hemoglobin Level

Rank	(N)	Mean Rank	Z	P value
Negative Ranks (HB posttest < HB pretes)	1	2,00		
Positif Ranks (HB posttest > HB Pretest)	9	5,89	-2,606	0,009
Total	10			

From the table above shows that most (90%) Hb of HIV patients after getting green bean juice and Vitamin C increased (greater) than Hb prior to green bean juice and vitamin C. From result of Wilcoxon Signed Ranks test show that $p = 0.009$ mean there is significant difference between Hb before and Hb after giving of green bean juice and Vitamin C hence can be concluded that giving of green bean juice and Vitamin C have effect to increase Hb patient of HIV.

DISCUSSION

From the results of the study it was found that the mean HB levels of HIV patients prior to administration of Green bean Juice and Vitamin C was 13.01 gram% (mild anemia). HIV patients in this study, HB levels were only mildly anemic, respondents were new HIV infections (less than 1 year) and also most of the new respondents were taking antiretroviral drugs less than 6 months, so the effect of ARV drugs also not been felt by many patients. The results of this study in line with the results of research Sumantri 2009 prevalence mild anemia HIV AIDS patients In Hasan Sadikin Hospital 41.6%.

When viewed from the opportunistic infections experienced by patients is 60% have never experienced 30% IO experience Pulmonary TB, so new patients categorized HIV stage 1 and 2. This is in line with research Volberding PA 20104, which states that the clinical stage of HIV also became severe anemia risk factors for stage 3 and 4. The results of this study also relate to the sex of the patient because all respondents are male. Ndlovu Z, 2014 and Creagh.T 2002 revealed that the prevalence of anemia in HIV patients is higher in women than in men. It is assumed that blood loss and iron drainage occurring during menstruation, pregnancy and childbirth contributes to the high prevalence of anemia in women with HIV. In the

predictive cure of anemia study, it was found that males more quickly experienced anemia anemia than women.

In this study HIV patients who became respondents with young age average age 33.5%, where age is also associated with the addition of anemia incidence rate in HIV infection. One study showed that anemia in 37.4% of HIV infections occurred at age 35, 40.8% at 36-45 years and 46, &% at 46 years of age (Rodriguez EJS 2014). From the results of this study found that the average HB levels of HIV patients after getting Green bean Juice and Vitamin C was 13.76 grams%. Most (90%) Hb of HIV patients after green bean juice and Vitamin C increased (greater) than Hb prior to green bean juice and vitamin C intake. From Wilcoxon Signed Ranks test results show that $p = 0.009$ means there is a significant difference between Hb before and Hb after the provision of green bean juice and Vitamin C.

Research on green beans on hemoglobin levels was done by the State (2015) conducted on white mice with green bean extract can increase hemoglobin level, whereas in Helty (2008) study result showed that green peanut juice can increase hemoglobin and cell levels blood in cancer patients with chemotherapy. Consuming two cups of green beans in every day means having consumed 50% of daily iron requirement of 18 mg and can increase hemoglobin levels for 2 weeks (Helty, 2008).

CONCLUSIONS

The results of this study can be concluded that the provision of green bean juice and Vitamin C has the effect to increase Hb HIV patients. It is therefore advisable on the nurse to provide information to HIV patients to consume green bean juice and Vitamin C as per the module.

RECOMMENDATIONS

Nurses are advised to inform patients of HIV patient to drink green beans and vitamin C juice in accordance with the module made.

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THE EFFECT OF EARLY INITIATION OF BREASTFEEDING IMPLEMENTATION ON IMPROVING THE BODY TEMPERATURE OF NEWBORNS

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ABSTRACT

Hypothermia is a major factor in neonatal morbidity and mortality in developing countries. High prevalence of hypothermia has been reported widely even from warmer tropical countries. In spite of the World Health Organization's recommendation of maintenance of warm chain in newborn care, hypothermia continues to be a common neonatal condition which has remained under-recognized, under-documented, and poorly-managed. The initial temperature is used as a benchmark to see the difference and the difference in body temperature in newborns before and after the early initiation of breastfeeding implementation is done. The mean body temperature before early initiation of breastfeeding implementation was 36.73°C, The mean body temperature after early initiation of breastfeeding implementation was was 36.86°C, 3)There is a statistically significant difference of body temperature of newborn before and after early initiation of breastfeeding implementation. The transition from fetal to neonatal life represents one of the most dynamic and potentially hazardous events in the human life cycle. The initial postnatal period is characterized by high levels of stress, as exemplified by levels of catecholamines and cortisol secretion and comparatively labile neurobehavioral regulation. Skin-to-skin contact, the normal mammalian postnatal condition has been found to improve infant state organization, thermal regulation, respiration, and oxygen saturation, reduce apnea and bradycardia, increase milk production, accelerate weight gain, and quicken hospital discharge.

Keywords: *Early Initiation of Breastfeeding, The Temperature of Newborn*

INTRODUCTION

Hypothermia is a major factor in neonatal morbidity and mortality in developing countries. High prevalence of hypothermia has been reported widely even from warmer tropical countries. In spite of the World Health Organization's recommendation of maintenance of warm chain in newborn care, hypothermia continues to be a common neonatal condition which has remained under-recognized, under-documented, and poorly-managed. Neonatal deaths are unequally distributed around the globe. Half of the world's newborns die at home and more than 99% of all deaths occur in developing countries, where the average neonatal mortality rate is 33 per 1.000, compared with 4 per 1.000 in high income countries. Since neonatal deaths account for more than 40% of under-5 mortalities, reaching Millennium Development Goal (MDG) 4 will require a substantial reduction in newborn mortality. Although addressing neonatal hypothermia might facilitate this goal, it has so far been a neglected challenge. Maintaining a normal body temperature is a critical function for newborn survival.

Many neonatal deaths, particularly those related to severe infections and prematurity, are preventable with relatively easy interventions to keep babies warm⁽⁴⁾. The World Health Organization (WHO) proposes a "warm chain", or a series of interlinked procedures to minimize the risk of hypothermia in newborns, which includes warming the delivery place, immediate drying, skin-to-skin care, early and exclusive

breast-feeding to promote close warming contact with the mother and provide energy to generate heat, postponing bathing, appropriate clothing and bedding, and placing mother and baby together. However, even seemingly simple strategies such as skin-to-skin care are not consistently practiced in resource-limited settings.

Safe and effective efforts to prevent and cope with the underlying cause of newborn mortality are quality antenatal care. Basic normal care and neonatal health services by professionals. The mother's hugs on the baby's body can keep the body warm and prevent heat loss and encourage the mother to breastfeed her baby immediately after birth. Breast milk should start within the first hour. In a previous study on the effects of early initiation of breastfeeding to increase axillary temperature and decrease dry heat loss in newborn obtained that axillary mean temperature after early initiation of breastfeeding is $37.1 \pm 0.2^\circ\text{C}$ and axillary mean temperature on non early initiation of breastfeeding group is $36.8 \pm 0.4^\circ\text{C}$. This study concluded that there is the effect of early initiation of breastfeeding to axillary temperature.

METHODS

The type of research used is quasi experimental with one group pretest-posttest design. The study was conducted at BPM Padang City on August 2017. The population is all newborns from normal delivery mothers present in the study sites that meet inclusion and exclusion criteria. The sample size used was 62 newborns⁽⁸⁾. Sampling is done by consecutive sampling. The data used in this study are primary data obtained directly by observation by using checklist sheet and secondary data obtained from existing sources (medical record of mother).

Technique of data collected done by doing the initial body temperature measurement at baby at first temperature is measured when newborn baby placed on mother's chest, hence researcher do initial temperature measurement. 1 hour after baby skin to skin contact with their mother researcher to do temperature measurement to see temperature difference before and after skin contact. The initial temperature is used as a benchmark to see the difference and the difference in body temperature in newborns before and after the early initiation of breastfeeding implementation is done. Data analysis used was univariate analysis to give description on experimental group and bivariate analysis to know difference between before and after get treatment in experiment group by using paired t test.

RESULTS

Table 1. Mean Body Temperature of Newborn Before Early Initiation of Breastfeeding Implementation

Body Temperature of Newborn Before Early Initiation of Breastfeeding Implementation	f	%	Mean
$\geq 35^\circ\text{C}$	2	3.2	36.73
$\geq 36^\circ\text{C}$	41	66.1	
$\geq 37^\circ\text{C}$	19	30.6	

Based on the table 1 can be seen that before early initiation of breastfeeding implementation, from 62 respondents there were 41 (66.1%) respondents who had body temperature $\geq 36^\circ\text{C}$, with mean of 36.73°C .

Table 2. Mean Body Temperature of Newborn After Early Initiation of Breastfeeding Implementation

Body Temperature of Newborn Before Early Initiation of Breastfeeding Implementation	f	%	Mean
≥ 35°C	0	0	
≥ 36°C	39	62.9	36.86
≥ 37°C	23	37.1	

Based on the table 2 can be seen that after early initiation of breastfeeding implementation, from 62 respondents there were 39 (62.9%) respondents who had body temperature ≥ 36°C, with mean of 36,86°C.

Table 3. Effect Early Initiation of Breastfeeding Implementation on Increasing Body Temperature of Newborns

Variable	Mean (SD)	Paire Differences Mean (SD)	CI 95%	<i>p</i> value
Temperature body before early initiationof breastfeeding implementation (n=62)	36,73°C (0,35)	0,13°C (0,15)	0,09-0,17	0,00
Temperature body after early initiation of breastfeeding implementation (n=62)	36,86°C (0,32)			

Based on the table 3 can be seen that the mean body temperature before early initiation of breastfeeding implementation was 36.73°C, and after was 36.86°C from 62 respondents with there were 39 (62.9%) respondents who had body temperature ≥ 36°C, with mean paire differences mean of 0.13°C. After the paired t-statistical test obtained *p* value = 0.000 (*p* <0.05) and CI 0.09-0.17 (not passing zero) means that there is a statistically significant difference of body temperature of newborn before and after early initiation of breastfeeding implementation.

DISCUSSION

Newborns cannot regulate their body temperature by self, so will tend to experience physical stress due to changes in temperature outside the uterus. The maximum range of fluctuation (ups and downs) of temperature within the uterus is only 0.6°C because the temperature amniotic fluid existence in the uterine is relatively fixed. The temperature inside the uterus is about 36°C-37°C while the room temperature is about 24°C-32°C, then immediately the newborns after birth will adapt to the environment outside the uterus very different from the condition inside the uterus.

The mother's skin has the ability to adjust its temperature to the required temperature of the baby (Thermoregulator Thermal Synchrony). If the baby is cold, the mother's skin temperature will increase automatically 2°C to warm the baby. If the baby is overheated, the mother's skin temperature automatically drops 1°C to reduce temperature body Based on the research study by Fransson, Karlsson, Nilsson (2005) about temperature variation in newborn babies, that conclusions is the importance of close physical contact with the mothers for temperature regulation during the first few postnatal days. In the maternity ward studied, periods of cot care resulted in peripheral

skin temperature changes indicating heat losses close to compensatory capacity. During periods of skin to skin care, peripheral and abdominal skin temperature increased indicating a heat gain.

The results were comparable with previous studies conducted by Hutagaol (2014) on the effect early initiation of breastfeeding on axillary temperature in newborns, by comparing early initiation of breastfeeding groups and without-early initiation of breastfeeding, the results obtained from 20 respondents obtained in the early initiation of breastfeeding groups an increase in axillary temperature is 0.4°C results in the treatment group IMD, whereas in the without-early initiation of breastfeeding group an increase in axillary temperature is 0.03°C. Reducing the incidence and severity of perioperative hypothermia has the potential for drastically reducing complication-related costs. All the patient undergoing surgery for more than 30 minutes should receive an accurate temperature monitoring and a correct management for the maintenance of normothermia.

Kangaroo Care seems to influence state organization and motor system modulation of the newborn infant shortly after delivery. The significance of our findings for supportive transition from the womb to the extrauterine environment is discussed. Medical and nursing staff may be well advised to provide this kind of care shortly after birth⁽¹⁴⁾.

The transition from fetal to neonatal life represents one of the most dynamic and potentially hazardous events in the human life cycle. The initial postnatal period is characterized by high levels of stress, as exemplified by levels of catecholamines and cortisol secretion and comparatively labile neurobehavioral regulation. Skin-to-skin contact, the normal mammalian postnatal condition has been found to improve infant state organization, thermal regulation, respiration, and oxygen saturation, reduce apnea and bradycardia, increase milk production, accelerate weight gain, and quicken hospital discharge.

CONCLUSIONS

From the research we can conclude that: the mean body temperature before early initiation of breastfeeding implementation was 36.73°C. The mean body temperature after early initiation of breastfeeding implementation was 36.86°C. There is a statistically significant difference of body temperature of newborn before and after early initiation of breastfeeding implementation.

RECOMMENDATIONS

It is expected that health workers, especially midwives or nurses continue to early initiation of breastfeeding implementation in newborns to keep the neonatal morbidity and mortality continues to decrease along with the prevention of hypothermia in newborns.

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THE ANTICIPATION MODEL OF CIRCUMCISION IN WOMAN BY LOCAL CULTURE ART OF DENDANG PAUH IN SUBDISTRICT PAUH OF PADANG CITY WEST SUMATERA

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ABSTRACT

In Indonesia, based on the research, half of girls aged 14 and under have been get the circumcision. Meanwhile, in West Sumatera Province, based on the research of Budiharsana et al (2003) showing that female circumcision is medically found in Padang City. 91.7% from 349 cases are conducted FGM. Pauh subdistrict is one of the subdistricts in Padang City. The mostly population of this subdistrict are indigenous. This practice is still ongoing so it is necessary to knowing the dominant factors that trigger the high practice of female genitalia mutilation (FGM) and its important to find out the solution with local cultural approach through local cultural arts. The result of this research show that 80% of parents have circumcised their daughters, 81,2% of parents have low knowledge about FGM, 56,5% of parents have negative attitude toward FGM behavior, 71,8% have negative support to FGM. Relation of knowledge level, attitude and family support with FGM behavior got p-value <0,05. There is a relations of knowledge level, attitude and family support with FGM behavior in Subdistrict of Pauh, Padang City. The Cultural values, religious values, health values and the assumptions that its can reduce women's sexual desire is another factor that causes FGM to survive. The Strategy are designed by using local cultural arts of dendang pauh. Recommended for the government that its needing the regulation to reinforce the FGM status which until now still in controversy during the society.

Keywords: Strategy, Female Genital Mutilation, Local Cultural Art of Dendang Pauh

INTRODUCTION

Women's circumcision is one of the practices that is still practiced until now in some countries including Indonesia. The United Nations estimate that 140 million girls and women in Africa, Middle East and Asia are get sexually mutilated. While UNICEF (UN agency focusing on health and child protection) revealed that 30 million girls under the age of 15 are at risk of female circumcision (Bulletin Perempuan Bergerak Edisi III on July 2013). Meanwhile, in West Sumatera Province, based on study of Budiharsana et al (2003) that funded by the *Ford Foundation*, medical circumcision was found in Padang City as 91.7% from 349 cases observed. From that data it turns out that in the city of Padang as the capital of West Sumatra Province, the practice of circumcision in women conducted by health workers is still exist in the high rates (YPKP, 2011).

The issue of circumcision against women continues to reap the debate and the questions. Not a few Muslim families in this country feel confused when they having a baby girl. Because, now the health workers who handle the birth of a baby has been forbidden to circumcise a baby girls. Since the publication the regulation of Circular Letter of the Directorate General of Public Health of RI Number HK 00.07.1.31047 a, dated 20 April 2006, regarding Prohibition of Medicalization of Female Circumcision for Health Officers, most of the female babies are no longer circumcised. The purpose of this research is to get the anticipate strategy to the determinant of FGM behavior on the

society by using local cultural art "Dendang Pauh" in Sub-District of Pauh, Padang City. While the hypothesis of this research are there is a relationship Level of knowledge, attitude, family support with FGM behavior in Subdistrit of Pauh, Padang City.

METHODS

The method of this research are using the mixed method (mixed method) approach. Mixed method is a method that combines quantitative and qualitative approaches in the research. Quantitative research to explain knowledge and attitude level factors and family support on FGM. A qualitative approach is used to explore data on the picture of beliefs, cultural and religious values of FGM. This research was conducted in subdistric of Pauh, Padang City. The time of this Study are from August to November 2017. The population of this study are the parents who have girls in the study area (Father or Mother).

By considering the limitations of this study related to time, funding and energy, the researchers took the sample by using cluster random sampling technique one stage with the total sample are 85 people, while the sample for qualitative data was taken by using purposive sampling technique with the number of informants 10 people . Data collection was done by using two ways, namely library study and field study in the form of survey and in-depth interview. The analysis data was used is descriptive statistical analysis and associative statistical analysis for quantitative and interactive analysis of Miles and Huberman for qualitative. Triangulation technique are used to test the validity of the data obtained.

RESULT

Table 1. Relationship Level of Knowledge Parents with FGM Behavior In girls in Subdistrict Pauh of Padang City in 2017

Level of Knowledge	Attitude to FGM				Total	
	Didn't		Did		f	%
	f	%	f	%		
High	10	62,5	6	37,5	16	100
Low	7	10,1	62	89,9	69	100
Total	17	36,6	68	63,4	85	100

Table 2. The Relationship of Parents attitude with FGM behavior in subdistrict of Pauh Padang City in 2017

Attitude	FGM Behavior				Total	
	Didn't		Did		f	%
	f	%	f	%		
Positive	15	40,5	22	59,5	37	100
Negative	2	4,2	46	95,8	48	100
Total	17	20	68	80	85	100

$p= 0,000$

Table 3. The Relation of Family support to FGM Behavior in Pauh subdistrict of Padang City in 2017

Family Support	FGM Behavior				Total	
	Didn't		Did		f	%
	f	%	f	%		
Positive	16	66,7	8	33,3	24	100
Negative	1	1,6	60	98,4	61	100
Total	17	36,6	68	63,4	85	100

$p= 0,000$

DISCUSSION

The results of this research show that, 37.5% (6 parents) from 16 parents with high knowledge had FGM to their daughters .Then, 89.9% (62 parents) from 69 parents who had low knowledge had FGM to their daughters. The result of statistical test is *p-value* 0,000 which means H_0 is rejected or there is a significant correlation between knowledge level and FGM behavior in girls in Pauh Subdistrict of Padang City. The behavior of a person is strongly influenced by the knowledge of matters relating to that behavior itself.by the same token from this study found that most of parents still do circumcision on their daughters and from the level of knowledge also found that most of them have a low level of knowledge about female circumcision. The level of mothers knowledge in this study can be seen from the results of questionnaires which filled by respondents.

The results of the questionnaire showed that, from 20 questions posed there were 77 parents (90.6%) who answered incorrectly to question number 13. its female circumcision may be performed by a person outside the health worker. Whereas for questionnaires number 16, 17, 18 and 19 parents also answered a lot wrong with the knowledge about the risks of circumcision that most parents indicate that circumcision is not a risk for girls. Because of the circumcision is difficult to eliminate in society, it is necessary to have an anticipatory strategy to prevent the practice of circumcision in women by increasing the knowledge of parents through a medium that able to change the behavior of such communities by using traditional art media.

The results showed that 37 parents who had positive attitude toward FGM behavior in girls found 59.5% (22 parents) who did FGM on their daughters compared to 48 parents who had negative attitude toward FGM was 95,8% (46 parents) who did FGM on their daughters. The result of statistical test obtained *p-value* 0,000 which means H_0 rejected or there is significant correlation between parental attitude with FGM behavior to their daughter in PauhSubdistrict of Padang City. Attitude is a reaction or a response that is still closed from someone to the stimulus or to the object. An attitude has not been automatically manifested in an action(overt behavior). To realize the attitude into a real action required supporting factors or a condition that allows, such as facilities and support factors (support)

The study showed that 24 parents who had positive family support for FGM are found 33.3% (8 parents) who did FGM while from 61 parents who had negative family support for FGM behavior 98,4% (60 parents) did FGM. The statistical test results obtained that *p-value* 0,000, which means H_0 rejected or there is a significant relation between family support with FGM behavior in Pauh Subdistrictof Padang City. The

family's positive support from this study is families who disagree with the presence of circumcision in girls. According to Lawrence Green Health behavior is influenced by 3 factors, one of that is supporter factor that is the support of the family.

The behavior of the community in FGM activities (circumcision) in the Pauh community has been traditionally from long time ago. The People believe that circumcision is a kind behavior that has been done since their ancestors and must be maintained as a form of cultural preservation. FGM activities in the community proved as part of the cultural demands that must be filled by parents, especially mothers, if they already have daughters in aged children.

Rural people in Pauh subdistrict of Padang City, based on interviews stated that the activity of circumcision in girls is a part of religious teaching, as required to the boys. In practicing it, sometimes the society take have the basis that the circumcision of women is considered obligatory from the religion and the culture itself. The values of Adat Basandi Syarak, Syarak Basandi Kitabullah to the minages, particularly in Pauh subdistrict of Padang City take a role play in influencing the behavior of the community in the circumcision to the girls.

The presumption that circumcision has the purpose of cleanliness like the purpose of circumcision in terms of health in boys. So, by circumcision it can prevent various diseases caused by the irregularity of these organs, such as infection, itchy fungus and another. There is the presumption that by implementation of circumcision to the girls are believed that that is one kind of efforts to overcome the problem facing libido in women. Women are believed that having a higher sexual desire than men. Because of that, it should be reduced to preventing of sexual deviation problems. And the right step to do prevention is appropriate with circumcision practices on girls. The purpose of circumcision in girls is to reduce high sexual desire, it is necessary to cut off some part of the sexual organ that can trigger increased sexual desire, so adultery in society can be reduced.

Looking to how difficult to prevent the practice of circumcision in girls, the strategy anticipation offered is through health promotion strategies using cultural media, namely "dendang Pauah", a kind of traditional art from Pauah sub-district of Padang City. Dendang Pauah is considered strategic because it still survive until now. Usually this art is played in line with the marriage ceremony, especially in the night. Through the art tradition of Dendang Pauah, it also can convey a message about the dangers of FGM for girls such as infections and bleeding. The message is integrated into the dendang.

CONCLUSIONS

Most of the parents did circumcised to their daughters in Pauh Subdistrict of Padang City. The Related Factors to do FGM in the Pauh subdistrict of Padang City are the level of parental knowledge, parental attitudes, family support, cultural values, religious values, health values and the assumptions that circumcision is a way to reduce the sesksual desires that avoid women from free sexual behavior. The designed strategy is through the promotion of reproductive health by using local cultural arts of Dendang Pauh that integrates FGM risk messages through the poems of the pauh.

RECOMMENDATIONS

To be Recommended for the government that the need of regulation to reinforce the FGM status which until now still in controversy during the society.

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THE RELATIONSHIP OF NUTRITIONAL STATUS WITH THE INCIDENCE OF TUBERCULOSIS IN THE PULMONARY DISEASE TREATMENT CENTER (BP4)

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ABSTRACT

Pulmonary Tuberculosis (TB), one of public health problem, is a disease that causes global emergency (Global Emergency) because in most countries in the world, Pulmonary Tuberculosis disease is uncontrolled. It is due to the number of patients who are not successfully cured, and due to the main cause caused by infection disease. This study aimed to determine the relationship of nutritional status with the incidence of Pulmonary Tuberculosis. The results of the study found less than half (44.0%) of respondents had nutritional status of underweight, and less than half (40.0%) of respondents had Pulmonary Tuberculosis. The results was there is relationship between nutritional status with the incidence of Pulmonary Tuberculosis with p value = 0,006. Based on the result, it can be concluded that the nutritional status affects with the incidence of Pulmonary Tuberculosis. It is expected that people can maintain a balanced and healthy diet not only eat rice or food from flour but also complete with side dishes of vegetables and fruits, and maintain their health by not smoking, adequate rest and exercise routine so that body become healthy.

Keywords: *Nutritional Status, Pulmonary Tuberculosis incidence*

INTRODUCTION

The World Health Organization (WHO) declares Pulmonary Tuberculosis (TB) as a very important and serious public health problem worldwide and is a disease that causes global emergency (Global Emergency) because in the most countries in the world Pulmonary Tuberculosis disease is uncontrolled, this is due to many patients who not successfully cured, and as the main cause of infectious diseases (Ministry of Health RI, 2014). WHO reported in 2015 that there are 9.6 million cases of Pulmonary Tuberculosis in the World and 58% of cases occur in Southeast Asia and Africa. The three countries with the highest incidence in 2015 were India (23%), Indonesia (10%), and China (10%). According to WHO Global Report (2014), in Indonesia in 2014, the number of new cases with positive acid-resistant bacilli (BTA) were 176,677 cases. It decreased if compared with new cases of positive acid-resistant bacilli found in 2013 which were 196,310 cases. The estimated prevalence of TB in all cases is 272 per 100,000 population and the estimated incidence is 183 per 100,000 population, and mortality rate due to TB is estimated at 25 per 100,000 population (Kemenkes RI 2014).

Based on data from West Sumatera Provincial Health Office, the finding of Pulmonary TB cases is still increasing where in 2008 Tuberculosis cases were found as many as 3896 cases. In 2009 as many as 3914 cases and in 2010 found as many as 3926 cases. Pulmonary TB incidence rate had increased very drastic in the year 2014 that amounted to 7404 cases spread in 19 districts / cities. (West Sumatra Provincial Health Office, 2014).

Center of pulmonary disease treatment- Lung Lubuk Alung West Sumatra is the only place of special health services for pulmonary disease in the Region of Central

Sumatra. Based on the annual report from the Lubuk Alung Pulmonary Disease Treatment Center of West Sumatra, it shows that in 2013 there were 3270 TB Suspect with positive result of positive acid-resistant bacilli (BTA) of 1290 people and negative BTA Rontgen supporting 185 people. In 2014 there were 3548 TB Suspect people with positive BTA results of 1190 people and negative BTA Rontgen support 126 people. In 2015 there were 3139 TB Suspect people with positive BTA result 1161 people and BTA negative Rontgen supports 156 people. (Monthly Report of BP4 Lubuk Alung West Sumatra).

Tuberculosis disease is influenced by several factors such as socioeconomic status, nutritional status, age, gender, education, environmental factors and smoking habits (Health Ministry of RI, 2014). Nutrition is one important factor that determines the level of health and human welfare where the optimal level of nutritional status will be achieved if the optimal nutrient needs are met (Arisman, 2009). State of malnutrition will affect people's body resistance so susceptible to infectious diseases for example Tuberculosis (Almatsier, 2006). A poor nutritional status increases the risk of Tuberculosis, otherwise Pulmonary Tuberculosis contributes to the status of malnutrition due to disease progression that affects the immune system. (Reichman, 2007).

Tuberculosis patients often decreasing in nutritional status, may even become malnourished if not matched with a proper diet. Several factors related to nutritional status in pulmonary tuberculosis patients are the level of energy and protein adequacy, patient's behavior on food and health, duration of tuberculosis, and per-capita income (Gupta KB in Princess, 2016). Based on the research of Supriyo Dkk (2013), found the results of research that 58.6% of patients have poor nutrition. The result showed that there was a significant correlation between nutritional status and incidence of pulmonary tuberculosis with OR = 7,583, it means that poor nutrition status was 7,583 times higher to infected by pulmonary TB compared with normal nutritional status. According to Rukmini (2010) shows the result that people who lack nutrition had risk of having TB 2.101 times greater when compared with good nutrition. Based on the phenomenon above the purpose of this study to determine the relationship of Nutrition Status with Tuberculosis Incidence at Pulmonary Disease Treatment Center (BP4) Lubuk Alung West Sumatra ".

METHODS

The design of this study was analytic descriptive using Cross Sectional Study approach. The population in this study were all patients suspect Tuberculosis (TB) as many as 281 people. Sample was 50 respondents. Data processing used editing, coding, scoring, tabulation, processing and cleaning. Univariate and bivariate data analysis with Chi Square statistic test with significance level $p > 0,05$.

RESULTS

Table 1. Distribution of Frequency of Nutrition Status at Pulmonary Disease Treatment Center (BP4) Lubuk Alung West Sumatera

No	Nutritional Status	<i>f</i>	Percentage (%)
1	Malnutrition	22	44,0
2	Normal	28	56,0
Total		50	100

From table 1, it is known that less than half (44.0%) of respondents have malnutrition nutritional status

Table 2. Distribution of Frequency of Tuberculosis in Pulmonary Disease Treatment Center (BP4) Lubuk Alung West Sumatera

No	Incidence of Tuberculosis	<i>f</i>	Percentage (%)
1	TB	20	40,0
2	Not TB	30	60,0
Total		50	100

From table 2, it is known that less than half (40.0%) of respondents who suffer from Tuberculosis.

Table 3. Relationship of Nutrition Status with Tuberculosis Incidence at Pulmonary Disease Treatment Center (BP4) Lubuk Alung West Sumatera

Nutritional Status	Incidence of Tuberculosis				Total		P Value	OR 95% CI
	TB		Not TB					
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%		
Malnutrition	14	63,6	8	36,4	22	100	0,006	6,417 (1,833-22,458)
Normal	6	21,4	22	78,6	28	100		
Total	20	40,0	30	60,0	50	100		

From table 3, it is known that from 20 respondents affected by pulmonary tuberculosis, there are more than half (63,6%) of respondents have nutritional status underweight, and respondents who do not have TB (36,4%) have nutritional status underweight. From the result of statistic test p value = 0,006 (p value > 0,05). It can be concluded that there is relationship between nutritional status with the incidence of Tuberculosis at Pulmonary Disease Treatment Center (BP4) Lubuk Alung West Sumatera.

DISCUSSION

Nutrition is one of the important factors that determine the level of health and human welfare where the optimal level of nutritional status will be achieved if the optimal nutrient needs are met (Arisman, 2009). State of malnutrition will affect people's body resistance so susceptible to infectious diseases such as Pulmonary Tuberculosis (Almatsier, 2006). A poor nutritional status will increase the risk of Pulmonary Tuberculosis disease, whereas Pulmonary Tuberculosis (TB) contributes to the status of malnutrition due to disease progression that affects the immune system.

Pulmonary TB patients often experience a decrease in nutritional status (Reichman, 2007), may even become malnourished if not supported by proper diet. Several factors related to nutritional status in pulmonary tuberculosis patients are the level of energy and protein adequacy, patient's behavior on food and health, duration of pulmonary TB, and per-capita income (Gupta KB in Princess, 2016).

The researcher's analysis found that there was a correlation between nutritional status and the incidence of pulmonary tuberculosis which patients who have malnutrition nutritional status was more affected by pulmonary tuberculosis when compared with patients with normal nutritional status, in this condition the immune response will weaken so that the ability to defend themselves against infection decreased. The results of the study also found that patients affected by Pulmonary TB also have normal nutritional status due to knowledge and attitude of respondents who already know about the signs and symptoms of Pulmonary TB like coughing more than 2 weeks, fever, decreased appetite, shortness of breath, so respondents already known and have a positive attitude so respondents immediately checked themselves and treated TB health care before a drastic weight loss.

In the results of the study also found that some respondents who have normal nutritional status but still infected or exposed to TB germs, it may be possible influenced by other factors that affect the incidence of Pulmonary TB, such as socioeconomic factors, gender, and environment. As found in the results above, there are some who have good nutritional status but exposed to Pulmonary TB this may be caused by other factors that predominate so that someone is exposed to Pulmonary TB, for example, environmental factors. Environmental factors is one of the factors that greatly affect to the incidence of pulmonary tuberculosis, dense or overcrowded housing conditions and poor ventilation is very influencing the spread of TB germs.

CONCLUSIONS AND RECOMMENDATION

Based on the results of research and discussion above, it can be concluded that there is a relationship between nutritional status with the incidence of Pulmonary TB in Pulmonary Disease Treatment Center (BP4) Lubuk Alung West Sumatra with p value = 0,006. It suggest to improve efforts with dissemination of information, knowledge about TB disease through direct counseling by officers or through health cadres, mass media, electronic media and posters about pulmonary TB in place of public health services so that people will avoid Pulmonary TB.

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RELATIONSHIP OF KNOWLEDGE AND ATTITUDE OF YOUTH WITH HIV / AIDS PREVENTION IN SMA NEGERI 3 MUARO JAMBI

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ABSTRACT

Based on health data Muaro Jambi prevalence HIV / AIDS incidence in Muaro Jambi in getting 46 cases of HIV / AIDS. SMA Negeri 3 Muaro Jambi is one of the schools located in Muaro Jambi region. HIV / AIDS is caused by several factors such as from promiscuity, through breastfeeding to infants, from injecting drug users in turn. Method: The results showed a significant relationship between knowledge and prevention of HIV / AIDS transmission in adolescents with p-value 0.001 ($P < 0.05$), there was a significant relationship between attitudes and prevention of HIV / AIDS transmission in adolescents with p value 0,000 $P < 0.05$). **Conclusion:** It is concluded that knowledge and attitudes are related to prevention of HIV / AIDS transmission in adolescents in SMA Negeri 3 Muaro Jambi and advise youth to develop knowledge and attitude in prevention of HIV / AIDS transmission.

Keywords: *Knowledge, attitude and HIV / AIDS transmission*

INTRODUCTION

Based on health data Muaro Jambi prevalence HIV / AIDS incidence in Muaro Jambi in getting 46 cases of HIV / AIDS. SMA Negeri 3 Muaro Jambi is one of the schools located in Muaro Jambi region. HIV / AIDS is caused by several factors such as from promiscuity, through breastfeeding to infants, from injecting drug users in turn.

From Indonesia health profile data, the number of HIV sufferers in Jambi Province in 2014 is 170 cases, in 2015 as many as 148 cases, and in 2016 215 cases. For cases of AIDS in Jambi Province 2014 as many as 59 cases, in 2015 as many as 52 cases, and in 2016 as many as 75 cases. While for the lowest districts / cities in 2014 is Tebo and Sarolangun District with the number of cases 1 people with AIDS, and East Tanjung Jabung District 1 person with HIV. (Health Profile of Jambi Province in 2014) while the number of HIV / AIDS sufferers in Muaro Jambi district was 46 people with HIV 24 people and AIDS 22 people. (The health office of Muaro Jambi, 2016). Based on a preliminary survey that the authors conducted on 24-25 february 2017 by interviewing 10 students of SMA Negeri 3 Muaro Jambi, 7 (80%) students are less understanding of HIV transmission and prevention, they claimed to be rarely exposed to information about HIV / AIDS, and 3 (20%) Students say that he knows how HIV / AIDS spreads from social media but for prevention there is still little information.

METHODS

This research is an analytical research with cross sectional design to know the relation between independent variable (knowledge, attitude) with dependent variable (prevention of HIV / AIDS transmission) in SMA Negeri 3 Muaro Jambi 2017. The population in this study were students of class X, XI, XII SMA N 3 Muaro Jambi in 2017, as many as 693 students and the number of samples in this study were students

of class X, XI, XII SMA Negeri 3 Muaro Jambi which amounted to 693 people. The sample in this research using stratified random sampling technique.

RESULT

Table 1. The relationship between knowledge and prevention of HIV / AIDS transmission in SMA Negeri 3 Muaro Jambi in 2017

No	Knowledge	Prevention and Transmission HIV/AIDS				Total		p-value
		High		Low		N	%	
		f	%	f	%			
1	Good	38	67,9	18	32,1	56	100	0,000
2	Not Good	11	34,4	21	65,6	32	100	
Total		49	55,7	39	44,3	88	100	

Based on the above table shows that from 88 respondents, 56 respondents with good knowledge about HIV / AIDS prevention is high 38 (67,9%) and as many as 18 (32,1%) of respondents HIV / AIDS is low. Of 32 respondents with poor knowledge about HIV / AIDS prevention were 11 (34.4%), and 21 (65.6%) had poor knowledge about prevention of HIV / AIDS transmission. Based on p-value 0.000 ($p < , 05$) which means there is a meaningful relationship between adolescent knowledge with HIV / AIDS prevention in SMA Negeri 3 Muaro Jambi.

Table 2. Relationships with prevention of HIV / AIDS transmission in SMA Negeri 3 Muaro Jambi in 2017

No	Attitude	Prevention and Transmission HIV/AIDS				Total		p-value
		Tinggi		Rendah		N	%	
		f	%	f	%			
1	Positive	40	66,7	20	33,3	60	100	0,000
2	Negative	9	32,1	19	67,9	28	100	
Total		49	55,7	39	44,3	88	100	

Based on the above table shows that from 88 respondents, 60 respondents with positive attitude toward HIV / AIDS prevention are 40 (66,7%) and 20 (33,3%) respondents with positive attitude toward HIV / AIDS prevention is low. Of the 28 respondents with negative attitudes toward HIV / AIDS prevention were 9 (32.1%), and 19 (67.9%) with negative attitudes toward the prevention of HIV / AIDS transmission. Based on the value obtained p-value 0.000 ($p < , 05$) which means there is a significant relationship between adolescent attitudes with prevention of HIV / AIDS transmission in SMA Negeri 3 Muaro Jambi.

DISCUSSION

Knowledge relationship with HIV / AIDS prevention in SMA N 3Muaro Jambi Year 2017

This is in line with Candra Rukmana's (2012) study on the Knowledge Level of High School Students of Medan 1 About HIV / AIDS Free Risk-Free Sex. After doing research, the level of learners knowledge about free sex with HIV / AIDS risk, as many as 89.5% of respondents have a good level of knowledge, 9.3% have enough knowledge, and 1.2% have less knowledge level. It can be said that the level of knowledge, learners about free sex with HIV / AIDS risk is good. That means there is a significant relationship between knowledge and prevention of HIV / AIDS transmission.

Respondents' knowledge about prevention of HIV / AIDS transmission, where respondents understand what is HIV / AIDS, signs and symptoms, how to cope so as to form a positive attitude where HIV / AIDS respondents are dangerous so as to shape behavior to prevent HIV. / AIDS one by following positive activities in order not to fall in love. Knowledge of HIV / AIDS prevention in adolescents can be obtained from various sources such as mass media, electronic media, health workers, closest relatives. With direct pancainderanya, namely vision, hearing is used to capture information. The result of stimulation resulted in the formation of knowledge (NotoatmodjodalamNgatu, 2014: 6). With good adolescent knowledge about prevention of HIV / AIDS transmission as one way to prevent HIV / AIDS transmission. Although in reality there are students of SMA Negeri 3 Muaro Jambi who are less knowledgeable, but still high school students 3 Muaro Jambi have been informed. For adolescents are expected to maintain knowledge about HIV / AIDS and seek information from health workers to prevent the risk of HIV / AIDS.

Attitude Relationship With Prevention of HIV / AIDS Transmission in SMA Negeri 3 Muaro Jambi Year 2017

Respondents who have a high attitude understand how prevention of HIV / AIDS transmission. While respondents with low attitudes affect how the respondents do prevention of HIV / AIDS transmission, this is due to lack of information about the prevention of HIV / AIDS transmission. Based on this data in line with Sri Handayani (2010) research on the Knowledge and Attitudes of Students SmaTentang HIV / AIDS in Smu Negeri 1 Wedi Klaten. Results of research on some respondents (90.5%) have a good knowledge about HIV / AIDS. The attitude of respondents who support HIV / AIDS prevention is mostly (85.7%) positive. Conclusion There is a relationship between knowledge and attitude of high school students about HIV / AIDS. Attitudes toward the prevention of HIV / AIDS transmission can be influenced by how teenagers respond to or receive information about prevention of HIV / AIDS transmission and apply that information in everyday life. Attitude is the feeling or outlook of a person with a tendency to act toward an object or a stimulus. Attitudes are the most important concepts in social psychology that address the elements of attitude both as individuals and groups (Ariani, 2014). With a good adolescent attitude towards prevention of HIV / AIDS transmission as one way to prevent HIV / AIDS transmission. Although in reality there are still students of SMA Negeri 3 Muaro Jambi who are less responsive to the prevention of HIV / AIDS transmission, but most students of SMA Negeri 3 Muaro Jambi positively accept. For adolescents expected to maintain a positive attitude in

responding to HIV / AIDS transmission and seek information from health workers to prevent the risk of HIV / AIDS.

CONCLUSION

Conclusion of research result 56 (63,6%) have good knowledge. While 32 (36.4%) respondents had better knowledge in SMA Negeri 3 Muaro Jambi Year 2017, 60 (68.2%) of respondents had positive attitude to accept HIV / AIDS prevention and 28 (31,8%) respondents had value negative. Attitudes in receiving prevention of HIV / AIDS transmission in SMA Negeri Muaro Jambi Year 2017, 49 (55,7%) of respondents to prevent HIV / AIDS well and some 39 (44,3%) respondents have good attitude in SMA Negeri 3 Muaro Jambi Year 2017.

SUGGESTION

Expected SMA Negeri 3 Muaro Jambi can conduct counseling or provide counseling about the importance of prevention of HIV / AIDS transmission to adolescents. For Muaro Jambi Health Office can provide counseling services about the prevention of HIV / AIDS transmission in adolescents, through public health center in Muaro Jambi region.

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THE EFFECTIVENESS OF COGNITIVE THERAPY TO REDUCE ANXIETY IN NURSING STUDENTS WHO ARE PREPARING A THESIS

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ABSTRACT

One of the problems of emotional disorder that is often encountered in students and can cause serious psychological impact is anxiety in the face of thesis. Efforts have been made by researchers to reduce anxiety in students who are preparing a thesis one of them is cognitive therapy, which changes the way students think and lead a more positive thinking. The purpose of this study was to determine the effectiveness of cognitive therapy to reduce anxiety in nursing students who are preparing a thesis. The result of the research is the age of the respondent which is 22 years old, that is 7 people (53,8%), the most male gender is 8 persons (61,5%). The average pre cognitive therapy test score was 15.23 while for the post test of cognitive therapy 6.85. Wilcoxon Signed Rank Test Results Test, for the value of Z obtained -3.1386 with p value of 0.001. The results of data analysis showed that there was an anxiety scale difference between before and after given Cognitive therapy. From the research results can be concluded that Cognitive therapy is effective to reduce anxiety in students who are preparing thesis.

Keywords: Cognitive Therapy, Anxiety, Nursing Student, Thesis

INTRODUCTION

Prepare a thesis for undergraduate students is a job that is not easy. Thesis is a manifestation of the ability to research prospective scientists at undergraduate level (S1). The purpose of writing thesis is to train students in solving problems scientifically by conducting research, and draw conclusions by making reports of the results of these studies (Julianti & Yulia, 2010). Students who are completing the thesis often experience various problems / obstacles, so indirectly it can create anxiety in students (Mukhayyaroh, 2014).

Difficulties often encountered by nursing students include: finding and formulating problems, finding effective titles, thesis systematics, difficulty finding literature and reading materials, difficulties with scientific grammar standards and limited time and funds.

Previous research conducted by Purwaningsing in Nursing Science Program Faculty of Medicine Udayana University, showed that from 43 students of semester VIII who thesis, 25.58% experience mild anxiety, 46.51% experience moderate anxiety, and 13.95% experience severe anxiety. The results of this study indicate there is anxiety in students semester VIII during thesis work (Wahyu & Kardiwinata, 2008). Research conducted by (Krisdianto & Mulyanti, 2015) reported that students who compiled the final task 25% experienced mild anxiety, 60% experienced moderate anxiety and 15% experienced severe anxiety. The consequences from anxiety that is too high will decrease the student's brain performance in learning and memory, lowering the power of concentration, reduce student creativity, disrupt sleep, decrease appetite, and reduce body fitness. students are also likely to experience psychosomatic diseases and problems in social intercourse (Ratu & Nurwahyuni, 2013).

Efforts that have been made by researchers to reduce anxiety on students who are preparing a thesis is to listen to classical music, journal therapy, and laughter therapy. In addition to these efforts. one effort that can be done to reduce anxiety is with Cognitive therapy. Cognitive therapy can change the way students think and lead more positive thoughts, positive thoughts will make someone think of the solution to get the problem solving (Rosanty, 2014)

The thinking process is closely related to concentration, feeling, attitude and behavior. Cognitive therapy helps identify its bad thoughts, then replaces them with more rational and realistic thoughts. This therapy always put forward to change the concept of mind that what happened in this world always give good lesson in process kematagan attitude and behavior and also psychological condition. Positive thinking also helps a person to give positive suggestions to oneself in the face of failure, when certain behaviors, and generate motivation (Dwitantyanov, Hidayati, & Sawitri, 2010). The purpose of this study is to determine the effectiveness of Cognitive therapy to reduce anxiety in the students of nursing science courses that are preparing the thesis.

METHODS

This research is a quasy experiment research using pre-test and post-test without control design. The population in this study amounted to 107 students and the sample of the study amounted to 13 students who are preparing the thesis taken by purposive sampling. This study consists of independent variables such as cognitive therapy and dependent variable of anxiety. Data were collected using questionnaires containing the characteristics of respondents (sex and age) of the anxiety questionnaire, using the Depression, Anxiety, Stress Scale 42 (DASS 42) questionnaire. This research was conducted on July 3-14, 2017 held at Science Program of Nursing School of Health Sciences (STIKes) Payung Negeri Pekanbaru. Cognitive therapy technique is divided into 3 sessions. Session 1: identifying negative and negative thoughts against one negative thought, session 2: fighting negative second negative thoughts, session 3: supporting system roles, with 30-45 minutes each session time.

RESULTS

Table 1. Distribution of Respondents by Age and sex

No	Age	n	(%)
1	21 years	2	15,4
2	22 years	7	53,8
3	23 years	4	30,8
Total		13	100
No	Sex	n	(%)
1	Male	8	61,5
2	Female	5	38,5
Total		13	100

Source: Primary Data Analysis, 2017

Table 2. Average Distribution of Anxiety Scale In Students Who Make Thesis

Variable	N	Mean	SD	SE	Min	Max
Pre	13	15,23	3,961	1,099	11	26
Post	13	6,85	1,676	0,456	4	9

Source: Primary Data Analysis, 2017

Table 2 shows that the average scales of students' anxiety that are making up the thesis decrease after given cognitive therapy, which initially students experience severe anxiety, after being given cognitive therapy decreased into mild anxiety.

Table 3. The Effectiveness Of Cognitive Therapy To Reduce Anxiety In Nursing Students Who Are Preparing A Thesis

	N	Median Min / Max	P
Anxiety before given cognitive therapy	13	15 (11-26)	0,001
Anxiety after given cognitive therapy	13	7 (4-9)	

Source: Primary Data Analysis, 2017

Based on the results of Wilcoxon Signed Rank Test calculations, it can be concluded that there is a significant difference with the value of p value 0.001 which means cognitive therapy effective in reducing anxiety in nursing students who are preparing thesis.

DISCUSSION

The result of student's anxiety scale analysis showed that the average of anxiety scale before intervention was 15,23, while the mean of anxiety scale after intervention 6,85 there was significant decrease between pretest and posttest. The result of statistic test using Wilcoxon Signed Rank Test, with p value (Asymp.sig. (2-tailed) equal to 0.001 because p value <0.005, it can be concluded that there is influence of cognitive therapy on anxiety scale between before and after therapy.

Cognitive therapy is based on a principle that thoughts affect the mood. Through this therapy individuals are taught / trained to mengontrol thoughts / ideas / ideas to really consider the factors in its development and the permanence of mood disorders (Townsend 2009). Cognitive therapy also aims to teach clients to identify, evaluate and respond to the deformities of their minds and beliefs. Help clients develop a rational mindset, engage in reality test, and reshape behavior with internal messages (Copel, 2007). This is done by helping the client to get to know every negative thought and replacing it with a positive mind that matches the real condition on the client.

The study was conducted by Prasetya, Hamid & Susanti (2010) "decreased depression level of elderly clients with cognitive therapy and brain gymnastic in nursing home" found decreased depression level who received cognitive therapy that is difference of 1,18 points (p <0,005) from the result that cognitive therapy has a significant effect on changes in the level or condition of the client's depression. This is supported by research conducted by Mukhayyaroh (2014) "anxiety composing the final task in terms of positive thinking" which shows that cognitive therapy performed some form of anxiety intervention in students who are preparing thesis

According to the assumptions of researchers after being given cognitive therapy on students who are preparing thesis there is no severe anxiety and diminished anxiety is due to cognitive therapy to train mind control / ideas / ideas aimed at teaching clients to identify, evaluate and respond to the deformity of mind and belief and help develop a rational mindset to reduce anxiety

This is consistent with the theory put forward (R. Yulianti, D. Heppy Rochmawati, 2015) on the benefits of cognitive therapy therapy is a form of psychotherapy that can train clients to change the way clients interpret and view everything when clients experience disappointment, so that clients feel better and can act more productively. The results of this study are expected to give implications to the world of education in terms of decreasing anxiety. The results of this study can be used as reference materials for teaching staff as a preventive effort for students who will prepare thesis.

CONCLUSIONS

The results showed that cognitive therapy is effective to reduce anxiety in nursing students who are preparing thesis, with the result p value = 0,01. The results of this study are expected to provide and benefit students to add and change the mindset that is not rational to be more positive, and always practice to do cognitive therapy for the level of anxiety when doing thesis can be decreased.

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SNAKES AND LADDERS GAME FOR NUTRITION EDUCATION TO IMPROVE SNACK SAFETY KNOWLEDGE AND FOOD PATTERN

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ABSTRACT

There is double burden in Indonesia, prevalence malnutrition in children 6 – 12 years are wasting 4,6 %, obesity 9,2 % and stunting 35,1 %. Need strategy to improve student's knowledge of food safety school snacks. Research problem was how difference in student's knowledge of food safety after education with snakes and ladders game method. Research purpose was to determine differences in student's knowledge of food safety after given treatment using different strategies. The result showed there was in knowledge increase ($p=0.0001$), intervention effect. The difference increased knowledge among groups ($p = 0.0001$), it means there was difference between the groups, group with snakes and ladders game method better than group without game but not to increased energy dan protein intake. Research conclusion, knowledge improvement with snakes and ladders game method was more effective than no game method.

Keyword : snakes and ladders game, snack safety knowledge

INTRODUCTION

Indonesia still have double burden nutrition problem, that is, at the same time some children suffer from malnutrition and others suffer from excess nutrients. Based on data of Basic Health Research (RISKESDAS) in 2010 nutritional status with BAZ indicator of children aged 6-12 years with wasting category 4.6%, skinny 7.6%, normal 78.6% and overweight 9.2% while nutritional status (indicator of HAZ) of children with prevalence of stunting (very short 15,1%, short 20%) and normal 64,5%. A total of 26.4% of school-aged children have anemia (MOH 2013).

School children in a period of growth and development so require adequate food consumption and safe nutrition. One component of balanced nutrition for school children to be met is the diverse food consumption, which contains carbohydrates, proteins, fats, vitamins, water, minerals and fiber.

Food snacks play an important role in providing energy intake and other nutrients for school-aged children. Consumption of snack foods school children need to be considered for high activity children. Consumption of food snacks of children is expected to contribute energy and other nutrients useful for the growth of children (Sutardji, 2007; Susan, 2010; Guarantor, 2006). Final Report of Monitoring and Verification Report of School Child Food Safety in 2008 shows that 98,9% of children get snack in school and only 1% are never snack. Further data show that food snack contribute accounts for 31.06% of energy and 27.44% of protein from total daily food consumption.

Improving the nutrition of the people especially elementary and junior high school is a strategic step because the impact is directly related to the achievement of qualified human resources (MOH RI, 2005). The strategy that is often used in giving counseling is lecture, so it needs to be developed with the game method one of the ladder snakes.

The objective of the study was to compare the knowledge about the safety of snack foods and the diet of school children who were educated with different strategies.

METHOD

This study was an quasi experimental with pretest posttest control group design. Experiments in the form of treatment provided include counseling with lecture method and snake ladder game method. The population in this study were all 5th graders of elementary school in 2 SDN in Nanggalo subdistrict with sample of all 5th graders. Game methods used are prepared by the researchers. The game contains materials about food safety snacks. Game testing is done by focus group discussion (FGD). Trials are carried out differently from the sample. The number of samples is 10 students of class V. Trials are conducted to determine students' understanding of the material and to find other inputs to improve the game. Each subject group was given a questionnaire, then each subject was asked to self-fill the questionnaire that was awaited directly and returned to the researcher. T test dependent Test statistic is used to analyze the difference between initial and final knowledge in each group. Meanwhile, to know the difference of knowledge increase between the two groups used T Test Independent Test.

RESULT

General description of respondents included respondents age, most (76%) were 10 years old and the other were 11 years old. Respondents' gender was 56% of them are women and most (68%) respondents had normal nutritional status. Development of extension methods using the snake ladder game in an effort to improve students' knowledge by using educational media development model. The method of counseling given by lecture in SD 08 Surau Gadang and snake ladder game method is done in SD 06 Kampung Lapai. Prior to the counseling, the child was given a questionnaire about knowledge and conducted an interview about the intake of 24 hours with Recall method to know the pattern of energy and protein intake. The distribution of the knowledge level of the two groups and the results of statistical analysis to differences of two methods can be seen in table 1

Table 1. Results of Differential Analysis Early and final Knowledge of Respondents at SD 06 and 08 Nanggalo Padang Year 2017

Analisa Statistik	Uji	N	Mean	Standar Deviasi	P
Early knowledge SD 06	T-	28	13,96	4,04	0,0001
Final knowledge SD 06	Test	28	15,71	3,33	
Early knowledge SD 08	T-	26	14,00	3,09	0,0001
Final knowledge SD 08	Test	26	14,77	3,00	

Table 1 shows a significant difference in the value of children's knowledge about food safety in both schools before and after counseling using lecture methods and with ladder snakes ($P = 0,0001$). When compared to the increase in the value of students' knowledge then seen a higher increase in the value of children given counseling by snake ladder game method, it shows that there is a benefit of giving counseling about the safety of snack food with the game game snake ladder.

Table2. Effect of Counseling on Respondents' Knowledge at SD 06 and 08 Nanggalo Padang Year 2017

AnalisaStatistik	Uji	N	Mean	Standar Deviasi	P	Sig
Average Increase knowledge responden SD 06	T-Test	28	1,75	1,005	0,0001	Significant
Average Increase knowledge responden SD 08		26	0,77	0,652		

Table 3. Analysis of Different Diet Respondents based on energy intake at SD 06 and 08 Nanggalo Padang Year 2017

AnalisaStatistik	Uji	N	Mean	StandarDeviasi	P
Early Energy Intake SD 06	T-Test	28	56,7	15,1	0,048
Final Energy Intake SD 06		28	66,9	18,9	
Early Energy Intake SD 08	T-Test	26	69,26	15,5	0,772
Final Energy Intake SD 08		26	62,15	12,44	

The daily energy intake of students who were given lecture energy intake initially 69.26% of AKG decreased to 62.15% AKG as well as for protein intake decreased from 78.22% of AKG to 64.47% of AKG. Differences in student intake can be seen in tables 3 and

Table 4. Results of Different Diet Analysis of Respondents based on Protein intakeat SD 06 and 08 Nanggalo Padang Year 2017

AnalisaStatistik	Uji	N	Mean	StandarDeviasi	P
Early Energy Protein SD 06	T-Test	28	60,4	17	0,533
Final Energy Protein SD 06		28	65,9	24	
Early Energy Protein SD 08	T-Test	26	78,22	23	0,608
Final Energy Protein SD 08		26	64,47	16,32	

The result of statistical analysis showed that there was a significant difference from the increase of the students' average score about food snack safety between the two groups given counseling where the average increase was higher on elementary school students 06 who were given extension by the method of snake ladder (P = 0,0001).

DISCUSSION

The result of the average score of children's knowledge about the safety of snack foods before counseling is almost the same between the two groups, value 13.96 ± 4.04 in elementary school students 06 and 14 ± 3.03 in elementary students 08. After being given introduction by using 2 methods obtained the increase of students' knowledge value in both groups is $15,716 \pm 3,33$ at elementary school students 06 and $14,77 \pm 2,99$ at elementary student 08.

The results of this study in line with research Hamida (2012) that the extension of the media with the comic to increase knowledge higher than the extension by lecture method. In the student group of snakes ladder, students are more active and interested because of the game media. Utilization of learning resources in the form of learning media can increase new desires and interests, generate motivation and stimulate learning activities even bring psychological influence on students.

The description of the students' daily diet intake was 56.7% of AKG before counseling and rose to 66.9% of AKG after counseling with the ladder snake game and daily protein intake increased from 60.4% of AKG to 65.9% of AKG.

The results of statistical analysis showed that there was an increase in energy and protein intake in the group of students who received a ladder snake game but only significant increase in energy intake ($P = 0.048$) but not on protein intake. While the group of students who received a lecture decreased intake. This shows the extension of the counseling in a short time can not change the respondent's diet.

REKOMENDATION

There is a difference increase in knowledge about the safety of snack foods between groups that are counseled by lecture methods with the ladder snake game, but not on dietary changes based on energy and protein intake. In order to improve the efficiency of nutrition education, it is better to use the preferred method of children.

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EFFECT OF HEALTH PROMOTION USING VISUAL AUDIO ON IMPROVING THE WOMEN OF CHILDBEARING AGE MOTIVATION FOR ASETAT VISUAL INSPECTION IN ANAK AIR HEALTH CENTER WORKING AREA OF PADANG CITY

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ABSTRACT

Padang health profile in 2015 showed that the early detection coverage of cervical cancer using iva examination method was 2.317 people or only 1.84% from 125.370 woman with 30-50 years old. The highest coverage of early detection of cervical cancer with iva examination method in padang city is in anak air health care center with 12,9%, but this number is still far from the target is 80%. The objective of this research is to know the effect of health promotion using visual audio on improving the women of childbearing age motivation for asetat visual inspection in Anak Air Health Center Working Area of Padang City. The research results from t-tet independent test showed that p value:0.000 which explained about there is a correlation of health promotion using visual audio to women of childbearing age motivation to Asetat Visual Inspection in Anak Air Health Center Working Area of Padang City 2017. From the research results it can be concluded that there is a effect of health promotion using visual audio to women of childbearing age motivation to Asetat Visual Inspection. As the research suggestion is that Anak Air Health Center can improve health promotion about IVA examination so that the coverage of Asetat Visual Inspection can be increased.

INTRODUCTION

Cervical cancer ranked the highest order in developing countries, tenth in developed countries or fifth globally. In Indonesia the cervical cancer ranked 10 based on Anatomy pathology dat in 2010 with 12.7% of incidents. According to the current prediction of the Ministry of Health, number of new suffering women with cervical cancer in Indonesia are ranged from 90-100 cases per 100.000 population and 40 thousands cases happened in every years. In 2013, the cervical cancer prevalence in Indonesia was 1.4% from 30-50 years old women population. West sumatera province ranked 3rd as the highest number of cervical cancer case from 34 provinces with 2.285 women. One of the factors that cause women avoids the early detection of cervical cancer is the lack of knowledge about the danger of cancer, lack of education or lack of information about cancer especially the early detection of cervical cancer that can make a feeling of fear, anxiety or embarrassment if it turns out positive cancer. One of the efforts that can be done to increase the knowledge is by providing health promotion. Many methods that can be conducted to give health education to women of childbearing age, like using film, video, speech, leaflet and poster. Audio visual is better compared to speech basically.

A preliminary study that has been conducted to of 10 in Anak Air Health Center Working Area showed that 3 out of 10 women of childbearing age had done Asetat Visual Inspection in the last 5 years, 4 out of 10 women of childbearing age has admitted an intending to do Asetat Visual Inspection, and 3 women are feeling afraid to check. As for the health promotion of Asetat Visual Inspection has also been done by the Health Center, but still in the form of leaflets, posters, lectures, and flipcharts. The

use of audio visual media like video player or LCD projector has not been implemented by the Health Center. In 2016, a community service activity was conducted in Anak Air Health Center by the lecturers from department of midwifery Poltekkes Kemenkes Padang about Asetat Visual Inspection health promotion using speech method and flipcharts through Non Transmitted Disease research 2016 that held by Ministry of Health research and Development Department. Through these two activities it can be seen that there is an increment to the number of women of childbearing age that conducted Asetat Visual Inspection in Anak Air Health Center as big as 25.3% from 1.001 women of childbearing age. Although it has increased, this number is still far from the target of 80%. In term of the achievement of women of childbearing age who conducted the Asetat Visual Inspection from January-October 2017 in Anak air Health Center as big as 55 women, it still far from the target set.

METHOD

This research is quasi experimental type with one group pretest posttest design. Population in this research is all women of childbearing age in Anak Air Health Center of Padang City with 9.715 women. The research was conducted on October 2017 in Anak Air Health Center Working Area of Padang City. Data Collecting Technique Health promotion using audio visual is given two times with 3 days interval. Posttest is given before and after the first and second health promotion to see the women of childbearing age motivation in asetat visual inspection.

RESULTS

Table 1. The Motivation Before Health Promotion Using Audio Visual To Women Of Childbearing Age In Anak Air Health Center Working Area Of Padang City 2017

Frekuensi	Mean	SD	Min	Max
20	11,50	2,705	7	16

From 20 respondents it is known that the average value of respondent motivation for asetat visual inspection test before the health promotion using audio visual is 11,50 and SD 2,705. Minimum value is 7 and the maximum value is 16

Table 2. The motivation after health promotion using audio visual to Women Of Childbearing Age In Anak Air Health Center Working Area Of Padang City 2017

Frekuensi	Mean	SD	Min	Max
20	14,30	1,949	11	17

From 20 respondents it is known that the average value of respondent motivation for asetat visual inspection test after the health promotion using audio visual is 14,30 and SD 1,949. Minimum value is 11 and the maximum value is 17

Table 3. Motivational Differences Before and After health Promotion using audio visual to Women Of Childbearing Age In Anak Air Health Center Working Area Of Padang City 2017

n	SD	Min	Max	Mean Difference	<i>p Value</i>
20	2,238	-3,848	-1,752	-2,800	0,000

From 20 respondents it is known that the average value of respondent motivation for asetat visual inspection test before the health promotion using audio visual is 11,50 and SD 2,705. While the average value of respondent motivation for asetat visual inspection test after the health promotion using audio visual is 14,30 and SD 1,949. Difference between these two variables is -2,800. Statistical test results showed that p values 0.000. $0.000 < \alpha (0,05)$ means H_0 is rejected, which means that there is an effect of health promotion using audio visual to the motivation of Women Of Childbearing Age for asetat visual inspection in Anak Air Health Center Working Area Of Padang City 2017

DISCUSSION

Motivation in this research means motivation from respondents to do Asetat Visual Inspection to health facilities before health promotion is given. The motivation of respondent to do Asetat Visual Inspection can be seen from this point, whether they do this purely from their own motivation or from the health workers. Hardiyaningrum Rany (2017) showed that more than the half of respondents (70%) have poor motivation before health promotion is given. Nurjana lia (2016) research showed that less than the half of Women Of Childbearing Age (33.3%) have high motivation before health education is given. Poor motivation of respondent to do Asetat Visual Inspection before health promotion is given is caused by low knowledge of respondents to cervical cancer and detection method using Asetat Visual Inspection test. Besides, this problem can also be influenced by the information that received of the respondent. Part of the respondents with poor motivation are never received any information about cervical cancer early detection using Asetat Visual Inspection test method, and also because of the lack of information like from the internet. Generally, goal of a motivation is to stimulate people willingness to do something as a part of effort to achieve results or objectives.

Similar to Hardiyaningrum Rany (2017) research that more than a half of respondents (90%) have strong motivation after a health promotion is given. Besides, Nurjana Lia (2016) research obtained more than a half of respondents (86,7%) have strong motivation after health education is given.

Although health motivation is already given to the respondents, there are still 7 respondents that have weak motivation. This problem because the respondent feeling healthy so that they don't do Asetat Visual Inspection test examination. There are numbers of respondents that feeling fear and shy to do this test. Besides that, it is found that weak motivation of respondents after a health promotion caused by they don't focus during the Asetat Visual Inspection health promotion so that the delivery and absorption of information becomes low.

In line with the theory of Notoatmodjo that state knowledge of mothers will be increased after health education which followed by the increasing of attitude and behavior. Green (1991) said health education is the thing that can change behavior and help in obtain the objectives. This research results are also supporting the previous research which conducted by saraswati where found that health promotion results using film more significantly effective than using leaflet to increase the knowledge about cervical cancer and women participation in early detection. The average difference before and after the health promotion using audio visual showed an

increment in respondents motivation to do Asetat Visual Inspection test as big as - 2,800. The behavior change prove that health promotion as one of the efforts to prevent a disease in healthy community, objective to help in health maintenance.

CONCLUSION

Less than a half of respondents (45%) have weak motivation to do Asetat Visual Inspection test before health promotion in Anak Air Health Center Working Area Of Padang City Most of respondents (75%) have strong motivation to do Asetat Visual Inspection test after health promotion in Anak Air Health Center Working Area Of Padang City. There is a wus motivation difference to do Asetat Visual Inspection test before and after health promotion conducted using audio visual in Anak Air Health Center Working Area Of Padang City (p: 0,000).

RECOMMENDATION

Expected to health promotion division in anak Air health care center to intense the health promotion to community so that the coverage of Asetat Visual Inspection test can be increased to Women Of Childbearing Age in Anak Air Health Center Working Area Of Padang City Expected to Women Of Childbearing Age in Anak Air Health Center Working Area to participate in Asetat Visual Inspection test as an effort to decrease cervical cancer incidents.

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EVALUATION OF SUPPLEMENTARY FEEDING PROGRAMS ON CHRONIC ENERGY DEFICIENCY DURING PREGNANCY IN PALEMBANG

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ABSTRACT

The prevalence risk of Chronic Energy Deficiency during pregnancy at 15-49 years old, nationally as much as 24,2 % and South Sumatera <24,2%, Chronic Energy Deficiency has caused many problem during pregnancy especially during first periode of pregnancy. Data of Health Department Palembang on 2015, amount of Chronic Energy Deficiency during pregnancy is descreasing as much as 1.027 people, be compared on 2014 as much as 1.519 people. Primary Health Care Staff of Health Department reporting the result implementation of Supplementary Feeding-Recovery programs to Health Government Palembang and also the Provincy Government of South Sumatera, only reporting final distribution Supplementary Feeding-Recovery. Over all there is no evaluation implementation program, yet. Based on analysist quantitative data, presentation age Chronic Energy Deficiency during Pregnancy who get Supplementary Feeding-Recovery in reproductive age asmuch as 84,4%. The average age during pregnancy 25,6 years old as much as 33 Chronic Energy Deficiency who get Supplementary Feeding-Recovery gave during Pregnancy on first periode. Based on input data, not of all Supplementary Feeding-Recovery gave on targets corresponding with predetermined criteria, and limited resources/personnel so monitoring and assessing of Supplementary Feeding-Recovery became one of reason why the implementation of the programs only assessed the extent of distribution until to public health center. As well as limitation of nutrition officer in public health center be a factor that affecting the implementation of Supplementary Feeding-Recovery programs less running optimally and also affecting control implementation of supplementary Feeding-Recovery programs to the targets.

Keywords : Chronic Energy Deficiency During Pregnancy, Evaluation Supplementary Feeding-Recovery Programs

INTRODUCTION

Chronic Energy Deficiency is recognized as the best indicator for looking at the quality of a country's human resources¹. The number of short-growing children has increased to 200 million worldwide. While in developing countries 32.5% or almost one in three children. The short stature prevalence in Indonesia nationally in 2013 is 37.2%. Chronic Energy Deficiency has caused many problems during pregnancy especially during the first period of pregnancy². Mothers with Chronic Energy Deficiency often have malnourished children. Chronic Energy Deficiency in pregnant women in developing countries is responsible for 1 in 6 cases with low birth weight². Recent epidemiological studies have shown that low birth weight is associated with poor results later in life, including 'human capital' (shorter stature, lower cognitive ability), increased risk factors for illness (high blood pressure, reduced glucose tolerance, lung , kidney and immune function), clinical illness (diabetes, coronary heart disease), chronic lung and renal disease) and improve all cardiovascular causes to death³. Prevalence of risk of pregnant women Chronic Energy Deficiency age 15-49 years, nationally 24.2%, and South Sumatera <24.2%⁴. Data from the Health Office of Palembang City 2015,

the number of pregnant women Chronic Energy Deficiency fell 1,027 people, compared to the year 2014 of 1,519 people⁵.

METHODS

This study used a qualitative approach to get an overview of the implementation of the Supplementary Feeding-Recovery program, by interviewing 1 key informant (Health Service Staff of Palembang City Health Office) and 5 supporting informants (Nutrition Officers at Community Health Center). Meanwhile, to know the percentage of pregnant woman's age and pregnancy who get Supplementary Feeding-Recovery using quantitative data with frequency distribution.

RESULT

Table 1. Proportion of Pregnant Women Chronic Energy Deficiency by Age Group in Palembang City

Age (years)	f	%	Mean	StandarDeviasi
<20	10	9,2		
20-35	92	84,4	25,65	5,028
>35	7	6,4		
	109	100		

Based on the results of data analysis showed that most of the Supplementary Food Feedback Recovery in pregnant women Chronic Energy Deficiency given at reproductive age, that is equal to 84,4%.

Table 2. Proportion of Pregnant Women Chronic Energy Deficiency Based on Age of Pregnancy in Palembang City

Gestational (weeks)	f	%	Mean	StandarDeviasi
<13	18	16,5		
13-27	55	50,5	22,40	7,980
>27	36	33		
	109	100		

Based on the results of data analysis shows that the additional feeding of pregnant women Chronic Energy Deficiency, also given to first trimester pregnant women that is equal to 16,5%.

DISCUSSION

The evaluation process is an evaluation carried out on various programs undertaken to achieve the objectives, relating to the provision and acceptance of services, matters that need to be considered in evaluating the process of Supplementary Feeding-Recovery whether it works well or not ie by looking at a predetermined plan , as well as identifying the constraints and problems faced and how to address them, assessing the program's implementation whether it has achieved the targets set during the implementation process and looking at the assessments undertaken to determine the success of the program.

Barriers incurred in program planning Supplementary Feeding Recovery has not fully addressed all targets, unequal reporting format among Public Health Centers, and not all characteristics of pregnant women included in the monitoring program report of pregnant women Chronic Energy Deficiency. In the program appraisal plan, the Primary Health Service Staff of Palembang City Health Office only designs only limited assessment of product distribution, does not assess the impact of Feeding Extra Food Recovery on Chronic Pregnant Mother Energy

Number of pregnant women with Chronic Energy Deficiency in Palembang City 2015, 1,027 pregnant women, with coverage of 3.2%. While the threshold is said to be a Public Health problem if the Chronic Energy Deficiency prevalence of 10%. Although the achievement of pregnant women who suffer from Chronic Energy Deficiency is below the threshold, but see the impact of pregnant women Chronic Energy Deficiency during childbirth and the state of the baby at birth, then this is one of the basic implementation of Supplemental Food Program in Pregnant Women Chronic Energy Deficiency in Palembang City. Implementation of this program is a form of implementation of the Supplementary Food Program plan to achieve the intended purpose. Distribution of Supplementary Feeding to Pregnant Women Chronic Energy Deficiency was performed in 29 Community Health Centers in a single shipment using Proof of Goods Coming Out accompanied by a team of procurement of goods and services at the Health Office of Palembang City.

In the supervision of the Supplementary Food Supplemental Feeding of pregnant women Chronic Energy Deficiency, the Health Service Officer of Palembang City Health Service is limited to ask whether the supplementary food has been distributed smoothly or not. During implementation at Community Health Centers, nutrition workers at community health centers do not exercise special surveillance. Supervision and monitoring are performed only when pregnant women do re-visit (to take back Supplemental Food products at Public Health Centers). That's when nutrition officers monitor the weight gain or measurement of the Upper Arm Circumference of pregnant women and have not done direct monitoring whether pregnant women are actually confirmed to consume additional food products that have been given. If the pregnant woman does not re-visit the Community Health Center and does not take back additional food products, nutrition officers coordinate with the cadres so that the Supplementary Feed Addition can be given. At the time of the research, no interviews were conducted with the cadres, so it could not be confirmed whether the cadres really contributed to the distribution of Supplementary Feeding Recovery to the target.

The results of the implementation of additional feeding recovery programs in pregnant women Chronic Energy Deficiency is reported in the form of an Additional Food Recovery report for pregnant women with Chronic Energy Deficiency. Based on the technical guidelines for Supplementary Feeding in Chronic Energy Chronic pregnant women released by the Ministry of Health of the Republic of Indonesia, a report made in the District Health Office is a report on supplementary food distribution using Form 5 made in triplicate (3) each one sheet for archives, provinces and centers). Each Community Health Center reports the results of the Supplementary-Recovery Feeding Program for Chronic Pregnant Women Chronic Energy Deficiency to the Health Office of Palembang City. The staff of the Health Office of Palembang City will report the results of the Supplemental Feeding Program on Chronic Pregnant

Breastfeeding to the Municipal Government of Palembang, as well as the Regional Government of South Sumatera Province, to the final report on the distribution of Supplementary Food Feeding in Chronic Lack of Chronic Energy, due to the Supplemental Food Program-Recovery comes from APBD I, APBD II and APBN. No evaluation of reported data has been reported on the program's success in achieving the objectives of implementing the Supplementary-Feeding Recovery program.

CONCLUSION

Based on data input, not all Supplementary Food-Recovery Deliveries are given to objectives that meet the established criteria, and the limited resources/officers, supervision and assessment of Supplementary-Recovery Feeding programs is one of the reasons why the implementation of the program is only limited to distribution to a Community Health Center. The limited availability of nutrition officers in Community Health Centers is also a factor affecting the implementation of the Supplementary Feed-Recovery program is not running optimally and also affects the implementation of the Supplementary-Recovery Feeding program to the target.

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CORRELATION BETWEEN *MONOCYTE CHEMOATTRACTAN PROTEIN-1* LEVELS WITH INSULIN SENSITIVITY IN OVERWEIGHT LATE ADOLESCENTS

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ABSTRACT

Overweight and obesity is defined as the accumulation of abnormal fat or excess that can interfere with health. The prevalence of general obesity (overweight and obese) in adults (>18 years) in the province of South Sumatera is 20,8%. Plasma levels of MCP-1 have been generally found to increase in adults with obesity and obese children compared with skinny ones. The purpose of this study was to determine the correlation between MCP-1 levels and insulin sensitivity in overweight late adolescents. Median MCP-1 concentration of study subjects 172 pg/mL (66 pg/mL–762 pg/mL). Median HOMA-IR value is 0,380 (0,030-1,333). No correlation between MCP-1 levels with insulin sensitivity ($p=0,333$). There is no correlation between MCP-1 levels with insulin sensitivity in overweight late adolescents. Further research is expected in two different groups of overweight and obese late adolescents, with other pro-inflammatory cytokine variables (TNF- α , resistin, leptin, IL-6).

Keywords : *MCP-1, Insulin Resistance, Insulin Sensitivity, Overweight*

INTRODUCTION

Overweight and obesity is defined as the accumulation of abnormal fat or excess that can interfere with health (WHO, 2016). This condition can be experienced by every age group of both men and women, but adolescents and adults are the most common group. Today's teenage lifestyle that often skip breakfast and prefer to consume fast food, and tend to sedentary life style, making teens at risk for obesity (Handoyo, 2012). Palembang city is included in the highest prevalence of general obesity (12.7% more BB, 16.7% obese) (Kemenkes, 2013). The late adolescent age limit according to WHO 17 - 25 years (WHO, 2009). With this increased incidence of overweight, cases of metabolic syndrome (central obesity, insulin resistance, hypertension, impaired glucose tolerance, and dyslipidemia) will also increase (Ghosh et al, 2010).

Insulin sensitivity is the ability of the hormone insulin to lower blood sugar by suppressing hepatic glucose production and stimulates glucose utilization in the skeletal muscle and adipose tissue (Hsich, 2011). Insulin resistance is a condition where insulin-stimulated glucose uptake in various tissues such as the liver, fat tissue, and skeletal muscle is reduced so that glucose levels in the blood increase (Marette, 2008). To determine the degree of insulin sensitivity this can be done Homeostatis Assessment - Insulin Resistance (HOMA-IR) examination.

Monocyte Chemoattractant Protein-1 (MCP-1) is a member of the chemokine CC family of functioning MCP-1 recruits monocytes, memory T cells, and dendrite cells to areas of tissue injury, infection and inflammation (Chacon, 2007). Plasma levels of MCP-1 have generally been found to be elevated in obese adults (Catalan et al, 2007) and obese children (Breslin, 2012) compared with thin ones.

METHODS

This study was a correlative analytic study with cross sectional design. The population in this study were all students at the Faculty of Medicine UNSRI Palembang. The sample of this study were all students with overweight that fulfilled the inclusion criteria: $IMT > 25$, 1 - 27.00, willing to follow the research by signing informed consent. All data were analyzed using spss 21.0 for windows program. Univariate analysis was performed to determine the overweight late adolescent frequency distribution of sex, age, Body Mass Index (BMI), HOMA-IR and MCP-1. Bivariate analysis was performed to assess the correlation of serum MCP-1 levels with insulin sensitivity by pearson test. If not meet the pearson test then spearman test used.

RESULT

Table 1. General Characteristics of Research subject

General Characteristics	N	%	Median (Min-Maks)
Gender			
- Man	17	54,8	
- Woman	14	45,2	
Age (Years)			20 (17-22)
Body Mass Index (kg/m ²)			26,64 (25,07- 26,98)

Overall the study subjects consisted of 17 men (54.8%) more than females (14 persons, 45.2%). Data from 31 subjects were obtained median age 20 years old with age 17 years old and oldest 22 years old. Furthermore median BMI is 26,64 with lowest BMI 25,07 and highest 26,98.

Table 2. Characteristics of Research Subject

Variable	Mean \pm SD	Median (Min-Maks)	P
Fasting Blood Sugar (mg/dl)	109,97 \pm 9,59		
Fasting Insulin (mU/L)		1,31 (0,12-4,78)	
HOMA-IR(Insulin Sensitivity)		0,38 (0,03-1,33)	0,00
MCP-1 Levels(pg/mL)		172,00 (66-762)	0,00

The results obtained mean fasting blood glucose level of the study subjects was 109,97 mg/dl + 9.59. The median fasting insulin was 1.31 mU/L with the lowest levels of 0.12 mU/L and the highest 4.78 mU/L. Furthermore, based on fasting blood sugar and fasting insulin, calculated insulin sensitivity by using the formula HOMA-IR. Median HOMA-IR is 0.38 with the lowest value of 0.03 and the highest is 1.33. The result showed that median MCP-1 level was 172,00 pg/mL with the lowest level was 66 pg/mL and the highest level was 762 pg/mL.

Table 3. Correlation of MCP-1 Levels with Insulin Sensitivity

	Variable	R	P value
MCP-1	Insulin Sensitivity	0, 180	0, 333

The result of statistical test showed no significant correlation between MCP-1 level and insulin sensitivity ($p = 0,333$).

DISCUSSION

Harjono's study of overweight and obese adolescents reported similar results in which the majority of subjects studied were men as much as 60% (Harjono et al, 2013).

Android obesity has a much higher proportion of visceral fat, which is more worrying than subcutaneous fat because visceral fat releases more release of adipokines that spur insulin resistance and spur lower-grade inflammation underlying the development of atherosclerosis. Ginoid obesity is not associated with an increased risk of these diseases (Sherwood, 2013). Median level MCP-1 research subjects in this study obtained 172.00 pg/mL with a mean of 202.71 pg/mL. This finding is not much different from other studies with mean MCP levels of 223.5 pg/mL (Keyser et al, 2015). Increased levels of MCP-1 show a chronic inflammatory condition, which is a condition that occurs in obesity. This increase in inflammatory markers is also a predictor of diseases such as DM and cardiovascular in the future. The mean fasting blood glucose level in this study was 109.97 mg/dl. This is higher than the mean fasting blood sugar level obtained by Nesreddin et al 88,62 mg/dl (Nesreddin et al, 2012) and 84.2 mg/dl (Rocco et al, 2011). Pre-diabetes is a condition in which a person's blood sugar levels are between normal and diabetic levels, higher than normal but not high enough to be categorized into type 2 diabetes. The median fasting insulin was 1.31 mU/L with the mean fasting insulin obtained was 1.44 mU/L. Similarly, in the other studies, mean of insulin levels 1.37 mU/L for men and 1.39 mU/L for women (Ognjnovic et al, 2013) were obtained.

Median HOMA-IR values were 0.38 with an average of 0.39. Based on these values the overall subjects in this study did not experience insulin resistance. Increased HOMA-IR levels in a person are parameters of indication of the occurrence of metabolic syndrome. Ethnic, insulin resistance disparities are more common in white and African-Americans and less common in Asiatic, Arab and Latin American populations (Caceres et al, 2008). Possible mechanisms for insulin resistance include down-regulatory mechanisms, deficiencies or genetic polymorphisms of insulin receptor tyrosine phosphorylation, IRS proteins or PIP-3 kinases, or abnormalities of GLUT 4 function caused by various things (Wilcox, 2005).

From the Spearman test analysis there was no correlation between MCP-1 levels and insulin sensitivity ($p = 0.333$). Some other studies have the same correlation with this study. Chacon research results obtained no relationship between MCP-1 with insulin sensitivity (Chacon et al, 2007). The cause of the absence of correlation between MCP-1 levels and insulin sensitivity in this study could be due to the characteristics of the study subjects. Where late adolescent age between 17 years-22 years with BMI 25.07-26,98. At that age cell regeneration still occurs well, and anti-inflammatory cytokines still play an active role.

CONCLUSION

The statistical test results obtained no correlation between MCP-1 levels with insulin sensitivity in overweight late adolescents.

It is expected that further research on MCP-1 correlation with insulin sensitivity in two different groups of overweight and obese late adolescents, with other pro-inflammatory cytokine variables (TNF- α , resistin, leptin, IL-6, etc.), and anti-cytokine inflammatory (adipoectin). Because inflammatory marker biomarkers increase with age, a study with a cohort design study is suggested.

SUGGESTION

It is important for early screening of metabolic abnormalities in adolescents with overweight and obesity, blood glucose, insulin, and cholesterol testing is required, so that early weight management intervention management strategies may be possible as the burden of morbidity may occur.

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THE EFFECT OF YOUNG COCONUT WATER WITH AVOCADO JUICE AGAINST BLOOD PRESSURE IN PATIENTS WITH HYPERTENSION IN PUBLIC HEALTH CENTER BETUNG RIMBA ASAM REGION BANYUASIN 2016

Muzakar, Listrianah, Hendawati

ABSTRACT

Hypertension was known as disorders of the blood vessels that lead to the obstruction of oxygen and nutrients supply carried by blood to the body tissues. Based on WHO and The International Society of Hypertension ISH, there are currently 600 millionsufferers of hypertension worldwide, and 3 million of them die every year. Seven of every 10sufferers are not getting treatment throughly. The results of the measurement ofRisksedas by 2013, stated that the prevalence of hypertension in Indonesiabased on the results of measurements at age ≥ 18 years is 25.8percent. Based on the report of the health services of South Sumatra Provincehypertensive disease prevalence by 2013 at the age ≥ 18 years of age is 26.1percent.Objective: The results of the study is there was influence of consuming coconut water with avocado juice against reduction in systolic ordiastolicblood pressure or both.The results of the test statistic dependent t-test, correlation, linear regression and multiple logisticregression indicated that potassium affected the decreaese of blood pressure significantly where p-value was <0.05 .There was effects of the administration of avocado juice with coconut water towardthe decrease in systolic or diastolic blood pressure or both.

Keywords: *hypertension, avocado juice*

INTRODUCTION

Hypertension or high blood pressure is an increase in systolic blood pressure over 140 mmHg and systolic blood pressure greater than 90 mmHg (Ministry of Health, 2003).Approximately 26% adults in the world in 2000 suffers hypertension and it is predicted to reach 60% by 2025 (Kearney et. al, 2005).

Result of Watba's study (2014) showed that eating young coconut water 300 cc per day for 7 days can lower systolic blood pressure of 21.06 mmHg and 11.73 mmHg diastolic. Coconut water contains potassium which acts to lower blood pressure and keeps body healthy. In addition to coconut milk, avocados are also high in nutrients that may affect blood pressure. Avocado is a fruit that is rich in fiber, per 100 grams of flesh had 7 g fiber which consists of 25% water soluble and 75% insoluble. The energy of avocado comes from 75% monounsaturated fat. Avocados contain lots of potassium, 60% higher than bananas. It is good for people with hypertension and an anti-flatulent. Avocados are also rich in vitamin B which is good for improving appetite, vitamin E as an antioxidant and vitamin K to prevent bleeding (Chandra, 2013).

By considering the benefits of avocado and young coconut water, the reserachers were interested in discovering the effectiveness of a decrease in systolic and diastolic blood pressure in patients with hypertension after consuming avocado juice with young coconut water. Moreover, the avocado is rich in potassium and fiber as well as vitamin E and coconut water contains high potassium. So, the researchers wanted to know how big the influence of these substances (fiber, vitamins and potassium) to the decrease of blood pressure. This study aims to determine the effect

of coconut water with avocado juice to systolic and diastolic blood pressure inpatients with hypertension in public health centre Betung, Rimba Asam village Banyuasin district, 2016.

METHOD

This research was quasi-experimental in which the researchers treated the subject directly in order to determine the effect of coconut water with avocado juice to patients with hypertension. Design used in this study is a pretest and posttest with control group

RESULT

Table 1. The Average of Blood Pressure before and after in the Experimental Group

Blood Pressure	Pre Mean ±	Post Mean ±	P	t
Systolic	157±15.120	139.33±15.960	.000	9.3
Diastolic	94.33±8.584	88.67±8.996	.001	3.7

Table 2. The Average of Blood Pressure before and after in the Control Group

Blood Pressure	Pre Mean ±	Post Mean ±	P	t
Systolic	148.33±13.917	145.20±13.065	0.106	1.670
Diastolic	93.33±7.915	94.00±7.240	0.62	-0.502

The Results of statistical test (dependent t-test) showed that in systolic blood pressure p-value was > 0.05, so that it can be concluded that there was no significant effect on systolic blood pressure reduction before and after placebo (green Marjan syrup) in the control group.

Table 3. Correlation and Regression Analysis of Potassium intake with Systolic Blood Pressure

Variable	r	r²	equation	p-value
Potassium	0,564	0.318	Potassium = 222,578 + (-0,019)* sistol	0,001

The correlation between potassium intake and systolic blood pressure showed a strong correlation (r = 0.564) with a negative pattern. That is, if potassium intake is increased, the systolic blood pressure decreases.

Table 4. Correlation and Regression Analysis of Fiber Intake with Systolic Blood Pressure

Variable	r	r ²	equation	p-value
Fiber	0,061	0,004	Fiber = 147,575 + (-0,358)* sistol	0,749

The correlation between fiber intake and systolic blood pressure showed a weak correlation ($r = 0.061$) with negative pattern. That is, if fiber intake is increased the systolic blood pressure decreases. However, p-value was ≥ 0.05 , so there was no significant relationship. It can be assumed that if fiber intake is increased, the systolic blood pressure decreases. So that the p-value will be closed to the significant p-value.

Table 5. Correlation and Regression Analysis of Vitamin C intake with Systolic Blood Pressure

Variable	r	r ²	equation	p-value
Vitamin C	0,176	0.031	Vitamin C = 131,910 + (0,104)* sistol	0,517

Based on table 5, it could be seen that the intake of vitamin C did not have a significant relationship to the decrease in systolic blood pressure. It can be seen from the results of the regression correlation analysis where the p-value ≥ 0.05 .

Table 6. Correlation and Regression Analysis of Potassium intake with Diastolic Blood Pressure

Variable	r	r ²	equation	p-value
Potassium	0,380	0.145	Potassium = 120,332 + (-0,007)* diastol	0,038

correlation between potassium intake and diastolic blood pressure showed a moderate ($r = 0.380$) with a negative pattern. That is, if potassium intake is increased, the diastolic blood pressure decreases. Statistical test results showed there was no significant relationship in diastolic blood pressure with potassium intake (p-value ≤ 0.05).

Table 7. Correlation and Regression Analysis of Fiber Intake with Diastolic Blood Pressure

Variable	r	r ²	equation	p-value
Fiber	0,175	0.031	Fiber = 75,302 + (0,580)*diastol	0,355

The correlation between fiber intake and diastolic blood pressure showed a moderate ($r = 0.175$) with a positive pattern. It can be concluded that there was no effect of fiber intake with diastolic blood pressure \geq p-value of 0.05.

Table 8. Correlation and Regression Analysis of Vitamin C intake with Diastolic Blood Pressure

Variable	r	r ²	equation	p-value
Vitamin C	0,011	0.000	Vitamin C = 88,398 + (0,004)* diastol	0,953

The correlation between vitamin C intake and diastolic blood pressure showed a weak correlation ($r = 0.011$) with a positive pattern. It can be concluded that there was no effect of vitamin C intake with diastolic blood pressure \geq p-value of 0.05.

DISCUSSION

These results are consistent with research done by Setiadi (2013) which states that drinking coconut water can lower systolic blood pressure and diastolic blood pressure. The average systolic blood pressure before drinking coconut water amounted to 104.77 mmHg while the average systolic blood pressure after drinking coconut water amounted to 92.97 mmHg. This indicates a decrease in systolic blood pressure of 11.8 mmHg. While the average diastolic blood pressure before drinking coconut water amounted to 69.37 mm Hg and the average diastolic blood pressure after drinking coconut water into a 60.40 mmHg. Diastolic blood pressure decreased by 8.97 mmHg.

Based on previous related studies by calculating the value of vitamin C, fiber and potassium from the daily diet by using computerized calculation of the nutrient, it was found out that the amount of potassium consumed in public health center Betung was \pm 1598.81 mg potassium / day. The amount was lower than the recommended amount of potassium for consumption of elderly aged 30-65 years and above which is 4700 mg per day. It can be concluded that the amount of potassium consumed was inadequate. The results showed with the administration of Marjan syrup to the control group in patients with hypertension meal was insufficient to the recommended Nutrition Adequacy Score (AKG). By looking at the final blood pressure, there were no significant changes in systolic and diastolic blood pressure with $p\text{-value} > (\alpha) 0.05$, which means the absence of effect of Marjan syrup to the reduction of blood pressure in hypertensive patients in public health center in Betung.

Excess sodium intake which reach to 90-99% of the consumed, will be excreted through the urine. This process is regulated by the hormone aldosterone, which is released by the adrenal gland when sodium levels decreased. Under normal circumstances, the sodium excreted in the urine balances with the amount of sodium consumed. The amount of sodium in the urine is high with high consumption, and low when consumption is low. When a person consumes too much salt which causes an increase in blood sodium, it will cause thirst.

Potassium greatly affects blood pressure to become normal if the comparison between the corresponding sodium and potassium in the body is balance. In addition to the coconut water, a source of potassium can be found in grocery such as milled rice, cassava, potatoes, beans, peanuts, green beans, soybean, cashew (seed), coconut, avocado, bananas and other foods (Almatsier, 2010). Avocados contain fiber, both soluble and insoluble fiber. This means it also helps in reducing cholesterol levels by preventing the re-absorption by the body, helps to maintain intestinal function, and can prevent the increase in blood sugar levels after a meal (Sulaksono, 2013). Avocado is a fruit that contains the nutrients such as protein, riboflavin (vitamin B2), niacin (vitamin

B3), potassium, and vitamin C. The content of monounsaturated fats are found in avocados is high and makes the fruit good for health. It is because fat monounsaturated is able to keep the body from the damage of the arteries due to the ferocity of LDL cholesterol, so it is good for the heart (Murdiati, 2013).

RECOMENDATION

Patients with hypertension should consume more foods that contain lots of potassium and fiber such as avocado juice and coconut water and other foods. Nutritionists and other public health centers workers should provide counseling about food that can be used to lower blood pressure in hypertensive patients, especially foods which is high in potassium and fiber.

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SURVIVAL ANALYSIS THE EFFECT OF MASS MEDIA, PARENTS AND FRIENDS NOT SMOKING ON SENIOR HIGH SCHOOL STUDENTS

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ABSTRACT

Adolescence is a dynamic phase of development in an individual's life. Smoking behavior is caused by internal factors and environmental factors such as family or parents, siblings and peers who smoke and cigarette advertisements in the mass media. The prevalence of active smokers in boys aged 10-14 years is 3.7% in 2013 or increased 12 times compared with 1995. The purpose of this study to see the influence of mass media, parents and peers against ketahaan students to not smoke. The results showed that the proportion of adolescent resilience to not smoke up to age 19 years was 40.9%, the youngest age ever smoked was 7 years and the oldest age was 19 years, mass media exposure was the most correlated factor with adolescent resilience for not smoking. Parental behavior is a factor associated with adolescent resilience to non-smoking, peers are one of the determinants that greatly influence substantially, but statistically peer behavior that smokes does not affect adolescent resilience to not smoke. Suggest it to the related officers to conduct health education according to the phases of child and adolescent development. Conducting health counseling in non-formal environments as well as termination of the chain of spread of cigarettes.

Keywords: Cigarettes, mass media, peers, parents, high school students

INTRODUCTION

Adolescence is a dynamic phase of development in an individual's life. This period is a transitional period in which individuals experience a transition from childhood to adulthood marked by accelerated physical, mental, emotional and social development. Many factors cause teenagers to smoke. According to Komalasari and Helmi (2000), smoking behavior is caused by internal factors and environmental factors (external) such as family or parents, siblings and peers who smoke and cigarette advertisements in the mass media

METHOD

Quantitative research with cross sectional study design. Conducted in public senior high school in Padang City. The population of public senior high school students in Padang is 2150 students. Multistage random sampling method was used to select public senior high school where the research (5 selected public senior high schools), the sample size using the survival study formula, with the number of 220 students of each selected senior high school samples taken as many as 44 students. Data were collected by Respondents were asked to answer questions honestly, data were processed and analyzed univariate, bivariate (log-rank test), multivariate (multivariable cox regression method).

RESULT

Table 1. The average age of first teen smoking in 2017

Range		Mean	SE Mean	95% CI
Min	Max			
7	19	14.76	0.171	14.43 - 14.43

Table 1, found that the average age of first time smoking was 14.76 years with a Standard Error (SE) mean of 0.171. The youngest age of teenagers who ever smoked was 7 years and the highest age of teenagers who ever smoked was 19 years.

Table 2. Cumulative Probability of Adolescent Resilience For Non Smoking Year 2017

No	Time	Number of Teens Smoking	Number of Cumulative Adolescents Smoking	Prob. Cumulative Youth Resilience
1	7 years	4	4	0.982
2	8 years	2	6	0.973
3	9 years	2	8	0.964
4	10 years	6	14	0.936
5	11 years	10	24	0.891
6	12 years	11	35	0.841
7	13 years	33	68	0.691
8	14 years	23	91	0.586
9	15 years	32	123	0.441
10	16 years	6	129	0.414
11	17 years	1	130	0.409

Based on table 2, the number of teenagers who had smoked up to the age of 17 years were 130 teenagers. The median endurance of teens not to smoke is at age 15. When viewed from the time of the behavior of smoking in adolescents, the highest number of smoking events occurred at the age of 13 years old.

Table 3. Overview of Mass Media Exposure, Parental Behavior, and Peers against Youth Resilience for Non-Smoking 2017

No	Variables	Probabilitaskumulatif Survival	p-value (log rank)	Crude HR (95% CI)
1	Mass media:		0,150	0.8 (0.6 – 1.1)
	Often	0,978		
	Rarely	0,991		
2	Parental Behavior		0,006*	0,6 (0,5 – 0,9)
	Smoke	0,991		
	Do not smoke	0,973		
3	Friends of the same		0,426	0.7 (0,3 – 1,9)
	age	0,981		
	Smoke	0,875		
	Do not smoke			

Based on table 2, it can be seen that statistically there is no significant relationship between exposure of mass media with teen resilience to not smoking. The value of HRcrude was 0.8 (95% CI: 0.6-1.1.) While parental behavior, there was statistically significant correlation with adolescent resilience not smoking with HRcrude value of 0.6 (95% CI: 0,5 - 0, 9), meaning that adolescents with parents who smoke have a 0.6 times higher risk of not being able to survive to not smoke than teenagers with parents do not smoke. For peer variables that there is no statistically significant relationship with adolescent resilience to not smoke , with HRcrude value of 0.7 (95% CI: 0.3 - 1.9).

4. Multivariate Analysis

Table 4. End Teen Resistance Regression Model For Non-Smoking 2017

Variables	B	SE	HR _{adjusted} (Exp B)	95% CI	p-value
Parental Behavior					
• Smoke	-0,510	0,180	0.6	0,4 – 0,9	0,005
• Do not smoke					
Mass Media Exposure					
• often	-3.,233	1.288	0.04	0,003 – 0,493	0,012
• RarelyT_COV_*Mass Media	0.220	0.096	1.25	1.03-1.51	0.022

Based on Table 3. mathematical model of non-smoking adolescent resilience regression obtained from the results of this study are as follows:

DISCUSSION

Many factors cause teenagers to smoke. According to Komalasari and Helmi (2000), smoking behavior is caused by internal and external factors such as family or parents, siblings and peers who smoke and cigarette advertisements in the mass media.

Young men are more susceptible to smoking-risk behaviors because of their association. They assume that ever smoking is a proud thing. This affects the behavior of other friends who are driven to do the same, because they want to be considered great (popular) by their friends and can be accepted among them. related to smoking and can inculcate moral and health values associated with smoking behavior, so adolescents tend not to smoke.

Adolescents who have a close relationship with parents have better behavioral controls, because it is more likely to have a good communication pattern between parents and teenagers. With a good communication pattern, it is expected to create harmonization of relationships in the family, especially between parents and adolescents. This provides an opportunity for parents to provide correct information. The influence of peer groups on health risk behaviors in adolescents can occur through peer socialization mechanisms, with the direction of peer-grouped influence, meaning that when adolescents join their peer groups a teenager will be required to behave similarly to his or her group, in accordance with the norms developed by the group (Mu'tadin, 2002).

CONCLUSION

Mass media exposure is the factor most closely related to adolescent resilience to not smoking, Parental behavior is a factor associated with adolescent resilience to not smoke, peers are one of the determinants that greatly influence substances, but statistically peer behavior that smokes is not affects teen resilience to not smoke

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DIMENSIONAL ANIMATION FILM PROMOTION MEDIA AS DENGUE MOSQUITO NEST SUPPRESSION IN ELEMENTARY SCHOOL IN CITYBENGKULU

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ABSTRACT

Dengue Fever Hemorrhagic (DHF) is a contagious disease and a public health problem in Indonesia. Behavioral factors and community participation are still lacking in the activities of mosquito nest eradication (PSN), population growth and the increased mobility of the population in line with the improvement of transportation led to the spread of dengue virus very quickly. The highest incidence of dengue fever in the age group <15 years this means the possibility of transmission of dengue is not only at home but also at school so that PSN will also need to be encouraged in schools. This study aims to determine the effectiveness of a 3-D animated film media on knowledge, attitude, and skills of dengue mosquito eradication elementary school children in the city of Bengkulu. The results showed no effect of knowledge ($p=0.00$), attitude($p=0.00$), no influence on the skills($p= 0:24$) mosquito eradication in the intervention group before and after treatment. No influence of knowledge($p=0:07$),attitude($p=0.00$),and there is no skill difference($p= 0.25$) mosquito eradication in the control group before and after treatment. Media animated film was more effective in improving knowledge, attitudes in the dengue mosquito eradication picture card media compared with the value of $p= 0.00$. Health providers should be on sale dengue mosquito eradication using animated film media for elementary school children on an ongoing basis through the school health program activities.

Keywords: Health Promotion, Media Animation, DBD.

INTRODUCTION

Dengue Hemorrhagic Fever (DHF) is a health problem in the world. Dengue disease is found almost in all parts of the world, especially in tropical and subtropical countries, both as endemic and DHF has become a major problem. The number of dengue cases is not reported and many wrongly classified in this case, shows 390 million dengue infections per year, of which 96 million clinically manifests in various degrees. The prevalence of dengue is estimated to reach 3.9 billion people in 128 countries are at risk of dengue virus (WHO, 2015).

Of dengue cases from 1993 to 1998 the age group of the biggest cases of DHF is the age group <15 years, the year 1999 to 2009 the age group of the largest cases of dengue fever tends to be in the age group $> = 15$ years, this means that the possibility of transmitting not only at home but at school or in the workplace. So the movement PSN should also be encouraged in schools and in the workplace because of the changing patterns of disease in which the first dengue is a disease in children under 15 years, is now attacking all age groups and is not dependent on gender, with the number deaths from dengue highest in the Province Bangka Belitung and Bengkulu (Ministry of Health, Republic of Indonesia, 2010). Profile data Bengkulu Provincial Health Office in 2015 showed the highest dengue cases occurred in the city of Bengkulu is 369 cases and died 5 people, 2 of whom were children of primary school

so that the necessary strategy mosquito eradication through health promotion at the group of elementary school children as a vulnerable group.

One strategy that can be used to entice children to learn to read is to use the medium of animation. Media picture word cards are an effective visual media to present certain messages to certain goals anyway. Media card picture said it is easy to make your own so it does not cost very much in the making. To Know pictures and words which will facilitate the process of delivery of materials, especially in reading starters (Ismail, 2006).

Results of previous studies found that the cartoon animation media effectively change the behavior of health care but the use of elementary school children on dengue mosquito eradication campaign has not been done (Saleh et al, 2016, Tandilangi, et al, 2016). Therefore it is necessary to do research on the effectiveness of Health Promotion Through the medium of 3D animated movie Against the knowledge, skills of elementary school children in mosquito eradication of dengue in the city of Bengkulu.

METHODS

This research type Quasi-Experiment with pretest-posttest control group design with the intervention of Bengkulu city 09 elementary school children given media campaign using 3 D movie while the control group was 13 Bengkulu City elementary school children given a card with a media campaign. Intervention is given once a week for a month when activity UKS the Clean Friday Movement in school. before and after the intervention given knowledge measurement, attitude and behavior of dengue mosquito eradication. Sample was taken by purposive sampling amounted to 68 children in the intervention group and a control ratio of 1: 1. The independent variable of this research is an animated film medium while the dependent variable that knowledge, attitudes, and skills of elementary school children on dengue mosquito eradication. Knowledge, attitude, and skills are measured using a questionnaire containing effort dengue mosquito breeding. Data were analyzed by univariate and bivariate by independent t-test.

RESULTS

Table 1. Frequency Distribution of Knowledge, Attitude, Skills on mosquito eradication of dengue fever before and after the intervention in Children Elementary School in the city of Bengkulu Year 2017.

No	Variable	Min	Max	Mean	SD
1	Knowledge				
	Experiment				
	Before	40	90	69.03	11.06
	After	60	100	90.96	11.06
	Control				
	Before	40	90	61.66	10.85
	after	60	100	83.00	10.87
2	Attitude				
	Experiments				
	Before	51.19	60	38	4.74
	after	32	60	51.61	4.32
	Control				
	Before	35	58.0	46.83	5.42
	after	36	60.0	46.73	5.74
3	Skills				
	Experiment				
	Before	0.0	5.00	2.70	1.43
	after	1.0	7.00	5.87	1.27
	Control				
	Before	0.0	5.00	2.70	1.29
	after	1.0	7.00	5.86	1.45

Table 2 shows that there is a statistically significant influence knowledge of the experimental group before and after the intervention is given by $p= 0:04$, but in the control group there was no significant effect with $p= 0:07$. The results of statistical tests also showed that there were a statistically significant influence attitudes in the experimental group before and after intervention with $p=0.00$, in the control group also showed that there are differences in the attitudes significant with $p= 0.00$. The above table also shows that there is no effect of the intervention is given to the skills of primary school children against dengue mosquito eradication either the intervention group (0.24), and the control group (0.25).

Table 2. Effect 3 D animated film media and picture cards on the Knowledge, Attitude, Skills dengue mosquito eradication in Children Elementary School in the city of Bengkulu Year 2017.

No	Variable	n	Mean	SD	P value
1	Knowledge				
	Experiment				
	Before	30	69.03	11.06	0.04
	After	30	90.96	11.06	
	Controls				
	Before	30	61.66	10.85	0.70
After	30	83.00	10.87		
2	Attitude				
	Experiments				
	Before	30	30	4.74	0.00
	After	51.19	51.61	4.32	
	control				
	Before	30	30	5.42	0.00
After	46.83	46.73	5.74		
3	Skills				
	Experiment				
	Before	30	2.70	1.27	0.24
	After	30	5.87	1.43	
	control				
	Before	30	2.70	1:29	0:25
After	30	5.86	1:45		

Table 2 shows that there is a statistically significant influence knowledge of the experimental group before and after the intervention is given by $p= 0:04$, but in the control group there was no significant effect with $p= 0:07$. The results of statistical tests also showed that there were a statistically significant influence attitudes in the experimental group before and after intervention with $p=0.00$, in the control group also showed that there are differences in the attitudes significant with $p= 0.00$. The above table also shows that there is no effect of the intervention is given to the skills of primary school children against dengue mosquito eradication either the intervention group (0.24), and the control group (0.25).

Table 3. Differences Effectiveness 3 D animated film media and picture cards on the Knowledge, Attitude, Skills dengue mosquito eradication in Children Elementary School in the city of Bengkulu Year 2017.

No	Variable	N	Mean	SD	P value
1	Knowledge				
	Cards	30	83.0	10.87	0.00
	Film	30	90.96	11.06	
2	attitude				
	Cards	30	46.7	5.74	0.00
	Film	30	51.61	4.32	
3	Skill				
	Cards	30	5.86	1.45	0.99
	Film	30	5.87	1.43	

Based on the table above can be seen that the Media's animated film 3 D is more effective to improve knowledge on the promotion of mosquito eradication of dengue in Children SD compared to a picture card with a value of $p= 0.00$. The above table also shows that Media Animated film 3 D is more effective to increase positive attitudes about promotion mosquito eradication of dengue in Children SD compared to a picture card with a value of $p= 0.00$, but there was no difference in the effectiveness of the medium of film animation 3 D with cards display to behavioral change dengue mosquito eradication in children in elementary school.

DISCUSSION

The results of this study indicate that there is influence health promotion using animated movies 3 D to the knowledge of elementary school children about mosquito eradication of dengue, these results are supported by the opinion (Sadiman) that animation cartoons have more appeal than other media because it has symbols that made the cuteness. Media utilizes hearing and sight. The more senses that are used to record the information, the more likely understand the intent of the information presented.

Research Eriyanto and Mardiana (2010) prove that the medium of film is effective in improving students' knowledge. Health promotion with the film was significantly more effective than the methods of health promotion with leaflets (Saraswati, 2011). This study found that there was no effect of health promotion through animated films and cartoons display on the skills of elementary school children in mosquito eradication of dengue, According to the Kemenkes, (2008) that the change in behavior is influenced by various factors, one of which facilitation, that is when the new behavior makes community life did become easier. In this study after health promotion does not facilitate the activities of elementary school students to perform behaviors that can eradicate mosquito breeding in routine daily activities. Elementary student behavior depends on the role that teachers at the school, if the teacher did or model behavior dengue mosquito eradication in schools on a regular basis, it will be easier to change behavior in school children. This is consistent with the theory that behavior change is influenced also by consent, ie when role models (such as religious leaders and religious leaders) and approved local practice the recommended behavior.

The results of this study found that the medium of film is more effective to improve knowledge and attitudes positif for elementary school children about the eradication of mosquito breeding dengue this is in accordance with studies that have been done that health promotion must pay attention to the methods and tools of extension such as planning, methods, tools extension attract attention, use language that is easily understood and enjoyable so that it can attract the attention or interest of the communicant to get the message or information submitted can be received well (Andriyani, 2013).

The results support previous research that the media effectively change the behavior of the animated cartoon dental health maintenance with $p=0.00$ cartoon animation media use also influence change their attitudes become better after watching the animated cartoon (Tandilangi, et al, 2016). In this study, elementary students are given health promotion through films shown in class before UKS Clean Friday activities, and for 4 weeks in a row to improve knowledge of children for health promotion generally done repeatedly.

REKOMENDATION

The school can modify the activities of the payload UKS saledengue mosquito eradication animated film based on a regular basis, and to facilitate behavioral change through movement Clean Friday continuously. Policy makers in order to encourage the use of animated films for the promotion of health through short duration film-making contest in schools.

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THE ATTITUDES & READINESS OF PARENTS IN ABILITY EXERCISES FOR CONTROLLING ELIMINATION URINE (TOILET TRAINING) ON A TODDLER

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ABSTRACT

The wrong practice in urination will cause bad things to the child in the future, like the child not discipline, spoiled, and the important is the child will have experience psychological problem, and cannot independently control the urination. The purpose of this study to determine the relationship of attitudes & readiness of parents in ability exercises to controlling elimination urine (toilet training) on a toddler. The result showed that 49.2% negative of parents attitudes, 49.2% readiness of parents' is not ready. There were, parents' attitudes with the level ability of exercise to controlling elimination urine ($p=0.000$), and parent's readiness with the level ability of exercise to controlling elimination urine ($p=0.000$). Suggested the parents need to improve the readiness and parent attitude so that children can control the elimination of urine.

Keywords: Level of Ability, Exercise To Controlling Elimination Urine (Toilet Training), Parents Readiness, Parents Attitude.

INTRODUCTION

The concept of exercise to control the elimination of urine has not been widely understood among the public, even considered not important in the development stage for children aged 1-3 years. Wrong habits in controlling bowel movements and urination will cause bad things to the child in the future, among others, can cause children not disciplined, spoiled, and even experienced psychological problems (Wong, 2009). Toilet training is an attempt to train urination and defecation (Hidayat, 2008). This exercise begins in children aged 1-3 years, because at this age the ability of the urethra sphincter to control the urge to urinate began to develop (Supartini, 2004). This exercise can be done by most children independently at the end of the preschool period (Muscarello (2005), in Ningsih, 2012).

Basic Child Health Research (RisKesDas) in 2013, it is estimated that the number of toddlers who are difficult to control and defecate and urinate everywhere in the age of toddler until the age of preschool reaches 46% (Arpa (2010), in Firdaus, 2013). Data of Health Office (Health Office) of Jambi Province, the number of infants by 2015 in 11 districts / cities as many as 313,091 children. Data of Central Bureau of Statistics (BPS) of Kerinci Regency in 2014, the number of under-fives with male gender 9905 people and women 9130 people, with a total of 19,035 people under five. Data of Puskesmas Siulak Mukai Subdistrict on April 2017 455 people and children aged 1-3 years 295 people, with amount of Play Group 5, and Play group Dapendra is the biggest Play group with 63 toddler. Interviews with parents of toddler found 32 children were not able to control the elimination of urine where children still pee in pants, and as many as 9 children still use diapers.

Parental attitudes and readiness are one of the factors of the child's ability to perform exercises to control urination elimination (toilet training) (Wong, 2009). Parents' attitudes toward the teaching of urine elimination in children show a change that occurs during the exercise process. A more relaxed attitude in toilet instruction can lead to the physical and emotional problems of children and the attitude of parents or mothers to

teach exercises to control the elimination of urine properly and correctly influence the success of exercise to control urinary elimination (Warner, 2007). Based on the phenomenon, the researcher has done the research on controlling the elimination of urine (toilet training) on toddler in Dapendra Play Group Siulak Mukai Kerinci Regency 2017".

METHODS

This research used descriptive analytic with cross sectional study design. The sampling technique that used is total population with 63 respondents. The research was conducted in Dapendra Play Group Kecamatan Siulak Mukai Kabupaten Kerinci at May-September 2017. The data analysis was done by computerization and analyzed in univariate with frequency distribution and bivariate used chi-square test with significance level 95% ($\alpha=0.05$).

RESULTS

Table 1. Frequency Distribution of Toilet Training Capability

No	Toilet Training Capability	f	%
1	Unable	32	50,8
2	Capable	31	49,2
	Ammount	63	100

Table 2. Frequency Distribution Attitudes Parents

No	The Attitudes Of Parents	f	%
1	Negative	31	49,2
2	Positive	32	50,8
	Ammount	63	100

Table 2 shows that more than half of 50.8% of parental attitudes were found to be positive in controlling urinary elimination (toilet training).

Tabel 3. Frequency Distribution Readiness Parents

No	The Readiness Of Parents	f	%
1	Not ready	31	49,2
2	Ready	32	50,8
	Ammount	63	100

Table 3 shows that more than half of 32 respondents (50.8%) of parents are ready to control urine elimination (toilet training).

Table 4. Relationship of Parent Attitude with Level of Exercise Ability Controlling Urinary Elimination (toilet training)

The Attitudes Of Parents	The ability exercises for controlling elimination urine (toilet training)				Ammount		P Value
	Unable		Capable		f	%	
	f	%	f	%			
Negative	30	96.8	1	3.2	31	100	0.000
Positive	2	6.3	30	93.8	32	100	
Ammount	32	50.8	31	49.2	63	100	

Table 4 showed that respondents who were unable to control urine elimination (toilet training) were higher in the elderly who had negative attitude 30 people (96.8%) compared with those who had positive attitude 2 people (6.3%) with p value = 0.000 ($p < 0.05$) which means there is a significant relationship between parental attitudes with the level of exercise ability to control urine elimination (toilet training).

Table 5. Relationship Readiness Parents with Level Ability Exercise Control Urinary Elimination (toilet training)

The Readiness Of Parents	The Ability Exercises For Controlling Elimination Urine (Toilet Training)				Ammount		P Value
	Unable		Capable		F	%	
	f	%	f	%			
Not Ready	30	96.8	1	3.2	31	100	0.000
Ready	2	6.3	30	93.8	32	100	
Ammount	32	50.8	31	49.2	63	100	

From table 5 it was found that respondents who were unable to control urine elimination (toilet training) were higher in readiness of parents who were not ready 30 people (96.8%) compared to ready preparedness of 2 people (6.3%) with p value = 0.000 ($p < 0.05$) which means there is a significant relationship between parents' readiness and the level of exercise ability to control urine elimination (toilet training).

DISCUSSION

The result of the research is in line with the research result of Firdaus (2013) about the parent role relationship with the toilet training capability with toddler in PaudPermataBundaRw 01 DesaJati Selatan 1 Sidoarjo that of the 24 respondents, more than half of 54.2% of toddler are unable to control urine elimination. Respondents who were not able to perform toilet training due to developmental factors of children who have not been able to as own to the toilet (31.7%), release their own pants (42.9%), and provide signs when you want to urinate like anxiety, spin, and holding his cock area (33.3%). Voluntary control of the spingter any and urethra is achieved at the time the child can walk and usually occurs at the age of 18-24 months. However, the psychological readiness factor is very influential on the preparedness of toilet training (Nursalam, 2005). There is no standard time frame for starting toilet training. The main

benchmark is the child's physical and mental readiness and the readiness of the parents themselves (Wong, 2009).

The result of this research is proportional to Septian (2015). The relationship between knowledge and attitude of parents about toilet training for children aged 1-3 years in Posyandu Dahlia B Working Area Cibeber Public Health Cibeber Village Cimahi City, obtained 57.6% of respondents whose attitudes are positive in training the elimination of defecation in her child. Negative attitude of respondents in training their children's toilet training because parents are relaxed and less responsive as children give signs to want to urinate, but the parents do not immediately respond so that his child urinating in pants. The attitude of parents who are relaxed and less responsive is also due to the busyness of parents in their work so that the toilet training needs are not met.

Parents' attitudes toward the teaching of urine elimination in children show a change that occurs during the exercise process. A more relaxed attitude in toilet training, teaching can lead to the physical and emotional problems of the child. Conversely, the attitude of parents who teach their child's toilet training well and correctly influence the success of exercise to control the elimination of urine (Warner, 2007).

The results of the study were in line with Alza's study (2016) with the title "factors related to exercise ability to control the elimination of defecation in toddler-age children in the play group of RajoSulahKerinci": 59.1% readiness of the respondent is ready in training to control the elimination of child defects. Exercise control urinary elimination (toilet training) is part of the growth of toddler. Parental unpreparedness may affect a child's readiness in exercises controlling urine elimination (toilet training). Parental readiness and willingness to spend time, no stress or divorce, broken homes, moving house is an important role in training children's toilet training (Wong, 2009).

The results of this study are in line with the results of research conducted by Suryati (2012) in Early Childhood School of Sekernan, Chi-square test results obtained value $p = 0.008$ ($p < 0.05$), there is a relationship between parental attitudes with the ability to control the elimination of defecation in children toddler age. According to the researcher's assumptions, there is a relationship between parental attitudes with the level of exercise ability to control the elimination of urine (toilet training) in children aged toddler (1-3 years) due to bad attitudes that parents have in toilet training their children. Parents who are negative because parents are busy with their own business and also parents do not know the age of how many children start toilet training and also do not know the impact of toilet training failure.

Parents' attitudes toward the teaching of urine elimination in children show a change that occurs during the exercise process. A more relaxed attitude in the teaching of toilet use can lead to the physical and emotional problems of children and parental attitudes to teach exercises to control the elimination of the urine properly and correctly influence the success of exercise to control urine elimination, so that children can do well and correctly until later (Warner, 2007).

The results of this study are in line with the results of a study conducted by Alza (2016) on "factors related to exercise ability to control the elimination of defecation in toddler in the play group RajoSulahKerinci" obtained p value = 0.033 (< 0.05) the relationship between parents' readiness by controlling defecation elimination. There is a

relationship between parental readiness with the level of toilet training ability due to knowledge and unpreparedness factor of the parents themselves. Parents spend more time getting together and playing cards with their friends so they pay less attention to their children, sometimes they let their child peed in the pants and do not immediately change his pants.

RECOMMENDATION

It is recommended that parents seek information about the toilet training needs of children, as well as the consequent impact, so that parents are able to behave and be ready in the face of growing children.

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THE RELATIONSHIP OF KNOWLEDGE AND ATTITUDE LEVEL OF STUDENT WITH HIV / AIDS PREVENTION EFFORTS AT STUDENT IN GRADE 12 AT PEMBANGUNAN SENIOR HIGH SCHOOL PADANG YEAR 2017

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Stikes Syedza Saintika

ABSTRACT

Based on data of HIV / AIDS in Padang in 2017, there were 300 cases of HIV, 53 cases of AIDS and 4 people have died. The level of knowledge and attitude is one of the factors that can influence HIV/AIDS prevention effort. The purpose of this research was to identify the relationship between student's knowledge and attitude with HIV / AIDS prevention efforts in Padang. The result of the research were : from 77 there were 9 respondents (50,6%) not doing HIV / AIDS prevention effort, 44 respondents (57,1%) had poor knowledge about HIV / AIDS prevention, 41 respondents (53.2%) had a negative attitude towards HIV / AIDS prevention efforts. There was a significant relationship between knowledge level (p value = 0,004) and attitude (p value = 0,031) student with HIV / AIDS prevention effort. It is suggested that the Pembangunan Senior High School should increase the level of counseling about HIV / AIDS prevention.

Keyword : level of knowledge, attitude, HIV / AIDS prevention effort

INTRODUCTION

In 2014, the World Health Organization announced that 37 million people are living with HIV that consist of 18 million women and 3.2 million children under 15 years of old. Indonesia is a country with the fastest HIV / AIDS transmission in Southeast Asia (WHO, 2014). HIV / AIDS is a phenomenon of icebergs, where only a few are seen, whereas the unknown is more numerous. Based on the report of the Ministry of Health of the Republic of Indonesia, until December 2015 the cumulative number of HIV cases had reached 191,073 people and AIDS cases had reached 77,112 people. West Sumatera Province based on cumulative AIDS cases October-December 2015 was rank as the 9th highest province with case number of 97 patients (Disease Control & Environmental Health Department, Ministry of Health RI, 2015). Based on data obtained by AIDS Prevention Commission (KPA) Padang there were 300 cases of HIV / AIDS in Padang. Nine of them are teenagers (15-19 years old) which 2 of them were male and 7 of them were female (KPAK Padang, 2016).

Human Immunodeficiency Virus (HIV) and Acquired Immuno Deficiency Syndrome (AIDS) are two different term but interconnected. HIV is a virus that causes AIDS. In addition HIV is also the stage of a disease where a person who is still in the HIV stage (there is an HIV virus in his body) looks as normal and healthy and does not need treatment. While the stage of AIDS is a situation where a person actually decreases his immune system and has been infected by opportunistic infections (KPAK, 2010).

Rapid development in Padang becomes influential factors that can plunge teenagers to HIV / AIDS risk behavior. The number of shopping centers in Padang can be a comfortable gathering place for teenagers (Priliwito, 2010). Not only that, other

entertainment facilities such as nightclubs, discotheques, massage parlors, steam baths, and fitness center are available in Padang City (Maryadie, 2009).

Based on previous research conducted by Nurul showed that from 90 respondents, 32,2% respondents had poor knowledge, 31,1% had negative attitude, 38,9% had poor parent role, and 13,3% had poor peer role. The study said that there is a significant relationship between knowledge and attitude level with HIV / AIDS prevention effort.

METHODS

The type of this research was a descriptive analytic with cross sectional approach. The population in this study were all students of grade 12Pembangunan Senior High School as many as 264 students. The number of samples was 77 respondents. Sampleswere chosen by stratified random sampling system. Data processing was using editing, coding, scoring, tabulating, processing and cleaning techniques. Data was analyzed by Chi Square statistical test with significance level $p > 0.05$.

RESULTS

Table 1. Frequency Distribution of HIV / AIDS Prevention Effort Level in Grade 12 Students of Pembangunan Senior High School Padang Year 2017

No.	HIV/AIDS Prevention Effort	<i>f</i>	%
1.	No	39	50,6
2	Yes	38	49,4
	Total	77	100

It can be seen in table 1 that from 77 respondents, 39 respondents (50,6%) were not do HIV/AIDS prevention effort.

Table 2. Frequency Distribution of Student Knowledge Level with HIV/AIDS prevention efforts in Grade 12 Students of Pembangunan Senior High School Padang Year 2017

No.	Knowledge	<i>f</i>	%
1.	Low	44	57,1
2	High	33	42,9
	Total	77	100

Table 3. Frequency Distribution of Student Attitudes Level with HIV/AIDS prevention efforts in Grade 12 Students of Pembangunan Senior High School Padang Year 2017

No.	Attitude	<i>f</i>	%
1.	Negative	41	53,2
2	Positive	36	46,8
	Total	77	100

Based on table 3, it shows that from 77 respondents there were 53,2% student had negative attitude of HIV/AIDS prevention effort.

Table 4. Relationship of Student Knowledge Level With HIV / AIDS Prevention Efforts in Grade 12 Students of Pembangunan Senior High School Padang Year 2017

Level of Knowledge	HIV/AIDS Prevention Effort				Total	PValue	
	No		Yes				
	f	%	f	%	f	%	
Low	29	65,9	15	34,1	44	100	0,004
High	10	30,3	23	69,7	33	100	
Total	39	96,2	38	103,8	77	100	

Table 4 shows that from 39 respondents who did not make HIV / AIDS prevention efforts, more than half (65.9%) of them had poor knowledge level. It can be confirmed by the statistical test with p value = 0,004 ($p < 0,05$) means that there is a relationship between student's knowledge level with HIV / AIDS prevention effort in grade 12 Pembangunan Senior High School Padang in 2017.

Table 5. Relationship of Student Attitudes Level With HIV / AIDS Prevention EffortInGrade 12 Students of Pembangunan Senior High School Padang Year 2017

Level of Attitude	HIV/AIDS Prevention Effort				Total	pvalue	
	No		Yes				
	f	%	f	%	f	%	
Negative	26	63,4	15	36,6	41	100	0,031
Positive	13	36,1	23	63,9	36	100	
Total	39	99,5	38	100,5	77	100	

Table 5 shows that from 39 respondents who did not make HIV / AIDS prevention efforts, more than half (63.4%) had negative attitudes. It can be confirmed by the statistical test with p value= 0,031 ($p < 0,05$) means that there is a relationship between student attitudes level with HIV / AIDS prevention effort in grade 12 Pembangunan Senior High School Padang in 2017.

DISCUSSION

The results showed that there was a correlation between student knowledge level with HIV / AIDS prevention efforts in grade 12 Pembangunan Senior High School Padang in 2017 with p value = 0,004. The results of this study are in accordance with research conducted by Liliana (2013) entitled Factors Influencing students about HIV / AIDS prevention efforts in Solok in 2013, that there was a relationship between knowledge level and HIV / AIDS prevention efforts in senior high school students in Solok.

According to Notoadmodjo (2015), knowledge divide into 6 actions: knowing, understanding, application, analysis, synthesis, and evaluation. Knowing is defined as remembering a material that has been studied previously. Understanding is defined as an ability to correctly explain the known object and can interpret the material. The person who has understood the object or the material must be able to explain, mention, conclude and must be able to explain, mention, conclude and so on the object being studied. Application is defined as an ability to use learned material in real (real) situations and conditions.

Knowledge can influence the behavior of respondents in the prevention of HIV / AIDS because knowledge is a cognitive foundation for the formation of people behavior. With good knowledge about HIV / AIDS, respondents can understand the dangers and understand how to prevent it so positive perceptions can be made and can motivate themselves to do prevention, so positive prevention behavior or commitment to act to prevent HIV / AIDS can be established.

Beside level of knowledge, this study also found that there was a relationship between attitudes level with HIV / AIDS prevention efforts in grade 12 Pembangunan Senior High School Padang in 2017 with p value = 0.031. This study is similar to Nurul's (2012) research on factors related to HIV / AIDS prevention effort in Senior High School 8 Padang, that there was a significant relationship between the attitude level of students at Senior High School 8 Padang with HIV / AIDS prevention efforts.

Attitudes are important not only because it difficult to change, but because attitudes greatly affect individual social thinking even though attitudes are not always reflected in visible behavior and also because attitudes often affect the behavior of the individual especially when the attitudes are strong and firm.

REKOMENDATION

Based on the results of this research, it can be concluded that there is a relationship between knowledge and attitude with HIV / AIDS prevention efforts in grade 12 Pembangunan Senior High School Padang in 2017. It is suggested to Pembangunan Senior High School Padang to give more counseling about HIV / AIDS prevention. The school should provide the latest source book especially about HIV / AIDS, to make it easier for students to improve their knowledge, insight, and latest technology.

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20 MINUTES PASSIVE STRETCHING LOWER BLOOD GLUCOSE LEVELS TO PATIENT WITH TYPE 2 DIABETES MELLITUS IN SOLOK REGIONAL HOSPITAL 2017

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ABSTRACT

This study was conducted to determine whether the intervention 20 minutes of passive stretching can lower blood glucose levels in patients with Type 2 Diabetes Mellitus in Solok Regional Hospital. This study was an experimental quasi with pretest-posttest one group design. Sample of 20 people that was given intervention. Blood glucose measurement was done twice pre and post intervention. Data analysis was done to compare the mean difference of decrease blood glucose before and after given the intervention, the result obtained was $p = 0,000$ ($p < 0,05$). The was Significantly decreased blood glucose levels before and after given the intervention (decrease blood glucose 29 mg / dl). In conclusion, that was decreased blood glucose after given the intervention.

Keywords: blood glucose, diabetes Mellitus

INTRODUCTION

Diabetes mellitus is one of the groups of metabolic diseases characterized by hyperglycemia due to impaired insulin secretion, insulin work or both. The state of chronic hyperglycemia from diabetes is associated with long-term damage, impaired function and failure of various organs, especially the eyes, kidneys, nerves, heart, and blood vessels, (American Diabetes Association 2012).

The World Health Organization (WHO) predicts an increase in the number of people with DM who become one of the global health threats. WHO predicts an increase in the number of people with DM in Indonesia from 8.4 million in 2000 to about 21.3 million in 2030. This report shows an increase in the number of people with DM 2-3 times by 2035. While the International Diabetes Federation (IDF) predicts an increase in the number of people with DM in Indonesia from 9.1 million in 2014 to 14.1 million by 2035. Based on data from the Indonesian Central Bureau of Statistics in 2003, the estimated population of Indonesia aged over 20 years as many as 133 million inhabitants. Referring to the pattern of population growth, it is estimated that by 2030 there will be 194 million people aged over 20 years, (PERKENI, 2015).

Control of blood glucose levels can be done by undergoing five pillars of diabetes, namely education, eating arrangements, exercise, medication, and control of blood glucose independently. Physical activity and exercise are part of diabetes control efforts. Exercise can reduce the risk of blood vessel damage, reduce the risk of heart attack and stroke, and improve psychic health and make diabetes feel happier (Garnadi, 2012).

Exercise is not only useful to attenuate the pile of fat around the abdomen and reduce weight but also aims to improve insulin sensitivity and control blood glucose levels. Such insulin sensitivity improvements are a result of increased insulin receptor affinity and decreased the need for insulin itself, as well as improved glucose control

leading to delayed thickening of the basement membrane of blood vessels, addition of lean body mass, and increased work capacity (Arisman, 2010).

Solok's Regional Hospital is type B hospital. It is visited by the patients suffer from diabetes mellitus patients from Solok town and district. Visits of DM patients by 2015 total 4980 visits and by 2016 increased by 7000 visits. Based on data obtained known in 2017 the number of diabetes mellitus patients amounted to 200 people. The year 2016 diabetes Mellitus disease is the first sequence of disease 10 in out patient clinic in Solok Regional Hospital. The results of interviews with 5 patients DM patients, in general patients stated that the patient's blood glucose value is often unstable despite taking medication. Patients say that have been doing sports but not regular and do not know there are special exercises for people with diabetes mellitus in lowering blood glucose levels. Based on the phenomenon, the researchers are interested to conduct research with the title "20 Minutes Passive Stretching Lower Blood Glucose Levels To Patient With Type 2 Diabetes Mellitus in Solok Regional Hospital 2017".

METHOD

This research used experiment quasi with one group pretest-posttest design. The research population is diabetes mellitus patients with type 2 who come for treatment in out patient clinic of Solok Regional Hospital. The used sample technique is *consecutive sampling* with consist of 20 respondents DM type 2. The data collection was done by direct measurement of the blood glucose levels of respondents in the laboratory. Data was analyzed by univariate and bivariate. The test used is a t-dependent test.

RESULT

Blood Glucose Analysis Of Respondent Before and After an Intervention in Out Patient Clinic of Solok's Regional Hospital In 2017

Variable	Mean	SD	SE	P Value	N
Before	235	53	12	0.000	20
After	206	61	13		20
Deviation	29	7			

The result of the bivariate analysis showed the mean of blood glucose before the passive stretch intervention was 235 mg/dL with standard deviation 53 mg/dL. After the passive stretching intervention, the mean value is 206 mg/dL with a standard deviation of 61 mg/dL. There was an average decrease in blood glucose value before and after the intervention of 29 mg/dL with a standard deviation of 7 mg/dL. Statistical test results obtained p-value = 0.00. This number indicates that there is a significant difference between blood glucose levels before and after the passive stretching intervention.

This study showed that before doing 20 minutes of passive stretching the average blood glucose levels of respondents is 235 mg/dl and after doing 20 minutes of passive stretching average blood glucose levels of respondents is 206 mg/dl, a decrease in blood glucose levels of 29 mg/dL. The results of analysis by using paired t-test significantly decreased blood glucose levels in respondents with a value of p <0.05 is 0.001. This means that there is an effect of 20 minutes of passive stretching on the blood glucose decrease in diabetic patients.

DISCUSSION

Based on the results of this study, showed improvement of blood glucose control, and theoretically also showed an improvement in sensitivity of insulin receptors in the body of research subjects. The results of this study were consistent with the previous study, Gurudut et al (2017), where the study involved 51 participants between the ages of 40-65 and type 2 diabetes mellitus, to directly study the passive stretching effect of 60 minutes (n = 25) and resistance training 60 minutes (n = 26). The resultant measure is blood glucose levels examined by glucometer. Blood glucose is assessed at 3-time points ie fasting blood glucose, 2 hours after meals and immediately after exercise. The results of this study showed a significant reduction in blood glucose levels in subjects with passive strain (P = 0.000) and resistance training (P = 0.00); however, both groups showed equality of effect in terms of lowering blood glucose levels immediately after exercise.

Park (2015) conducted a study on 15 patients (8 men and 7 women) with type 2 diabetes who were randomly assigned to the control and intervention group. This study measured Glycated Hemoglobin (HbA1c) before and after exercise for 8 weeks. Obtained results of HbA1c levels decreased significantly in the passive stretching group, and there were significant differences in blood glucose levels among the 2 groups. It can be concluded that passive stretching of skeletal muscle can be an alternative exercise to help regulate blood glucose levels in diabetic patients.

Results of research from Nelson (2011) conducted on 22 people. Participants reported a 2-hour blood glucose diet and drank 355 ml of fruit juice. Thirty minutes later, they underwent a 40-minute passive stretching. Passive stretching is done on six lower body parts and four upper bodies. In the control group, the same position was adopted, but no tension was applied to the muscles. Blood glucose levels are taken using a glucometer. Values are obtained at baseline (0 min), during passive stretching (20 min), and continued by 20 min stretching without pressure. The results obtained are 20 minutes of passive stretching more influential than 20 minutes later.

According to a study by Park (2015), passive stretching of the skeletal muscle is an alternative to exercise that helps regulate blood glucose levels in diabetic patients. A study shows that passive stretching increases heat production and oxygen consumption in muscles. This leads to an increase in metabolic activity in the muscles resulting in a decrease in blood glucose levels due to the incorporation of GLUT-4 transport types. Stretching increases nitric oxide levels that will affect the incorporation of GLUT-4 to facilitate its activity. Passive stretching is also known to alter the microcirculation thus reducing the exchange of tissue oxygen, which will facilitate GLUT-4 translocation into sarcolemma.

Related studies add to the passive stretching indicating an increase in glycogen destruction at the cellular level and the effectiveness of passive stretching in reducing blood glucose levels by stimulating the activity of protein kinase B, thereby further increasing the glucose uptake in stretched muscle cells. (Nelson et al., 2011; Park, 2015)

Static stretching involves deep muscle retention but a comfortable position for 30 seconds without moving the extremities during stretching It can be done either actively or passively. Active stretching is done by the subject independently while passive stretching involves stretching applied by the therapist or other external forces. Passive stretching may be more beneficial and beneficial for individuals with type 2 DM who

may not be able to perform regular physical activity due to secondary complications such as neuropathy, hypertension, and amputation of limbs, etc. (Solomen et al., 2015).

CONCLUSION

In conclusion, that was decreased blood glucose after given the intervention.

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DISCHARGE PLANNING INTEGRATED IN THE DM CLIENT SERVICES IN INTERNAL DISEASE INPATIENT ROOM RSUD SOLOK 2017

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ABSTRACT

Diabetes mellitus type 2 is chronic disease that needed long term treatment. So that is need Discharge Planning. The applying of an integrated Discharge Planning will influence the a patient treatment when he / she comes back home. The purpose of this research results a Discharge Planning modul and analysis of the implementation influence of Discharge Planning modul toward a patient knowledge in DM matter. The research method uses quasi experiment with the design of after-before analysis with McNemar test. The sample used is purposive sampling with 39 samples, data collected uses questionnaire with interview, data is calculated and analyzed. The research result shows that there is a significant difference in knowledge between before and after implementation of Discharge Planning module ($p=0,010$). Suggested for hospital managemen to made and implemented Discharge Planning module.

Key word: Discharge Planning, knowledge, Diabetes Mellitus

INTRODUCTION

Discharge Planning is a systematic process aimed at preparing patients leaving the hospital to continue ongoing treatment and care programs at home or in community care units. Return disbursement program is basically a health education program to patients (Potter Perry 2005: 112). This health education aims to provide important knowledge and skills to patients and families to meet the needs of ongoing home-based care (Untari 2010) if Diabetus Mellitus patients come home well prepared, they have no obstacles in continuing the treatment and rehabilitation program. Patients will also achieve better levels of health and be able to maintain health conditions such as before illness.

Health education needed for patients who will come home Diabetes Mellitus include (1) Nutrition / diet is an explanation of the nutrients to be consumed and nutrient abstinence that must be obeyed by the patient (2) Drugs are explanations of drug dosage, delivery time, efeksamping and special precautions that must be taken by the patient. 3) Activities / exercises that include an explanation of daily activities that must be done and should not be run, activity restrictions, and the use of activity aids. (4) Special Instruction includes signs and symptoms that should be referred to health workers, reference points and necessary emergency measures and stress management (Capernito 1995).

Return disbursement program is basically a health education program to patients (Potter Perry 2005: 112) this health education aims to provide important knowledge and skills to patients and families to meet the needs of ongoing care that will be done at home (Untari 2010) if Diabetus Mellitus patients go home well prepared, they have no obstacles in continuing the treatment and rehabilitation program. Patients will also achieve better levels of health and be able to maintain health conditions such as before illness.

Implementation of discharge planning in the internal room of RSUD Solok has been running since 2012 after the hospital accredited and kept running until now conducted by the room nurse, card discharge planning is also available and is part of medical record data. However, the implementation of discharge planning is not up to standard because not all health workers are aware that this is a joint responsibility and involves doctors, nurses, pharmacists, and nutritionists. So there are still many patients who visit the polyclinic with high blood sugar, and patients who are treated mostly with complications.

METHOD

This study is a quantitative study using Quasi experimental design with an after-before design analysis. Knowledge of respondent is measured before and after application of Discharge Planning. Population in this research is all patient of Diabetes Mellitus type 2 which was treated at Internal Room of RSUD Solok in September - November 2017. The sample in this research is taken by the accidental sample is all patient of Diabetes Mellitus type 2 which is treated at Internal Room of RSUD Solok in September - November 2017 amounted to 39 people. The tool used to measure the management of Diabetes Mellitus is a questionnaire that is about nutrition, activity, medicine and blood sugar control, which is 16 points, if the answer is correct given the value of 1 and incorrectly assigned a value of 0. The way to collect data using questionnaires by interview. Conducting pre test knowledge management of Diabetes Mellitus type 2 before applied Discharge Planning, then apply Discharge Planning starting patient treated until patient is declared can go home. After that done post test.

RESULT

1. Respondents Knowledge about management of Diabetes Mellitus type 2 before and after applied Discharge Planning

Diagram 1



Table 2. Differences Knowledge of Respondents About Management DM Before and After Application of Discharge Planning at RSUD Solok in 2017

Variabel	Intervention	Mean	SD	Average difference	95% CI	Pv
Knowledge management of Diabetes mellitus	Before	10.36	4.12			
	Discharge planning			4.46±4.36	3.047-5.876	0.010
	After Discharge Planning	14.82	2.16			

From the above table we are get analysis results showed that before the application of Discharge Planning The average value of respondents knowledge about the management of Diabetes Mellitus type 2 10.36 with deviation standard of 4.120 and after the application of Discharge Planning average knowledge value of respondents 14.82 and deviation standard 2,163. T Test Result showed that significant difference mean of knowledge before and after Discharge Planning Application with p value 0,010 (p <0.05). The results show that before the application of Discharge Planning.

DISCUSSION

Discharge Planning is basically a health education program to patients (Potter Perry 2005: 112). This health education aims to provide important knowledge and skills to patients and families to meet the needs of ongoing care that will be done at home (Untari 2010). Notoadmodjo (2005) said the delivery of information is influenced by the methods and media used in which the methods and media of information delivery can have a significant effect on the improvement of knowledge. This can be seen from the results of the above studies that indicate the increased knowledge before and after the Discharge Planning on the management of diabetes mellitus, this proves that the method of Discharge Planning is effectively used to improve patient knowledge about the management of patients with diabetes mellitus.

The results of this study were strengthened by previous research of Wahyuni (2012) in which the provision of Discharge Planning has a significant effect on the readiness of patients with heart disease. This study is in line with research by Hariayati (2008) where patients and families assisted with the Discharge Planning to prepare patients home. Delfina's (2016) study also found that the implementation of the Discharge Planning program in patients was helpful in the home preparation process

RECOMMENDATIONS

Knowledge of management of diabetes mellitus between before and after application of Discharge Planning differed significantly with p value 0,010. Hospitals as service institutions can develop Discharge planning modules for other diseases and multidisciplinary commitment of science to implement Discharge Planning and develop media such as modules.

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ANALYSIS OF NEED PREVENTION AND CARE CARIES MAINTENANCE FOR CHILDREN AT SDIT CAHAYA HATI IN YEAR IV AND V IN IMPLEMENTATION OF UKGS PROGRAM

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ABSTRACT

Dental and oral diseases that many suffered in Indonesia is a disease of teeth supporting tissue and dental caries. Based on the results of the study of Household Health Survey (SKRT) in 2011 showed the incidence of dental and oral health problems experienced a significant increase occurred in children aged 3-5 years of 81.2%. Data from the Ministry of Health of the Republic of Indonesia in 2010 show that caries prevalence in Indonesia reaches 60-80% of the population, and is ranked 6th as the most common illness. General Dental caries prevalence in year IV and V SDIT Cahaya Hati Kota Bukittinggi was 47.3%. Of 69 students who experienced caries 34.8% required caries treatment in patching, while 65.2% of the other students were only observed because of their very small caries. Parental expenditure variable > Rp.5.000.000 per month related to the happening of dental caries in child ($p < 0,05$) that is 0,002. While the parent education and parental work variables are not statistically related. The cost of caries treatment materials using GIC materials ranges from Rp 7,200. For a 10 gram GIC powder bottle can be used for patching 111 teeth, 1 bottle of liquid 6 grams for 150 teeth, 1 bottle of 25 grams dentin condiser for 625 teeth and 1 bottle varnish 10 grams. The results of the study in year IV and V SDIT Cahaya Hati showed that each child has one tooth with an indication of patched, meaning that 146 students of class IV and V needed glasionomer material Rp 1.051.200. In the handbook of the implementation of dentistry services in the national health insurance (JKN) stipulated service ceiling for promotive and preventive acts of Rp. 30,000/head. This means that for 146 students in year IV and V, it takes an action service fee of Rp 4.300.000. So every student needs a fee of Rp. 37,200. for one dental caries treatment.

Keywords : Prevention, Care Caries, Maintenance, Implementation, UKGS Program

INTRODUCTION

Dental and oral disease is a community disease that can attack all age groups that are progressive and accumulative.¹ Dental caries is one of the most common dental problems affecting children and has a major impact on individuals in terms of pain and suffering, disorders functional and reducing the quality of life.²³ Based on data from the National Health Survey an increase in DMF-T in children aged 12 years by 40% of the average DMF-T = 0.91 in 2007 increased to 1.4 in 2013, which dominated by the Decayed component of 1.02. This figure is still far from the target of the Ministry of Health 2010 that DMF-T children aged 12 years is 1 (one) .^{4,5} Herawati research results in Agam District in 2015 showed high dental caries in children aged 6-12 years causing the amount of dental caries care needs in these children. 60% of children aged 6-12 years require complex dental caries treatments ranging from preventive measures to treatment of pulp treatment / extraction. 14% required restoration measures and 22% required full maintenance and prevention measures to prevent the development of dental caries. These results also indicate the magnitude of the risk of dental caries and

provide a predictor picture of the cost, energy and time required for caries treatment in children aged 6-12 years.⁶ Financing is one of the important factors in implementing health development. Current sources of health financing include community-financed including private and government-financed healthcare only 30% whereas 70% of direct public (direct out of pocket) and through third parties are still relatively small such as BPJS, Jamsostek, etc. According to Gani, people protected from health problems by the Health Insurance System only amounted to 20%, which means that there are still 80% of people who are still vulnerable to health problems and most of them are poor.¹

METHODS

This research is a case study descriptively qualitative and analytic. The method used is the real cost method by identifying all direct and indirect costs, then weighting the indirect costs incurred in relation to the health services provided. This method traces all data about the use of costs in each dental caries activity activity of primary school children. Data were collected and analyzed by qualitative and analytical descriptive cost. In the context of qualitative research, more precise sample determination is not based on probability, but rather non-probability sampling (Mc Milan and Schumacher, 2001). The determination of this sample is based on a research objective or problem using the considerations of the researcher himself.

RESULT

Table.1 Relationship between Education, Employment and Expenditure Parents of dental caries in year IV and V SDIT Cahaya Hati Bukittinggi

Variabel		DMF-T		P Value
		0 f	> 0 f	
Education of parents	Junior High School	0	1	0,51
	Senior High School	1	1	
	Bachelor Degree	0	7	
	Master Degree	0	5	
		1	14	
Employment	Govtmnt/Soldier/Police	0	5	0,053
	Enterprenuers	1	4	
	Traders	0	5	
		1	14	
Expenditure each month	< 2.500.000	1	7	0,002**
	2.500.000-5.000.000	0	2	
	> 5.000.000	0	5	

From Table.1 above shows that the variable expenditure of parents > Rp.5.000.000 per month associated with the occurrence of dental caries in children ($p < 0.05$) is 0.002. While the parent education and parental work variables are not statistically related. The study was conducted on 20 teeth from 14 children who participated in the study with cases of pulpal irritation and pulp hyperaemia. Dental caries is patched with glomeromer material. Before weeding the material weighed using a gold scales for the estimated use of the material in a dental filler and the initial stage fillings were performed on phantom as shown below:



Figure 1. Application of Galsionomer on the phantom

After the approximate glasionomer material for one dental fillings then just conducted research to the subject of research. The results showed that the use of GIC (Glasionomer) fillings based on large dental cavities, can be illustrated as follows:

Table 2. Mean of Material Needs Patch antiretroviral Treatment with Glasionomers in Follow-up Care of Caries in year IV and V SDIT Cahaya Hati Bukittinggi

No	Month	Use of Patch Materials		
		Minimum	Maksimum	Mean
1	Powder GIC	0,05 gr	0,12 gr	0,09 gr
2	Liquit GIC	0,02 gr	0,06 gr	0,04 gr
3	Dentin Condisioner	0,02 gr	0,05 gr	0,04 gr
4	Varnish	0,03 gr	0,06 gr	0,04 gr

Table.2 shows the amount of material used in one ART patch package using GIC on one tooth. The largest component is the GIC powder material for one kavita averaging 0.09 gr, where the smallest kavita requires 0.05 gr powder while the largest kavita requires 0.12 gr powder.



Figure 2. Caries Treatment Package Material (GIC)

Having known the need for caries patch materials for one tooth, it can be calculated the cost of dental caries materials for students of SDIT Cahaya Hati in the implementation of the UKGS program are as follows

Table 3. Cost of Requirement Analysis Material Patch of ART with glass ionomer in the act of caries treatment in year IV and V SDIT Cahaya Hati Bukittinggi

Material	Weight/Bottle	Teeth need	Number of teeth patched	Prise/bottle	Prise/Teeth
Powder (GIC)	10 gr	0.09 gr	111	390.500	3.600
Liquit (GIC)	6 gr	0.04 gr	150	390.500	2.700
Dentin Conditioner	25 gr	0.04 gr	625	236.500	400
Varnish	10 gr	0.04 gr	250	121.000	500
Total Charge / Teeth Costs					7.200

Table.3 shows that the cost of caries treatment materials using GIC materials ranges from Rp 7,200. For a 10 gram GIC powder bottle can be used for patching 111 teeth, 1 bottle of liquit 6 grams for 150 teeth, 1 bottle of 25 grams dentin condiser for 625 teeth and 1 bottle varnish 10 grams. The results of the study in year IV and V SDIT Cahaya Hati showed that every child has one tooth with an indication of patched, meaning that 146 students of grade IV and V needed glasionomer material Rp 1.051.200.

DISCUSSION

In addition to materials in a follow-up required services of professionals in this case the dentist and dental nurse. In the handbook of the implementation of dentistry services in the national health insurance (JKN) stipulated service ceiling for promotive and preventive acts of Rp. 30,000/head. This means that for 146 students of grade IV and V, it takes an action service fee of Rp 4.300.000. So every student needs a fee Rp. 37,200. for one dental caries treatment.

Level of education

The level of education represents the level of a person's ability to obtain and understand health information. The higher the level of education a person assumed the better the level of understanding of health information obtained. This is in accordance with the opinion of Sadiman (2002) who argued that, the status of education affects the opportunity mengholehi information about disease management. Parental education affects the child's behavior in maintaining the dental hygiene of children. Purwanto (1999) suggests that factors affecting human health behavior include heredity, environment, and hereditary and environmental influences. Described by Purwanto (1999) that in the environment there are among others the influence associated with one's knowledge. From the results of statistical tests show that there is no relationship between the level of education with the occurrence of dental caries in children pValue 0,51.

Employment

According Purwanto (2010) the influence of parental work on the incidence of dental caries with a value of 0.05 so there must be awareness of parents to pay attention to their child's caries process if they work. And in this study proves that the work of parents have no (relatively little) influence on the process of dental caries ($p > 0.05$). In this case the work of parents has a positive effect on the caries incidence of students although the influence is not significant.

Parent Expenditure

Based on the distribution of parental expenditure shows, most parents have a low level of expenditure that is equal to 53.8%. Children with parents who earn enough income, have the opportunity to obtain health services. Parents with adequate incomes will allow better health services to their children. Parents with less economic ability will find it difficult to fulfill their basic needs, so it will be difficult to provide health services for their families, so with the results of statistical tests showed that there is a significant relationship between parent per month expenditure and dental caries incidence in children ($p = 0.002 < 0.05$).

Cost Analysis

The prevalence of dental caries in year IV and V SDIT Cahaya Hati with caries sufficiently high was 47.3% with mean DMF-T $1.02 + 1.3$. Meaning each child has one dental caries. Compared to the WHO target this figure is still worrisome. 34.8% of caries-affected children needed caries treatment, indicated by Decayed mean dental that can still be patched $0.99 + 1.2$, which means there is 1 tooth with an indication of patched on every child. A very relevant activity in the implementation of dental and oral disease control efforts is the dental health effort of the school. The purpose of UKGS is to improve the dental health of school children. One of the activities in UKGS is medical intervention of individual techniques in the form of medication retrovision (Atraumatic Restorative Treatment). Glasionomer (GIC) is one of the most commonly used ingredients in the treatment of ART. The results showed that the cost of GIC materials in ART patching was Rp 7,200 / fill. For a UKGS program at SDIT Cahaya Hati, especially for children in year IV and V, it costs Rp 1.051.200. This cost does not include the services of professional personnel, because the act of dental caries treatment can only be done by professionals. Service fees are usually established through the agreement of the service provider with the recipient in the UKGS program. In the handbook of the implementation of dentistry services in the national health insurance (JKN) fixed service ceiling for promotive and preventive acts of Rp. 30,000/head. So Every student needs Rp. 37.200 costs. for one dental caries treatment. Herawati research results (2015) showed a tendency to increase dental caries every year occurred about 4%. The high rate of dental caries in children aged 6-12 years causes the amount of dental caries care needs in these children. 60% of children aged 6-12 years require complex dental caries treatments ranging from preventive measures to treatment of pulp treatment / extraction. 14% required restoration measures and 22% required full maintenance and prevention measures to prevent the development of dental caries. These results also indicate the magnitude of the risk of dental caries and provide a predictor picture of the cost, energy and time

required for caries treatment in children aged 6-12 years. Therefore, the prevention of dental caries as early as possible will be an effort that will give better results, so that the degree of increased dental health that impact on improving the quality of life of the community. Every act of caries care costs a lot, with cost analysis we can plan what activities will be done short-term and long-term in the UKGS program.

CONCLUSIONS

The prevalence of dental caries in year IV and V SDIT Cahaya Hati Kota Bukittinggi was 47.3%. The average of every grade in year IV and V SDIT Cahaya Hati has 15-16 healthy teeth and 1 tooth with Irritation Pulpa diagnosis. As for the diagnosis of Hyperaemia pulpa not every child has teeth with HP medical diagnosis. Variable expenditure of parent > Rp.5.000.000 per month relate to happened dental caries in child ($p < 0,05$) that is 0,002. The cost of caries treatment materials using GIC materials ranges from Rp 7,200. For a 10 gram GIC powder bottle can be used for patching 111 teeth, 1 bottle of liquid 6 grams for 150 teeth, 1 bottle of 25 grams dentin condenser for 625 teeth and 1 bottle varnish 10 grams. In addition to materials in a follow-up required services of professionals in this case the dentist and dental nurse. In the handbook of the implementation of dentistry services in the national health insurance (JKN) stipulated service ceiling for promotive and preventive acts of Rp. 30,000/student. So Every student needs Rp. 37.200 for one dental caries treatment. It is suggested to SDIT Cahaya Hati to be able to establish cooperation with Dental Nursing Faculty of Bukittinggi in order to monitor, examine, prevention and care of dental caries. It is suggested to the parent to increase cooperation with school in supporting UKGS program, so that caries prevalence in SDIT Cahaya Hati can be suppressed.

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PHYSICAL CHARACTERISTICS OF PULMONARY TB HOME WITH EVENTS IN THE CITY OF WORK SEI JANG HEALTH CENTER TANJUNGPINANG

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Tuberculosis remains a public health problem in Indonesia. While the percentage of unhealthy homes in Indonesia is still high at 75.1% and in the Riau Islands 76,3%. Construction of houses and the neighborhood does not meet health requirements would be a risk factor for pulmonary tuberculosis transmission source. This study aims to determine the relationship between the physical characteristics of the home (residential density, types of flooring, ventilation, lighting, temperature and humidity) and the incidence of pulmonary tuberculosis in Puskesmas Sei Jang Tanjungpinang. This study uses a case control design were analyzed by chi-square test and Fisher exact. The number of samples in this study were 36 cases and 36 controls. Cases were all TB patients with sputum examination results at the health center laboratory stated smear positive (suffering from pulmonary TB) 2016 to June 2017. Control is a neighboring group of cases have a history of not suffering from pulmonary TB. Results showed that the floor of the house (OR = 2.12; 95% CI: 0.364 to 12.049), ventilation (OR = 3.4; 95% CI 0.638 to 18.132), lighting (OR = 2.08; 95% CI: 0.779 to 5.552), population density (OR = 2.5; 95% CI: 0.962 to 6.498), and humidity (OR = 2.742; 95% CI: 0.496 to 15.168) who do not qualify is a risk factor to the incidence of pulmonary tuberculosis. However, this study found no statistically significant relationship. Suggested to the respondents whose homes are not eligible to be regularly open the window every morning before going on air circulation and sunlight can kill the TB germs.

Keywords: Tuberculosis, pulmonary TB, home characteristics, case-control

INTRODUCTION

Tuberculosis (TB) is the most common infectious disease in the world, with an estimated one third of the world population is infected and 2.5 million people die every year. Still high prevalence of pulmonary tuberculosis in Indonesia due to various factors including the source of the illness is *Mycobacterium tuberculosis*, the physical environment of the home that are not eligible, socio-economic status, individual characteristics and behavior as well as other diseases such as HIV (Edwan, 2008).

In 2010 the percentage of households nationally that have a healthy home in Indonesia is quite low at 24.9%, in the province of Riau Islands 23.7% (Ministry of Health, 2010). The low percentage of healthy house was allegedly involved enlarging the incidence of pulmonary tuberculosis disease transmission.

Data obtained from Tanjungpinang City Health Department and Community Health Center Sei Jang in 2015 and 2016 showed that the prevalence of pulmonary tuberculosis has decreased but not significantly. Tanjungpinang City Health Department data 2016 Sei Jang Health Center is the largest contributor to pulmonary TB cases in Tanjungpinang.

The purpose of this study was to determine the relationship between the physical characteristics of the home (residential density, types of flooring, ventilation, lighting, temperature and humidity) and the incidence of pulmonary tuberculosis in

Puskesmas Sei Jang Tanjungpinang. While the hypothesis of this study was to determine the presence or absence of physical characteristics relationship between home with pulmonary tuberculosis in Puskesmas Sei Jang Tanjungpinang.

METHODS

This study was analytical namely to determine the relationship of the physical characteristics of the house with the incidence of tuberculosis. This study uses *astudy case-control design*. The experiment was conducted in Puskesmas Sei Jang Tanjungpinang implemented from the month from May to September 2017. The sample consisted of: (a) Cases were all from patients with sputum examination results at the health center laboratory stated smear positive (suffering from pulmonary TB) of 2015, 2016 and 2017 amounted to 36 cases. (b) The controls are mostly neighbors who have a history of case group does not suffer from pulmonary TB with characteristics that are approximately equal to the cases of the 36 respondents. The sample size is calculated using the formula Kelsey, J. obtained the sample into the case group and the control group 36 respondents 36 respondents. Data analysis done through (a) The univariate analysis (b) bivariate

RESULTS

Based on the floor of the house, the highest proportion of cases is a qualified home floor of 88.9% and the highest proportion control also qualified home floor by 94.4%. Based on home ventilation, the highest proportion of cases is a qualified home ventilation, which amounted to 83.3% and the highest proportion in the control and ventilation are also qualified home by 94.9%. Based on home lighting, home lighting in the proportion of cases that qualify the highest proportion of qualified home lighting that is 55.6%, and the highest proportion control *pencapaian* also qualified home, which amounted to 72.2%. Based on population density, the proportion of cases *tertinginya* is home to the population density that are not eligible, namely by 66.7%, while the highest proportion of home control with an eligible population density of 55.6%. Based on the humidity, the highest proportion in the case group is qualified home humidity of 86.1% and in the control group is the highest proportion of homes that moisture does not qualify, amounting to 94.4%. Based on the temperature, both groups of case and control groups of all homes are not eligible. Temperatures were eligible if the temperature in the house 20-25°C.

Respondents who have a house floor is not eligible to 2.12 times higher risk of suffering from pulmonary tuberculosis than the floor of the house are eligible. But was not statistically significant (CI =0.364 to 12.049). Respondents who did not qualify her home ventilation 3.4 times higher risk of suffering from pulmonary tuberculosis than venting his home qualifies. But was not statistically significant (CI =0.638 to 18.132). Respondents whose home lighting ineligible 2.08 times higher risk of suffering from pulmonary tuberculosis compared with the lighting homes are eligible. But was not statistically significant (CI =0.779 to 5.552). Respondents who density residential homes do not qualify have a 2.5 times higher risk of developing tuberculosis than the density of dwelling houses eligible. But was not statistically significant (CI =0.962 to 6.498). Respondents who did not qualify her home humidity 2.74 times higher risk for pulmonary TB hospital than a qualified home. But was not statistically significant (CI =

0.496 to 15.168). For variable home temperature can not be performed because the bivariate analysis in Table 2 x 2 cell would be worth 0.

DISCUSSION

Results showed that the floor of the house is a risk factor for the incidence of pulmonary tuberculosis (OR 2.12;95% CI 0.364 to 12.049). But statistically insignificant relationship. The results are consistent with research Hamida (2015) in which the proportion of homes that kind of home is not water-resistant floor more in the case group (51.4%) than in the control group (35.7%). Statistically Chi-Square analysis results showed that $p = 0.088$ ($p > 0.05$) showed no significance or does not have a significant relationship.

Ventilation homes in the study were classified into two categories: eligible and ineligible. Results showed that the ventilation of the house is a risk factor for the incidence of pulmonary tuberculosis (OR 3.400;95% CI 0.638 to 18.132). But statistically insignificant relationship. Ventilation home has benefits for circulation / air exchange and reduce the humidity inside the house so that it can dilute the concentration of TB bacteria and other germs. Thus the bacteria are carried out and die in the sun (Achmadi, 2010).

The lighting in the study were classified into two categories: eligible and ineligible. The results showed that home lighting is a risk factor for the incidence of pulmonary tuberculosis (OR 2.080 (CI: 0.779 to 5.552), but statistically insignificant relationship. Light enough especially direct sunlight can kill TB bacteria within 5 minutes, but germs can survive for years in a dark place, so that the house and the cabins were dark can be a source of transmission (Crofton, 2002). Basil tuberculosis relatively resistant to sunlight, so when the room entered sunlight and air circulation good, then the risk of contagion between the occupant at home can be reduced (MOH, 2002).

the density of residential homes in the study were classified into two categories: eligible and ineligible. the results showed that the density of residential home is a risk factor for the incidence of Tb pulmonary OR 2,500 (CI: 0.962 to 6.498). However, statistically showed a t idak significant. Density is the initial trigger the transmission of the disease process. The more dense occupancy rates, the transfer of diseases, especially airborne diseases will be more easily and quickly occur. The health department has set any rules for a healthy home with formula number of occupants / building area. Terms healthy home $is \geq 9 \text{ m}^2 / \text{person}$ (Achmadi, 2008).

Humidity homes in the study were classified into two categories: eligible and ineligible. The results showed that the humidity of the house is a risk factor for the incidence of pulmonary tuberculosis OR 2.742 (CI: 0.496 to 15.168). But statistically insignificant relationship.). TB germs can survive in a dark and damp, and will be *dormant* in a dry and cool (WHO, 2013). The tuberculosis bacteria will thrive in environments with high humidity, because water makes up more than 80% by volume of bacterial cells and media is the most good for the growth and survival of the bacterial cells (Gould D, Brooker, 2003).

CONCLUSIONS AND RECOMMENDATIONS

From the results of research and discussion, the following conclusions can be drawn as variable floor of the house, ventilate the house, home lighting, home residential density, moisture houses a risk factor for the incidence of pulmonary tuberculosis. But statistically insignificant relationship. While the temperature variable home in case and control group ineligible healthy home that can not be performed bivariate analysis.

Suggestion: the public to pay attention to the ventilation system of the house so the air flow into the house maintained properly. The existence of cross-ministerial coordination of housing and health ministries. Tanjungpinang City Health Department and Community Health Center Sei Jang increase surveillance efforts to restructure the housing to the community.

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Effect of Massage and Relaxation of Breathing Against The Duration of Labor Active First Stage in the Maternity Hospital Jambi City 2015

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ABSTRACT

In Indonesia, about 37% of births take place with prolonged labor and direct and indirect factor of momaternity of hospital idity / mortality of mothers and infants due to inadequate uterine contractions in the first stage of the active phase. Relaxation massage techniques and breathing are two of the few methods of nonpharmacologic pain relief is proven to reduce labor pain and accelerate the first stage of labor. The results showed that the duration of labor in case group 35 (85%) with low risk and average length delivery takes 3.93 hours, faster 2:07 hour limit normal delivery, while in the group not given the treatment of 5:04 hours ahead 56 minutes from limit the length of a normal delivery. In the statistical analysis showed that the act of massage and relaxation breathing has a significant effect in accelerating the first stage of labor active phase with a P-Value = 0.023 or > 0.05. Based on the results of this study concluded that the actions of massage and relaxation in the first stage can make the active phase of labor go faster, and statistically significant influence. The act of massage and relaxation breathing can cause and maintain uterine contractions, it is recommended for health care workers in an effort to improve the quality of care first stage of labor should be able to take action as well as massage and relaxation respiratory monitoring with partograf.

Keywords : *Massage and Relaxation Breathing active phase of the first stage*

INTRODUCTION

One of the factors supporting the smooth power delivery, where a good contraction can propel the fetus out of the uterus through the birth. Otherwise the condition of stress or fear can cause uterine contractions become increasingly feels the pain and the response of the uterine body makes increasingly tense so that the flow of blood and oxygen to the muscles of the uterus decreases because of contraction, as a result the pain that is not inevitable (Judha, dkk, 2012:80). The birth process is synonymous with pain, where most of the labor is accompanied pain physiology. A recent study found that 67% of women feel a little worried, 12% felt very worried and 23% not at all concerned about labor pain (spiritual Saswita, 2011:36)

A difficult birthing mothers adapt to pain that uncoordinated contractions of the uterus that can lead to an extension of the delivery and fetal well-being is distumaternity of hospital ed. The progress of a slow labor is one of the complications of childbirth that is worrying, complex and unforeseen can aggravate and fetus (Wiknjosastro, 2010:576). Massage is hand pressure on soft tissue, usually muscle, ligament, or without causing movement or change the position of the joints to relieve pain, producing relaxation, and improve circulation. (Maryunani. 2010:100-121)

Maternity of hospital identity of mothers maternity in Jambi province by as much as 33 cases that occur in the ma , one of which is a 4% Maternity of hospital mother experiencing dystocia partus long because his disorder impacting against bleeding Post, and was referred to the Health Office Hospital (Jambi, 2014:4). The response of

the body to make the uterus growing tense so that the flow of blood and oxygen to the muscles of the uterus decreases because of menyempitnya blood vessels as a result pain not inevitable (Judha, et al, 2012:80).Based on field surveys, the average delivery of the month Sept 2014 – February 2015 at the maternity clinic Nuri and Atiah amounted to 25 patients every month. Care of obstetrical delivery active phase in the maternity clinic is the patient requested draws breath as an effort of adaptation to pains due to uterine contractions.

METHOD

This research was conducted in the birthing at city of Jambi in May until August 12, is the entire Population of the mother throughout the birthing mother of active first stage. How sampling is to accidental sampling on the birthing mother active first stage normal Inclusion Criteria is the normal maternity Mother willing to respondents. Exclusion criteria is the condition of the mother's maternity active phase abruptly changes before the given treatment, amniotic rupture prematurely and abnormal fetal heart sounds. Research instrument is the form of monitoring labor active first stage the form Partograf is used to monitor the progress of delivery of active first stage for cases and controls.The data were analyzed using the computer with the univariate analysis and bivariat analysis, using statistical tests *t-Independent* aimed at knowing the difference mean two groups of independent data with the level of significance of = 0.05

RESULTS AND DISCUSSION

Table 1. Distribution of Respondents based on the old Labor Active First Stage on the case of the maternity Home in the town of Jambi The year 2015 (n = 41)

No	Long first stage	Distribusi	
		f	%
1	1.50	1	2.44
2	2.31	5	12.20
3	3.13	5	12.20
4	4.18	6	14.63
5	5.06	8	19.51
6	6.18	5	12.20
7	7.5	10	24.39

The average duration of active first stage Scorpion labor action massage respiratory and relaxation has an average of 3.93 hours with a standard deviation of 1.54 hours and shortest time is 1 hour 30 minutes and a maximum of 7 hours 30 minutes. Estimation intervals, 95% can be estimated that the average labor lasts long 3.44 seconds-4.42 hours, as seen in table 5.2 as follows:

Tabel 2. Distribution of Respondents based on the old Labor Active first stage on the case of the maternity Home in the town of Jambi The year 2015 (n = 41)

variabel	Mean	Median	SD	Min-max	95% CI
the length of the epoch labor with masase and relaxation breathing	3.93	4.00	1.54	1.5 – 7.50	3.44

The description of the duration of active phase I Scorpion labor group cases observed using sheets of partograf at the opening of the 4 cm to \geq full opening. Long labor kala I obtained very active phase in price, as seen in diagram 1 below:

Table 3. The distribution of Respondents According to monitoring through Partograf (n = 41)

Variabel	Mean	Median	SD	Min-Max	95% CI
The length of the epoch one active labor with masase and relaxation breathing	5.04	5.20	1.86	1.5 -20	4.45-5.62

An overview of the distribution of the length of the epoch of the active phase I indicates that 26 (63.41%) respondents have low risk with a long labor \leq 6 hours as seen in

Table 4. Distribution Of Respondents Based On The Old Labor Active first stage In Case Group and the control (n = 82)

Variabel	Mean	Median	SD	Min-Max	n
The length of the epoch one active labor with masase and relaxation breathing	3.93	1.54	.124	0.023	41
The length of the epoch one active labor with Aktive phase the control group	5.04	1.86	.119	0.021	41

Based on the able above, the average length of time active phase I Scorpion Labor Group case was 3.93 with standard deviation 1.54, whereas in the control group was 5.04 hours with a standard deviation 1.86 hours. The results of statistical tests T-independent retrieved the value of the Sig (2-tailed) with p -value = 0.023 ($<$ 0.05). that means the Act of breathing and relaxation masase can significantly affect the speed of the duration of active phase delivery compared with the control group not given the actions of massage and relaxation.

DISCUSSION

The results showed the time required to complete phase I Scorpion group is active on the case much faster i.e. average 1 hour 11 minutes compared with the control group. According to Wiknjosastro (2010:297) limitations of active phase to complete cervical opening lasted 6 hours. In the case of groups, the labor lasted 22 minutes faster while on birth control takes place more slowly 1 hour 54 minutes. Clinically proven that massage and relaxation breathing effectively help smooth the

delivery of active phase, the results of the statistical tests using two different test mean t- *Independent* menunjukkan *p-value* case group is 0.023. The value of the *p-value* = 0,023/<0.05, then it can be concluded that there is a significant influence on the actions of massage relaxation breathing & against long time active delivery compared to the control group, And research Ninik (2011) that occurred during severe pain scales (7-9) and after in pain perceived relaxation guidance do descending scales (4-6), but other factors can also affect the delivery of old active. According to Myles (2009:562) that the factors influencing childbirth was power, passage, and as for Passenger according to Saiffudin (2002: N-8) another factor supporting labor are psychological and labor companion from the family and midwife in provide support.

RECOMMENDATION

For the maternity hospital City of Jambi Let the midwife can use non pharmacological techniques in the care of the dear mother that is easily done without side effects to cope with labor pain active phase. For other researchers This research should be able to follow up with a different action variables to assess its effect on the old labor active phase.

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DIFFERENCE KNOWLEDGE, ATTITUDE AND STUDENT ACTS ON BIKE DENTAL BETWEEN PLAYING ROLE METHOD WITH TH DEMONSTRATION IN THE CLASS V SDN 15 AMPANG GADANG AND SDN 10 KUBU AMPEK ANGKEK DISTRICT REGENCY OF AGAM

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ABSTRACT

Dental health education aims to change the behavior of aspects of knowledge, attitudes and actions that are not healthy towards healthy behavior. In the process of delivering material to the target, the selection of appropriate methods greatly facilitates the attainment of efforts to change targeted knowledge. This study aims to determine differences in knowledge, attitudes and actions about brushing teeth with role playing and demonstration methods. The results showed that the mean values for knowledge, attitude and action about toothbrushing on role playing method 27,85 and mean value for learning achievement on demonstration method 23,36, P value <from alpha (0,05) that is $0,03 < 0.05$. It can be concluded that there are differences of knowledge, attitude and action about toothbrushing with role playing method and demonstration to the students at SDN 15 Ampang Gadang and SDN 10 Kubu Ampek Angkek District Regency of Agam

INTRODUCTION

Theory of development according to Oshwar Khort states, children aged 6-8 years (grade 1-2 SD) is still influenced fantasy into reality mixed with fantasy, children ages 8-10 (grade 3-4) is a period of naive and real thinking or collecting period Science and the age of 10-12 years is a period of critical and real thinking. The knowledge given needs to be tailored to the target group so that the message given can be effective. The things that are on the target need to be considered in order to avoid mistakes in choosing methods to deliver dental health education

In the process of delivering extension materials to the target, the selection of appropriate methods greatly facilitates the attainment of efforts to change targeted knowledge. There are two types of methods in dental health education that is one-way method and two-way method. In the two-way method of recipients of active learning in thinking. In this method the target is given the opportunity to express an opinion, so they actively participate in the teaching and learning process and create two-way communication between the message on the one hand with who receive messages on the other hand such as methods of demonstration and role play, in this method the delivery of oral material accompanied with demonstration by extension. This study aims to determine differences in knowledge, attitude and actions of students who are given counseling about brushing teeth with role playing methods and demonstrations in grade V students SDN 15 Ampang Gadang and SDN 10 Kubu Ampek Angkek District Regency of Agam.

METHOD

This research uses experimental experimental method with "pretest" and "posttest" design. namely to see the difference of knowledge before and after being given counseling about toothbrushing by role playing method to experiment group and

counseling about brushing teeth with demonstration method in comparison group.16 This research was conducted at SDN 15 Ampang Gadang and SDN 10 Kubu Ampek Angkek District Agam Regency with the population of all pupils in SDN 15 Ampang Gadang and SDN 10 Kubu, totaling 369 people. The sample in this research is all students of class V SDN 15 Ampang Gadang which amounts to 30 people and students of class V SDN 10 Kubu which amounts to 30 people. The sampling technique used is based on a certain consideration made by the researchers themselves, while the consideration or sample criteria are 1) students of grade V at SDN 15 Ampang Gadang and SDN 10 Kubu aged 10-12 years ie at the critical thinking and real 2) present at the time of counseling.

RESULTS

Table 1. Distribution of Knowledge Frequency Subjects Research Before and After were given Counseling about Brushing Teeth with Role Playing Methods at SDN 15 Ampang Gadang

Playing Methods Role	Knowledge			Total
	High	Medium	Low	
Before	0	6	25	31
After	3	18	10	31
Total				62

Table 1 shows the frequency distribution of knowledge of research subjects before giving counseling with role playing method with the most knowledge category is low criterion as much as 25 people whereas after being given counseling with role play method, the most research subject knowledge is medium category as many as 18 people.

Table 2. Distribution of Knowledge Frequency of Research Subject Before and After given Counseling about Brushing Teeth with demonstration method at SDN 10 Kubu Ampek Angkek District Regency of Agam

Method Demonstration	Knowledge			Total
	High	Medium	Low	
Before	0	6	25	31
After	16	12	3	31
Total				62

Table 3. Distribution Frequency Differences Knowledge Subjects Research Before and After were given counseling about brushing teeth at SDN 15 Ampang Gadang and SDN 10 Kubu Ampek Angkek District Agam Regency

Extension Method	Knowledge								
	Before			After			Difference		
	T	S	R	T	S	R	T	S	R
Play a role	0	6	25	3	18	9	3	12	-16
Demonstration	0	6	25	15	12	3	15	6	-22

Information (T) High S (Medium) (R) Low

Table 3 shows the differences of knowledge of research subjects before and after being counseled by role playing method and by demonstration method, it is seen that the knowledge before the average knowledge of children's knowledge is low that there are 24 people in each method, and after being given counseling, the knowledge criteria is high and is increasing, that is on the method of playing the role of the category of knowledge is the most moderate category as many as 18 people and the highest category of demonstration method is the high category as many as 16 people.

DISCUSSION

Based on the table results of data processing obtained P value of alpha (0.05) is 0.08 <0.05 and t count is 2.766 while t table is 2,002 means t count > t table, which means there is a difference between the knowledge of research subjects about brushing teeth provided with counseling with role-playing methods and demonstration methods. From the results of statistical tests, found the difference in knowledge about meaningful toothbrushing between counseling with role playing methods and methods of demonstration of grade V SDN 15 Ampang Gadang and SDN 10 Kubu Ampek Angkek District Regency of Agam.

Both of these methods have similarities: the presentation of information given orally, actions, and scenes that have the same effect, that is both affect the sense of sight accompanied by the sense of hearing. The existence of this difference according to the assumptions of researchers due to the role playing method of the player is less able to bring his role and have difficulty to approach the actual situation. This is influenced by the confidence of players who are still lacking to bring the role and actualize certain specific behavior so that the target can not achieve the goal learn maximally.

The results of research conducted on grade V of SDN 15 Ampang Gadang and SDN 10 Kubu Kecamatan Ampek Angkek Agam Regency, when viewed from the statistical test see the difference between the two variables obtained P value of alpha (0,05) that is 0,08 <0,05 and t arithmetic is 2,766 while t table is 2,002 mean t count > t table which mean there is significant difference between research subject knowledge about brushing teeth which given counseling with role play method and method of demonstration on grade V student SDN 15 Ampang Gadang and SDN 10 Kubu Ampek Angkek District Regency of

Agam. The researcher assumes that this happens because the choice of the method often used in health education in the previous school is the lecture which in the

process of delivering the extension material to the target focuses the active educator, while the target tends to be passive so it is difficult to get feedback from the target itself. Counseling with lecture methods also often lead to misunderstanding because the target misrepresents the description of the extension

After being given counseling by the method of demonstration occurs increased knowledge of the most criteria is the high category, which is a number of 15 people, the researcher assumptions this is because the process of receiving the extension material by the target is more memorable in depth because of the performances of a process and procedures directly by using props, gain a better understanding or understanding, especially if participants can actively participate in demonstrations. Counseling with demonstration methods can also reduce errors in reading and listening because perceptions are clearly obtained from the results of observation.

The researcher assumes that this is because dental and oral health education in students is not delivered effectively, such as the selection of methods that are often used in health education at the school in general is lecture, so it does not attract students because it is common for them and the duration of counseling which is not optimal, will cause a sense of boredom, which can ultimately interfere with the concentration of target thinking. To achieve an optimal result, the methods, methods or messages that will be given, the officers who will provide counseling and tools / media to be used also need to be considered so that the counseling atmosphere becomes more alive so as to achieve the goals of health promotion / education own. Children follow the course of counseling through a short story played by some of their friends, they are more likely to understand something new if they are interested in it. The critical attitude to the goal is easier to grow because of a more lively counseling atmosphere, so that the knowledge conveyed well absorbed by the research subjects.

RECOMENDATION

From the results of research and discussion that has been described can be concluded that there is a significant difference between the knowledge of research subjects who were given counseling with role playing methods and who were given counseling with the method of demonstration

Suggestions The subject of research to better maintain dental health and mouth and apply the knowledge that has been obtained from counseling in everyday life, and for health officials more optimize promotive efforts that is the selection of appropriate methods, suitable and attractive to the target and the use of role play methods and methods demonstration as an extension method.

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THE ROLE OF OFFICERS, LARVA EXISTENCE IN SUPPRESSION OF MOSQUITO NEST ON PREVENTION OF DENGUE HAEMORRAGIC FEVER

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ABSTRACT

Eradication of Mosquito Nest (PSN) 3M Plus is the most effective activity to prevent dengue hemorrhagic fever. Implementation of mosquito nest eradication is still not optimally done, so there are still many people who suffer from dengue fever. The purpose of this study to determine the relationship of knowledge, the role of officers and the presence of larvae with the implementation of PSN 3M Plus. Result of univariate analysis 22 (56,4%) did not implement PSN 3M Plus, no role of officer 23 (59%), there was larvae of house 20 (51,3%). The result of bivariate analysis shows that there is correlated with the role of an officer with p value = 0,021 and there is a correlation with larva with p = 0,001. It is expected that local health officials to improve the role of officers, cross-program and cross-sectoral cooperation in order for PSN 3M Plus to be done on an ongoing basis.

Keywords: Existence of larvae, Eradication of Mosquito Nest 3M Plus, Knowledge, Role of Officer

INTRODUCTION

Dengue Hemorrhagic Fever is one of the major public health problems in Indonesia. The number of sufferers and the extent of their spreading area increases with the increasing mobility and population density. Based on data from Indonesia Health Profile (2015), morbidity and number of dengue fever / dengue fever in 2015 increased from 433 (84.74%) to 446 districts / cities (86.77%). The number of reported cases was 129,650 cases with 1,071 deaths (IR / Mortality rate = 50.75 per 100,000 population and CFR / death rate = 0.83%). Year 2014 with cases as many as 100.347 and IR 39.80 (Profil Kesehatan Indonesia, 2015). Data obtained from the Infectious Disease Control Division of Solok District Health Office (2017), the number of dengue hemorrhagic fever cases recorded in 2014 was only 64 cases without death, by 2015 an increase of 133 cases with 1 death and cases recorded in year 2016 is 182 cases without death. During the year 2017 there have been 58 cases spread in 18 Puskesmas. The highest case occurred in the working area of Tanjung Bingkung Puskesmas with 20 cases. The activities that have been carried out by dengue fever control team of Tanjung Bingkung Puskesmas are: firstly doing counseling about Eradication of Mosquito's Nest to 21 (all) Posyandu in January - February 2017, second: to form jumentik cadre in one of Nagari, that is Nagari Panyakalan 2016, third: to conduct counseling and training on dengue hemorrhagic fever in elementary school in Tanjung Bingkung Public Health Center in 2016, fourth: door to door counseling conducted during epidemiological investigation of cases of spaciousness and Fogging focus in several locations, one of them Jorong Jambu in April of 2017. Based on the phenomenon, the researcher has done research on Dengue Hemorrhagic Fever Factors related to the implementation of eradicating mosquito nest 3M Plus on dengue fever prevention in Jorong Jambu Nagari Saok Laweh working area Tanjung Bingkung

Puskesmas Solok Regency Year 2017. The purpose of this research is to know factors related to the implementation of eradicating mosquito nest 3M Plus on dengue fever prevention in Jorong Jambu Nagari Saok Law Eh working area Tanjung Bingkung Puskesmas Solok Regency Year 2017.

METHODS

The type of research used is analytical using cross sectional study method. The study population of 384 families with 39 samples of the family was taken with Systematic random sampling technique. The research was conducted in Jorong Jambu Nagari Saok Laweh working area of Tanjung Bingkung Public Health Center at 16 - 27 July 2017. Data collection using questionnaires, and processed by computerized. Univariate analysis using frequency distribution and bivariate analysis with chi Square with 95% confidence level and significant significance ($\alpha = 0,05$).

RESULTS

1. Implementation of Mosquito Nest Eradication (PSN) 3M Plus

Table 1 Implementation of Mosquito Nest Eradication (PSN) 3M Plus

Implementation of PSN 3M Plus	f	%
Implemented	17	43,6
Not implemented	22	56,4
Amount	39	100

Based on table 1 can be seen more than half (56.4%) of respondents did not implement mosquito nest eradication (PSN).

2. The role of officers

Table 2 The Role Of Officers

The Role Of Officers	F	%
Participate	16	41
Not participate	23	59
Amount	39	100

Based on table 2 can be seen more than half (59%) of respondents said officers did not play a role.

3. Larva Existence

Table 3 Larva Existence

Larva Existence	f	%
Yes	19	48,7
No	20	51,3
Amount	39	100

Based on table 3 can be seen more than half (51.3%) of respondents have larvae inside and outside the home.

Table 4 Relation Role of Officers with Implementation of PSN 3M Plus

Role of Officers	Implementation of PSN						P Value
	Implemented		Not Implemented				
	f	%	f	%	f	%	
Participate	11	68,8	5	31,3	16	100	0,021
Not participate	6	26,1	17	73,9	23	100	
Amount	17	43,6	22	56,4	39	100	

Based on table 4 it can be seen that the proportion of respondents who do not implement PSN is mostly found in respondents who do not have the role of officers. The result of the chi square test obtained by value = 0,021 means there is a significant relation between an officer role and PSN 3M Plus implementation.

2. Relationship of Larva Existence with Implementation of PSN 3M Plus

Table 5 Relationship of Larva Existence with Implementation of PSN 3M Plus

Larva Existence	Implementation of PSN 3M Plus						P Value
	Implemented		Not Implemented				
	f	%	f	%	f	%	
Yes	3	15	17	85	20	100	0,001
No	14	73,7	5	26,3	19	100	
Amount	17	43,6	22	56,4	39	100	

DISCUSSION

Eradication of the mosquito nets (PSN) 3M Plus is an act of eradicating mosquito nest done through closing, draining and utilizing the still valuable goods and other physical prevention activities known as 3M Plus. Eradication of the mosquito nets (PSN) 3M Plus is a planned activity continuously and continuously. This movement is the most effective activity to prevent the occurrence of dengue hemorrhagic fever (DHF) as well as realize the cleanliness of the environment and healthy living behavior. (Ministry of Health RI, 2014).

Implementation of the eradication of the mosquito nets (PSN) 3M Plus is not carried out as it does not do recycling of used goods around the neighborhood of 35 (89.7%), do not make clean water in the refrigerator / dispenser / pot / vase on the inside or outside of the house every week for 23 (58.9%) and respondents did not wear bed nets at 21 (53.8%). So it can be seen if the activity is not done thoroughly it will not have a positive effect on the control of dengue hemorrhagic vector. In addition, the eradication of mosquito breeding is not carried out regularly and continuously as it should be every week.

A health worker is someone who is respected, respected in the eyes of the client because they are in charge of their education. Its role in the service is needed either as executors, managers, educators and researchers who are expected to perform their role well. Performing tasks in accordance with their roles, officers must be able to

influence the behavior of people who are positive for health. With the meaning of the word they will follow the advice expected by the health care workers.

The existence of a live mosquito larva is very possible the occurrence of dengue hemorrhagic fever. Mosquito larvae that live in various places such as a tub of water, or perched on a tree hole, stone hole, leaf midrib, coconut shell, banana bark, bamboo pieces. Dengue virus has a period of incubation is not too long is between 3-7 days, will be contained within the human body. Therefore, if the presence of mosquito larvae is left, then what happens is the incidence of dengue hemorrhagic fever will continue to increase. The high number of larvae is caused by several factors such as the number of mosquito breeding places and environmental factors.

The role that can be performed by the public health nurse is one of them as the implementer of nursing services (providing for nursing care), where the main role of public health nurse is as the executor of nursing care to individuals, families, groups and communities either healthy or sick or who have problems health or nursing, whether it is at home, at school, Puskesmas, orphanages and so on.

Relation of role of officer with eradication of mosquito nets (PSN) 3M Plus, because if officer role in acts of eradication of the mosquito nets (PSN) 3M Plus then implementation of PSN 3M Plus from responder also positive or executed properly, this is influenced by motivation role from officer still low. Nevertheless, there are still respondents who get the role of the officers, but do not implement the eradication of the mosquito nets (PSN) 3M Plus, this is caused by the behavior performed by the respondent only at the time there are only officers, if there is no officer PSN 3M plus not done by the respondent as appropriate.

The most appropriate way to eradicate the vector (*Aedes aegypti* mosquito) is by eradicating the mosquito's nest (PSN). If the mosquito nest eradication (PSN) activity is carried out by the whole community continuously and continuously, the presence of larvae *Aedes aegypti* can be eradicated, so the risk of dengue fever transmission can be reduced. Therefore, it is necessary to carry out activities in the community, such as 3M Plus Movement Events activities, periodic larva examination and counseling to family or community.

Eradication of the mosquito nets (PSN) 3M Plus is implemented it will be directly proportional to the presence of larvae because the output of the eradication of the mosquito nets (PSN) 3M Plus is the suppression of larvae number (ABJ> 95%). Nevertheless, according to the questionnaire analysis, although 3M Plus mosquito nest eradication (PSN) was done, but the larvae still existed at 3 (15%), this was caused by the eradication of the mosquito nets (PSN) 3M Plus which was not whole, are in places that often escape from monitoring such as behind the refrigerator and the water container dispenser so that the larvae are still found.

RECOMENDATION

The conclusion of this research is that knowledge has no relation with eradication of mosquito breeding, while the role of officer and larva existence have correlation with eradication of mosquito breeding. Suggestions for this study in order to increase the role of officers to motivate the community to implement the eradication of the mosquito nest 3M Plus by monitoring (larvae survey period) every week by health cadres.

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RISK FACTOR DESCRIPTION THAT RELATED TO BIRTH WEIGHT IN LUBUK KILANGAN HEALTH CENTER'S WORKING AREA

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ABSTRACT

LBW (Low Birth Weight) is an important indicator to know baby's health since born. Lubuk Kilangan Health Center is a Health Center with the highest LBW case in Padang. From 994 of birth, 48 (4,83%) were happened in 2016. The purpose of this research is to know the description of the risk factor that related to the birth weight of baby in independent midwifery practice in the Lubuk Kilangan Health Center's Working Area in 2017. The type of this research is descriptive with cross sectional design. The population is birth mother with 24 samples. The technique of data collection is accidental sampling. The data is analyzed univariately. The result of the research shows that 20,8% mothers have risky baby birth weight, 95,8% of mothers are exposed by cigarette smoke, 70,8% of mothers suffering anemia, and 79,2% of mothers with low education level. The research concludes that baby's birth weight is influenced by cigarette smoke during pregnancy, anemia, and the low level of mother's education. It is expected to midwives to increase counseling about the risk factors that influence the low birth weight to pregnant mothers.

Keywords: birth weight, cigarette smoke, anemia, education level.

INTRODUCTION

LBW (Low Birth Weight) is become a health problem of people in many countries, because it is considered as a baby mortality cause. The perinatal mortality is happened in 0-6 days, the neonatal mortality is happened in 7-28 days, and the baby mortality is happened in 28 days – 1 year of age. Moreover, the LBW baby could be suffering mental and physical disruption on the next growing age, so that they need a high treatment cost. The perinatal malnutrition will influence the growth of brain and results a complication that will bring bad impact to the baby in the future (Kemenkes RI, 2015).

WHO (*World Health Organization*) reports that 60 – 80% of neonatal mortality are caused by LBW, with 20 times risk of mortality than normal birth weight. Based on WHO and UNICEF (*The United Nations Children's Fund*) data, there were 22 million baby births in 2013, with 16% low birth weight case. LBW case in developing country is 16,5%, it is two times of the developed country (7%). Indonesia is one of the developing country that ranked on the third place of LBW rate (11,1%), after India (27,6%) and South Africa (13,2%) (Judha, 2014).

There were 1.376 LBW case in West Sumatra from 58.529 births (2,35%) in 2015. It was higher than 2014 with 1.493 LBW case from 71.095 births (2,1%). Padang is the city with the highest LBW case in 2015 in West Sumatra. LBW case in Padang showed some increasing chart with 0,9% in 2013, 1,7% in 2014, and 2,2 % in 2015 (Profil Kesehatan Sumbar, 2015).

In 2016, Lubuk Kilangan Health Center was the Health Center with highest LBW case in Padang, i.e. 48 (4,83) LBW case from 994 births (Profil DKK Padang, 2016). The factors that might influence are mother's age, birth range, parity, hemoglobin level, pregnant mother's nutrition status, pregnancy check, and illness during the pregnancy

(internal environment factors). While the external environment factors are environment condition (cigarette smoke exposed), nutrition consumption and socio-economic level of pregnant mother (Manuaba, 2010).

Cigarette smoke could disturb the fetus growth process. The fetus growth process is a continuous process since conception until maturity that could be influenced by congenital and environment factors. Growth process happened since pregnancy period until post birthing period. One of prenatal environment factor that influence the fetus growth process is toxin or chemistry substance (Sulistyawati, 2014).

The research conducted by Tarima in 2012 at Budi Kemuliaan Hospital found that about 40,1% of pregnant mothers were in low nutrition status during the pregnancy. They birth the low birth weight babies. Then, the pregnant mothers who suffered anemia or low hemoglobin were in risk to give birth the low birth weight babies as well. The preliminary study conducted in independent midwifery clinic in Lubuk Kilangan Health Center working area found that 4 from 7 birthing mothers were suffered low hemoglobin and most of birthing mothers were live in smoking environment that bring them to the high risk of cigarette smoke exposed.

The purpose of this study is to know the risk factor description that related to tge babies birth weight in the independent midwifery clinic in Lubuk Kilangan Health Center working area.

METHOD

The type of this research is descriptive with cross-sectional approach. Data collection is conducted by using questionnaire. The populations of this research are the birthing mothers in Elimurni, S.ST, Eli Yusma, S.ST, and Damsiar, S.ST. Independent Midwifery Clinic that located in Lubuk Kilangan Working Area. The sampling technique is conducted accidentally with 24 persons. The data is analyzed univariately to see the description of frequency of every variable.

RESULTS

a. Babies Birth Weight

Tabel 1. Frequency Distribution of Babies Birth Weight in Independent Midwifery Clinic in Lubuk Kilangan Health Center Working Area

Baby Birth Weight	f	%
With Risk	5	20.8
Without Risk	19	79.2
Total	24	100.0

b. Cigarette Smoke Exposed

Tabel 2. Frequency Distribution of Cigarette Smoke Exposed in Independent Midwifery Clinic in Lubuk Kilangan Health Center Working Area

Cigarette Smoke Exposed	f	%
Exposed	23	95.8
Unexposed	1	4,2
Total	24	100.0

c. Hemoglobin Level

Tabel 3. Frequency Distribution of Mother's Hb Level in Independent Midwifery Clinic in Lubuk Kilangan Health Center Working Area

Hb	f	%
Anemia	17	70.8
Not Anemia	7	29.2
Total	24	100.0

d. Education Level

Tabel 4. Frequency Distribution of Mother's Education Level in Independent Midwifery Clinic in Lubuk Kilangan Health Center Working Area

Education Level	f	%
Low	19	79.2
High	5	20.8
Total	24	100.0

DISCUSSIONS

a. Cigarette Smoke Exposed

The result of this research shows that 23 (95,8%) from 24 respondents (pregnant mothers) were exposed by cigarette smoke. This result is different to Ridwan's (2016) that found 32,6% of cigarette smoke exposed respondents were influenced to baby's birth weight.

Elizabeht (2015) stated that pregnant mothers who exposed by cigarette smoke that contains carbon monoxide (CO) could be tied in mothers hemoglobin, so it could result the decreasing of oxygen (O₂) distribution in mothers blood, and finally the fetus receive the lower oxygen. Nicotine that resulted by cigarette smoke could also decrease placenta perfusion. Nicotine that contaminates the mother's blood could cross the placenta and it could influence some organs of fetus body. The impact of these substances is abnormal fetus growth or impress toward the baby's birth weight (Rahardjo, 2012). In our assumption, there are many pregnant mothers who still exposed by cigarette smoke that caused by the low of awareness of people in society or family about the danger of cigarette smoke, so it could raise the risk toward the baby's birth weight.

b. Hemoglobin Level

This research found that 17 (70,8%) from 24 pregnant mothers were suffered anemia. This result is different to Syarwini's (2013) that found 29% anemia pregnant mothers. Anemia is mostly related to "Fe". During the pregnancy period, the blood volume is increase, so that it creates blood dilution because the blood cells are not comparable to the blood plasma accretion. The blood accretion is started from the 10th week of pregnancy and reaches the summit within the 32nd to 36th week. Physiologically, the blood dilution could help the heart's work that being harder during pregnancy (Prawirohardjo, 2011).

In our assumption, anemia in pregnant mothers is caused by irregular Fe consumption. They do not see the benefit of Fe, so they thought Fe is not an important

nutrition during the pregnancy and they forget it. Actually, every pregnant mother needs to consume 1 tablet of Fe everyday during 90 days of pregnancy to avoid anemia.

c. Education Level

This research shows 19 (79,2%) from 24 respondents are low education level. This result is similar to Hasnah's (2010) that found 84,8% pregnant mothers with low education level and 15,2% with high education level. Mothers with low education level are more risky to LBW case (Damanik, 2013). In our opinion, the low education level of pregnant mothers could influence their knowledge. The mothers with high education level are easier to understand the pregnancy information.

CONCLUSION AND SUGGESTION

This research concludes that the baby birth weight is influenced by cigarette smoke expose, anemia, and the mother's education level. We expect to the midwifery to give more counseling about the risk factors that influence the baby's birth weight during the pregnancy.

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THE ORGANOLEPTIC QUALITY AND ACCEPTABILITY OF JICAMA ROOTS (BENGKOANG) AND FERMENTED BLACK GLUTINOUS RICE YOGHURT AS A FUNCTIONAL BEVERAGES OF THERAPEUTIC DIABETES MELITUS

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ABSTRACT

Yoghurt is a functional food product that is developing today, in the form of fermented milk drinks containing probiotics. The effects of fermentation cause a sour taste and smell fishy, so it is not favored by some community groups. The addition of Jicama Roots into yoghurt products becomes an alternative to minimize the effects of fermentation, because yam contains oligosaccharides that give the natural sweet taste, so it is good for people with Diabetes Mellitus. This study aims to determine the organoleptic quality and acceptability of functional beverages yoghurt Jicama Roots black glutinous tape as therapeutic diabetes mellitus. The result showed that the yoghurt formula of black glutinous tape yoghurt which is liked by sensory is yoghurt formula 328 (average value 2,85) with composition of 250 gram of yam with 35% of glutinous tape essence. After the test receipt of selected products to the target group of people with diabetes mellitus as many as 20 people, 90% said likes and very like, only 10% said rather like the formula yoghurt. Thus yoghurt Jicama roots black glutinous tape can be one alternative to therapeutic beverages for people with diabetes mellitus.

Keywords: yoghurt-jicama roots-black glutinous tape-therapeutic drink

INTRODUCTION

Development of functional food as oral therapy of diabetes mellitus is one factor that has an important role in suppressing the occurrence of complications and reduce the mortality rate of diabetes mellitus. Yogurt is a functional food product that is developing at this time, in the form of fermented milk beverage containing probiotics. The effects of fermentation cause a sour taste and smell fishy, so it is not favored by some community groups.

The addition of Jicama Roots into yoghurt products becomes an alternative to minimize the effects of fermentation, because yam contains oligosaccharides that give the natural sweet taste. Jicama Roots is a local food that there are many in the city of Padang, so the city of Padang in juluki with Jicama Roots Jicama Roots City is a local food that many exist in the city of Padang, so the city of Padang in juluki with the City of Jicama Roots. In addition to the cheap price, Jicama Roots has a very good functional value, which contains the components of bioactive inulin degan natural sweet taste of oligosaccharide. Its sweetness like sugar and as a calorie-lowering so good for diabetics. Jicama Roots also contains bioactive components of inulin, one of the prebiotic species that is suitable for bacteria probiotic but not favored by pathogenic bacteria, with the ability to lower blood sugar levels so good for people with Diabetes Mellitus.

Black glutinous tape, contains anthocyanin with very high antioxidant activity. Intake of anthocyanin-rich foods affects adiponectin secretion and adipocyte-specific gene expression in mice, can regulate adipocytokin gene expression that affects the prevention of obesity and diabetes. Black glutinous tape also contains high fiber, which

can decrease carbohydrate absorption, decrease the glycemic index of carbohydrate source food, decrease insulin resistance and improve fat concentration. Development of functional beverage products from both local food Jicama Roots and black glutinous tape, is needed to help increase intake of probiotics, antioxidants, fiber, energy and other nutrients in type 2 diabetes mellitus. This study aims to determine the organoleptic quality and acceptability of functional drinks yoghurt yam black sticky tape as a therapeutic drink of diabetes mellitus.

METHODS

This research is a laboratory experiment research to perform formulation, process and perform sensory (organoleptic) test, acceptance test of therapeutic functional beverage product resembles yoghurt from Jicama Roots and black sticky tape for type 2 DM patient. This stage one research is done in Poltekkes food technology laboratory Ministry of Health Padang

There are two main activities conducted in the first phase of the research, namely: (1) Preparation and formulation and trial production of therapeutic functional beverages in the form of yoghurt; and (2) Analysis of chemical composition, sensory (organoleptic) test, microbiological and food safety test and therapeutic functional beverage acceptance test resemble yogurt from Jicama Roots and glutinous tape.

RESULT AND DISCUSSION

Therapeutic Functional Beverage Products Diabetes Mellitus From Jicama Roots and black Glutinous Tape

Therapeutic beverage products Diabetes Mellitus from functional food Jicama Roots and black glutinous tape is made gradually, starting from the preparation of basic ingredients that make bengkir juice, black glutinous tape essence, making yoghurt yengkoo make a drink formula resembles yoghurt. Jicama Roots extract is obtained from 1 kg of clean fresh Jicama Roots material in blanching for 5 minutes, then mixed with 700 ml of water and blended. After blend until smooth, filtered and produced essence of 1540 ml of yam, white like milk with a soft texture and smooth.

The extract of the obtained yeast is then heated to a temperature of 70-80°C, for 20 minutes, then cool briefly (approximately 5 minutes) and add 20% plain UHT milk from the volume of the yeast (+ 310 mL). Add a sugar substitute (Tropicana Slim) of 5% of the amount of bengkuang juice and milk (+ 1950 mL) which is about 77 grams (30 sachets). Then heat for 45 minutes at 72°C and then refilled and cooled to 40°C. Add the Chimory starter as much as 5% of the mixed volume (97.5 ml), then stir until blended. After mixed flat, incubated for 17 hours with a temperature of 40°C, resulting yoghurt yam as much as + 2050 mL, with a clean white warnah like cotton.

Therapeutic functional beverage formula for people with Diabetes Mellitus in the formulation of yoghurt mixture bengkuang with glutinous tape essence. Glutinous black tape is made from black sticky tape in blender and added water with 1: 1 composition. The result of 100 grams of black sticky tape added 100 ml of water was obtained extract of black glutinous tape as much as 190 ml, in the form of a slightly thick liquid blackish purple like wine. Furthermore, yoghurt yam and tartan glutinous tape essence is formulated with several different formulas, to obtain the preferred sensory target

yogurt. The production process of therapeutic functional drinks for people with Diabetes Mellitus in the form of yoghurt can be seen in figure 1.

Organoleptic fondness

Organoleptic test on flavor, aroma, color and texture of drink was done by panelist 25 students of Diploma Nutrition Polytechnic of Padang Health Semester 5, which already have basic competence in principle and method of organoleptic test. Prior to the panelist examination, a description of the procedure of organoleptic test, as shown in Figure 4.2



The results of organoleptic test data processing (test rank) show the best formula in terms of taste, aroma, color, texture, overall appearance of beverage formula

Table 1. The average value of the panelist's preference level

FORMULA	CODE SAMPLE	ORGANOLEPTIK				AMOUNT	RERATA
		COLOR	AROMA	TASTE	TEXTURE		
F.1.1	903	1,78	2,10	2,28	2,53	8,69	2,17
F.1.2	716	2,10	1,96	1,85	2,21	8,12	2,03
F.1.3	856	2,85	2,60	2,71	2,5	10,66	2,66
F.1.4	235	2,96	2,60	2,75	2,82	11,13	2,78
F.1.5	482	3,14	2,60	3,0	2,60	11,34	2,83
F.1.6	361	3,35	2,67	2,92	2,96	11,9	2,97

The result of organoleptic test given by panelist as a whole shows F.1.6 (361), which is the formula with highest black tartar essay composition of 35%, has the highest favorite value (rank 1). The second highest score is F.1.5 (482), the formula with the composition of the 30% tanno glutinous essence, then the third highest value is formua F.1.3 (235). Table 4.2 shows that the composition of the black glutinous tape essence determines the level of panelist's preference. The result of the statistical test of the preferred value to the taste as a whole is known to show no real difference to the three formula DRINK ($p < 0.05$), so that the three formulas are selected F.1.6 formula to be analyzed in the next step.

Yoghurt receipt power tape black sticky rice

Acceptance of target to yoghurt bengkuang black glutinous tape, can be seen from the result of acceptance test on 20 people with Diabetes Mellitus in the working area of PuskesmasAurDuri Padang. The test results showed that the therapeutic functional beverage of Diabetes Mellitus in the form of yamhurtbengkuang black

glutinous tape can be well received by the target because of the 20 people who were given all declared likes, even more no one refused, some even ask again daro 50% said very like. The power test received to the target group can be seen in Figure 4.3 below.

RECOMMENDATIONS

Black glutinous rice stick and tape is potentially developed into a functional beverage as an alternative to therapeutic beverages for Diabetes Mellitus, because it contains antioxidants including very strong category. Therapeutic functional beverage formulas for people with Diabetes Mellitus is made from yamhurt filtrate that resembles yoghurt and mixed with glutinous tape essence. The most sensory preferred formula is the 361 formula with the composition of the black glutinous tape essence of 35% of the volume of yoghurt yam. The acceptance test results show that therapeutic functional drinks for Diabetes Mellitus patients are favored by the target group. This new study is a phase 1 study, further intervention research is needed, to see the efficacy of therapeutic functional beverages in target group of diabetics mellitus

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EFFECTIVENESS OF CASSAVA BARK EXTRACT IN EXTINGUISH FIRE

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ABSTRACT

cassava fruit production in Indonesia 21.593.052 ton / year, and from cassava skin waste in the percentage ranges 8 - 15%, so calculated will produce cassava skin waste in the amount of 3,238,958 tons / year. The amount of leather waste in the cassava that is large enough, has a huge potential to be used as fire extinguishers. The purpose of this study is to determine the effectiveness of cassava skin extract in extinguishing the fire.. In this study the selected sample is cassava skin of red color 9 kg. cassava leather samples weighing 9 kg were extracted with water mixture of 1: 1 and 1: 1,5 ratio, then blended. cassava skin extract ready for use to extinguish the fire or fire. The collected data was analyzed by descriptive method. Based on the treatment that has been done is the use of cassava skin extract in the form of liquid in extinguish the fire, in this experiment the fuel is wood and shell, obtained the result that is to extract the cassava skin with a ratio of 1: 1 duration of time required to extinguish the high fire between 100 - 125 cm, for 5 seconds, while cassava skin extract with a ratio of 1: 1.5 duration of time required to extinguish the fire for 6 seconds. From the results of this study can be concluded that cassava skin extract with a ratio of 1: 1 more effective in extinguishing the fire that is for 5 seconds or 1 second faster than the cassava skin extract with a ratio of 1: 1.5

Keyword: Cassava Skin Extract, Fire Extinguish

INTRODUCTION

Based on data from the Central Bureau of Statistics in 2008, cassava production reached 21.8 tons. Of the production, for a large scale, part of processed into tapioca flour. While for the production areas of fruit tree fruit processed into snacks typical for the area, for example if in Yogyakarta cassava fruit processed into getuk, number 8, crackers, fried cassava and other snacks are processed from cassava like tapai. Similarly in Central Java cassava fruit is processed into tiwul and other types of snacks such as the number 8 colorful and crackers.

Cassava fruit is also widely found in other areas, such as in the Special Region of Aceh and North Sumatra, some people cultivate cassava fruit into tapai, crackers and chips. Similarly in the province of West Sumatra, especially the city of Padang and tourist city of Bukittinggi, cassava fruit is processed into sanjaibalado chips that have been famous throughout Indonesia and even foreign countries. Behind the various production of food from cassava fruit, it turns out the skin of the tree skin, especially the inner skin also has the potential to be processed into the skin chips of the tree and also the inner skin of cassava can be used as material for fire extinguishers. Based on the observation of researchers in some areas that produce many processed foods from cassava such as Yogyakarta, North Sumatra, Aceh Darussalam and West Sumatra waste from cassava skin, many disposed of into trash. Yet when viewed from the production of cassava fruit in Indonesia 21,593,052 tons / year, and from cassava skin waste in the percentage of about 8-15%, so calculated to produce cassava skin waste in the amount of 3,238,958 tons / year .

The amount of skin waste in the cassava that is large enough, has a huge potential to be used as fire extinguishers, especially the number of disaster fires Cities in Indonesia is quite high, such as DKI Jakarta, the number of fire disasters from January to 24 April 2015 , there were 309 cases, which predicted the loss value reached 82.4 billion. The amount if averaged in 1 day in the capital city of Jakarta occurred 2 - 3 cases of fire.

The high number of fire cases that devour the market, and the houses or settlements and even offices that are delayed can be caused by various factors, one of which is the limitations of materials used to extinguish the fire, so that efforts are needed to increase the amount of effective material to tame the fire, tens of billions of rupiah can be minimized by using extracts and skin powder in the cassava. As it is known that in the inner shell of the cassava there is Tripotassium citrate which is estimated to be used to extinguish the fire, but how much effectiveness of cassava skin extract in extinguishing the fire or fire needs to be done research.

METHOD

This research is experimental / interventional, by playing "Pretest-Postes with Control Group" (Pretest-Postes With Control Group). The population in this research is cucumber tree extract which is white color and red color. The sample is taken by purposive sampling technique, that is sample selection method based on certain characteristics and characteristics related to population characteristic. In this study the selected sample is cassava skin of red color 9 kg. cassava leather samples weighing 9 kg were extracted with water mixture of 1: 1 and 1: 1,5 ratio, then blended. cassava skin extract ready for use to extinguish the fire or fire. The collected data was analyzed by descriptive method.

RESULT

The process of extinguishing the blaze by using cassava skin extract in liquid form was done at the workshop of Polytechnic of Health Ministry of Health of Padang, on November 23, 2017. The fuel used in this experiment is dry wood and shell which stacked as high as approximately 60 cm and the diameter around 50 cm.

Coconut shell and dried wood stacked as high as approximately 60 cm, then sprinkled kerosene and then burned. After the fire is seen high and large then done blackout using APAR that has contained cassava skin extract with a ratio of 1: 1 Likewise for the concentration with a ratio of 1: 1.5, with the distance between the APAR with the inflammation of 1.5 meters. Further recorded the time required to extinguish the blaze, using stopwatch. From the record time required to extinguish the blaze each obtained, for konsentrasi 1: 1 = 5 seconds, and for konsentrasi 1: 1.5 = 6 seconds.

DISCUSSION

Based on the results of research that has been done can be explained the cassava skin extract able to extinguish the fire in a relatively short time that is for the concentration of 1: 1 can extinguish the fire between 60 to 75 cm in 5 seconds, while for concentration 1: 1.5 can extinguish fire with a height and magnitude of almost the same in 6 seconds.

The extinguishing of the fire is sprayed with cassava skin extract, because the cassava quart extract is able to break the chain of fire triangles, so that the fire can be extinguished in a relatively short time. Furthermore, it can be explained that in the cassava skin extract there is a chemical compound called Tripotassium Citrate.

Tripotassium Citrate compound, contained in the cassava skin extract of the tree can function and inhibit and be able to prevent wider fires. This is in accordance with the results of research Randall, 2012 which is explained that in the cassava skin extract there cassava extract, according to him, proven to break the chain chemical reaction in the fire process. "The active substance could prevent an electron's energy jump over a critical point in the outermost layer of the atom during combustion," he said. Randall nicknamed his theory of "free radical" or free radicals. This theory was rejected British experts in the annual meeting at Edinburgh University, Scotland, 1982.

Furthermore, Randall explains cassava skin (cassava) on several studies have been done which can be used as a cracker by eliminating the first cyanide acid levels. In addition, according to (Randal, 2012) cassava skin also contains the active ingredient in the form of tripotassium citrate that can be developed for the purposes of anti-fire products. Sosrosoedirdjo (1993) pointed out that in the sinking (cassava) there is an active substance called free radical substance and can break the chain of chemical reactions in the fire fighting process.

Tripotassium citrate can prevent the leap of electron energy in the outer layer of the electron atoms during combustion. The molecular formula of tripotassium citrate is $C_6H_5K_3O_7$, transparent or white crystalline, granular powder, soluble in water almost insoluble in ethanol. Tripotassium citrate is not toxic and is a slightly alkaline salt with low reactivity. Tripotassium in the form of monohydrate compounds is highly hygroscopic and should be protected from humid conditions, and is not recommended to be stored in high pressure places as they may cause agglomeration.

In addition according to (Yunita, N., 2008) there are some steam that can be done to extinguish the fire is by three ways that is) by lowering the temperature below the fire temperature, and by removing or reducing the acid content. This is in accordance with the nature and function of cassava tree extract that can lower the temperature in case of fire. Thus spraying cassava skin extract can reduce the temperature of the material being burned so that in a certain time the burning material will be extinguished, because the chain of fire-based processes based on three fires one of which is the source of heat can be decided.

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EFFECTIVENESS OF THE EDUCATIONAL MODULE TO THE ROLE OF PMO IN THE WORKING REGION OF PUBLIC HEALTH CENTRE LUBUK BUAYA, CITY OF PADANG IN 2017

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ABSTRACT

The proportion of BTA + among all pulmonary tuberculosis cases in West Sumatra in 2015 was 65.3%. The rate of BTA + case notification in 2015 in West Sumatera was 134 per 100,000 population, an increasing compared in 2014 of 92 per 100,000 population (Ministry of health RI, 2015). Padang city is one of the cities that contributes high rates of pulmonary TB incidence. The number of new cases has increased from 1,105 cases in 2014 to 1,116 in 2015 (Dinkes Kota Padang, 2015). Tuberculosis disease can be cured with regular treatment, and takes a very long time and may cause boredom and boredom in patients. To ensure the regularity of the treatment requires a Drug Swallowing Supervisor (PMO) who will assist the patient during the TBC treatment program (Achmadi, 2005). More than half of the knowledge, attitudes and actions of the PMO before the intervention are good, Much of the knowledge, attitudes, actions of the PMO after the intervention are good, There is a significant difference between PMO knowledge before and after the intervention, There is no significant difference between attitude, after intervention. To the officers at Public Health Center Lubuk Buaya can give counseling about the role of PMO and PMO action in supervising tuberculosis patient to take medicine at home especially for knowledge, attitude of PMO For Researchers Furthermore, it is expected to examine the factors related to the role of PMO in supervising the medicine for tuberculosis patients at home.

Keyword: TB, Module

INTRODUCTION

In 2015 there were 330,910 cases of tuberculosis cases in Indonesia, an increasing compared to all cases of tuberculosis found in 2014 at 324,539 cases (Kemenkes RI, 2015). West Sumatra is one of the provinces where the incidence of TBC is high. Based on data obtained from the Ministry of Health RI, the proportion of BTA (+) among all cases of pulmonary TBC in West Sumatra in 2015 at 65.3% (Ministry of Health RI, 2015). Padang is one of the cities that contributes the high rate of pulmonary TBC incidence. Estimates of Pulmonary TB BTA (+) patients by 2015 are 1.6 / 1000 inhabitants. The number of new cases has increased from 1,105 cases in 2014 to 1,116 in 2015 (Dinkes Kota Padang, 2015). Tuberculosis disease can be cured with regular treatment. To ensure the regularity of the treatment requires a Drug Swallowing Supervisor (PMO) who will assist the patient during the TB treatment program (Achmadi, 2005). The role of the Drug Swallowing Supervisor (PMO) is suspected to have a high influence on the success of pulmonary TBC treatment, because the PMO determines whether the drug has been recommended to be drunk or not by patients with pulmonary TBC, thus determining whether or not the pulmonary tuberculosis patients, The research to PMO needs to be done on the success of treatment of patients with pulmonary TB.

METHODS

This research is a re-experimental research with pre-test and post-test one group design that is done initially measurement before and after given a treatment. The population is the PMO (drug controller) in the working area of public health centre Lubuk Buaya, Padang amounted to 47 people in the last 5 months. Samples are all active PMO, the sampling technique with total sampling with sample size of 47 people. The location of the research is the working area of public health centre Lubuk Buaya Padang. The data is processed by editing / checking the questioner field, coding data / changing the data in the form of letters into data in the form of numbers, data entry / insert data into the computer program, and cleaning data / checking back data that has been in the entry. Data analysis is univariate and biavariat analysis with statistical test of Mc. Maren.

RESULT AND DISCUSSION

Table1. Respondent Distribution Based on the Role of PMO (Knowledge, Attitude and Action) before the intervention at Public Health Center Lubuk Buaya Padang 2017

Variable	Frequency	Percentage
Knowledge		
Good	6	31,57
Less	13	68,43
Total	19	100
Attitude		
Good	15	79
Less	4	21
Total	19	100
Action		
Good	14	73,68
Less	5	26,32
Total	19	100

Table 2. Respondent Distribution Based on the Role of PMO (Knowledge, Attitude and Action) after the intervention at Public Health Center Lubuk Buaya Padang 2017

Variable	Frequency	Percentage
Knowledge		
Good	17	89,47
Less	2	10,53
Total	19	100
Attitude		
Good	18	94,73
Less	1	5,27
Total	19	100
Action		
Good	18	94,73
Less	1	5,27
Total	19	100

Table3. Effectiveness of The educational Module to Knowledge of PMO in The Working Area of Public Health Center Lubuk Buaya, Padang 2017

Variable	Knowledge after Intervention				Total	<i>p value</i>
	Less		Good			
	f	%	f	%		
Knowledge before Intervention						
Less	1	7,70	12	92,30	13	0,003
Good	1	16,66	5	83,34	6	
Total	2		17		19	

Based on the results of the analysis table. 3 shows that knowledge before intervention is less good and after intervention as much as 7.70%, knowledge before intervention is less good and after intervention is good as much 92,30%, knowledge before intervention good and after intervention less good as much 16,66%, knowledge before intervention and after intervention is good as much as 83.34%. Based on statistical analysis there is a significant difference between knowledge before and after intervention with p value = 0,003

Tabel 4. Effectiveness of The educational Module to Attitude of PMO in The Working Area of Public Health Center Lubuk Buaya, Padang 2017

Variable	Attitude after Intervention				Total	<i>p value</i>
	Less		Good			
	N	%	N	%		
Attitude before Intervention						
Less	1	25	3	75	4	0,250
Good	0	0	15	100	15	
Total	1		18		19	

Based on the results of the analysis of table 4 shows that the attitude before the intervention is not good and after the intervention as much as 25%, the attitude before the intervention is not good and after intervention is good as much as 75%, attitude before the intervention Good and after intervention intervention is good as much as 0%. and after good as much as 100%. Based on statistical analysis there was no significant difference between attitude before and after intervention with p value = 0,250

Table 5. Effectiveness of The educational Module to Action of PMO in The Working Area of Public Health Center Lubuk Buaya, Padang 2017

Variable	Action after Intervention				Total	<i>p value</i>
	Less		Good			
	N	%	N	%		
Action before Intervention						
Less	1	20	4	80	5	0,125
Good	0	0	14	100	14	
Total	1		18		19	

Based on the results of the analysis table. 5 indicates that pre-intervention measures are less and after intervention are less as 20%, pre-intervention action is less and after intervention is good as much as 80%, action before intervention is good and after intervention is not good as much as 0%, attitude before intervention is good and after intervention is good as much as 100%. Based on statistical analysis there was no significant difference between attitude before and after intervention with p value = 0,125

DISCUSSION

Based on the results of the research showed that good knowledge before the intervention as much as 31.57% while after intervention as much as 89.47%, there is an increase of knowledge after intervention on the role of PMO (Knowledge) in the working area of public health center Lubuk Buaya Padang city in 2017. there are still many PMOs who do not know anything related to the role of PMO on the compliance of TB patients in swallowing tuberculosis medicine. This can lead to errors in monitoring TB treatment at home. Efforts that can be made to improve the PMO's knowledge about its role is to provide education and information to PMO about the role of PMO.

Based on the results of research indicate that good attitude before intervention as much as 79% while after intervention equal to 94,73%, there is improvement of knowledge after intervention to role of PMO (Knowledge) in work area of puskesmas Lubuak Buaya Padang city year 2017. there is still a PMO that is not good, this will cause TB patients less attention from the PMO. Efforts that can be done to reduce the unfavorable attitude of PMO to tuberculosis patients as a PMO can empower the TB patients about how to take medication as directed by health personnel.

Based on the result of research indicate that good action before intervention is 73,68% while after intervention equal to 94,73%, there is improvement of knowledge after intervention to role of PMO (Knowledge) in work area of puskesmas Lubuak Buaya city of Padang year 2017. above there is still a poor PMO in the act of controlling the patient in taking drugs that will cause the slow recovery of the patient. It is therefore important to provide simulations on the management of TB controlled medication monitoring at home such as when family recurrence should not panic, and the PMO should control the patient while taking medication and supervise the tuberculosis patients while taking the medication.

Based on the statistical analysis there is a significant difference between the knowledge before and after intervention with p value = 0.003. Based on the above research is still the PMO who does not know the action that should be done, this can endanger the sufferer caused by lack of knowledge of PMO about peranya in supervising drink medicine for tuberculosis patients. Therefore the consequences of PMOs who have less knowledge of their role in monitoring tuberculosis patients at home will have a serious impact, the role of PMO is needed in providing supervision of medicine for TB patients. To overcome the ignorance of PMO in the supervision of taking medicines for tuberculosis patients at home, it is necessary to do training, counseling for PMO with approach of using education module of PMO.

Based on statistical analysis there was no significant difference between attitude before and after intervention with p value = 0,250. The attitude of PMO in supervising taking medicine for tuberculosis patients is to make the TB patient understand about the disease, train the patient to think positively, tell the patient to be somewhat different from others is not a bad thing. Therefore the attitude of the PMO that covers the state and lack of knowledge on the peruku as a PMO at home can make the handling of patients with TB to be not optimal. To overcome the attitude of PMO in the action of supervision to take medicines for tuberculosis patients at home, the researcher gives health education about how the attitude of PMO in doing supervision to take medicine and give good oversight action to the right of TBC and give opportunity to live like normal people to tuberculosis patient and provide motivation and encouragement to get well.

RECOMMENDATIONS

The staff at the Lubuak Buaya Community Health Center can provide counseling on the role of PMO in monitoring TBC patients in taking medicines as well as PMO action in monitoring TB patients taking medicines at home. For Researchers Furthermore it is hoped to investigate the Factors relating to the role of PMO in monitoring the medication for TB patients at home.

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EFFECTIVENESS OF EDUCATION MODEL OF HYPERTENSION CONTROL ON BLOOD PRESSURE OF HYPERTENSION PATIENTS IN PUSKESMAS WORKING REGION NANGGALO PADANG YEAR 2017

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ABSTRACT

Hypertension is an asymptomatic state, in which high blood pressure in the arteries leads to increased risk for cardiovascular diseases such as heart, stroke, heart failure and kidney damage. The results showed that health education with module can improve the knowledge where there is a significant difference between the average knowledge and attitude of hypertensive patients before and after given hypertensive control module .. The statistical test results on the average value of knowledge from the pre test to the test post showed $p = 0.030$ ($p < 0.05$). The result of stasis test on the attitude attitude value from pre to post test (paired t-test) found that $P = 0,017$ ($p < 0,05$). There is a significant difference between the Blood Pressure of hypertensive patients before and after the hypertension control module is administered. Result of statistical test (paired t-test) got that value $P = 0,042$ ($p < 0,05$). Suggested Need to do health education with module to change knowledge and attitude of Hypertension Patient in Control of Blood Pressure Control

Keywords: Effectiveness of Education Model, Control of Hypertension Knowledge and Attitude

INTRODUCTION

Hypertension is an asymptomatic state, in which high blood pressure in the arteries leads to an increased risk of cardiovascular diseases such as heart, stroke, heart failure and kidney damage (Sutanto 2010)

WHO (2011) noted that one billionth of the world's people are experiencing hypertension, two-thirds of whom are in developing countries this number is expected to increase to 1.5 billion by 2025. Globally hypertension causes 7.5 million deaths of around 12.8% causing death (WHO2014). Research data shows that about 50 million (21.7%) adults suffer from hypertension. Tailan accounted for 17% of the total population, vietnam 34.6%, Singapore 24, i9%, Malaysia 29.9%. Indonesia accounts for 15% of the total population .. The mortality rate of hypertension in southeast asia is about 1.5 million deaths, ie one-third of the hyperventilated population (MOH 2013)

Prevention of hypertension is a good attempt to reduce risk factors for heart disease and hypertension, maintaining normal blood pressure is a major health support in patients with hipetensi. The use of tidfak hypetension drug will play an effective role if not followed by healthy lifestyle. Healthy lifestyle that is beneficial for patients with hypertension is an active lifestyle, maintaining ideal body weight. Nutrition is balanced by reducing salt intake and stopping smoking (Yahya2011).

Control of risk factors can be done by reducing excess weight, reduce salt intake, create relaxed keadan, regular exercise, stop smoking, and reduce alcohol consumption (MOH 2006). Increased incidence of hypetension can not be separated from the lack of public awareness of the causes of hypertension such as smoking,

heredity, age, consume gatram and excessive alcohol, cholesterol, stress, lack of exercise (Wibomo 2013)

Research Vendyik, VP (2012) there is a relationship between physical activity with blood pressure. The results of Andria KM (2013) showed sports behavior showed a significant relationship in patients with hypertension (pv = 0.000). And showed a significant relation between prism sters and hypertension (pv = 0.047)

Pemerintah through "Germas" the movement of society when healthy living with healthy family alignment through 12 indicators of healthy families more emphasis on promotive and preventive activities. "Germas conducted as a strengthening efforts to promote and preventive society," said Minister of Health when opening the 2016 National Meeting (Rakerkesnas) in Bidakara Jakarta, 12 indicators of healthy outbreaks such as reducing the burden of infectious diseases and non-communicable diseases. Non-infectious diseases in this case are hypertensive patients treated regularly.

Mardiyati research (2009), shows that people with hypertension have a bad attitude in a diet hypertension it is caused by knowledge factors of hypertensive patients. Attitude is an act of activity, but it is a predisposition of behavior. According to Notoatmodjo (2007: 145), one's behavior is the main cause of health problems, but also the key to solving. Behavior is the second factor that changes the degree of public health.

Public Health Centers as one type of first-rate health care facility has an important role in the national health system; Puskesmas have the duty to implement health policy to achieve health development goal in their working area in order to support the realization of healthy family. Puskesmas Nanggalo Padang consists of 3 urban villages, 33 RW and 134 RT are puskesmas with the most cases of hypetension in Padang city, where in 2016 there are 268 cases of hypertension. Results of interviews with the responsible of the program perkesmas got no module used by nurses in carrying out home visit at family of risk one of them family with hypertension patient.

Based on the above, the researcher is interested to conduct a research with the title Effectiveness of Hypertension Control Education Model to Blood Pressure of Hypertension Patient in Nanggalo Puskesmas Working Area Padang Year 2017. How Effective Effectiveness of Hypertension Control Education Model to Blood Pressure of Hypertension Patient in Nanggalo Puskesmas Working Area Padang Year 2017

RESULTS

Table 1. Distribution of Respondents by Knowledge of Hypertension Patients in Control of Blood Pressure Control Before and After Use of Hypertension Control Education Module in Nanggalo Puskesmas Working Area Padang Year 2017

NO		Hypertension Patient Knowledge Before Giving Module		Hypertension Patient Knowledge After Giving Module	
		F	%	f	%
1	Low	11	55	5	25
2	High	9	45	15	75

Table 2. Distribution of Respondents based on the Attitudes of Hypertension Patients in Control of Blood Pressure Control before and after Utilization of Hypertension Control Education Module in Nanggalo Puskesmas Working Area

No		The Attitudes of Hypertension Patients Before Administration of Modules		Attitudes of Hypertension Patients After Administration of Modules	
		F	%	f	%
1	Negatif	11	55	8	40
2	Positif	9	45	12	60

Table 3. Distribution of Respondents based on blood pressure control before and have used hypertension control education module in Nanggalo Puskesmas Working Area Padang Year 2017

NO		Blood Pressure of Hypertension Patients Before Administration of Modules		Blood Pressure of Hypertension Patients After Administration of the Module	
		F	%	f	%
1	Not controlled	19	95	17	85
2	Controlled	1	5	3	15

Table 4. Average Distribution of Hypertension Patients Knowledge in Control of Blood Pressure Control Before and After Use of Hypertension Control Education Module in Nanggalo Puskesmas Working Area Padang Year 2017

Variabel	N	Mean	SD	Average Difference	P
Knowledge Before the Module is given	20	0,45	0,510	0,30	0,030
Knowledge after the module is given	20	0,75	0,444		

The result of pest test (paired t-test) got $P = 0,030$ ($p < 0,05$) meaning that there is significant difference of mean between knowledge of hypertension patient before and after given hypertension control module

Table 5. Average Distribution of Hypertension Patient Attitudes in Control of Blood Pressure Control Before and After Use of Hypertension Control Education Module in Nanggalo Puskesmas Working Area Padang Year 2017

Variabel	N	Mean	SD	Average Difference	P
Attitude Before Given Module	20	0,45	0,510	0,40	0,017
Attitude after module	20	0,85	0,366		

The result of paired t-test shows that $P = 0.017$ ($p < 0,05$) means that there is a significant difference between the average attitude of hypertensive patients before and after given hypertension control modul

Table 6. Average Distribution of Blood Pressure of Hypertension Patients in Control of Blood Pressure Control before and After Use of Hypertension Control Education Module in Nanggalo Puskesmas Working Area Padang Year 2017

Variabel	N	Mean	SD	Average Difference	P
Blood Pressure Prior to the Module	20	156,65	9,230	4,95	0,042
Blood pressure after the module is given	20	151,70	10,011		

DISCUSSION

The results of this study in accordance with research conducted by Ginting (2006) on the relationship between knowledge by prevention of hypertension in the elderly, which obtained the results of the number of elderly people with low knowledge of 36.1%. Knowledge will underlie the belief of an object and will form a habit, it will then generate the will that is raised in attitude and behavior (Notoatmodjo, 2003). The next factor that can affect the knowledge is the age of respondents who have ≥ 50 years, the age of the increasing respondents make the memory decrease in the respondents. As Utomo pointed out, (2013) that the reduced knowledge of the elderly respondents could be due to the ability to recall the knowledge of hypertension that had actually been previously obtained. The majority of respondents who are getting elderly results in a decreasing memory.

According to Notoatmodjo (2003) one's knowledge can be influenced by several factors one of which is the level of education. Education can bring one's insight or knowledge. The higher the level of education a person, then he will more easily accept new things that in the end the more knowledge they have. Conversely, if the level of education is low it will hamper the development of a person's attitude towards acceptance, information and newly introduced values.

According to WHO in Notoatmodjo (2007) that attitude describes likes or dislikes someone to an object. A person's positive attitude toward health values does not always manifest in real action. According to Notoatmodjo (2003) states that a person's attitude will be influenced by beliefs, beliefs, emotional life, and the tendency to behave that all is a component of attitude. Attitude is a reaction or a person's response is still closed to a stimulus or object. Manifesting attitudes can not be directly seen but can only be interpreted first from closed behavior. Attitude is also an emotional reaction to social stimulus (Notoatmodjo, 2003)

The importance of blood pressure control in the population with the aim of shifting the distribution of blood pressure to the lower direction. The second is to use a blood pressure reduction strategy aimed at those who have a tendency to elevate blood pressure.

The above description accepts the hypothesis because there is a difference in the value of knowledge at the test post. In accordance with the opinion of Green and Johnson (1996) subjectivity affects the formation of a person, depending on his experience and environment. The results of this study are similar to Dameria's (2006) research in Deli Serdang District that the promotion of health directly to tuberculosis patients can improve the knowledge of TB patients. Similarly, Sadjiran (2002) study in Klaten District concluded that there was an increase in pregnant women's knowledge related to the prevention of anemia after individual and group counseling. Individual counseling is better than group counseling in improving mother's knowledge. This suggests that the results of this study are consistent with previous studies.

REKOMENDATION

Based on the results of this study the researchers put forward the suggestion need to do health education with module to change knowledge and attitude of Hypertension Patient in Control of Blood Pressure Control. Hypertensive patients are expected to change the patient's behavior in Control of Blood Pressure Control.

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RELATIONSHIP KNOWLEDGE AND ATTITUDES OF THE ELDERLY WITH THE UTILIZATION OF ELDERLY POSYANDU IN WORK AREA PUSKESMAS TANAH TINGGI BINJAI 2016

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ABSTRACT

Posyandu is a form of health services organized by the community, for the community, with the technical support of health workers. Indonesia is the country with the fourth most populous population in the world and 15 million is the elderly. Elderly Posyandu should be the foremost pioneer in tackling the problem of high level of Elderly in Indonesia. By disseminating knowledge and attitude of society about the need of quality of life of individual and importance of planning need and supply in old age later. Based on research of the relationship of elderly knowledge with the utilization of posyandu elderly, the result of $P = 0,000 < 0,05$, attitude relationship with utilization posyandu elderly obtained result $P = 0,000 < 0,05$, it can be concluded there is relation between Knowledge and Attitudes of Elderly Utilization of Posyandu Lansia in the Work Area of Puskesmas Tanah Tinggi Binjai in 2016. The advice is that healthcare should further improve understanding, information on the Utilization of Elderly Posyandu.

Keywords: Knowledge, Attitude, Utilization of Elderly Posyandu

INTRODUCTION

Indonesia is the country with the fourth most populous population in the world. With a population of more than 200 million people in 2000 7.5% or 15 million are elderly residents. Based on the projection of the Central Bureau of Statistics (BPS) in 2005-2010 the number of elderly population will be equal to the number of children under five is 8.5% of the total population or about 19 million inhabitants.

According to the World Health Organization (WHO), the elderly population in Indonesia in 2020 has reached 11.34% or recorded 28.8 million people, the only 6.9% of whom live in the world's largest population. Seeing the level of health and welfare is getting better then the life expectancy of the Indonesian population is also increasing (Hatta, 2006).

The Health Profile of North Sumatera Province in 2011 the number of residents in North Sumatra is 13,103,596 people, and the number of Elderly people in North Sumatra in 2011 was 797,813 people or 6.08%. And the number of elderly in the city of Binjai as many as 14,523 people. With the increasing of elderly population, it needs attention from all parties in anticipating various problems related to the aging of population. From the description above, it is necessary a further study about the importance of relationship knowledge and attitude of Elderly to the existence and utilization of Elderly Posyandu. For that reason, in this case the authors feel interested to concern and examine further the importance of "Relationship Knowledge And Attitudes Elderly With The Use Of Elderly Posyandu In The Work Area Puskesmas Tanah Tinggi Binjai In 2016".

METHOD

The type of research used is analytical method with cross sectional research design. The location of the research was conducted in the Working Area of Puskesmas Tanah Tinggi Binjai. This research took place from January to July 2016.

Population in this research is all elderly who utilize Elderly Posyandu in Work Area of Puskesmas Tanah Tinggi Binjai Year 2016 which amounts to 120 people. The population in this research is all elderly who utilize Elderly Posyandu in Work Area of Health Center of Binjai Land of 2016 which amounts to 120 people. At the time of data collection, respondents are collected in one place, then respondents are given first explanation about the purpose of research and asked its willingness to be used as research sample. Furthermore, respondents were asked to fill the questionnaire that has been provided, amounting to 20 pieces, the questionnaire contains 10 knowledge variables question and attitude variable as many as 10 statements. After the data collected, univariate and bivariariat data analysis were performed.

RESULT

Univariate research results as many as 45.5% (25 people) Elderly utilize posyandu elderly. Of the respondents in getting 20.0% (11 people) elderly knowledgeable less about the utilization of Elderly Posyandu. as many as 32.7% (18 people) Elderly be negative about the utilization of Elderly Posyandu.

Result of analysis of relationship between knowledge of elderly with utilization of posyandu lansia obtained that there are as many as 5 from 11 (45,5%) of respondents who do not take posyandu elderly have less knowledge. Among the elderly who use posyandu there are 18 out of 18 respondents (100%) who have good knowledge. The result of statistical test obtained p value = 0,000 hence can be concluded there is difference of proportion of posyandu utilization happening between elderly who have good knowledge with elderly having knowledge less (there is significant correlation between knowledge of elderly with utilization of posyandu elderly). analysis of the relationship between elderly attitude with the utilization posyandu elderly obtained that there are as many as 29 from 37 (78,4%) of respondents who take posyandu elderly have positive attitude. While diantara elderly who do not take advantage of posyandu elderly there are 1 of 18 respondents (5.6%) who have a negative attitude. The result of statistical test obtained p value = 0,000, it can be concluded that there is a difference of proportion of posyandu utilization occurrence between Elderly who have positive attitude with elderly who have negative attitude (there is a significant correlation between elderly attitude with the utilization of posyandu elderly).

CONCLUSION AND RECOMENDATION

Based on the results of research on the Relationship Knowledge and Attitudes of the Elderly By Utilizing Elderly Posyandu in Work Area Puskesmas Tanah Tinggi Binjai Year 2016 can be concluded as follows: The results showed that as many as 20% of elderly people have less knowledge about the utilization of Elderly Posyandu in the work area of Puskesmas Tanah Tinggi binjai in 2016, 32.7% of elderly have negative attitude about Utilization of Elderly Posyandu in Binjai Tanah Tinggi Health Center Work Area 2016, as many as 45.5% of elderly who do not take advantage of Elderly Posyandu in Binjai Higher Health Center work area 2016, There is a relationship

between knowledge with the utilization posyandu elderly as well as relationship between attitude with utilization of posyandu elderly in work area Puskesmas Tanah Tinggi Binjai Year 2016.

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THE INCIDENCE AND RISK FACTORS OF POSTPARTUM BLUES IN PALEMBANG CITY 2017

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ABSTRACT

Postpartum blues is a mental adaptation disorder of a mother that occurs on the first days of the baby's birth. Peak postpartum blues occur on the 3rd to 5th day of postpartum with duration from several hours to several days. Predisposing factors that can lead to postpartum blues are maternal characteristics (age, education, occupation), obstetric history (Parity, Pregnancy Age, Type of Birth, complications of labor) and psychosocial factors (pregnancy planning, family support and physical exhaustion). This study aims to determine the risk factors and the incidence of postpartum blues in the city of Palembang. The incidence of postpartum blues were 46,7%. There is a significant relationship with postpartum blues were parity ($p = 0,000$; OR = 15,117), family support ($p = 0,009$; OR = 10,996), pregnancy planning ($p = 0,006$; OR = 9,863), education ($p = 0,023$; OR = 3,656) and physical fatigue ($p = 0.029$; OR = 3.341). The incidence of postpartum blues in the city of Palembang is 46% and parity are the most influential factors for postpartum blues events. The occurrence of postpartum blues involves biopsychosocial factors before and after delivery. Biological vulnerability, psychological vulnerability, stressful situations, less social support, and maladaptive strategies together contribute to the development of postpartum blues. It requires social, emotional, informed and labor support for postpartum mothers and identifies the causes of postpartum blues from the outset.

Keywords: *Postpartum blues, risk factors, incidence rate*

INTRODUCTION

Pregnancy and childbirth are normal events in life, but many mothers are stressed. Stress experienced by the mother caused by feelings of sadness associated with her baby called post partum blues (Marmi, 2012). This condition often occurs within 14 days after delivery and tends to be worse on days three and four (Lowdermilk, Perry & Bobak, 2000). According to the results of research Machmudah (2010) showed that the incidence of post partum blues in primipara mother reached 88.9% or 48 respondents from 52 mothers who experienced post partum blues.

Postpartum blues are characterized by symptoms such as: depression / dementia, tearfulness, irritability, anxiety, headache, limb feelings, self-blame, feeling inadequate, sleep disturbances and appetite disorders. These symptoms begin to appear after childbirth and will generally disappear within a few hours to ten days or more. However, in a few weeks or months later it develops into a more severe state (Freudenthal, 1999; Olds, 2000; Lowdermilk, et.al, 2000).

Bobak (2005) suggests that postpartum blues may occur at any time after delivery, postpartum blues should be identified early and adequately treated, otherwise untreated would put the mother at risk of recurrent illness and have long-term effects on the mother's role associated with the emotional and behavioral development of the child, as well as in relation to the mother's role in the family. Improper postpartum blues handling can develop into postpartum depression or even more severe symptoms of psychosis.

Therefore identification of Postpartum blues risk factors with EPDS is important for diagnosing maternal health problems and reducing Postpartum blues prevalence. Based on the above background, problems of this research is "What are the risk factors and the incidence rate of postpartum blues in Palembang city?"

METHODS

This research is an analytic survey with cross sectional design on postpartum. The population of this study were all postpartum in Muhammadiyah, Bhayangkara and Khodijah Islamic Hospital from September 27St to December 06St, 2017. The Samples were postpartum days 2-14 as many as 90 respondents with Proportionale cluster random sampling. Data were analyzed by chi square test and multiple logistic regression using Backward LR method The instrument used EPDS (Edinburg Postnatal Depression Scale) with 10 questions.

RESULTS

Table 1. The incidence of postpartum blues in Palembang city 2017 (n = 90)

Postpartum Blues	Amount	
	n	%
Yes	42	46,7
No	48	53,3
Jumlah	90	100

Table 2 The Risk factors of Postpartum bluesIn palembang city 2017 (n = 90)

Risk factors	The possibility of Post Partum Blues				amount		p	OR (95%CI)
	No		Yes		n	%		
	n	%	n	%				
Mother's age								
20 – 35 years old	41	59,4	28	40,6	69	100	0,036*	2,929
<20 or>35 years old	7	33,3	14	66,7	21	100		(1,049-8,176)
Parity								
Multipara	33	66	17	34	50	100	0,007*	3,235
Primiparous	15	37,5	25	62,5	40	100		(1,359-7,701)
Type of labor								
Normal	14	45,2	17	54,8	31	100	0,260	0,606
cesarean section	34	57,6	25	42,4	59	100		(0,252-1,454)
Complicationsof labor								
No	30	63,8	17	36,2	47	100	0,037*	2,451
Yes	18	41,9	25	58,1	43	100		(1,048-5,730)
Pregnancy Planning								
Planned	43	58,1	31	41,9	74	100	0,051**	3,052
Unplanned	5	31,2	11	68,8	16	100		(0,963-9,672)
Physical fatigue								
No	27	67,5	13	32,5	40	100	0,016*	2,868
Yes	21	42	29	58	50	100		(1,204-6,831)
Family support								
Yes	45	59,2	31	40,8	76	100	0,009*	5,323
Nosupport	3	21,4	11	78,6	14	100		(1,371-20,657)
Mother's education level								
High level (bachelor,diploma, senior high)	35	63,6	20	36,4	55	100	0,014*	2,962
Low level (no school, elementary, junior high)	13	37,1	22	62,9	35	100		(1,230-7,130)
Mothers occupatior								
Unemployment	39	51,3	37	48,7	76	100	0,371	0,586
Work	9	64,3	5	35,7	14	100		(0,180-1,910)

Table. 2 shows the results of chi square analysis. There are 6 variables that have significance to Postpartum Blues incidence are maternal age (p = 0,036; OR = 2,929), parity (p = 0,007; OR = 3,235), complication / complication of labor (p = 0,037; OR = 2,451), physical exertion (p = 0.016; OR = 2,868), family support (p = 0,009; OR = 5,323) and mother education (p = 0,014; OR = 2,962 . the variables that met the criteria

of candidate of the multivariate model were statistically significant variables ($p < 0.05$) and the variables having $p < 0.25$ include; maternal age, parity, labor complications, physical exhaustion, family support, maternal education and pregnancy planning.

Table 3. Final Model Multivariate Analysis Factors Influencing the incidence of Postpartum Blues in Palembang City

Variabel	Koefisien	<i>p_value</i>	OR (95%CI)
Parity	2,716	0,000	15,117 (3,821-59,805)
Family support	2,398	0,009	10,996 (1,829-66,107)
Pregnancy Planning	2,289	0,006	9,863 (1,936-50,233)
Maternal education	1,296	0,023	3,656 (1,195-11,188)
Physical fatigue	1,206	0,029	3,341 (1,134-9,846)
Constant	-3,800	0,000	0,034

DISCUSSION

Parity is the most significant factor to determine postpartum blues, primiparas more at risk of postpartum blues impact because Mother is in the process of adaptation and have no experience in caring for children, so feel their own problems. Primipara need people who accompany in the puerperium, so the childbirth period will be passed well.

Bivariate and multivariate analyzes showed significant correlation of family support to Postpartum blues incidence. The results were in line with Kurniasari D & Astuti YA (2014). Husband and family support in postpartum care is necessary. As it is known that in Indonesia, husbands' decisions and direction from mothers are very influential and become important guidelines for the mother in the practice of baby care everyday. When husbands and families are not supportive, postpartum mothers usually feel sad and overwhelmed in raising their babies in the first days after delivery (Nirwana, 2011). Multivariate analysis showed a significant relationship of pregnancy planning to postpartum blues incidence. The results were in line with Yuliani, F. & Irawati, D (2013). Preparation for labor and motherhood will determine whether a person has postpartum blues or not. A good preparation makes postpartum mothers will be able to face their postpartum period well without any postpartum syndrome disorder. (Bobak, 2005) Bivariat and multivariat showed significant correlation of Mother's education level to postpartum blues incidence. The results of the study were in line with Irawati, D & Yuliani, F. (2014) and Desfanita, et al (2015). The level of education is very influential on emotional intelligence, mothers who have higher education will have a more rational way of thinking, and the easier to receive information. Mothers who are not well informed about pregnancy and childbirth generally find it difficult to adapt to their new roles and activities to allow for psychological disorders such as postpartum blues. Bivariate and multivariate analyzes showed a significant correlation of physical fatigue to Postpartum blues incidence.. The results were in line with Jayasima, A M, et al (2014). Physical fatigue can lead to postpartum blues. The addition of new roles and responsibilities of mothers in infant

care, prolonged labor, rest periods and less sleep can cause physical fatigue in the mother. Physical fatigue is also caused by the activities of babysitting, breastfeeding, bathing, changing diapers, and cuddling throughout the day or even rarely in the night is very draining. Especially if there is no help from husband or other family members (Mansur (2009: 156-157).

RECOMMENDATION

The postpartum blues incidence rate in Palembang City is 46.7%. Parity is the most dominant factor causing postpartum blues (p-value 0,000; OR = 15,117). The occurrence of postpartum blues involves biopsychosocial factors before and after delivery. The existence of biological vulnerability, psychological vulnerability, stressful situations, less social support, and maladaptive strategies, together contributes to the development of postpartum blues. It takes the support of social, emotional, information and assistance for mothers postpartum labor and identify the cause of postpartum blues from the beginning.

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EFFECTIVENESS OF MIXED ATTRACTAN SUGAR AND HIT *AEROSOL LILY BLOSSOM* IN HOUSE FLIES OFF (*Musca domestica*)

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ABSTRACT

Flies home is not biting insects and live side by side around the houses. One type of insects that are closely related to kehiduan society and capable of transmitting the disease are flies. Housefly if not controlled properly then it will be a serious problem. To determine the effectiveness of the attractant mixture of brown sugar and Hit *Lily Blossom Aerosol* in controlling house flies (*Muscadomestica*). The results using the effectiveness of a mixture of attractants 50 grams of brown sugar and Hit *Lily Blossom Aerosol* 1 drop, 2 drops, and 3 drops could kill houseflies with the average number of flies 4 heads, 8 heads, and 3 tail and the statistical test by *One Way ANOVA* with a level signifikan (α) = 0.05, $p = 0.000$ unknown value <0.05 means there is a difference in the average number of dead house flies in a mixture of brown sugar and Hit attractant *Lily Blossom Aerosol* much as one drop, two drops, and 3 drops. Suggestions for residents living around the landfill Water basket Bengkulu City can use a mixture of brown sugar and Hit attractant *Lily Blossom Aerosol* to reduce fly populations house without causing a negative impact on health.

Keywords: house flies (*Musca domestica*), Brown Sugar, Hit *Lily Blossom Aerosol*

INTRODUCTION

Flies is one of the insects belonging to the order of diptera, has a pair of membrane-shaped wings. Only occasionally move with his legs. At this time has been found approximately 60,000-100.000 species. Of the various types of animals with these membrane-shaped wings, one of the most frequently located around us and carrying the disease is the house fly (*Musca domestica*) (Maryantuti, 2007).

In Indonesia the incidence of diarrhea since 2011-2014, in 2011 the highest incidence of diarrhea was in the Riau archipelago with the number of 1,426 patients with the number of deaths 2 (CFR 0.14%), the year 2012 was highest in South Sumatra with the number of patients 292 deaths 8 (CFR 2.74%), the highest 2013 in Central Sulawesi with 167 deaths 4 (CFR 2.40%), and in 2014 the highest case of diarrhea in NTT with 2,089 deaths 23 (CFR 1.10%) (Ministry of Health RI, 2014).

Currently, the lack of serious waste management conducted in most cities in Indonesia is indicated by the low priority of development of the garbage field, unclear mechanisms of supervision, the lack of facilities and infrastructure of waste including the operation TPA is cenderung operated by open dumping (Dinas Cipta Karya dan Tata Ruang Kabupaten Kudus, 2009). Waste decay will produce methane gas (CH₄) and sulfide hydrogen sulfide (H₂S) gas. This stench invites rats and insects to feed and breed (July, 2011). Flies one of the potential disease vectors that breeds at the landfill site. This is mainly due to the only waste dumped so that the life cycle of flies from eggs to larvae takes place without any closure. Flies generally breed in places where there is a lot of organic waste, moreover trash waste processed foods that contain lots of protein while the waste degradation process will provide warm enough heat to incubate the egg (Vishnu, 2004).

The fly control program that needs to be done is controlling adult flies. According to MOH (2008) that the control of adult flies can be done by using poison bait. Toxic feeds are toxins that work through a stomach poisoning given to a feed favored by flies. Poison bait is applied in places where adult flies gather foraging such as food processing, around poultry farms and landfills. The given feed should provide an attractive odor to the fly called atraktan and the poison used to kill house fly is insecticide. The insecticide that can be used is Hit Lily Blossom Aerosol. Traps that are used to control the population of house flies generally use attractants. Atraktan is a compound that can attract insects to come. Atraktants that can be used to catch a house fly is brown sugar. Flies love brown sugar because the main source of energy in house fly metabolism is glycogen and fat that acts as a karbonhidrat (sugar). In the fly gland is largely a form of glucose (Kardinan, 2005).

Sugar or Javanese sugar is a type of sugar made from sap, a liquid removed from the flower palm family tree, such as coconut, palm sugar, and siwalan. Red sugar marketed in the form of cylindrical bars, half-ball prints and bulk powder referred to assugar ant (Luke, 2013). Flies love brown sugar because the main source of energy in the metabolism of house flies is the glycogen and fat that acts as carbohydrate (sugar). At its glands mostly contain sugar variations and metabolic analysis indicates that most are glucose forms. Houseflies can respond to sugars from lactose and sucrose because flies have sugar cells in the tarsal (leg) and labellar (lips) hairs. Hit Lily Blossom Aerosol is an anti mosquito rep, cockroach and other insects. Anti-mosquito Hit has long been helping many people to defeat the annoyance of mosquitoes and cockroaches every day. These Anti Mosquito and Cockroach Hits can effectively keep you away from *aedes aegypti*, *musca domestica*, *culex quinquefasciatus*, *periplante americana*, and *blatela germanica*. This anti-mosquito repellent is an effective way to remove mosquitoes in the room. It has a geranium oil content that scents the room but still effectively eradicates the mosquito in some sprays alone. It can also be used to repel cockroaches and other types of insects. With active ingredients contained in Lily Blossom Aerosol's anti mosquito repellent is 0.2% praletrine, d-alethrin 0.15%.

METHOD

This research is a kind of Quasi Experiment research (quasi experiment) with "Posttest Only Control Group Design" design with analyzed descriptively and analytically (Notoatmojo, 2010). The research design used is 1 control with 3 treatment groups. The sample of the study was the house fly (*Musca domestica*). This research is done repetition treatment 5 times. This research was conducted in the settlement around TPA Air Sebakul Bengkulu City in April 2017. The research steps are to prepare tools and materials. Then create a cage treatment, a mixture of red sugar atraktan and Hit Lily Blossom Aerosol as a treatment to turn off house flies. Implementation phase of the research Laying the cage treatment 1, 2, and 3 settlement around the landfill at the 3 point house with a distance of ± 20 meters to the garbage dump. The control cage was treated only with brown sugar and the treated cage for the treated experiment was a mixture of 50 grams of red sugar atraktant for each treatment and Hit Lily Blossom Aerosol 1 drop, 2 drops and 3 drops on a small container which has been coded. Let for 4 hours starting at 08.00 - 12.00 WIB. Count the number of

dead flies in each treatment box by using counter and record the result. Doing 5 repetitions by repeating the initial stages.

RESULTS

Table 4.1 Number of Houses Dead Flies On Mixed Treatments of Red Sugar Attractive And Hit Lily Blossom Aeosols Specified By Number of Drops Hit Lily Blossom Aerosol

Drops Hit Lily Blossom Aerosol	Number of Houses Dead Flies (Tails)						
	Day Number					Total	Amount
	1	2	3	4	5		
Control	0	0	0	0	0	0	0
1 Drops Hit Lily Blossom Aerosol	4	4	5	6	6	25	5
2 Drops Hit Lily Blossom Aerosol	7	6	8	8	9	38	8
3 Drops Hit Lily Blossom Aerosol	2	1	3	2	2	10	2

Table 1 can be seen that the average number of dead house flies at most in the mixed treatment group atraktan 50 grams of brown sugar and 2 drops Lily Blossom Aerosol Hit is 8 tails. While the average number of dead house flies at least in the mixed treatment group atraktan 50 grams of brown sugar and 3 drops Lily Blossom Aerosol Hit is 2 tails.

Tabel 2. One Way Anova Test Results Number of House Flies Dead On Treatment Mixture of Red Sugar Attract And Hit Lily Blossom Aerosol Specified By Number of Drops Hit Lily Blossom Aerosol

Treatment Variables	Mean	SD	95%	P Value
1 Drops Hit Lily Blossom Aerosol	5,00	1,000	3,76-6,24	0,000
2 Drops Hit Lily Blossom Aerosol	7,60	1,140	6,18-9,02	
3 Drops Hit Lily Blossom Aerosol	2,00	0,707	1,12-2,88	

Table 2 One Way Anova test results note that p-value = 0.000 <0.05 then there is a difference in the average number of dead house flies by using a mixture of atraktan 50 grams of brown sugar and Hit Lily Blossom Aerosol as much as 1, 2, and 3 drops. After One Way Anova test continued with Bonferroni testto determine the difference in average number of dead house flies between the 3 treatment groups (mixture of 50 grams of brown sugar and Hit Lily Blossom Aerosol 1, 2, and 3 drops) between the 3 treatment groups and at 0.05 significance level. Bonferroni test results can be seen in table 3.

Table 3. Bonferroni Test Results Number of House Flies Dead On Mixed Treatment of Red Sugar Attract And Hit Lily Blossom Aerosol Specified By Number of Drops Hit Lily Blossom Aerosol

Treatment			Mean Difference	Sig.
1 Drops Hit Lily Blossom Aerosol	2 Drops Hit Lily Blossom Aerosol	Hit Lily Blossom Aerosol	-2,600*	0,003
	3 Drops Hit Lily Blossom Aerosol	Hit Lily Blossom Aerosol	3,000*	0,001
2 Drops Hit Lily Blossom Aerosol	3 Drops Hit Lily Blossom Aerosol	Hit Lily Blossom Aerosol	5,600*	0,000

Table 3 shows that the average difference between the number of dead house flies between 3 treatment groups (mixture of red sugar atraktan 50 gram and Hit Lily Blossom Aerosol 1 drop, 2 drops, and 3 drops). From the treatment of 1 drop Hit Lily Blossom Aerosol with 2 drops Lily Blossom Aerosol Hit is -2,600 head with P-Value 0,003 <0,05. Difference in average number of dead house flies between 1 drop Hit Lily Blossom Aerosol with 3 drop Hit Lily Blossom Aerosol is 3,000 head with P-Value 0,001 <0,05. Difference in average number of dead house flies between 2 drops Lily Blossom Aerosol hit with 3 drops Lily Blossom Aerosol Hit is 5,600 head with P-Value 0.000 <0,05.

DISCUSSION

Hit Lily Blossom Aerosol is a household-scale insecticide used by residents to kill mosquitoes, cockroaches, ants and flies. Control of flies with poison bait can be done at places that are a lot of house flies that is on the perch, resting place, and where to eat. The toxins in Hit Lily Blossom Aerosol is neurotoxic because it affects the nerves throughout the insect's body. Hit Lily Blossom Aerosol has a killer active ingredient that is 0.2% pralethrin, 0.15% d-alethrin to kill insects that are fast, effective and durable.

The toxicity of the stomach depends on the amount of toxic substances that penetrate the gastrointestinal tract and its duration is retained in the small intestine affecting the amount of toxic material absorbed. The higher the toxic dose the faster the fly. This type of insect / fly able to neutralize the insecticide toxicity before turning it off is called the detoxification process. This detoxification process usually takes place through the enzyme process (MOH, 2008). The action of enzymes is also influenced by other molecules. Inhibitors are molecules that decrease the activity of enzymes. Inhibitorenzyme is poison. Toxins in large amounts can affect the action of enzymes (Jeckie, 2013).

How abdominal poison work is insecticide absorbed wall food digestive channels and then brought hemolimfe then will affect all the nerves in the body of insects. Therefore, insects should eat enough toxins to kill them. Insecticides that are respiratory toxins are insecticides that work through the tracheal tract, which can cause insecticide death when inhaling the insecticide in sufficient quantities (Djojsumarto, 2008).

This study is in line with research conducted by Aniska (2013) on the effectiveness of the mixture of brown sugar and Baygon in lethal house flies (*Musca*

domestica). In his research the bait used is brown sugar and Baygon as much as 50 grams as a mixture of baygon. The average number of dead house flies is highest in the mixture of brown sugar and 2 drops of baygon of 20 tails. While the dead house flies the lowest is on the mixture of brown sugar and 3 drops of baygon as much as 4 tails. While on the mixture of brown sugar and 1 drop of baygon of 12 tails.

The results of research conducted by researchers that mixed red sugar and Hit Lily Blossom Aerosol as much as 1 drop, 2 drops, and 3 drops can kill fewer number of house fly compared with research of Aniska (2013) that is average number of house fly which died as many as 8 tail using a mixture of red sugar attractant and 2 drops of Hit Lily Blossom Aerosol. However, the average number of dead house flies with mixed treatment of red sugar atraktan and Hit Lily Blossom Aerosol is 1 drop and 2 drops less than Aniska (2013) research which is 5 tail and 2 tail. The results of research conducted by researchers can be concluded that mixture of red sugar atraktan and Hit Lily Blossom Aerosol as much as 2 drops most effective in turning off house fly.

REKOMENDATION

Based on the results of the study titled "Effectiveness of Mixture of Red Sugar Atraktan And Hit Lily Blossom Aerosol In Deadly House Fly (*Musca domestica*)" can be concluded, as follows: The average number of dead house flies using a mixture of atraktan 50 grams of brown sugar and 1 drop Lily Blossom Aerosol Hit is 5 tails. The average number of dead house flies using a mixture of atraktan 50 grams of brown sugar and 2 drops Lily Blossom Aerosol Hit is 8 tails. The average number of dead house flies by using a mixture of attractiveness 50 grams of brown sugar and 3 drops Lily Blossom Aerosol Hit is 2 tails. There is a difference in the number of dead house flies using a mixture of 50 grams of brown sugar and Hit Lily Blossom Aerosol with 1 drop, 2 drops and 3 drops p-Value = 0,000. The dose of mixture of red sugar atraktan and 2 drops Hit Lily Blossom Aerosol is most effective in turning off house flies p-Value = 0.000.

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MODEL DEVELOPMENT TO REDUCE HEALTH PROMOTION IN ADOLESCENT PREGNANCY INCIDENT IN BENGKULU

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ABSTRACT

One of the problems faced by adolescent behavior rampant premarital sex would lead to various other problems that marry a young age, abortion, unwanted pregnancy, STIs and HIV / AIDS. Pregnancy in adolescence increases the risk of miscarriage, nearly 20 million of the 46 million are *unsafe abortions* and 13% end in death, *obstetric fistula*, cervical cancer and other problems. Pregnancy in adolescents may also lead to impaired development of personality and put the children born at risk for the incidence of violence, abandonment, developmental delay, learning difficulties, behavioral disorders, and also tends to be a parent at an early age. Interventions for prevention of public health problems can be done through various ways, one of which is using the media to promote health. The general objective of this study was to develop a model of health promotion to reduce the incidence of pregnancy among adolescents in the city of *Bengkulu*. The results of this study indicate that the media in accordance with the teenage characters is a movie. Based on the results of this study concluded that the medium of film is expected effective in converting the behavior of adolescents to decrease the incidence of pregnancy among adolescents. For school parties are expected to cooperate with the PKRR to show a film about teenage pregnancy in each class with the specified schedule.

Keywords: *health promotion model, movie, teenage pregnancy*

INTRODUCTION

Adolescence is an important period in human life. At this stage, teens are maturing sexual organ and achieving reproducibility accompanied by changes in somatic growth and psychological perspective. Teens evolved from asexual beings become sexual beings (Santrock, 2012). One of the problems faced by teens is rampant premarital sex behavior that will lead to various other problems that marry a young age, abortion, unwanted pregnancy, STIs and HIV / AIDS. Based on a survey of adolescent reproductive health (15 -19 years) by the Central Bureau of Statistics, about 72% of teens admitted to having been dating and 10.2% claimed to have had sex.

Research Suryoputro, et al, a student in Semarang, Central Java 5% of students claimed to have air sex before marriage. Likewise with the youth in the province of Bengkulu, a survey conducted by the BKKBN Bengkulu in 2012 obtained data from 517 respondents said teens 3.50% 've done premarital sex and sex was first performed at age 14 years at 11.11% and highest done at age 21 years at 5.56%, this relationship ends with the pregnancy.

Pregnancy in adolescents is correlated with maternal mortality and morbidity. Girls age 10 -14 years of a five-fold risk of death during pregnancy or childbirth than 20th the age group of -24 years, while the risk is doubled in the age group 15 -19 years. Pregnancy in adolescence increases the risk of miscarriage, nearly 20 million of the 46 million are *unsafe abortions* and 13% end in death, *obstetric fistula*, cervical cancer and other problems. Pregnancy in adolescents may also lead to impaired development of personality and put the children born at risk for the incidence of violence,

abandonment, developmental delay, learning difficulties, behavioral disorders, and also tends to be a parent at an early age.

To decrease the incidence of pregnancy in adolescents needs to do prevention efforts focused on preventing the sexual behavior. The Government has issued a legal basis to deal with problems on adolescents is the issuance of Law No. 52 of 2009 on the development of the Population and Family Development. In Article 48 paragraph (1) in paragraph b states that adolescent quality improvement by providing access to information, education, counseling and services on family life.

Interventions for prevention of public health problems can be done through various ways, one of which is using the media to promote health. Health promotion can not be separated from the media because the media, the messages are delivered can be more interesting and understandable, so that the target can learn these messages so until it decides to adopt positive behaviors (Notoatmojo S 2005).

Health promotion for adolescents associated with pregnancy among these, of course, must use the model in accordance with the wishes and teenage characters. The model in accordance with the teenager and that will be developed in this study is models using the film medium. the purpose of this study was to develop a model of health promotion to reduce the incidence of pregnancy among adolescents in the city of Bengkulu.

METHODS

The method used in this research is qualitative descriptive study approach Phenomenology. Subject or informants in this study were young obtained by purposive techniquesampling amounted to 32 people. Data collection techniques with FGD (Focus Group Discussion) and for the secondary informant media expert with the indept interview. The data analysis was done by a description of the contents (contents analysis).

RESULTS

Results obtained information identifying the needs of the media that the media needed by teens is the medium of film. According to informants in an era of technological advances nowadays, teenagers more interaction with the Internet and access the video / film.

...lewat film pendek, official account line... (Kel. 1)

...iklan, maksud ambo buat cak iklan... (kel.2)

...Youtubelagingebooming ,Buat video. Jadilebihdapatya... (kel.3)

...media yang tepatbagiremajaadalah (YOUTUBE)..(kel.4)

The developed film lasts between 10 minutes. The film is titled, "my dear" which is a representation of the effects of pregnancy in adolescents. The target of this film is a teenage high school. The themes to be developed in reducing the incidence of pregnancy among adolescents is on the impact of pregnancy in adolescents. Researchers want to convey to the target audience that when teenagers become pregnant while still in school and not married, then the impact will occur is abortion, often infertility, could not attend school, gave birth to premature and underweight, guilty, isolated and so derision, until the divorce in the household.

Films will be shown at the Young at places and times convenient, like libraries, courts and break periods, after school hours, and during extra-curricular activities as well as uploaded on social media such as youtube, facebook.

...kalau ambo sih lebih ke sekolah-sekolah ajo,, ditempat yang sering kito datangi.... (kel.3)

...Media sosial, krena media sosial sangat akrab dengan remaja... (kel.1)

Before the researchers make a movie, the first to do is make a movie script and then consults the script of the film. Consultations were carried out with the film media expert. As for the pre-test to the target is not done, because the film script will be difficult to be understood by the layman. Based on input from film media expert can know that things have to be fixed in this film is to reduce the existing dialogue in this film, reducing shooting close up, the need to incorporate the feel of the city of Bengkulu, the need to include background music to make it more dramatic.

Flow in the film consists of three sections beginning of Act 1, which is a routine character named Princess who is a high school girl after school started that has a girlfriend named Kevin. Continued Act 2 is the daughter told her boyfriend that she was a few months do not menstruate, Kevin confusion and deliver daughter to perform examinations in primary health care much that is not known by friends and family, after being actually pregnant they decided to have an abortion, and act 3 containing daughter had not accepted anymore by Kevin, for various reasons. Some of the current year's daughter is married to Yusuf, but after 10 years of marriage was not blessed with offspring, after examination, it turns the daughter infertile/barren due absorb action he ever did, household so messy and Yusuf chose to divorce.

Based on the input of researchers renew scripts. Improvements made is the addition of diarrhea school scene, when the daughter came home from school and wait in front of the school bus stop, which previously did not exist. Then some of the dialogue is also reduced, since it is featured in the film are the visual effects. To further demonstrate the added scene youth activities teenagers hanging dikafe. And the scene is taken in the area that is an icon of the city of Bengkulu. To add a dramatic impression scene also added Joseph threw proof medical certificate, this scene does not exist in the previous script. To add to the dramatic effect that touches plus background music. If the previous script was too much shooting close up, then the script after being repaired more medium and long shot.

a. Formulation of health promotion model to reduce the incidence of pregnancy among adolescents in the city of Bengkulu.

The results showed teens want a model of health promotion by using the medium of film, which can be accessed at any time, the presentation of the film media also aired in a relaxed situation and gather together with their friends, such as activities *to hangout*. According to the informant movie must also contain the causes of teenage pregnancy, the effects akibat pregnancy in adolescents. Because during this time many teens who do not know the impact of actions or activities they do, so that an increase in knowledge about the impact kehilangan in adolescence need to be highlighted.

... membuka youtube agar menambah pengetahuan, tapi perlu lho bu, dampaknya dijelaskan, karena kami nggk tau dampak kalo hamil masa remaja... (kel. 1)

DISCUSSION

The theme will be developed in reducing the incidence of pregnancy among adolescents is on the impact of pregnancy in adolescents. Researchers want to convey to the target audience that when teenagers become pregnant while still in school and not married, then the impact will occur abortion, often infertility, no bias to continue, childbirth premature and underweight, guilty, isolated and so derision, to divorce in the household. Films will be shown at the Young at places and times convenient, like libraries, courts and break periods, after school hours, and during extra-curricular activities (Notoatmojo S 2005).

Audiovisual media capable of causing a strong impact on the audience, with the pressure of the two senses of sight and hearing at the same time. Movies are also able to combine movement, beauty, sounds, colors drama and humor (Kuswandi, 2006) This film contained a moral message delivered protagonist portrayed as a teenager. In this film depicted a pregnant adolescent problems due to free sex outside of marriage which indeed it is a reality in the community. The depiction that resembles social reality will make the audience feel empathy and are expected to change their behavior into the expected behavior. This is consistent with the statement Jowett (1971) which states that the movie always takes the theme of social reality. Flow in the film consists of three parts: Act 1, which contains an introduction, Act 2, which has a conflict and act 3 which contains the settlement (Rayya, 2001).

Modeling is one of the tools to facilitate understanding of the complexity and complexity theory. Modeling aims to give a simple illustration to explain the theory. Modeling as a way to help formulate a theory and explains the relationship of elements. After the results were analyzed deductively, then concluded through inductive analysis, resulting in a model of a general nature. Applicative models are a useful model. So that the resulting model can be useful, models are formulated to be of a general nature, so that the model can be generalized and can be used elsewhere (transferability - the external validity). In the framework of simplification of conceptualization models Health promotion in adolescents to decrease the incidence of pregnancy among adolescents in the city of Bengkulu, grouped into a variable input, process and output.

RECOMMENDATIONS

The media developed for youth in the form of films containing about pregnancy in adolescents, the advantages if there is no pregnancy, which inhibits the ability of adolescent pregnancy and to prevent early pregnancy. It is expected that the school can work together with the ICRS to show a film about teenage pregnancy in each class with the specified schedule and BKKBN can use the media that has been developed in implementing the program teens Genre

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CORRELATION BETWEEN LEVELS OF PROINFLAMMATORY RESISTIN CYTOKINES WITH INSULIN SENSITIVITY OF OVERWEIGHT LATE ADOLESCENT

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ABSTRACT

Overweight is defined as the accumulation of abnormal fat or excess that can interfere with health and is a health problem worldwide. Weight is more influenced by genetic, biological, environmental and behavioral factors. One of the risk factors of prediabetes that can increase the absolute risk to DM by 2-10 fold. Resistin is one of the adipocytokines secreted by adipose tissue, which increases in obesity. Resistin has important biologic activity in the metabolism of glucose and lipids, and is closely related to the incidence of insulin resistance. There is new evidence that human resistin is inflammatory biomarkers and potentially diabetic mediators and cardiovascular diseases. The purpose of this study was to determine the correlation between levels of insulin resistance and insulin sensitivity in late adolescence overweight at the Faculty of Medicine Unsri Palembang. The median age in this study was 20.00 (17-22) years, most of whom were male (54.8%). Median body mass index (IMT) 26,643 (25.07-26,98). median resistin 0,501 (0,441-1,281) ng/ ml. Median insulin sensitivity (HOMA-IR index) 0.380 (0.030-1.330) with p value 0.140. There was no statistically significant correlation between serum Resistin levels and Insulin Sensitivity. The expectation of further research and as a basis for cohort in early adolescents with more weight and obesity to be able to detect early metabolic abnormalities.

Keywords : Overweight, Resistin, Insulin Resistance, Insulin Sensitivity.

INTRODUCTION

Overweight is a relative weight gain when compared against a standard. Overweight then becomes a term that represents "obesity" either clinically or epidemiologically (Soegih, 2009). Overweight and obesity are defined as the accumulation of abnormal fat or excess that can interfere with health (WHO, 2016). Obesity is a health problem worldwide (Setiawan, 2009) and is a complex and diverse problem because it is influenced by genetic, biological, environmental and behavioral factors (Guyton, 2014). This condition can be experienced by every age of both men and women, but adolescents and adults are the most common group. The current adolescent lifestyle that often skip breakfast and prefer to consume fast food makes teens at risk for obesity (Handoyo, 2012).

The prevalence of obesity is increasing due to changes in the environment and lifestyle (increased calorie intake and decreased physical activity), which is associated with the addition of fat and physiological mechanisms in maintaining normal energy homeostasis (Ellulu, 2015; Setiawan, 2009).

In Indonesia the prevalence of obesity in adolescents aged 16-18 increased from 1.4% in 2007 to 7.3% (5.7% obese and 1.6% obesity). In the province of South Sumatra at 1.1%, in Palembang city the prevalence of adolescent obesity aged 16-18 years by 1.8% (Risksdas, 2013). Adolescents who are overweight are at risk as much as 70% are overweight or obese in adulthood (Soegih, 2009).

Someone who experiences weight gain, then the size of fat cells will increase / hypertrophy and then the number increases / hyperplasia (Sudoyo, 2009). Hypertrophy and hyperplasia is making adipose cells increased and the pressure of blood flow so that adipose cells are relatively hypoxic, and then there is inflammation. Thus it stimulates the release of cytokines (Trayhurt, 2005). Characterized by chronic subclinical inflammation with increased concentration of proinflammatory (resistin) cytokine, according to Owecki's research results (2011) that the concentration of resistin is higher in obese subjects than with controls. There is strong genetic and pharmacological evidence that resistin is a mediator of insulin resistance in rodents and there is new evidence that human resistin is inflammatory biomarker and potentially diabetic mediators and cardiovascular diseases (Schwart, 2011).

METHODS

This study is a correlative analytic study with cross sectional design, the implementation of research with laboratory examination. The population in this study were all late adolescents with overweight at the Faculty of Medicine Unsri Palembang. The sample of this research is all students/ late adolescence with overweight in Faculty of Medicine UNSRI Palembang that meets the criteria. Intake of research subject by purposive sampling. The sample of the research were 31 samples. Independent variables in this study are levels of resistin, the dependent variable is insulin sensitivity (fasting blood glucose and fasting insulin). This study was conducted from March to June 2017. Technique of taking blood sampling: Venous blood sampling was performed to measure fasting blood sugar, fasting insulin and blood levels of resistin. Before the blood sampling of the respondent has agreed to do blood sampling by signing informed consent. For insulin and resistant examination the respondent is advised to fast before the blood is taken from the vein cubiti of the left arm with "Disposable syringe" 5 cc then moved into the tube / tube, and the tube is labeled the respondent's number, then silenced for approximately 30 minutes and then sentrifuce at a certain speed then forwarded by examination with ELISA. data analysis: univariate and bivariate. The significance level used is $p < 0.05$.

RESULT

Table 1. General Characteristics of Research Subjects

Characteristics	n	%	Median (Min-Maks)	p
Jeniskelamin				
- man	17	54,8		
- woman		45,2		
Age (year)	31	100	20 (17-22)	0,034
BMI (kg/m²)			26,64 (25,07-26,98)	0,000

The Overall subjects of the study consisted of men (17 people, 54.8%) more than women (14 persons, 45.2%). Of the 31 subjects, the median age for the study subjects was 20 (17-22) years. Youngest age 17 years and oldest 22 years old. Based on the IMT obtained median 26.64 (25.07-26,98) with the lowest BMI 25.1 and the highest 26.98.

Table 2. Characteristics of Research Laboratories

Variable	Mean \pm SD	Median (Min-maks)	p
fasting blood sugar (mg/dl)	109,97 \pm 9,590		0,389
Fasting insulin (mU/L)		1,313 (0,125-4,781)	0,000
HOMA-IR (insulin sensitivity)		0,380(0,030-1,330)	0,000
Resistin (ng/mL)		0,501(0,441–1,218)	0,000

* *Shapiro-Wilk test*, normal distribution when $p > 0.0$.

The mean fasting blood glucose level of the study subjects was 109.97 + 9.590 mg/dl. While the median fasting insulin content was 1.313 (0.125-4.781) mU/ L, with the lowest levels of 0.125 mU/ L and the highest of 4.781 mU/ L. based on fasting blood sugar and fasting insulin, calculated insulin sensitivity by using the HOMA-IR formula. Median HOMA-IR value was 0.380 (0.030-1.330), with the lowest values of 0.030 and the high of 1.330. The median serum resistin level of the study subjects was 0.501 (0.441-1.281) ng/ml. the lowest levels being 0.441 ng/ ml and the highest being 1.281 ng/ ml.

Table 3. Correlation of Serum Resistin Levels with Insulin Sensitivity

Variable	R	P
Resistin	0,271	0,140

In this Shapiro Wilk test obtained p value $< 0,05$ which means both data is not normally distributed, because both data are not normally distributed, pearson correlation test can not be done so that the researcher continue the analysis with Spearman rank test. From Spearman correlation analysis results obtained no significant relationship between serum Resistin level with insulin sensitivity ($p = 0,140$) can be seen in table below.

DISCUSSION

Research conducted by Vateda (2010) with the subject of research more boys (68.55%) of girls (31.5%). The unbalance between the intake and the energy output leads to weight gain (Arisman, 2014). In table 2, based on the Shapiro Wilk normality test showed that significant values for insulin sensitivity of < 0.01 because significantly less than 0.05 then can conclude that the sensitivity is not normally distributed. The increase in fasting blood glucose levels is a reflection of the reduction of glucose uptake by tissues, the increase of gluconeogenesis (Arisman, 2011). According to Sudoyo (2009) the low sensitivity or high resistance of body tissues to insulin is one of the etiological factors of diabetes, especially type 2 diabetes. According to (Qatanani et al, 2007) Insulin resistance is a key factor in metabolic disorders in obesity and trigger the onset of diabetes mellitus type 2. Based on statistical test of Shapiro-Wilk normality in the table2 shows that the value of significance for levels of resistin < 0.01 . it's meas resistin is not normally distributed. levels of resistins and insulin can be used as a useful tool to predict the likelihood of insulin resistance in prediabetes

REKOMENDATION

Expected further research in early adolescence with obesity, This study can serve as the basis for early cohort study with more weight and obesity to be able to detect early metabolic abnormalities. needs to be studied more deeply about more weight-related research in adolescents and its relationship to proinflammatory cytokines especially resistin.

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RELATIONSHIP BIDAN KNOWLEDGE WITH MANAGEMENT OF PERINEUM LASERATION AT LABOR AT HOSPITALSUNDARI YEAR 2016

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ABSTRACT

According to the department of health North Sumatera main causes of maternal mortality has been no specific survey, but nationally due to complications of childbirth 45%, retained placenta 20 %, birth canal or of laceration 19 %, prolonged labor 11%, bleeding and eclampsia each 10 %, complication during childbirth 5%, and of puerperal fever 4%. The aim is to know the relationship of knowledge to management of parineal laceration during delivery. The majority of knowledge about parineal laceration enough people 13 (65%), did not carry out the management of parineal laceration of people 5 (25%), with the X^2 test $> X^2$ tables (7,000 $>$ 0,444), and the significance / p value 0,030 $<$ 0,05. The significant relationship between the midwife and the management sciences perineum laceration maternity hospital at Sundari in 2016, is expected to midwives to improve knowledge for the management of parineal laceration better.

Keywords: Knowledge Midwifery, Management, Laceration of the Perineum

INTRODUCTION

Childbirth is the process of production of infants with gestational age premature, park or parallel axes extending the mother's body, the presentation back of the head, the balance of the diameter of the baby's head and the mother's pelvis, as well as the mother's own energy. According to WHO mortality and morbidity in pregnant and maternity women is a major problem of developing countries. WHO in 2010 as many as 536,000 women died due to childbirth. The maternal mortality ratio in developing countries is highest with 450 maternal deaths per 100,000 live births. Maternal mortality in Indonesia in 2007 is still quite high, reaching 228 per 100,000 births. Province of North Sumatera maternal mortality in 2008 to 260 per 100,000 live births is still high when compared to the national average in 2007 that is 228 per 100,000 live births. Hospital of Sundari on March 3, 2016 through medical record data from 472 maternity mothers, 213 people who experienced laceration of birth, 2015 as many as 1867 people and who experienced laceration of 372 people caused by age factor 35 years and over, and weight of baby 3,500 kilograms, with management that is not done according to the procedure of management. Based on the above background, the researchers are interested in conducting research on the Midwife Knowledge Relationship With Perineal Laser Treatment at Birth at Sundari Hospital 2016.

METHOD

This research is an analytical survey research design *descriptive cross sectional* correlational approach. The study population was all midwives working in the maternity ward of the hospital Sundari, the sampling technique is the total sample 20 people, the data obtained through questionnaires and observation sheets and processed through questionnaires and observation sheets and processed through univariate and bivariate analysis.

RESULTS

Age of respondents 31-40 years old, amounting to 10 people (50%), the last education is D-III which amounted to 16 people (80%), long working midwife between 1-2 years, amounting to 10 people (50%). Midwife knowledge about Perineum laceration management at delivery at Sundari Hospital 2014 is enough 10 respondents (50%). Perineal laser treatment at delivery at Sundari Hospital 2014 was not carried out as many as 5 respondents (25%). The midwife's knowledge of perineal laceration is sufficient by not conducting perineal laceration management as many as 3 people (15%) and minority knowledge of midwife about perineal laceration less by implementing perineal laceration of 0 (0%). The $\chi^2 = 7,000$ and χ^2 result of statistical test with chi square test got significance value p value = 0,030 ($p < 0,05$) stated that H_a accepted that there is significant correlation between Midwife Knowledge with Perineal Laser Treatment At delivery at Sundari Hospital $\chi^2 = 7,000$.

CONCLUSION

From the descriptions that have been presented, then in this study can be concluded, namely Midwife's knowledge about the management of Perineal laceration at delivery at Sundari Hospital 2016 is sufficient, The management of the perineal laser in labor is not carried out and there is a significant relationship between Midwives Knowledge with Perineal Laser Treatment at Birth at Sundari Hospital 2016.

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IMPACT OF USING “TRIAD SHEET” IN ADOLESCENT REPRODUCTIVE HEALTH ON PEER EDUCATION KNOWLEDGE LEVEL AND ATTITUDE OF ADOLESCENT IN PADANG CITY

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ABSTRACT

Number of adolescents in Indonesian is quite large nowadays, ie 64 million people (27.6%) of the total population. Seeing the number of adolescents large enough should be viewed as a demographic bonus. In fact, various studies have shown that adolescents have very complex problems. The most issue among adolescents is the problems surrounding TRIAD of Adolescent Reproductive Health (Sexuality, HIV and AIDS and Drugs). The low knowledge of adolescents on reproductive health and the median of marriage is still relatively low at 19.8 years. Various government programs have been undertaken in handling all these problems, one of them is the peer education as stipulated in the program PIK-R / M. This study aims to determine the effect of using TRIAD ARH sheets on peer education to the knowledge and attitude of adolescents in Padang City. Result of this research shows that there is influence of using TRIAD-ARH sheets on peer education in knowledge and attitude (p value = 0,000 p value $<0,05$). Hopefully TRIAD-ARH sheets are to be used as media for BKKBN, BPMPKB, educational institutions in providing education and counseling to peers.

Key Word: Peer Education, Knowledge, Attitude, Triad Sheet ARH

INTRODUCTION

Adolescence is a period of transition from childhood to adulthood. Youth life is decisive for their future. The number of adolescents is large enough that 64 million (27.6%) of the total population of Indonesia, is seen as a demographic bonus, then the adolescence as the next generation of the nation needs to be prepared to be a healthy human completely. In fact, various studies have shown adolescents have very complex problems. The most prominent problem is the problems surrounding TRIAD ARH (Sexuality, HIV and AIDS and Drugs), low adolescent knowledge about adolescent reproductive health and median marriage is still relatively low (19.8 years).

Unhealthy sexual behavior among teenagers tends to be increase. This refers to some research showed that adolescents aged 15-20 years have had premarital sexual intercourse 1% each in women and 6% in men. Besides, the dating experience of adolescents tends to be more daring and open, holding hands of men 69% and women 68.3%, kissing, 41.2% male and 29.3% female, feeling and stimulating, male 26, 5% and women 9.1% .The use of drugs in 2008 was 115,404, and 51,985 users were teenagers.

Ministry of Health RI in 2011, found the number of new AIDS cases in 2011 amounted to 1,805 cases. As for the case of AIDS amounted to 26,483 cases. Of these cases, 45.9% were among the 20-29 age group. Responding to the problems of adolescents, the government conducted various programs and activities one of them through the provision of access to education information, counseling, and services about family life. Implementation of the program is a PIK R / M that provides information and counseling services related TRIAD ARH.

Based on a preliminary study of 10 PIK R / M from 71 PIK R / M in Padang City, through interviews with PIK-R / M leaders and peer educators, it is known that peer education has not been optimally implemented due to limited resources in the form of media used for peer education. On the other hand, various health programs in providing health education using back-sheets media proved to be effective and show optimal results. Currently in Ministry of Health, many modules provided training modification of behavior change some of them menyediakan about Triad ARH component but not yet available sheet that can be used as media in peer education. Based on study, the research want to develop media of education peer by using sheets of Triad ARH in adolescent in Padang City which is incorporated in 71 PIK R / M of Padang City through a research activity.

METHODS

Experimental design with pretest-posttest was conducted in this research. Dependent variable that is knowledge level and attitude, whereas independent variable of education peer with TRIAD ARH turning sheet. Population is the teenage, member of PIK R / M in Padang City as much as 71 PIK R / M. The samples were taken by simple random sampling technique as much 40 peoples. The analyst used a tested t-test with $p < 0,05$. Knowledge level was measured by using questionnaire which contains questions about TRIAD ARH. Terdiri of 30 multiple choice items. And attitude level was measured by using a statement of attitudes about TRIAD ARH consisting of 24 statements with Likert scale. Media used for peer education is a sheets of Triad ARH adopted from the IPP Ministry of Health training module in 2015 as well as the relevant Triad ARH material and have been reviewed.

RESULTS

Table 1. The average level of adolescents knowledge before the use of TRIAD ARH sheets in Padang City

Knowledge Level	Mean \pm SD	Min-Max	<i>n</i>
Pretest	13 \pm 2,375	9 – 18	40

Table 1 shows the average level of adolescents knowledge before the use of TRIAD ARH sheets is 13 \pm 2.375. The lowest score is 9 and the highest is 18 in Padang City.

Table 2. The average level of adolescents attitude before being given back sheet TRIAD ARH in Padang City

Attitude Level	Mean \pm SD	Min-Max	<i>n</i>
Pretest	53,65 \pm 2,914	44 – 58	40

Table 2 shows the average level of adolescents attitude before the use of TRIAD ARH sheets is 53.56 \pm 2.914. The lowest score is 44 and the highest is 58 in Padang City.

3. The average level of adolescents knowledge after the use of TRIAD ARH sheets

Table 3. The average level of adolescents knowledge after the use of TRIAD ARH sheets in Padang City

Knowledge Level	Mean \pm SD	Min-Max	n
Posttest	21,78 \pm 2,913	16 – 28	40

Table 3 shows the average level of adolescent knowledge after being given TRIAD ARH back sheet is 21,78 \pm 2,913. The lowest score is 16 and the highest is 28 in Padang City.

4. The average level of adolescentsattitude after being given back sheet TRIAD ARH

Table 4. The average level of adolescentsattitude after being given back sheet TRIAD ARH in Padang City

Attitude Level	Mean \pm SD	Min-Max	n
Posttest	65,40 \pm 3,774	57 – 74	40

Table 4 shows the average level of adolescents attitudeafter the use of TRIAD ARH sheets is 65.40 \pm 3.774. The lowest score is 57 and the highest is 74 in Padang City

5. The impact of using TRIAD ARH sheets on the level of knowledgein adolescents

Table 5. The impact of using TRIAD ARH sheets on the level of knowledgein adolescents in Padang City

T-test	Std. Deviation	95% Confidence Interval of the Difference		t	df	P value
		Lower	Upper			
Pretest danPosttest	2.567	-9.596	-7.954	-21.620	39	0,000

Table 5 shows the difference between the average level of adolescents knowledge before and after the use of TRIAD-ARH sheets on peer education is 2,567. The result of statistical test of t-test dependent got value p value = 0,000 because p value <0,05, hence can be concluded that there is influence of use of TRIAD ARH sheets to the level of knowledge of adolescent in Padang City.

6. The impact of using TRIAD ARH sheets on the level of attitude in adolescents

Table 6. The impact of using TRIAD ARH sheets on the level of attitude in adolescentsin Padang City

T-test	Std. Deviation	95% Confidence Interval of the Difference		t	df	P value
		Lower	Upper			
Pretest danPosttest	4.349	-13.141	-10.359	-17.089	39	0,000

Table 6 shows the difference in the mean attitudes of adolescents before and after the use of TRIAD-ARH sheets on peer education is 4.349. The result of statistical test of t-test dependent got value p value = 0,000 because p value <0,05, hence can be concluded that there is influence of use of TRIAD ARH sheets to adolescent attitude in Padang City.

DISCUSSION

The results has showed that there was an effect of using TRIAD-ARH sheets on peer education to the level of knowledge and attitude of adolescent in Padang City (p value = 0,000 p value <0,05). Peer education about TRIAD-ARH on PIK R / M is an educational activity or providing information made by peers as a process of learning activities that take place among peers or peers to develop knowledge, attitude and actions of a person or group of people. In the provision of information in peer education is needed effective media in order to provide optimal results.

In peer education the use of flipcharts proved to be more effective because it has various advantages of loading images to explain the message to be conveyed with a short sentence to describe the image, its size can be adjusted with the number of participants so it is very flexible to use for small groups and large . In addition, the use of flipcharts can be done anywhere and does not require supporting media in its use such as internet network, electric current, infokus and so forth. This is supported by some previous research which is Purbowati N, 2012 in City of Tangerang showed that the use of back-sheets and leaflets to pregnant women can improve maternity compliance in consuming iron tablets. Similarly, Rachmawati M, et al, 2012 showed similar results, namely the role of reverse media in improving maternal knowledge on dental and oral health of children showed that the flipchart media effectively improved maternal behavior. Research Prahastuti and Sri B, in Subang in 2009 it is known that the use of flipcharts as a medium of communication proved to increase knowledge and attitude of young women in the prevention of anemia.

The importance of the role of media in peer education requires the need to develop appropriate media by considering the effectiveness and efficiency. The efficiency of the use of backside media can be seen from the ease of use that can be used anywhere and anytime, does not require supporting equipment such as electric current, infokus, laptop and so on, and the size can be adjusted to the number of targets in peer education. In addition, the sheet media can continue to be developed in order to attract attention and interest of teenagers to know everything related to reproductive health.

RECOMENDATION

TRIAD-ARH should be used as a new media for BKKBN, BPMPKB, educational institution or ommunitycentrehat oversees PIK R / M and PIK R / M peer, educator and peer counselor in providing education and counseling for peer education. TRIAD-ARH sheets can be a source of information to add insight and change of adolescentsattitude and knowledge about TRIAD ARH.

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EFFECT OF RANGE OF MOTION (ROM) EXERCISE GRIPPING THE BALL AGAINST UPPER STRENGTH MUSCLES IN ISCHEMIC STROKE PATIENTS AT NEUROLOGY WARD RSUP DR. M. DJAMIL PADANG

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ABSTRACT

Stroke is one of the diseases that cause permanent damage and disability, and is a major cause of morbidity and mortality. The statistics show that 29% of stroke clients will die within a year, with 20% of them dying within three months, 25% being dependent, and only 46% living alone (American Heart Association, 2010). Stroke can leave paralysis, especially on the affected side (Smeltzer and Bare, 2008). Motor disturbances such as hemiparesis or weakness on the affected side that if not given good intervention can lead to complications such as abnormalities of tone, orthostatic hypotension, deep vein thrombosis and contractures. Nursing interventions that can be done to overcome the problem of hemiparesis in the upper extremities of stroke patients is by exercising range of motion (ROM). One of the active ROM exercises is the practice of gripping the ball. The objective of this research is to know the effect of ROM exercise gripping the ball against upper limb muscle strength in ischemic stroke patients in nerve wards RSUP Dr. M. Djamil Padang. The results showed that there was a difference between upper limb muscle strength before and after ROM exercise gripping the ball on the patient's shoulder (p value = 0.004), on the patient's elbow (p value = 0.000), on the patient's hand (p value = 0.000), and on the patient's finger (p value = 0.000). It is suggested to the head of the Neurology Ward RSUP Dr. M. Djamil Padang in order to apply the practice of gripping the ball that is gripping rubber ball and tennis ball to increase muscle strength of stroke patients who have weakness of upper limb muscles as well as making the practice of grasping the ball that is grasping rubber ball and tennis ball as protocol or standards of nursing care to post-stroke patients to improve muscle strength.

Keyword : ischemic, stroke

INTRODUCTION

Stroke is one of the diseases that cause permanent damage and disability, and is a major cause of morbidity and mortality. The statistical results estimated that 29% of stroke clients would die within a year, with 20% of them dying within three months, 25% being dependent, and only 46% living alone (American Heart Association, 2010). Indonesia is the country with the largest number of stroke sufferers in Asia. In Indonesia, stroke is the third deadly disease after heart and cancer. The prevalence of stroke in Indonesia is based on the data of Basic Health Research (Riskesdas) in 2013 of 12.1 per mil that diagnosed health worker (PDPERSI, 2010). The stroke in West Sumatra was 12th in 12th position at 12.2%. In the city of Padang stroke is in the order to-15 which amounted to (8.4 %) (Ministry of Health RI, 2014). The number of post-stroke patient visit at Poly Saraf Dr. M. Djamil Padang also experienced an increase in 2012 as many as 1076 patient visits, while in 2013 as many as 1507 patient visits (Medical Record RSUP Dr. M. Djamil Padang, 2014).

One of the clinical manifestations of stroke is motor disorders. Stroke can leave paralysis, especially on the affected side, pain, subluxation of the shoulders, faulty road

pattern and many conditions that need to be evaluated by the nurse (Smeltzer and Bare, 2008). Hemiparesis is a weakness on one side of the limb and is a motor disorder most often experienced by stroke clients. This is caused by a decrease in muscle tone, so the patient is unable to move his body (immobilization). Immobilization that does not get proper treatment, will cause complications in the form of abnormalities of tone, orthostatic hypotension, deep vein thrombosis and contractures (Murtaqib, 2013).

One of the nursing interventions that can be done to overcome the problem of hemiparesis in the upper extremities of stroke patients is by exercising range of motion (ROM) both active and passive. This nursing intervention aims to maintain body function and prevent complications. ROM exercise is one of the rehabilitation that can be given to stroke patients (Pinzon, et al., 2010).

One of the active ROM exercises is the practice of grasping the ball. Hand grip exercises can be done using spherical grip because it is easiest and most practical to use, that is, by giving a round object (like a tennis ball), correct the fingers for a perfect grasp, then a 45 degree wrist joint position, then give instructions for grasping (holding tight) for five seconds then relax, this is done repetition counted seven times (Irfan 2010). There is no research has been conducted on ball grip exercises to increase muscle strength of stroke patients in nerve wards. M. Djamil Padang. Therefore, researchers conducted research on the effect of Range of Motion (ROM) exercises grasping the ball against upper extremity muscle strength in ischemic stroke patients in nerve wards RSUP Dr. M. Djamil Padang.

METHOD

The research design used was quasi-experiment with one group pre-post test design, was conducted in Neurology Ward of RSUP Dr. M. Djamil Padang. This research will be conducted in March s.d December 2017. The study population was all ischemic stroke patients in RSUP Dr. M. Djamil Padang. The samples were waschemic stroke patients treated in the neurological room of Dr. M. Djamil Padang. The number of samples that meet the inclusion criteria were 10 people obtained by purposive sampling. Data about the muscle strength of respondents obtained from the results of direct measurement using Manual Muscle Testing (MMT), while secondary data is data obtained through documentation studies and other sources. Computerized data analysis both univariate and bivariate. Univariate data analysis using descriptive statistics include mean, standard deviation, minimum value and maximum value, while bivariate analysis is done to know the effect of ROM exercise grasping the ball to increase muscle strength of ischemic stroke patient. The researchers tested the normality with the Shapiro-wilk test. Distributed data is not normal so wilcoxon test is done.

RESULTS

Table 1. Average Differential Test Results Upper and Upper Strength Muscle Strength Before and After ROM Exercises Gripping Ball In Ischemic Stroke Patients at the Neurology Ward of RSUP Dr M. Djamil Padang in 2017

Variable	Measurement	Mean	SD	N	P value	
	Shoulder	<i>Pre-Test</i>	3.20	0.422	10	0.015
		<i>Post-Test</i>	4.20	0.919		
Upper	Elbow	<i>Pre-Test</i>	2.90	0.738	10	0.003
		<i>Post-Test</i>	4.10	0.876		
Strength	Hand	<i>Pre-Test</i>	2.90	0.738	10	0.004
		<i>Post-Test</i>	4.40	0.966		
Muscle	Finger	<i>Pre-Test</i>	2.70	0.483	10	0.004
		<i>Post-Test</i>	4.40	0.966		

DISCUSSION

The result of the research in table 1 shows that based on statistical test with wilcoxon test there is a difference of upper limb muscle strength on the shoulder of respondent (p value = 0.004), then there is a difference between the upper extremity muscle strength of the respondent's elbow (p = 0.000) between the upper extremity muscle strength of the respondent's hands (p value = 0.000), and there is a difference between upper limb muscle strength in the finger of the respondent. This suggests that ROM exercises gripping the balls can increase limb muscle strength over ischemic stroke patients who develop muscle weakness of the upper limb.

Saryono (2011) said that skeletal muscle should be stimulated by nerve cells to contract. One motor unit is inserted by one neuron. If the muscle cells are not stimulated, the cells will shrink (atrophy) and die, sometimes even replaced by irreversible connective tissue when damaged. Therefore stroke patients who experience extremity muscle weakness should be done ROM exercises. This is in line with what Pinzon stated, et al., (2010) that ROM Exercise is one of the rehabilitation that can be given to stroke patients.

ROM exercises can move the joints as optimal and as broad as possible according to one's ability and does not cause pain in the joints are moved. The presence of movement in the joints will cause an increase in blood flow into the joint capsule. When the joint is moved, the surface of the cartilage between the two bones will rub against each other. Cartilage contains many proteoglikans attached to hydrophilic hyaluronic acid. The emphasis on cartilage will push water out of the cartilage matrix into the synovial fluid. When the pressure stops, the water coming out into the synovial fluid will be withdrawn by bringing nutrients from the liquid (Ulliya et al., 2007).

The results of this study indicate that ROM exercises gripping the ball with rubber ball for 3 days followed by a tennis ball exercise with a tennis ball for 2 days by placing a rubber ball on the weakened hand, then the fingers of the client perfectly grasp, then do a 45 degree wrist joint position, followed by a firm grasp for 5 seconds and then relax for 10 seconds, repeated exercise 10 times with exercise frequency 3 times a day

morning, noon and afternoon can increase limb muscle strength over ischemic stroke patients who have muscle weakness of upper limb. This is in accordance with the opinion Irfan (2010) that muscle strength is closely related to the neuromuscular system is how much the ability of the nervous system to activate the muscles to perform contractions. Thus the more muscle fibers are activated, the greater the power the muscle produces. Sutes also with the opinion Saryono (2011) that weight training or resistance / resistance, will stimulate cell enlargement due to the synthesis of miofilamen a lot. Endurance exercise results in increased mitochondria, glycogen and capillary density.

REKOMENDATION

The conclusion of this research is the ROM exercise therapy gripping the ball with rubber ball for 3 days followed by the practice of gripping the ball by using tennis ball for 2 days by placing the rubber ball over the hand that experienced weakness, then the fingers of the client gripping perfectly, then do a 45 degree wrist joint position, followed by a firm grip for 5 seconds and then relax for 10 seconds, repeated exercise 10 times with exercise frequency 3 times a day morning, noon and afternoon can increase limb muscle strength over ischemic stroke patients who have muscle weakness of upper limb . The researcher suggested to the head of room of RSUP Dr. M. Djamil Padang to be able to apply ball grip exercises to stroke patients who have weakness of upper limb muscles and make the exercise of holding ball that is grasping rubber ball and tennis ball as protap or standard of nursing care to patient post stroke for increase muscle strength.

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THE EFFECT OF CONSUMPTION OF PURPLE SWEET POTATO BISCUITS FORMULA TO WEIGHT GAIN IN TODDLERS WITH MALNUTRITION

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ABSTRACT

The main factors of direct nutrition problems are inadequate consumption and infectious diseases, also influenced by other factors such as parenting. Based on national data in 2013, the prevalence of nutritional status of malnutrition among children under five by 5.7% and 13.9% malnutrition. According to data from the Health Office of South Sumatera Province in 2013, under-fives with less nutrition as much as 7.25%. This study aims to determine changes in body weight of children aged 6 - 59 months with less nutrition who received additional food purple sweet potato cookies. The result of statistical test shows that there is influence of purple sweet potato cookie formula to increase the weight of children under five with less nutrition. The purple sweet potato cookie formula made from local food and proven to increase the weight of children under five with less nutrition, can be considered as an alternative to overcome malnutrition problem.

Keywords: nutritional status, purple sweet potato biscuit, toddler weight, malnutrition

INTRODUCTION

Nutritional status is a state of the body caused by food consumption and the use of nutrients (Almatsier, 2009). Nutrition status is an important health indicator because children under the age of five are vulnerable to health and nutrition (Suhardjo, 2007). The period of the first two years of life is a critical period, because at this time there is rapid growth and development. Toddler age is a period of rapid growth and development and prone to malnutrition (Riskasdas, 2011). All children with less nutritional status, thin or very short, have a high risk of death and require special nutritional support (Briend, A and Prinzo, W, Z, 2009).

Based on national data, the prevalence of nutritional status of children under five in 2013 is malnutrition of 5.7% and less nutrition by 13.9%. Changes were mainly in the prevalence of malnutrition, from 5.4% in 2007, (4.9%) in 2010, and (5.7%) in 2013 (Riskasdas, 2013). One of the ways to overcome under-five nutrition by supplementary feeding (PMT). PMT for children aged 6-59 months is intended as an addition, not as a substitute for daily main meals. According to Christian P, Shaikh S, Shamim AA et al 2015, regular supplementary feeding and nutritional counseling can increase growth and reduce stunting prevalence.

METHODS

This research is an experimental research with randomized control trial (RCT) design. The selection of respondents was determined randomly and divided into two groups, namely the treatment group and the control group. The treatment group was given a purple sweet potato biscuit prepared by the researcher, while the control group got biscuit of MP-ASI according to government program. This study uses several tools

such as synthesis of respondersidentias, mirotoice, digital scales, 24-hour recall form to measure nutrient intake of respondents.

RESULTS

Table 1. Average Weight of Respondents Before and After Treatment

Group	Number of Respondents	Mean Body Weight		Maximum Body Weight		Minimum Body Weight	
		Before	After	before	After	Before	After
Treatment	30	8.45	9.11	12.20	12.90	6.10	6.70
Kontrol	30	7.90	8.20	10.70	11.00	5.80	5.90

Based on Table 1, the average weight gain before consumption of purple sweet potato biscuits in the treatment group was 8.45 kg, while in the control group was 7.90 kg. The mean body weight after consumption of purple sweet potato biscuits in the treatment group was 9.11 kg, while in the control group was 8.20 kg.

Table 2. Average Weight Differences Before and After Treatment

Group	Mean \pm SD before	Mean \pm SD after	t	p
Treatment	8.45 \pm 1.41	9.11 \pm 1.53	-4.168	0.000
Kontrol	7.90 \pm 1.31	8.20 \pm 1.36	-7.645	0.000

The result of statistical test (t-dependent test) in treatment group to p value $<$ (α) 0.00 so it can be concluded that there is difference of body weight before and after given purple sweet potato biscuit formula. From the results before and after the administration of supplementary feeding the purple sweet potato biscuit formula can be seen weight gain in the treatment group is greater than the the control group.

Table 3. Influence of Supplementary Food Feeding Purple Sweet Potato to Increase Weight Gain Underfive Malnutrition

Group	Average Difference	t	p
Treatment	0,657	0.862	0.034
Kontrol	0,303	0.217	

The result of statistical test (t-independent test) to p value $<$ (α) 0.034 so that it can be concluded that there is influence of purple sweet potato biscuits to increase weight of balita less nutrition. In this study both the treatment and control group experienced weight gain by the difference in the treatment group greater than the comparison group. This shows that there is an effect of supplementary food purple sweet potato biscuits to weight gain in underweight children under five.

DISCUSSION

This study proves that supplementary feeding such as purple sweet potato biscuit can give effect to weight gain in underweight children under five. Some literature suggests that appropriate complementary feeding may increase body weight and height in children aged 6-24 months (Imdad, et al, 2011).

Malnutrition shows nearly 34% of other problems faced by children under five, child mortality and unknown side effects are mainly caused by malnutrition (Alemu, 2013). Consuming foods rich in protein, calories and micronutrients given to malnourished children can overcome malnutrition problems (Joglekar, et al 2015). Malnutrition that occurs in children occurs because one factor other than health status is the economic status of parents who are less so that the nutritional needs of children are not met. Consumption of non-diverse foods, inappropriate feeding age is a significant stunting predictor (Fekadu, Yirgu, et al, 2015). Improving the nutritional status of children is a prerequisite for achieving the MDGs as well as reducing child mortality (Kandala, et al, 2011). To improve malnutrition of malnourished children under-five by providing supplementary feeding that is ready for consumption results in a higher recovery rate than food that must be processed first (Karakochuk, et al 2012). Purple sweet potato biscuits are one of the high calorie supplements and contain other nutrients the toddler needs.

RECOMENDATION

Nutrition problem is a national problem that requires a thorough handling. The purple sweet potato cookie formula made from local food and proven to increase the weight of children under five with less nutrition, can be considered as an alternative to overcome malnutrition problem. In addition, increase of knowledge of mothers about nutrition and health is something that must be a priority because it will affect the mother's decision in selecting food for the family.

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THE COMPARISON OF ADSORBENT CORNCOBS (*Zea Mays*) AND CASSAVA SKIN (*Manihot esculenta L. skin*) IN REDUCING IRON CONTENT IN LIQUID WASTE AT GANET LANDFILLS TANJUNGPINANG

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ABSTRACT

Leachate is a liquid that comes out from a waste pile containing dissolved and suspended elements with a high content of organic metals, inorganic, microorganisms and heavy metals. The Waste dumped at the Landfill will produce leachate and if the leachate flow condition is allowed to flow to the soil surface, it is possible to cause negative effects to the environment such as ground water pollution and surface water pollution. Attempts to control heavy metal ions have recently grown, such as an adsorption method which uses various adsorbents. The objective of this study is to find out the ratio of the decrease of iron (Fe) content by using the adsorbent from corncobs and cassava skin on liquid waste at Ganet landfill Tanjungpinang. The result obtained is the difference of the decrease of iron content between corncob and cassava skin adsorbent ($p < 0,05$). It can be seen from the average of the decrease that is obtained casava skin adsorbent is better in reducing the iron content than corncob adsorbent. It is concluded that cassava skin is better used as an adsorbent in reducing iron content of liquid waste in Ganet landfill than corncob. It is suggested to further examine the use of cassava skin adsorbent in reducing heavy metal content in other liquid waste.

Keywords: *corncob, cassava skin, adsorbent, iron, leachate*

INTRODUCTION

Leachate is a liquid that comes out of waste pile which is containing dissolved and suspended elements with a high content of organic, inorganic, microorganisms and heavy metals. Waste pile buried in the landfills will produce leachate and if it is allowed to flow to the soil surface, it is possible to cause negative effects to the environment such as ground water and surface water pollution. (Ali Munarwan, 2011).

The landfills in Ganet are located in the Sidorejo Village area of Pinang Kencana Village, Sub-District, East-Tanjungpinang with 108.227 m² area. It Started operating since 1992 with the area around $\pm 30,000$ m². The waste volume generated in 2016 as much as 99,560.68 m³. There are 4 waste heap zones in Ganet landfills, but three of the zones are inactive due to limited land supply, so that the dumping waste is done in zone four (active zone). Besides being an active zone, it is also found Installation of leachate Processing. The leachate treatment system in landfills of Ganet is conducted by sedimentation method consisting of several tubs, including 1 tub of seeding / aerob with 20.25 m³ volume and 2,025 m³ of leachate volume, 4 tubs of anaerobic / stabilized with 210 m³ volume and leachate with 157.5 m³ volume, 2 facultative tubs with 338.4 m³ volume and leachate 253.8 m³ volume, 1 maturation tub with 380 m³ volume and leachate 285 m³ volume and 1 filtration tub with 90 m³ volume. Ganet landfill is a location used for wastes processing from all areas of Tanjungpinang, whether it is solid or liquid which come from domestic waste, offices, markets and public places that have the potential to pollute the environment around the landfill. The dumping waste in the

landfill will experience the process of decomposition of leachate. At the same time, the water flow which comes from the waste pile will seep into the pile of waste and produce a liquid seepage called leachate with high pollutant level. The leachate generated from the waste pile flows into the leachate collection basin. In the reservoir, leachate undergoes a deposition process and then flows into the ditch around the Ganet landfill. (Pujiastuti, 2013).

From the preliminary study conducted by researchers at Balai Teknik Kesehatan Lingkungan Dan Pengendalian Penyakit (BTKL PP) Batam, it was found that the iron content (Fe) contained in leachate waste had a level of 4.03 mg / l. According to Government Regulation No.82 of 2001 Class I, the maximum value of ferrous metal (Fe) allowed is 0.3 mg /l, it means that iron content (Fe) in leachate has been over the standard value. Leachate that seeps into the soil will pollute the groundwater (wells). If the wells water is used then the iron metal (Fe) will be accumulated in the liver, spleen, bone marrow, heart and other tissues thus damaging the network system. The tissue damage is due to the accumulation of Fe called hemochromatosis. It can also directly damage the cells of the digestive systems, dental caries, pancreas, heart muscle, kidney and at risk of liver cancer and heart disease (Widowati, 2008). One effort conducted to reduce the heavy metal content in liquid waste is by using adsorption method. Adsorption is a process that occurs when a fluid (Liquid or gas) is bonded to a solid and finally forms a thin layer (film) on the surface. Various kinds of adsorbent media which are commonly used such as activated carbon, zeolite, and silica gel.

Cassava skin contains protein, non-reduction cellulose and high coarse fiber HCN (cyanide acid). These components contain the -OH, -NH₂, -SH and -CN groups that can bind metals (Suprpti et al, 2015). Based on the above idea, it will be conducted research related to the decrease of Fe heavy metal content in leachate Ganet landfill by using adsorption method with utilizing adsorbent media made from corncobs and cassava skin. The purpose of this research is to compare the decrease and effectiveness of decreasing the heavy metal content in leachate in Ganet Landfill, Tanjungpinang after being adsorbed with different adsorbent media namely corncobs and cassava skin.

METHOD

This research is quantitative research with Pre- experimental research design using one group pre and posttest approach, in which this design uses one group of subject, the measurement is conducted before and after treatment. The sampling technique was conducted by purposive sample technique. This research was conducted at Laboratory of Environmental Health of Poltekkes Kemenkes Tanjungpinang and laboratory of BTKLPP Class I Batam. According to Amin, A., Saibun, S and Bohari, Y (2016) and Rizky (2015), the method of making an active charcoal of corncobs is as follows: first, corncobs waste that has been taken are washed to remove impurities. Then the corncobs are chopped. Next dry in the oven at 100 ° C. After that heat in a muffle furnace with a temperature of 400 ° C for 10 minutes to obtain charcoal. The obtained charcoal is then smoothed to powder, then sieved with a 100 mesh sieve. Then soak with 125 ml of HCl 4 N for 24 hours. Next wash with aquades to neutralize the pH. The charcoal resulted is then dried in an oven with a temperature of 110 ° C. for 3 hours, subsequently cooled. According to Rohani et al

(2015), the method of making cassava skin adsorbents is as follows: Cassava skin is cleaned and washed with clean water. The cleaned cassava skin is dried in the sun. The dried cassava skin is smoothed out by using a blender. Cassava skin is heated at 65 C degrees for 24 hours. After that sieved with 100 mesh sieve. cassava skin adsorbent is ready to use.

The materials used to analyze the heavy metal content of copper is the Atomic Absorption Spectrophotometric (AAS) device. Spectrometry is a method of quantitative analysis whose measurement is based on the amount of radiation produced or absorbed by the atomic or analytical molecules. One part of the spectrometry is the Atomic Absorption Spectrometry (SSA), a method of quantitative elemental analysis whose measurement is based on the radiant absorption with a certain wavelength by the metal atom in a free circumstance. (Anshori Al Jamaludin, 2005)

RESULTS

Table 1. The Percentage of Iron Decrease (Fe) of Leachate Waste by using corncobs

Time Variation	Iron Content (mg/l)				
	Beginning	Ending			Decrease (%)
		Result I	Result II	Average	
1 hour	3,338	0,121	0,181	0,151	95,470
2 hours	3,338	0,151	0,159	0,155	95,350
3 hours	3,338	0,112	0,152	0,132	96,000

Source: Laboratory Test Results of BTKLPP Class I Batam

Table 2. The percentage of Iron Decrease (Fe) of leachate Waste by using casava skin adsorbent

Time Variation (minutes)	Iron Content (mg/l)				
	Beginning	Ending			Decrease (%)
		Result I	Result II	Average	
30	5,111	0,194	0,393	0,293	94,256
45	5,111	0,229	0,276	0,252	95,059
60	5,111	0,212	0,201	0,206	95,959

Source: Laboratory Test Results of BTKLPP Class I Batam

Table 3. The Comparison of the Use of Corncobs and Cassava Skin in Iron Decrease of leachate Waste in Ganet Landfill

Types of Absorbent	N	Mean	SD	P Value
Corn cob	6	3,19	0,02	0,000
Casava Skin	6	4,86	0,07	

DISCUSSION

Based on the table above, it is known that the optimum decrease of iron content (Fe) occurs in 3 hours time variation with an average decrease of 0.132 mg / l or 96%. The beginning concentration of iron (Fe) leachate waste in Ganet Landfill was 3.338 mg / l, after being treated using adsorbent (an active charcoal of corncobs) an average decrease of 0.132 mg / l to 0.155 mg / l. This value indicates that iron content (Fe), after being given a treatment by using adsorbent (active charcoal of corncobs), has been under the quality standard based on government regulation no. 82 in 2001 Class I which states that the maximum value of allowable iron metal is 0.3 mg / l.

Based on the table above, it is known that the optimum decrease of iron content (Fe) occurs in 60 minute time variation with an average decrease of 0.206 mg / l or 95.959%. The beginning concentration of iron (Fe) leachate waste in Ganet Landfill was 5.110 mg / l, after being treated using adsorbent (cassava skin), there was an average decrease of 0.206 mg / l up to 0.293 mg / l. This value indicates that iron content (Fe), after being given a treatment by using adsorbent (cassava skin), has been under the quality standard based on government regulation no. 82 in 2001 Class I which states that the maximum value of allowable iron metal is 0.3 mg / l.

Based on Table 3, it is known that the average decrease of iron content using corncob is 3.19 mg / l while using cassava skin adsorbent is 4.86 mg / l. The result of the statistical test showed that p value (0.000) <from α (0,05) which means that there is the difference of average of iron content decrease between corncob and cassava skin adsorbent. The result also showed that cassava skin adsorbent is better than corncob in decreasing iron content.

RECOMENDATION

The result of this research, it is obtained that the average decrease of iron content using corncob is 3,19 mg / l while using cassava skin adsorbent 4,86 mg / l. The result of statistical test showed p value (0.000) <from α (0,05) which means that there is the difference of average decrease of iron content between corncob and cassava skin (p <0,05). The result also showed that the use of cassava skin adsorbent is better than corncob adsorbent in reducing iron content.

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DIFFERENCES OF LEMEA FERMENTATION CONTAINERS AGAINST TOTAL LACTIC ACID BACTERIA AND DISSOLVED PROTEIN

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ABSTRACT

Lemea is a traditional food from Rejang tribe in Bengkulu Province. The Lemea fermentation process utilizes the role of a number of Lactic Acid Bacteria (LAB). The fermentation container has an effect on the growth of lactic acid bacteria and Protein Content during fermentation, so it becomes a study to produce a superior end product and can be developed as a probiotic. The purpose of this study was to determine the effect of Lemea fermentation containers on Total Lactic Acid Bacteria and Protein content. This research is an experimental research with randomized complete design with 6 treatment unit consists of three variants of fishes and two kinds of Lemea container. The ingredients of Lemea are bamboo shoots fermented early for 30 hours, then mixed with fish and fermented for 48 hours. Lemea products were analyzed for total LAB and Protein Content content. Based on the result of the research, Lemea based Betok Head Fish fermented in plastic container contains total BAL and highest protein content with an average of 1.7×10^8 colony/g and 0.87%, respectively.

Keyword : Lactid Acid Bacteria, Fermentation Containers, Protein Content

INTRODUCTION

Traditional foods are foods prepared with recipes passed down from generation to generation. Bengkulu Province, which is one of the waters area, often using the processed fish as its traditional food. Lemea is one of the traditional fermented foods from fish in Bengkulu Province, especially the Rejang Tribe, which must be cooked again can be consumed. The basic ingredients of making lemea is to use young bamboo or called Rebung which then in chopped then mixed with fish from fresh water such as goldfish, Sepat fish, small fish, Kepala Timah fish, Betok fish and Nila fish. Furthermore, the mixture of bamboo shoots and fish is fermented in bamboo or plastic containers for several days to produce lemea products (Dewi, K, Zuki.M, 2012; Dewi, 2015).

Probiotic bacteria have been studied further can give positive effect to one's health that is can lower blood pressure, improve immunity system, help calcium absorption, and can become antibacterial to pathogen which often attack human like *V.cholerae*, *A.hydrophila*, *E.coli*, and *Salmonella typhi* (Griffiths & Tellez, 2013; Kumar, 2013). The more BAL content indicates the more functional the food is because it is not only sufficient nutritional value but also has a positive effect on the health of the body. In addition, BAL has strong proteolytic ability and can degrade the fish protein to bioactive peptide so it can be probiotic and ACE inhibitor (Lawalata & Satiman, 2015).

The growth of lactic acid bacteria in fermented food preparations can be influenced by several things one of which is the medium where the growth of lactic acid bacteria. In this case, it relates to the container and the duration of fermentation of the processed product. Research Dewi, K dan Zuki.M, (2012), known container and fermentation times effect on pH, moisture content, and the number of microbes that grow in the fermentation process. Several studies on fermented foods also showed

increased levels of dissolved proteins, caused by proteolytic activity and enzymes released from lactic acid bacteria(Hayek & Ibrahim, 2013).

METHODS

The materials used in this research are bamboo shoots“Taba” obtained from Rejang Lebong Regency in Bengkulu Province, Betok Head Fish (*Anabas testudineus*), Nila Fish (*Oreochromis niloticus*) and Kepala Timah Fish (*Aplocheilus panchax*). As for the chemical reagents used in the study is "analytical grade".The type of this research is experiment with Completely Randomized Design using 6 treatment unit. Each research treatment unit is in control.

Bamboo shoots “Taba” obtained from Rejang Lebong Regency cleaned and peeled and sliced thin or chopped. Next, Bamboo was soaked with 500 ml water for 30 hours. The result of fermentation of bamboo shoots was then divided into 6 parts ie each weighing 150 gr. Add 50 grams of fish each and stir well on the 6 sections of P1 = Lemea based on Betok Head Fish , P2 = Lemea based on Timah Head Fish, P3 = Lemea based on Nila Fish, P4 = Lemea based on Betok Head Fish Fish, P5 = Lemea Made from Timah Head fish and P6 = Lemea Made from Nila Fish. Next, Combine 50 ml of lemongrass (made with a grain of 1 cm sliced lemongrass and soaked in water for 30 minutes) to add the aroma to lemea. Finally, the Fermentation lemea for 48 hours with temperature 27oC on the prepared container that is bamboo container for P1, P2, P3 and plastic jar container for P4, P5, P6.

After the decommission phase is complete, continue with the distillation stage. Move the flask containing the solution into the distillation device (Kieltec system). Wash and rinse flask 5-6 times with 1-2 ml aquadest. The washwater can be moved also into the distillation apparatus. Prepare Erlenmeyer size 125 ml, fill with HBO₃(boric acid) solution as much as 5 ml. Just before the distillation begins, add an indicator (mix 2 parts red metal 0.2% in alcohol and 1 part blue methylene 0.2%) as much as 2-4 drops. Next add the NaOH-Na₂S₂O₃ (sodium thiosulfate) solution to the transferred decomposition sample.

RESULT

Table 1. Total Lactic Acid Bacteria

Treatment	Average of BAL Colony Content Colony/g	Deviation Standard
P1	1.40 x 10 ⁵	± 0.0
P2	4.20 x 10 ⁵	± 0.1
P3	3.30 x 10 ⁴	± 0.4
P4	1.70 x 10 ⁸	± 0.0
P5	3.45 x 10 ⁷	± 0.1
P6	4.05 x 10 ⁷	± 0.2

P1 = Lemea based on Betok Head Fish in Fermentation inside Bamboo Container, P2 = Lemea based on Timah Head Fish in Fermentation inside Bamboo Container, P3 = Lemea Made The Base of Nila Fish in Fermentation in Bamboo Container, P4 = Lemea based on Betok Head Fish in Fermentation in Plastic Container, P5 = Lemea Made from Timah Head Fish in Fermentation in Plastic Container and P6 = Lemea based on Nila Fish in Fermentation at In Plastic Container.

Based on a result, the highest total lactic acid bacteria found in P4 group is lemea based on fermented Betok Head fish which is fermented using plastic container. With the average total lactic acid bacteria obtained during fermentation in the P4 group is 1.7×10^8 . This is because the fermentation using a plastic container tightly closed causes lactic acid bacteria resistant to anaerobic conditions to grow and develop properly.

Lactic acid bacteria in fermentation using bamboo container can be seen in Table 1 has a low total bacteria compared to the number of bacterial colonies found in fermentation using a tightly sealed container (plastic jar). The lowest results are in the P3 group with the average total lactic acid bacteria ie 3.3×10^4 . In fermentation using bamboo, the activity of bacterial growth goes aerobic with conditions that are not too acid, causing lactic acid bacteria in lemea not cannot grow and develop well.

Environmental factors, including tightly sealed containers in the fermentation process are the main factors affecting spontaneous growth of lactic acid bacteria in the final result of lemea fermentation (Muzaiifa, 2015). Fermentation using a sealed container causes the access or entry of oxygen limited. So that lactic acid bacteria that are resistant to anaerobic conditions can grow well in tightly closed containers. The existence of tissue respiration to the path of growth of lactic acid bacteria during the fermentation process causes the existing oxygen consumed by bacteria to produce carbon dioxide. These gas changes are a major trigger for the growth of lactic acid bacteria (Buckle et al 1985; Holzafpel et al, 2003). Acid environmental conditions in closed containers can help the growth process of lactic acid bacteria (Dewi, K, Zuki.M, 2012).

Microorganisms to grow and metabolize properly require nutrients, one of which is protein or amino acids. High protein content in Betok Head Fish as the basic ingredient of fermentation lemea become one of growth factors from microorganism. Amino acids present in fermentation products serve as a source of nitrogen and energy for some microorganisms. Nutrients present in foodstuffs can dominate the presence of lactic acid bacteria (Jay, 2001).

Analysis of Dissolved Protein Content

Lemea that use bamboo containers and plastic containers during the fermentation process has a significant increase in protein levels. Fermentation for 2 days has increased levels of different dissolved proteins in each treatment. The results of the protein content analysis obtained can be presented in Table 2.

Table 2. Protein Content (%)

Treatment	Protein Content %	Deviation Standard
P1	0.72	± 0.02
P2	0.70	± 0.01
P3	0.77	± 0.02
P4	0.87	± 0.03
P5	0.66	± 0.01
P6	0.74	± 0.00

P1 = Lemea based on Betok Head Fish in Fermentation inside Bamboo Container, P2 = Lemea based on Timah Head Fish in Fermentation inside Bamboo Container, P3 = Lemea Made The Base of Nila Fish in Fermentation in Bamboo Container, P4 = Lemea based on Betok Head Fish in Fermentation in Plastic Container, P5 = Lemea Made from Timah Head Fish in Fermentation in Plastic Container and P6 = Lemea based on Nila Fish in Fermentation at In Plastic Container.

DISCUSSION

Base on a result above can be seen that the highest protein content found in the P4 group with a value of 0.87 is lemea with the basic ingredients of fermented fish fermented in a plastic jar container. Increased protein levels are due to proteonase enzymes and proteolytic activity in lactic acid bacteria present in lemea fermentation. The P4 group had a greater total lactic acid bacteria than the other groups, which resulted in greater proteolytic activity and was directly proportional to the increase in protein levels.

Fish sauce products fermented by utilizing the role of high lactic acid bacteria increase the protein value by 1-8% of the minimum required (Mueda, 2015). High protein content in Betok Head Fish as the basic ingredient of fermentation lemea become one of growth factor from microorganism. The amino acids present in the fermentation product serve as a source of nitrogen and energy for some microorganisms (Jay, 2001; Ubalua et al. 2008). The process of increasing this protein is due to the lactic acid bacteria produced in lemea fermentation causing the release of some extracellular enzymes (proteinases) resulting in changes in protein levels in lemea fermentation (Gunawan *et al.*, 2015). This research is proved by Khodanazary et al, (2013), that extracellular enzyme out during the fermentation process by utilizing *L.plantarum* dan *B.subtilis* bacteria have an effect on the increase of protein nutrition value by 65% from Anchovy Kilka (Food of anchovy) with level Trust (<0.05).

Similar studies of lemea by Wikandari et al (2012), ie proteolytic activity in lactic acid bacteria will cause changes in the amount of peptide and protein in fermentation products. *L.plantarum*, *L. pentose*, and *P.pentosaceus* bacteria that are commonly found in fermented foods from fish lead to proteinase and peptidase activity of proteins present in fish thus increasing proteolytic activity.

The results of the research by utilizing two different types of containers of bamboo containers and plastic jars have a strong influence on the increase of the dissolved protein content contained in lemea fermentation. It can be known that fermented lemea using a plastic jar container with anaerobic activity results in a higher total lactic acid bacteria in comparison with bamboo containers. Anaerobic activity that helps the growth and development of lactic acid bacteria leads to proteinase process resulting in increased levels of protein in lemea.

RECOMENDATION

The conclusion of this research is the highest total lactic acid bacteria found in lemea group based on fermented Betok Head Fish using plastic jar container (Group P4) with average total lactic acid bacteria 1.7×10^8 . Fermentation containers with anaerobic conditions become the main environmental factor of growth of lactic acid bacteria against the final result of lemea. The highest protein content was also

produced by the P4 group with an average protein of 0.87%. Increased protein levels are caused because during the fermentation process occurs lemea extracellular enzyme (proteinase) and proteolytic activity of lactic acid bacteria. The higher the amount of lactic acid bacteria produced during the fermentation the higher the protein content produced.

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THE EFFECTIVENESS OF THERAPY REMINISCENCE MODULES AND SUPPORTIVE IN FAMILY TO CHANGE DEPRESSION LEVEL OF ERDERLY IN KURAO PAGANG REGION PUSKESMAS NANGGALO PADANG

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The depression prevalence of elderly from acute geriatricsoutpatient was 76.3% in Indonesia. The proportion of geriatric patients with mild depression was 44.1%, whereas moderate depression was 18%, major depression was 10.8% and depression was 3.2% heavy. The more severe the depression, the longer the treatment. The consequences of untreated depression will be a serious consequence so that the suicide rate will increase. Approximately 16% of suicides were committed by the elderly. The purpose of this study was to look at changes in the incidence of depression through the treatment of reminiscence and family supportive therapy in the Working Area of Kurao Pagang Puskesmas Nanggalo Padang and after intervention 3,4889. There was a significant change between the incidence of depression in the design of the experimental study with the Pretest-posttest One Group design. The results showed an average decrease in the incidence of depression before the elderly after treatment of reminiscence and family supportive therapy. Marital status affects the incidence of depression in the elderlysignificantly.

Keywords: Reminiscence Therapy, Family Supportive Therapy, Depression

INTRODUCTION

There is a change in both the physical, psychological and social effects of the aging process in elderly. Being old is a natural process, which means a person has gone through three stages of life that is child, adult and old (Nugroho, Wahyudi, 2008). Changes that occur in parents require adaptation and adjustment process for the attainment of integrity for the elderly. Shirey (2007) states that common psychodynamics in the elderly are anxiety, demension, loneliness, depression, paranoid reactions and delirium.

Depression is a feeling of sadness, helplessness and pessimism associated with anger (Nugroho, Wahyudi, 2008). Cause of loneliness due to narrow social sphere, post power syndrome, static and non-varied life routine. Depression is characterized by the feelings of sadness and psychopathology, loss of interest and excitement, decreased energy, fatigue and lack of activity. According to Bandiyah, Siti (2009) elderly people who experience depression seem lethargic, not enthusiastic, feel unappreciated, and feel meaningless so quickly feel old.

In Indonesia the prevalence of depression in elderly from acute outpatient geriatrics was 76.3%. The proportion of geriatric patients with mild depression was 44.1%, whereas moderate depression was 18%, major depression was 10.8% and depression was very severe at 3.2%. Depression rates increase dramatically among parents who have about 50% to 75% of long-term care patients have mild to moderate depressive symptoms (Stanley and Beare, 2007). According Keliat et al (2012) Depression is not common in elderly people. About 3 out of 100 elderly people aged over 65 are depressed. This figure is increasing in elderly people aged 80 years or older.

Depression can shorten life expectancy by triggering or exacerbating physical damage. Depression can also provoke emotionally and financially affected people, families and other informal and formal social support systems (Stanley and Beare, 2007). Some of the possible therapies for depressed parents are validation therapy, progressive relaxation therapy, life review therapy, therapeutic therapy, logotherapy, independent group therapy, therapeutic therapy, reminiscence therapy and supportive therapy.

According to Cappliez, et al 2007 in Lestari, Diah Riri et al (2016) examines the functions of reminiscence and regulation in the elderly including problem solving, death preparation, life experiences, past failures, carelessness and maintaining intimacy. To improve the ability of the family is intended as a support system then one alternative option is supportive therapy. Supportive therapy according to Stuart and Laraia (2005) can be done in the class of scizophrenia, the state of the client is limited to feelings like depression, anxiety, post-traumatic syndrome, eating disorders, substance abuse disorders and physical illness affecting the psyche.

Based on data obtained from the elderly at Puskesmas Nanggalo Padang, the number of elderly people aged 60 - 69 years as many as 1510 people, especially for Kurao Pagang area as many as 613 people, with details 311 women and 302 men. The results of interviews with 7 elderly people showed that 5 elderly people had some depressive symptoms in which they revealed about their condition such as feeling sad, feeling useless, desperate, guilty, sleeping disorders, anxiety, and lazy activity. 3 people feel sad due to loss of spouse, 1 person since his son brought home by her husband silent. Others because of physical illness that he suffered felt he would not be able to do the job though light so that ultimately only burden the family). The purpose of this study was to look at changes in the incidence of depression through the treatment of reminiscence and family supportive therapy in the Working Area Kurao Pagang Puskesmas Nanggalo Padang.

METHOD

The research design was done by Pretest-posttest One Group design where the design was without control group. This study was conducted to determine the incidence of depression before and after reminiscence therapy and supportive supplementation of families in accordance with existing modules. The population of this study is the elderly who experience depression at Puskesmas Kurao Pagang Nanggalo Padang, as many as 613 people. The sample was taken by a number of 45 elderly. The study was conducted from February to November 2017. Data collection and intervention time was conducted from August to November 2017. The instruments used to measure students' emotional intelligence developed by previous researchers (GDS) Geriatric Scale Depression were developed by Yesavage, Brink, Rose, Lum, Huang, Adey (1983) at Wheeler (2008). Univariate analysis was done by using exploratory analysis, while bivariate analysis with t-test dependent test (Paired t test) to know the change of incidence of depression before and after intervention.

RESULTS

Table 1 . Average Distribution of Depression Depression Occurs Before Remediscence Therapy and Family Support Therapy In Kurao Trade Work Area Puskesmas Nanggalo Padang Year 2017

Variable	Mean	SD	Median	Min - Mak	95% CI
Depression before Intervention	8,9111	9,0000	1,29373	7- 12	8,5224-9,2998

The result of the average analysis of students' emotional intelligence is 8.9111

Table 2. The average distribution of incidence of Respondent Depression After Reminiscence Therapy and Family Support Therapy At Kurao Pagang Work Area Puskesmas Nanggalo Padang Year 2017

Variable	Mean	Median	SD	Min - Mak	95% CI
Depression after Intervention	5,4222	6,0000	2,20009	2 - 12	4,7612-6,0832

The results showed that the average of students' emotional intelligence was 5.4222.

Table 3. Depression Analysis of Elderly Depression Before-After Reminiscence Therapy and Family Support Therapy in Kurao Trade Work Area Puskesmas Nanggalo Padang Year 2017

Variable	N	Mean	SD	t	P value
Depression Occurrence					
Before	45	8,9111	1,29373	11,532	0,000
After		5,4222	2,20009		
Difference		3,4889			

The incidence of depression in the elderly decreases significantly before and after the intervention of reminiscence therapy and family supportive therapy.

DISCUSSION

The results showed an average decrease in incidence of elderly depression after following the treatment of reminiscence and supportive family therapy of 3.4889. The results of statistical tests of the study showed that there was a significant decrease between the incidence of elderly depression before and after intervention. These results are similar to the results of research conducted by Adicondro, Nobelina (2015) showed an average decrease in depression levels before and after intervention in the intervention group of 3.2 with p 0.007, can be interpreted reminiscence group therapy has a significant effects on decreased levels of depression.

According to Videback (2008) the emergence of depression in the elderly due to changes in the aging process and problems arising from these changes that cause mood and mood disorder. Manurung Nixson (2016) explains that neurotransmitters associated with depression pathology are serotonin and epinephrine, where a person with a decrease in serotonin may trigger depression. Norepinephrine works in the setting of behavior and concentration. Conditions of stress and stress result in decreased levels of norepinephrine and as a result of changes in response or interest, decreased motor activity and apathy (Keltner, Bostrom & Mc Guinness, 2011).

The results showed a decrease in the incidence of depression in the elderly after being given reminiscence therapy, this is because reminiscence therapy is a form of activity to help the elderly collect back memory or past experience and can improve the effect and ability of coping elderly. So hopefully elderly can feel comfortable and calm about what happened before. Besides that the implementation of therapy can also help improve the social interaction of the patient with other people who become his interlocutor so that social problems encountered can be overcome.

To improve the ability of the family intended as a support system then one alternative option is supportive therapy. According to Hunt, (2004 in Wahyuningsih, S.A, 2011) supportive therapy is a support or support for the family so as to overcome the crisis faced by building supportive relationships that focus on recovery, and social action.

Supportive therapy aims to provide support, to the family so as to overcome the crisis it faces by building a supportive relationship between the client with the therapist, increase family strength, improve family coping skills, improve the ability of eluarga using coping resources. , improving family autonomy in decisions about treatment, improving the ability of families to achieve independence as optimal as possible and increasing the ability to reduce subjective pressures in maladaptive responses (Syarniah, 2010).

The combination of reminiscence therapy and family supportive therapy performed on lansis with depression achieved optimal results, resulting in a significant association with decreased depression after intervention. This is because during therapy the elderly remember to be trained to commemorate the experience and solve the problems of the past, especially fun that motivates the elderly to be more confident, feel useful, happy and increase their daily activities. With the support of families, elderly feel more attention and attention that can make parents feel happier, more comfortable and more active in performing daily activities that show symptoms of depression decreased in the elderly.

CONCLUDE

Reminiscence therapy and family supportive therapy can reduce the incidence of depression in the elderly at Puskesmas Kurao Pagang Nanggalo Padang. Characteristics of age, sex, occupation and physical illness did not significantly affect the incidence of depression in elderly in Kurao Pagang Working Area Puskesmas Nanggalo Padang. Characteristics of marital status have a significant effect on the incidence of depression in the elderly in Puskesmas Kurao Pagang Nanggalo Padang.

SUGGESTION

For Nurse Puskesmas in order to apply the module of reminiscence therapy and family supportive therapy in treating elderly with depression. Puskesmas leaders facilitate the implementation of family reminiscence therapy and supportive therapy for elderly depression sufferers. Using research results as evidence based on further research.

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THE LACTATION MANAGEMENT OF *BREAST PACKAGE* EFFECT TOWARD LACTATION PROBLEM AND MATERNAL SELF CONFIDENCE IN COMMUNITY HEALTH CENTRE OF NANGGALO WORK AREA IN PADANG

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ABSTRACT

The biggest cause of maternal mortality is bleeding, one of which can be caused by inadequate uterine contractions. Actually, it can be improved through breastfeeding. However, this process can experience obstacles due to various factors, including maternal factors (mammary condition and self confidence). Breast care and lactation management are required to assist the process. This study was to determine the influence of lactation management of Breast package to the lactation problem and maternal's self confidence in community health centre of Nanggalo Work Area. The result showed there was significantly difference of lactation management of Breast package to decrease lactation problem (p value= 0,016) and increase maternal confidence with different score average 2,23 (p value= 0,003). The study is recommended that the health services would inform the importance of breast care and design a lactation counseling method as a part of prenatal class programme to increase breastfeeding process.

Keywords: breast care, lactation management, lactation problem, self confidence

INTRODUCTION

Postpartum is one of the woman's life cycle in lactation process that affect increasing mortality rate if there was bleeding. It can be caused by inadequate uterine contractions. It can be improved through breastfeeding (Murray & McKinney, 2007; Pillitteri, 2010; Reeder, Martin, & Koniak-Griffin, 2014). Woman who early breastfeed her baby and breastfeed continuously would prevent hemorrhagic postpartum (Thompson, Heal, Roberts & Ellwood, 2010). Mother can save her baby's life 16% in first day of birth and increased 22% in first hours of birth (Edmond, Zandoh, Quigley, et.al, 2006)

The coverage of the nationally exclusive breastfeeding program by 2014 is 52,3% and still has not reached the target (80%) (Kemenkes RI, 2015). The coverage of exclusive breastfeeding in Padang still has not reached the target set by the government and even decreased from 72,2% in 2014 to 70,74% in 2015. Exclusive breastfeeding coverage for Nanggalo sub-district especially Nanggalo Community Health Centre also decreased from 69,6% in 2014 to 59,36% in 2015 (Dinas Kesehatan Kota Padang, 2016).

Mothers who breastfeed will not experience obstacles in breastfeeding if from the beginning have prepared psychologically and knowledge about breast care and rightly breastfeeding technique (Perinasia, 2010; Cadwell & Turner-Maffei, 2011). This process will be more helpful with the demonstration. Therefore we combine several methods of breast care with breastfeeding techniques that consists of breast treatment with a kol compress (Novita, 2011), oxytocin massage, and nipple treatment with Hoffman technique (Rathi, & Mandliya, 2011), nipple care called "Breast Package". This study was to determine the influence of lactation management of Breast Package to the

lactation problem and maternal's self confidence in community health centre of Nanggalo Work Area.

METHOD

The research was the quasi-experiment design with one group pretest - posttest approach. The data collection was conducted in September to November 2017 in community health centre of Nanggalo Work Area. The sample was selected by purposive sampling technic to 21 mothers. Data was analyzed using Chi-Square dan Wilcoxon test.

RESULT

Tabel 1. Differences Lactation Problems Before and After Intervention at Breastfeeding Mother in Community Health Centre of Nanggalo Work Area

Variable	Lactation Problem				Total		<i>p-value</i>
	Normal		Problem		f	%	
Breast Intervention	f	%	f	%	f	%	
Before Intervention	12	57,1	9	42,9	21	100	0,016
After Intervention	16	76,2	5	23,8	21	100	

There was a decrease in the number of women who had lactation problems before the intervention of 9 mother (42.9%) and after intervention 5 mother (23.8%). The statistic result obtained *p value*= 0,016. It shows that seen there is significant difference between lactation problem at mother before and after intervention.

Table 2. Mean Difference of Maternal Self Confidence Before and After Intervention at Breastfeeding Mother in Community Health Centre of Nanggalo Work Area

Variable	Mean	Deviation Standart	Minimal-Maximal	Mean Difference	<i>p value</i>
Before Intervention	62,10	6,715	41 – 70	2,23	0,003
After Intervention	64,33	5,092	50 – 70		

The mean of mother's confidence score before intervention was 62,10 with deviation standard 6,715. The mean mother's confidence score after intervention was 64.33 with a standard deviation of 5.092. The mean difference of mother's self confidence score before and after is 2,23 (*p value* 0,003). It shows that there is a significant difference between the mother's self-confidence before and after the intervention.

DISCUSSION

The results of this study indicate that lactation problems for problematic mammary states include inverted nipples, swollen breasts, flat nipples, large nipples and nipple blisters. The lactation problem for inverted nipple showed a decrease from 14,3% before intervention to 4,8% after intervention. Breast engorgement (9,5%) and flat nipples (4,8%) were only identified before the intervention, after intervention no

further problems were found. The condition of large nipples is only found in one mother (4,8%). This condition is related to the maternal anatomy structure of mammae. As for the problem of nipple blisters experienced an increase that was initially identified as 9.5% increased to 14.3%.

Lactation problems also relate to breastfeeding techniques/processes (Perinasia, 2010: Cadwel, Turner-Maffei, 2011). The process of breastfeeding (body position, response, bonding, anatomy, sucking, time) at the mother in this study has mostly shown the right way, but there are still less true. The condition of nipple blisters at the mother in this study was influenced by the less right way while breastfeeding such as body position and how to suction baby (sucking) while breastfeeding. Mothers also do not routinely apply breastmilk before and after breastfeeding. Prananingrum study (2014) also support that there is a correlation between breastfeeding techniques and the occurrence of nipple blisters in mothers with 0-7 days of baby ($p= 0.022$), of which 65.6% of mothers performed incorrect breastfeeding techniques and 56.3% experiencing a scratched nipple. Incorrect breastfeeding can cause blisters and breast milk can not product optimally.

Breast care will help identify and resolve the problem according to the conditions experienced by the mother. Breast engorgement can be overcome by compressing cabs for 20-30 minutes (Novita, 2011) which proven to effectively reduce the swelling in the mother's breast. Compressing cabs is as effective as oxytocin stimulants in overcoming breast engorgement (Deswani, Gustina, & Rochimah, 2014). The incompleteness of breastfeeding expenditure can cause breast engorgement. This occurs because the narrowing of the lacteferi ducts or by the glands is not completely discharged or due to abnormalities in the nipples (Reeder et al, 2014). Sholichah's study (2011) also showed a significant relationship between breast care in postpartum mothers with a smooth expenditure of breast milk ($p = 0.009$).

The result showed there was significantly difference of lactation management of Breast package to increase maternal confidence with different score average 2,23 (p value= 0,003). Breast milk production is strongly influenced by psychological factors because the mother's feelings can inhibit or increase the expenditure of oxytocin. If the mother is depressed, sad, lack of confidence and various forms of emotional tension, this can decrease milk production (Sulistyoningsih, 2011).

Providing information through health education affects the self confidence of breastfeeding mothers. The information given to the mother in this study is breast care with various possible problems commonly experienced by mother and lactation management. Kurnianingtyas (2017) mentions that there is an influence of health education intervention on lactation management on breastfeeding confidence level in the mother of trimester primigravida III ($p=0.0001$).

Increasing confidence is important to achieve successfully breastfeeding. Strong mother beliefs and perceptions about breastfeeding are the strongest positive determinants of successful exclusive breastfeeding (Kurniawan, 2013). Andaritji's (2016) study also showed a moderate and significant positive relationship between mother's self-confidence and the smooth release of breast milk. The more mothers believe that they can breastfeed, the higher the rate of breastfeeding mothers. Wattimena, Werdani, Novita & Dewi (2015) indicates that success in breastfeeding

achieved through self-management factors (self-awareness and self-determination) has a strong effect on the welfare of breastfeeding mothers.

Providing more complete information and in accordance with the conditions experienced by the mother will be able to grow the mother's desire to want to overcome them. A strong desire will nurture the beliefs, perceptions and strong self-beliefs of the mother as well that greatly help the success of the breastfeeding process.

RECOMMENDATION

The study is recommended that the health services would inform the importance of breast care and design a lactation counseling method as a part of prenatal class programs to increase breastfeeding process.

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DESIGN BUILDING PLASTIC WASTE TOOLS HOUSEHOLD SKILL IN 2017

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ABSTRACT

The amount of waste in Indonesia reaches 151,921 tons per day, which means that every Indonesian people on average dump solid waste of 0.85 kilograms (kg) every day. behavior of urban communities in several cities in Indonesia, in waste management. That is, as much as 15 percent throw garbage into the sea, throw to the times / gutters as much as 5.3 percent, burning waste 24.8 percent. Based on Decree of Mayor of Padang. 163 In 2014, the total area of slums in Padang lies on 23 (twenty three) villages with an area of 107.96 Ha. This research uses tools and materials how to design a plastic garbage disposal tool formed. The built-up design is made of modified Bicycle backside with the body of the hollow elbow metal in place of the funnel there are cutting knives made of steel. This household scale plastic machine has the difference as well as the benefits that is 1) Price \leq Rp. 6.000.000, -. 2) Household Plastic Trash managed 3) Increase household income 4) As a Sport Facilities cycling, marathon.

Key Word: Design Building Plastic

INTRODUCTION

Alexander Parkes was the man who first introduced the term plastic. At that time, Parkes introduced him to a Great International Exhibition in London in 1892. Each year, the need for plastic is growing. In 2005 the plastic was printed as much as 220 million tons. Imagine not, how much people need plastic because almost all materials and tools we use are made of plastic, such as bottles, sandals, bags, baskets, buckets, and glass. Plastic development comes from the use of natural materials (such as chewing gum, shellac ") to chemically modified natural materials (such as natural rubber," nitrocellulose ") and finally to man-made molecules (such as: epoxy, polyvinyl chloride, polyethylene).

Indonesia emergency plastic waste because the plastic used is much discarded so to the environment so that impact on health and environmental problems in Indonesia. The amount of waste in Indonesia reaches 151,921 tons per day, which means that every Indonesian people on average dump solid waste of 0.85 kilograms (kg) every day. behavior of urban communities in several cities in Indonesia, in waste management. That is, as much as 15 percent throw garbage into the sea, throw to the times / gutters as much as 5.3 percent, burning waste 24.8 percent.

New study estimates that about 5 trillion plastic particles with a total weight of 268,940 tons are floating in the oceans now. Plastic waste generates a loss of about 13 billion dollars every year, ranging from damage to marine ecosystems to nature tourism. Animals such as seabirds, whales, dolphins die from eating or trapped in plastic waste.

The city of Padang is one of the cities in Indonesia that produces garbage + 672 tons per day generated by the number of population + 840,000 soul and 35% of the waste is plastic waste. This resulted in the city of Padang very overwhelmed with the

problems of garbage, especially plastic waste that also has polluted the soil and surface water and also empties into the sea. Based on the above problems, the authors merancang an applicative research to provide solutions to the community, especially in households in Kalumbuk Village in managing plastic waste that later can also be applied in other urban villages in Padang that conditions are almost the same. Hopefully, this research can reduce the area that is included in the category of slum area so that the program of Kota Padang Tanpa Kumuh (KOTAKU) can be achieved faster

RESULTS

Various kinds of PlastiK enumerator machines and prices on the market. Plastic garbage processing with enumeration machine with capacity capacity capacity such as Capacity 50 kg / hour price ranging from price 16 jt to 26 jt, Capacity 100 kg / hour price ranged from 27 jt to 33 jt., Capacity 200 kg / jt up to 72 jt. Capacity 300 kg / hour price ranges from 85 jt to 90 jt, Capacity 400 - 500 kg / hour price ranges from 165 jt to 176 jt.

Design of plastic waste compost tool Household Scale:



With benefits or advantages:

1. Price \leq Rp. 6,000,000, -
2. Can Process Rubbish Plastic Household
3. Increase Household Income
4. As a Sport Facilities biking / running.

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EFFECTIVENESS OF MODULE IN ESTABLISHMENT OF EXCLUSIVE ASSEMBLY VOLUNTEER ON EXCLUSIVE KNOWLEDGE OF EXTRUSIVE ASSEMBLING IN WOMEN BREASTFEEDINGIN WORKING REGION OF PUBLIC HEALTH CENTRE OF GUGUAK PANJANG

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ABSTRACT

Indonesia's health profile data of 2014 Exclusive breastfeeding practice in Indonesia is 52.3% . in the United States there are already many training programs developed that aim to increase breastfeeding awareness, the group is called *peer councillor*. Bukittinggi there is no exclusive breastfeeding volunteer formation, therefore the researcher aims to form an exclusive breastfeeding volunteer through training using module to do inte rvensi to knowledge of breastfeeding mother in working area of public health centre Guguak Panjang. General Purpose of this research is to know the effectiveness of module in formation of exclusive *breastfood volunteer* to breastfeeding mother knowledge. While the difference of the average of pre test and post test in control group is -369 with value of P value 0.015 then could concluded there is no difference knowledge on Pre test and post test. The conclusion of this research is that the module in the formation of exclusive breastfeeding *volunteers* is more effective against exclusive breastfeeding breastfeeding improvement compared to the group who were not given intervention . Moder n for health workers to carry out programs in each posyandu Volunteer ASI primarily to enhance their knowledge in the breastfeeding mother.

Keywords: *Exclusive Breastfeeding, Volunteer*

INTRODUCTION

Exclusive breastfeeding is breastfeeding without food and other supplementary beverages in infants aged 0 to 6 months. Even water is not given in this exclusive breastfeeding stage. Failure of exclusive breastfeeding will lead to a 15% - 20% shortage of brain cells, thus inhibiting the development of infant intelligence at a later stage. Indonesia's health profile data of 2014 Exclusive breastfeeding practice in Indonesia is 52.3% . in the United States there are already many training programs developed that aim to increase breastfeeding awareness, the group is called *peer councillor*. From several puskesmas in Bukittinggi, the public Health centre Guguak Panjang is the health center with the lowest coverage of exclusive breastfeeding. Bukittinggi there is no exclusive breastfeeding volunteer formation, therefore researchers aim to form exclusive breastfeeding volunteers through training modules to intervene on the knowledge of breastfeeding mothers in the work area of public Health centre of Guguak Panjang. The purpose of this research is to know the effectiveness of the module in the formation of exclusive breastfeeding *volunteers* to the knowledge of breastfeeding mothers in the working area of Public health centre of Guguak Panjang.

METHODS

The method of this research is Quasi Eksperimen with case control research design. This research was conducted in the working area of Public health centre of Guguak Panjang Kota Bukittinggi in July-November 2017. The population is nursing

mothers with infants aged 0-6 months totaling 246 people. The sample selection using *Simple Random Sampling* were 36 respondents of intervention group and 36 respondents of control group. Analysis this pay attention distribution frequency of the average breastfeeding mother's knowledge of exclusive breastfeeding. Data were processed using *paired t-test* . The statistical test would be significant if the value of $p < 0.05$.

RESULTS

Table. 1 Respondent Characteristic Analysis

Characteristic		Percentage
Age	20-30 year	42%
	31-40 year	47%
	>40 year	11%
Education level	SD	3%
	SMP	30%
	SMA	53%
	Perguruan Tinggi	14%
Occupation	IRT	86%
	Wiraswasta	14%

Table. 2 Distribution of Mother Breastfeeding Knowledge Before and After Volunteer Intervention

Knowledge	Pre		Post	
	F (n)	%	F (n)	%
Low knowledge	18	50	10	27.8
High knowledge	18	50	26	72.2
Total	36	100	36	100

In Table 4 .2 there were 18 respondents (50%) had high knowledge. While there are 26 respondents (72.2) who have high knowledge.

Tabel 3. Distribution of Breastfeeding Knowledge Before and After Non Volunteer intervention in breastfeeding mothers

Knowledge	Pre		Post	
	F (n)	%	F (n)	%
Low knowledge	17	47.2	18	50.0
High knowledge	19	52.8	18	50.0
Total	36	100	36	100

In table 4.3 there are 19 respondents (52.8%) have high knowledge While in the post test there are 18 respondents (50%) have a high knowledge.

Table 4.4 Statistical Analysis of Mother Breastfeeding knowledge in Intervention group and Control Group

Variables	Mean	SD	SE	95% CI	P value
Knowledge	18.11	2.135	.356	-2.834-1.888	0.000
Intervention	20.47	1.890	.315		
Control	17.47	17.47	1.859	-1.145-.133	0.015
	18.11	18.11	2.135		

DISCUSSIONS

The results Before the intervention obtained 18 respondents (50%) have high knowledge. While after intervention there are 26 respondents (72.2) have a high knowledge. The result of this research is in line with Widiyanto (2012) shows there is a significant relationship between mother education and mother's knowledge about exclusive breastfeeding with exclusive breastfeeding attitude. According to the availability of the researchers low knowledge of the respondents in the group because of age, education and employment, this could be busy mom because she did not get the information from health workers.

Research Dewi (2012), concluded that there is influence of support group to mother nutrition knowledge about breast milk and complementary food of breast milk, energy intake, and protein intake. According to the assumptions of the researcher, where the need for Asi Supporting Groups (volunteer) because the factors of knowledge, education and mother work greatly influence. Strategies to support women to breastfeed include counseling, counseling, counseling. Breastfeeding needs to be programmed by establishing Breastfeeding Support Group (ASI) and ASI Breeders Support Group (KKP-ASI) as an activity that can support the success of breastfeeding mothers.

The result of the research in the intervention group showed the p value= 0.000 hence can be concluded there is significant difference of knowledge of mother breastfeed before and after intervention. While in the control group the got P value 0.015 hence can be concluded there is no difference of knowledge on Pre test and post test. AA research. Ngurah Kusumajaya (2013) in the area of Puskesmas II West Denpasar during post test that there is an increase in treatment group where the value with the category less decreased from 36.7% to 10.0% and there was a good increase from 20.0% to 73.3 %. While the control group in spite of decreasing percentage value less than 46,7% to 36,7%, but the percentage that got good value also decrease from 16,7% to 10,0%. According to the researcher's assumptions, this shows that Exclusive Breastmilk Volunteer succeeds in increasing the knowledge of respondents. In improving breastfeeding requires support and supportive information, so women feel confident to breastfeed their babies successfully.

CONCLUSIONS

Differences of statistical knowledge analysis results of breastfeeding mothers volunteer intervention with p value = 0.00 0 and in control group P value 0.015 means an increase in exclusive ASI knowledge using modules more effectively than not using modules. For health workers to be able to implement the ASI Volunteer program,

especially in every posyandu and for Educational Institution is expected to be used as information material to increase reader's insight about Influence of Exclusive ASI Volunteer Formation on Mother's Breastfeeding Knowledge at public health centre of Guguak Panjang.

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**Manuscript
Poster Presentation**

UTILIZATION OF VEGETABLE SPINACH (*Amaranthus Spp.*) LOCAL AS FIBER SOURCES, FE AND VITAMIN A IN THE DEVELOPMENT OF ICE CREAM FOR BASIC SCHOOL

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ABSTRACT

Ice cream is a snack food preferred by all age groups. The content of nutrients in ice cream does not contain fiber, little containing fe and vitamin A. The purpose of this study is to determine the acceptance of organoleptic quality and chemical properties. This study used a complete randomized design (RAL) method, 3 treatment 2 replications, with 20%, 25% and 30% of spinach added. Daily organoleptic test was performed by hedonic test, and analyzed by variance test and if there is a difference between each treatment a DNMRT test is conducted. The result of organoleptic test showed that the level of preference for color, aroma, flavor and texture was in the likes level. And from the results of variance there is no real difference from each treatment. The best treatment in the organoleptic quality of spinach ice cream is the treatment with the addition of 30% spinach. The results of acceptance test to the consumer 70% of consumers spend iced spinach ice cream. Fe.2.33 ppm, Vitamin A. 3738 IU and fiber content of 2.69%.

Keywords: Spinach, ice cream, fiber content, Fe, and Vitamin A

INTRODUCTION

Generally, children need extra food. Only about 5% of these children bring supplies from home, making it possible to buy higher snack foods (Winarno FG 1993).Ice cream is a favorite snack foods favored by children. Nutrient content in 100 grams of ice cream consists of 207 kcal of energy, 4 grams of protein, 20.6 grams of carbohydrate, 12.5 grams of fat, 123 milligrams of calcium, phosphorus 99 milligrams, and 0 milligrams of iron. vitamin A as much as 520 IU, vitamin B1 0.04 milligram and vitamin C 1 milligram. This ice cream is less fiber content and fe. Vitamin A a little. one of them is spinach vegetable.The purpose of this study is to determine the acceptance of organoleptic quality and chemical properties.

METHODS.

This research was experimental using Completely Randomized Design (RAL) with 3 treatments, and 2 replications. with the addition of spinach 20%, 25% and 30% of daily needs. The place of research was conducted at ITP Laboratory of Nutrition Poltekes of Ministry of Health of Padang, stared from April until Oktober 2017 and test of fiber content and Fe content was conducted at Intermediate School of Chemical Analyst of Padang.

The organoleptic quality was analyzed by favorite test using hedonic test, which included the likes on color, aroma, taste and texture (consistency) using a trained force of 30 people. The data were analyzed by the variance (ANOVA) , to see I difference between the treatments if the result are significantly differen (F count > F table) then it will continue using Duncan New Multiple Range Test (DNMRT) at 5 % level .

Fiber content analysis was done by gravimetric test, Fe content with spectrophotometer and vitamin A content using Food Composition List (DKBM).

RESULTS

Table 1. Average Acceptance of Panelists on the Color of Spinach Ice Cream

Treatment of Milk : coconut milk : spinach :	Average	Description
F1 (65 ; 65; 40)	3	Like
F2 (65;65; 50)	2.8	Like
F3 (65 ; 65 ;60)	3.2	like

The treatment with ratio 65 g milk 65 ml coconut milk dan 60 gr spinach obtained color ice cream by panelists. The results of variety investigationist f count is smaller than f table, meaning the color of ice cream there is no real difference between the given treatment to color of ice cream Spinach.

Table 2. The average Acceptance of Panelists on Aroma of Ice Cream Spinach

Treatment of Milk : coconut milk : spinach :	Average	Description
F1 (65 ; 65;40)	2,56	Like
F2 (65;65;50)	2.43	Rather like
F3 (65 ;65;60)	2.63	like

The highest favorite level of spinach ice cream scent is with the addition of 60 g of spinach. The results of variety investigationist f count is smaller than f table, meaning the aroma of ice cream there is no real difference between the given treatment to aroma of ice cream.

Table 3. The average Acceptance of Panelists on flavor of Ice Cream Spinach

Treatment of Milk : coconut milk : spinach :	Average	Description
F1 (65 ; 65;40)	2.7	Like
F2 (65;65;50)	3.03	like
F3 (65 ;65;60)	3.03	like

Organoleptic results on taste are at the level of likes. The highest level of ice cream delight is found in the addition of 50 g and 60 g spinach with the same preferential value of 3.03. The results of variety investigationis t f count is smaller than f table, meaning the color of ice cream there is no real difference between the given treatment to flavor of ice cream.

Table 4. Average Acceptance of Panelists Against Ice Cream Spinach Texture

Treatment of Milk : coconut milk : spinach :	Average	Description
F1 (65 ; 65;40)	3	Like
F2 (65;65;50)	2.67.03	like
F3 (65 ;65;60)	2.93	like

Highest texture preferences on the addition of 60 g spinach. The results of variety investigationis t f count is smaller than f table, meaning the color of ice cream there is no real difference between the given treatment to texture of ice cream. The level of

panelist's preference for organoleptic quality of spinach ice cream that is on the color, aroma, taste and texture can be seen in table 5:

Table 5. Average of panelist's Favorite Level on Organoleptic Quality of Ice Cream Spinach

Treatment	Color	Aroma	Flavor	Texture	Javerage amount
F1	3	2,56	2,7	3	2,81
F2	2,8	2,43	3,03	2,67	2,73
F3	3,2	2,63	3,03	2,93	2,95

In terms of color, flavor, taste and texture can be seen on average at the level of likes. The average value of the highest in terms of color, flavor, taste and texture. from table 1 ranged from 2.81 to 2.95. All three of these formulas are at the level of likes. The highest average was found in the formula with 60 gr spinach addition. Ice cream given to elementary students as much as 2 cup ice cream with the amount of 150 ml with a calorific value of 289.4 calories. 70% of consumers spend all ice cream, 15% spend $\frac{3}{4}$, 10% spend $\frac{1}{2}$ and 5% spend $<\frac{1}{4}$.

Comparison the nutritional value of spinach ice cream between without treatment with the best treatment can be seen in table 6.

Table 6. Nutritional value of ice cream without spinach and the bestspinach ice cream based on DKBM

Nutrition Valuei	Without Spinach	Spinach With a spinach of 60 grams
Calories	460,7	482,3
Protein	12,9	15,0
Fat	11,8	12,1
Carbohydrates	86,6	90,5
Ca	112,5	272,7
P	63,9	104,1
Fe	1,3	3,7
Vitamin A	84,5	3738,5

DISCUSSION

Spinach ice cream with three treatments was ice cream with 20% spinach (40 gram), 25 % (50 gram) and 30% (60 gram) added. Giving spinach is made based on daily needs which is expected later when school children consume ice cream it has fulfilled the need for vegetable consumption about 20%, 25% and 30%.

The results of the color trials test, can be seen in table 1, the highest is in the addition of 60 gr spinach. The results of the analysis of variance there is no real difference in terms of color, aroma, taste and texture .. Eckles, et, all 1998 states many people use natural ingredients for the color of ice cream making such as red beet pigment and brown caramel. In this study the color of ice cream is formed from the color of spinach vegetables given the green color. The more the addition of spinach leaves then the color of ice cream becomes dark green.

The aroma of spinach ice cream according to the panelist's assessment is similar to the usual ice cream scent. The smell of ice cream is strongly influenced by the ingredients used in preparing ice cream mixes in this study the spinach aroma is not so perceived by the panelists, this is due to the addition of the aroma of milk, vanilla and coconut milk, so the smell of spinach is not subtle. Coconut milk has several advantages including having a distinctive flavor and aroma that gives a more tasty flavor.

Best spinach ice cream test result to elementary school students (consumers), 60%, 70% depleted, 15% depleted $\frac{3}{4}$, 10% depleted $\frac{1}{2}$ and 5% out $< \frac{1}{4}$. Generally consumers say that spinach ice cream is good, but for consumers who consume $< \frac{1}{4}$ ice cream spinach is caused by they think ice cream is milk, whereas they do not like milk.

The level of spinach ice cream fiber studied was coarse fiber with gravimetric analysis. The results of the research in the crude fiber of spinach ice cream is 2.69%. This fiber is obtained from spinach added to ice cream. Analysis using the list of foodstuff composition in table 6 is probably due to the process of processing done on spinach. Spinach processing is done 2 times, the first is blanching 2 minutes and the second is boiled again by mixing with milk and coconut milk until boiling with low heat. This is similar to that proposed by Dosumu et al, 2009; Baiyeri et al., 2011. that the minerals contained in foodstuffs will largely be damaged in processing due to the sensitivity to pH, oxygen, light and heat or any combination thereof.

Levels of vitamin A can be seen in table 6. Where the content of vitamin A without spinach amounted to 200 IU while the levels of Vitamin A on ice cream added 630% spinach, 3798.5 IU. High levels of vitamin A is obtained from the levels of vitamins contained in raw spinach. Ersoy and Ozeren, 2009 stated that boiling of fruits and vegetables causes vitamin A retention of 80%. Steaming produces less vitamin A damage than boiling.

CONCLUSIONS

This study conclusions are ice cream Spinach is viewed in terms of color, flavor, taste and texture of all treatments favored by panelists. The most preferred formula is a formula with 60 grams of spinach, support power to 70% elementary students spent ice cream, only 5% spent $< \frac{1}{4}$, and fiber content 2.69%, Fe content of 2.33 ppm and vitamin A levels 3798.5 IU

RECOMMENDATIONS

Recommendations for another researcher who enjoyed this topic of study should be research about overrun and microbiological test from ice cream, and also management of making ice cream from producer to consumer should be able to pay attention to food safety aspect

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UTILIZATION OF LOCAL FOOD IKAN BADA (*Stolephorus Insularis*) AS FOOD SUPPLEMENT FOR SCHOOL CHILDREN IN PADANG CITY

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ABSTRACT

The aim of this study is to develop high quality local food (ikan bada) as food supplement alternative to overcome nutrition problem among school children in West Sumatera. Research design was experiment with randomized control group design (RAL) and conducted in Food Technology Laboratory Padang Health Polytechnic to formulate model of snack at school using ikan bada flour. Organoleptic test found that there were no significant difference between taste, colour, texture, and smell and the value is 3.07 (like categories). Panelists were very like with the formula number two (using 180 gram ikan bada flour). Nutrition facts for one serving size was 145.1 Cal and 5.2 gram protein. In general the school children can accepted this formula as snack at school. Furthermore this formula snack should be socialized by teachers and school canteen for more accepting by school children.

Keywords : Ikan Bada, Snack, School Children

INTRODUCTION

School children was one of vulnerable group in nutrition problem especially protein calorie malnutrition. Riskesdas results (2010) found that nutritional status at children 6-12 years old were 4.6% very underweight, 7.6% underweight. 44.4% energy consumption below 70% RDA (Recommended Dietary Allowances) and 59.7% protein consumption below 80% RDA. Indonesia Ministry of Health have food supplement programmed in order to overcome nutrition problem in school children. This program called PMT-AS and nutrition facts for one serving size was 200-300 calories energy and 4-7 gram protein. This size was 10-15% from RDA for the school children. Fish have very good nutrition value especially protein source as nutrition growth factor, fatty acids like omega 3 and 6 good for mothers health and fetus, also vitamins and foodminerals. Ikan bada is one of specific local food in West Sumatera. Available in all season with low price. We try to cook ikan bada with different varian to make snack for school children.

METHODS

Research design was experiment with RAL. This research conduct from March to December 2017 in Food Technology Laboratory Padang Health Polytechnic. Ingredients for this snack was ikan bada flour, sagu flour, wheat flour, margarine, vegetables oil, eggs and seasoning as pepper, salt, garlic, parsley and onion leaf. All the ingredients buying from Pasir Sebelah market Koto Tengah District Padang. Snack model reference available in canteen school. Subyectif observational was to know acceptability of the food using Hedonic test.

RESULTS

Snack Formula using Local Food Ikan Bada

Table. 1 Ingredients of each snack formula

Formula	Wheat flour (gram)	Sagu flour (gram)	Ikan bada flour (gram)
I	1000	250	170
II	1000	250	180
III	1000	250	200
IV	1000	250	210
V	1000	250	220

Nutrition Facts of Ikan Bada Snack

Table 2. Nutrition facts for one serving size

Formula	Nutrition Value	
	Energy (Cal)	Protein (Gram)
I	143.7	4.9
II	144.5	5.1
III	145.3	5.2
IV	146.1	5.3
V	146.8	5.5
Average	145.1	5.2

The Best Snack Formula Which Panelis Like

According to the panelis, in general all formulas were good but the best one is formula number two (using 180 ikan bada flour). Using statistical method there were no significant difference between taste, smell, colour, and texture.

DISCUSSION

According to 20 school children as panelists, they were all stated that they like the snack. They said that the snack was good for snack at school. They recommended to make the snack in many variants and taste.

CONCLUSIONS

School children like this snack as onion cookies supplemented by local food ikan bada and can be snack at school canteen.

RECOMMENDATION

This snack formula should be socialized by teachers and canteen school personnel for more acceptance by the school children. This snack formula should be socialized also for the community as local food with high quality protein.

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THE EFFECT OF GIVING AND HONEY PREVENTION TO HAEMOGLOBIN IN PREGNANT WOMAN IN PINTU KABUN BUKITTINGGI

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ABSTRACT

The improvement of public health to accelerate the achievement of the Millennium Development Goal's target is to reduce maternal mortality rate. One of the priorities and the focus of reducing maternal mortality is by improving the health status and nutrition of mothers by means of prevention of anemia (Sulaiman 1997) Maternal mortality is always an indicator of the success of development in the health sector. In 2008 maternal mortality rate in Indonesia reached 228 in 100,000 live birth (MOH, 2009). The research design used was quasy experiment with research design which applied by intervention research method Data collection is done by collecting data directly by doing haemoglobin examination to the specified sample. The sample is divided into 2 groups of group A and group B. Group A samples were given dates and group B samples were given honey. The mean initial measurement of hb was 9.780 with a standard deviation of 0.7014, while the mean final Hb measurement was 9.460 with a standard deviation of 0.7127. Average initial hb measurement was 9.380 with a standard deviation of 0.5404, while the mean final Haemoglobin measurement was 9.780 with a standard deviation of 0.9550. It can be concluded that there was no significant Haemoglobin increase before and after a given date where P value = 0.495 and nor is there a significant increase in Haemoglobin before and after being given Honey where P value = 0.169

Keywords: Haemoglobin, Dates, Honey

INTRODUCTION

The improvement of public health to accelerate the achievement of the Millennium Development Goal's target is to reduce maternal mortality rate. One of the priorities and the focus of reducing maternal mortality is by improving the health status and nutrition of mothers by means of prevention of anemia (Sulaiman 1997) Maternal mortality is always an indicator of the success of development in the health sector. In 2008 maternal mortality rate (MMR) in Indonesia reached 228 per 100,000 live births (MOH, 2009) Anemia in pregnant women is one of the problems that can increase the risk of maternal and infant morbidity and mortality in Indonesia (Jafar, 2012).

Anemia in pregnancy is the condition of pregnant women with hemoglobin levels below 11 gr% in the first and third trimesters, or hemoglobin levels less than 10.5 gr% in trimester II (MOH, 2009). Pregnancy causes a 30% increase in plasma volume, erythrocytes increased by 18% and hemoglobin increased by 19% (Hoffbrand, 2005). Anemia in pregnant women is a health problem associated with high incidence and complications that may arise in both the mother and the fetus. In the world 34% of pregnant women with anemia where 75% are in developing countries (WHO, 2005 in Syaifa, 2010). In Indonesia, 63.5% of pregnant women with anemia (Saifudin, 2006), pregnant women tend to suffer from anemia because at that time the fetus stockpiles iron reserves for itself in order to stock immediately after birth (Sin sin, 2008).

METHOD

The research design used was experimental quasy with research design applied by intervention research method (Notoatmojo, 2005) Population is all object of research or object to be studied (Notoadmojo, 2005). With inclusion criteria: Pregnant women who live in PuhunPintuKabun Village, Willing to be respondent, Hemoglobin level at least 7 gr%, Data collection is done by collecting data directly by doing haemoglobin examination to the specified samples. Samples are divided into 2 groups of group A and group B. Group A samples were given dates and group B samples were given honey. Analyzes were conducted to determine the effect of independent variables on dependent variable by using statistical t test with 95% confidence level with $\alpha = 0,05$.

RESULT

Table 1. Increasing Group A Haemoglobin Levels Before and After Dates

Variable	N	Mean	Deviation	Std Error	P.Value
			Standart	Mean	
The start Hb	5	9,780	0,7014	0,3137	0,495
The final Hb	5	9,460	0,7127	0,3187	

The average initial haemoglobin measurement was 9.780 with a standard deviation of 0.7014, while the mean final Haemoglobin measurement was 9.460 with a standard deviation of 0.7127. It can be concluded that there is no significant increase of Haemoglobin before and after given Dates where P value = 0.495.

Table 2. Increase in Group BHaemoglobin Levels Before and after Honey

Variable	N	Mean	Standar	Std Error	P.Value
			Deviasi	Mean	
The start Hb	5	9,380	0,5404	0,2417	0,169
The final Hb	5	9,780	0,9550	0,4271	

The average initial haemoglobin measurement was 9.380 with a standard deviation of 0.5404, while the mean final Haemoglobin measurement was 9.780 with a standard deviation of 0.9550. It can be concluded that there is no significant increase of Haemoglobin before and after given Honey where the value of P value = 0,169

Table 3. Differences in Haemoglobin Levels After Honey Dates

Object	Differentiation of Incrcreasing Hb			N	P value
	Mean	SD	SE		
Dates	9,460	0,9550	0,4271	5	0,431
Honey	9,780	0,5339	0,2387	5	

The mean Haemoglobin level after giving of Dates was 9.460 with a standard deviation of 0.9550. While the average Haemoglobin level after administration of honey is 9.780 with a standard deviation of 0.5339. The results of statistical tests show that there is no significant difference between the giving of dates and Honey, with the value p = 0.431

DISCUSSION

The results of research that the authors do about the increase in Haemoglobin after given dates to pregnant women is not the same as the research conducted by three people above where no occurrence of elevated Haemoglobin levels after the date of giving to pregnant women. No increase in Haemoglobin of respondents after the date can be disebabkan by several factors, including respondents said at the time of the study took place many respondents were less resting properly and also there are habits of respondents who always drink tea every day so that it will inhibit the army of the dates consumed by respondents and cause no increase in Haemoglobin levels.

The results of research that the authors do about the increase of Haemoglobin after given Honey to pregnant women together with research conducted by PratiwiWulandari where no increase in Haemoglobin levels after giving Honey to pregnant women. However, after the statistical test has not shown any significant effect of Honey on increasing Haemoglobin pregnant women.

REKOMENDATION

Based on the results obtained it can be submitted suggestions as follows: It is expected to institute the place of research to be able to provide briefings to pregnant mothers about anemia during pregnancy. To the institution of education so that this research can be used as a guide to conduct further research To the respondents are expected to be able to continue the consumption of dates and honey during pregnancy.

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THE EFFECTIVENESS OF REPRODUCTIVE HEALTH MODULES UTILIZATION ON THE IMPROVEMENT OF ADOLESCENT KNOWLEDGE ABOUT EARLY AGE MARRIAGE IN BALAI TAMPUAK PINANG IN THE WORKING REGION OF COMMUNITY HEALTH CENTRE OF MUNGKA

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Marriage is an intimate bond between a man and a woman as husband and wife. The age that is ideal for married is 25 years old for man and 20 years old for woman. However, in reality there are still many people who do underage marriage. According to the data by BKKBN in 2014, 46 percent or equivalent to 2.5 million marriages that occur in every year in Indonesia, the brides are between the ages of 15 to 19 years old. Based on this data, it is known that the rate early marriage is obviously high. Therefore, the authors want to examine the effectiveness of reproductive health module utilization on the improvement of adolescent knowledge about early age marriage in Balai Tampuak Pinang Jorong in the working region of Community Health Center of Mungka. The purpose of this study is to determine the effectiveness of the reproductive health module utilization on improving the knowledge of adolescent about early age marriage. The result of the analysis shows that only 18 respondents (40.0%) who have significant knowledge before the reproductive health module was given. Then, after an intervention was given using reproductive health module, the number increased to 28 respondents (62.2%). By looking at the average difference of knowledge is -2.644 with the standard deviation of 1.417 and P value of 0.000 we can conclude that there is knowledge difference among the respondents before and after the module of reproductive health about early age marriage was given. The conclusion of this research is the reproductive health module is effective in improving the knowledge of adolescent about early age marriage in Balai Tampuak Pinang Jorong in the working region of Community Health Center of Mungka. It is desirable for health workers to implement health education by using the reproductive health module in improving adolescent knowledge about early age pregnancy and marriage.

Key Word : Marriage, Adolescent, Reproductive health

INTRODUCTION

Marriage is the intimate bond between a man and a woman as a husband and wife with the aim of forming a happy, everlasting family and household in the name of God. The age that ideal for married are 25 years old for man and 20 years old for woman, but in reality there are still many people who performs underage marriage. Around the world, more than 700 million women are currently married under the age of 18. One of three girls (about 250 million) married under the age of 15 years. Indonesia ranks 37th on highest percentage of early marriage in the world, as well as the second highest in Southeast Asia after Cambodia

The results of research conducted by BKKBN in 2014, 46 percent or equivalent to 2.5 million marriages that occurred in every year in Indonesia, the bride is between the ages of 15 to 19. In fact, 5% of them involve brides under 15 years of age. A preliminary survey in March at the Mungka Health Center, the number of adolescents who married under the age of 20 in 2016 is 15 couples. According to the data, it can be observed that the occurrence of early age marriage is still high. Based on the data, the author would like to further examine the effectiveness of the reproductive health module on the

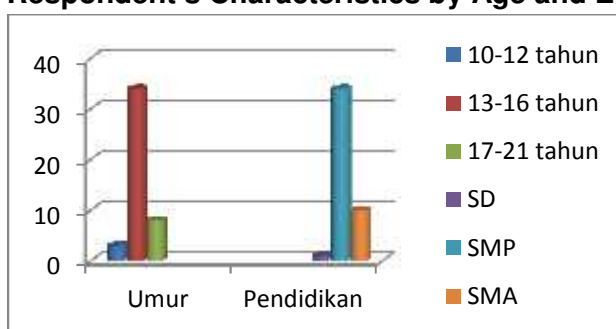
improvement of adolescent knowledge about early age marriage in Balai Tampuak Pinang jorong in the working region of Community Health Center of Mungka.

METHOD

The method of this research is Quasi eksperiment. Place and time . Balai Tampuak Pinang jorong in the working region of Community Health Center of Mungka on April-October 2017. Population and Sample The region has the population of 128 and by using teknik *simple random sampling technique* to 45 respondent. Data is collected by using questionnaire. Data is analyzed using paired t- test. Statistical test will be akan mattered if $p < 0,05$.

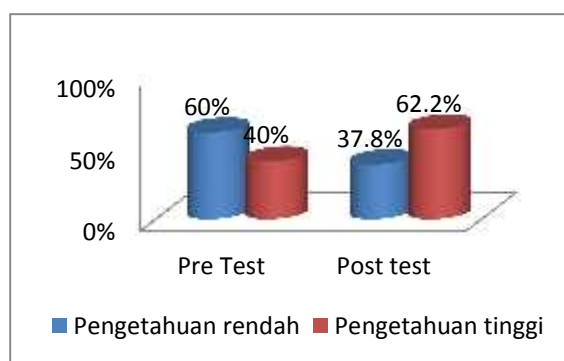
RESULT

1) Distribution of Respondent’s Characteristics by Age and Education



The chart shows that the majority is the group of 13-16 years old as many as 34 respondents (75.8%) The highest level of education is junior high school as many as 34 people (75.6%).

2) Distribution of Respondets Knowledge Frequency Before and after Intervention



The chart shows 27 respondents (60.0%) have low knowledge on the pretest. Meanwhile, there were 28 respondents (62.2%) with high knowledge on the subject.

3) Statistical Analysis of Knowledge Difference Before And After Intervention

Variable	Mean	SD	SE	95% CI	P value
Knowledge					
Pre	17.33	1.796	.268	-3.070-	0.000
Post	19.98	1.602	.239	-2.219	

The table shows the difference between pre test and post test is -2.644 with standard deviation of 1.417. The result of statistical test generate P Value of 0.000 which means $< \alpha$ (0,05). Hence, it can be concluded there is difference of respondent knowledge before and after they received the reproduction health module about early age marriage.

DISCUSSION

The results of the pre-test study shows that there are 27 respondents (60.0%) who have low knowledge, while after the intervention, there are 28 respondents (62.2%) who have sufficient knowledge. The results of this study is in line with the research of Mutia Yacob (2016). The results showed the average value of respondents' knowledge before the intervention was 11.73, and after the intervention increased to 16.3. The average value of respondents' attitude before the intervention was 31.44 and after the intervention increased to 34.00.

According to the assumptions of researchers, the provision of modules to adolescents can give them more insight into adolescents in reproductive health and the danger of early age marriage to reproductive health. Early age marriage occurrence is highly dependent on their insights about that behavior. An adolescent who has a strong insight and personality is also strongly influenced by the way they are taught or educated in the family. The average difference of respondents' behavior before and after the intervention was -2.644 with a standard deviation of 1.417. The result of statistical test generate the P value of 0.000. Hence, it can be concluded that the reproductive health module has an influence in improve the knowledge of respondent about early age marriage in Balai Tampuak Pinang Jorong in the working region of Community Health Center of Mungka.

The result of this research is compatible with the research of Phytagoreni Yannurdanti. where the post module application test's average grade of the class is 84.84 better than the average of grade before the module application, which was 56,41. In conclusion. the module is effective in improving students' cognitive value.

The results of Ch Erghiezha N.I.K research is the level of self-awareness of students increases after getting treatments with self-awareness enhancement module in reproductive health. The value of t is 3.021 with the sig of .003.

According to the assumption of the researchers, adolescents need to require the correct information about reproductive health so that they understand what they should be doing and what they should be avoid. By knowing about adolescent reproductive health properly, adolescents can avoid doing negative things, especially to prevent premarital sexual behavior, transmission of sexually transmitted diseases, abortion,

cervical cancer, out of wedlock pregnancy, early age marriage, nation's moral gradation, and the bleak future of the adolescent.

CONCLUSION

Based on the results of the research, where the P value is 0.000, it can be concluded that the reproductive health module is effective on improving the knowledge of respondents about early age marriage in Balai Tampuak Pinang Jorong in the working region of Community Health Center of Mungka

RECOMMENDATION

Health workers what are working in health services should implement health education using reproductive health module to improve adolescent knowledge about reproductive health and early age marriage.

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THE EFFECTIVITY OF COUNSELING MODEL USING LEAFLET AND LADDER AND SNAKES FOR KNOWLEDGE, ATTITUDE AND HABIT IMPROVEMENT AT TANAH DATAR REGENCY YEAR 2017

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ABSTRACT

This research is a continuation of earlier research done at Tanah Datar Regency (Mulyatni, 2016) which resulted on there is a tendency that children with short and very short nutritional status are raised by mother having negative attitude and habit on controlling their children nutrition. This research is aim to find effective model to countermeasure nutrition problem on children under 2 years old (Baduta) through knowledge, attitude and habit improvement on children nutrition control. This research is using Quasi Experiment with pre and post-test group design. The Sampel is Baduta's mothers which are purposively taken as many as 30 people for each treatment. The data is analyzed using Wilcoxon test, Mann-Withney test and T-Independent test. The result of the research showed that there was no significant difference in the average of knowledge, attitudes and habits of mother in the nutrition control of children before and after counseling using leaflet media is given. There is a significant difference in attitude change and mother's habits in nutrition arrangement of children between who are given counseling using media leaflet and snake ladder. The average change in attitude and mother's habit is higher in the snake ladder than the leaflet. Thus the counseling using the landing snake media more effectively than the leaflet. It is recommended to the leaders of Community Health Centre (Puskesmas) to motivate its field officers to design snake ladder material and use it in counseling to community and school children.

Keywords: media of counseling, knowledge, attitude and habit

INTRODUCTION

Toddlers are the next generation of the nation that must be maintained and enhanced their quality through efforts to maintain health and nutrition with a balanced diet in accordance with their needs. Both efforts should be done optimally so that the growth and development of children can be achieved on optimal conditions so that children do not experience nutritional problems. Based on data of Nutrition Status Monitoring (PSG) of children under five in West Sumatera (6 districts / cities) in 2014, stunting prevalence rate (short and very short) was 29.8% with the highest figure found at Tanah Datar regency with 37.7%. The stunting rate in Tanah Datar Regency is above the national figure of *Riskesdas* result in 2013 and it is included as public health problem (WHO category) which must be solved the problem solving through its appropriate method of handling. Result of previous research done in Tanah Datar Regency (Mulyatni, 2016) show that nutrition problem having by Badutas is still high which is 15.6% (6.7% short category and 8.9 % very short category) and most of nutrition problem (85.7%) is found on children with age between 12 – 24 months. It is also obtained that 50.0% of the mothers having negative attitude and habit on their children nutrition control. From research done by Rumondang P (2008), it is found that lecturing using leaflet is statistically more meaningful on improving attitude of little doctor. Dita Anugrah Pratiwi et al on their research (2015) found that there is an influence of educative game methods on the knowledge, attitudes and actions of elementary school

students in the prevention of diarrhea. Andi Yudianto et al research(2012), concluded that counseling with stimulation methods of snake ladder games can further improve student attitudes toward dengue disease. Based on the findings of several methods or models that may affect the knowledge, attitude and willingness of the mother and nutrient cadres as described above, the researcher is interested in conducting the lecturing model with leaflets and snakes of ladders and see which model is most effective against improvement of knowledge, attitudes and habits of mothers in the child nutrition controlling as well as its effect on the weight and height of children in Tanah Datar Regency year 2017.

This study aims to obtain the most effective model for improving knowledge, attitudes and habits of mothers in the nutritional control of children under two years (*Baduta*) at Tanah Datar Regency in 2017

METHODS

The research type is analytical with Quasi-experiment design using pre and posttest group designee in order to find effective counseling model to increase knowledge, attitude and mother habit in food arrangement of *Baduta*. The sample was taken by purposive sampling with the same relative criteria according to the research objectives, the selected sample was divided into 2 groups of 30 people each ie the group that was given counseling with the media leaflet and the group that was given counseling with the game media snake ladder. Data were collected using questionnaires and analyzed by Wilcoxon test to analyze differences of respondents' knowledge, attitudes, and habits in regard of nutrition arrangement of children before and after counseling. T-Independent test (2 different mean independent test) and Mann-Whitney test for analysis of knowledge, attitude, the habits difference between the groups given counseling using media leaflets and counseling using snake ladder media.

RESULT

Table 1. Average Respondent's Knowledge, Attitude, and Habit Differences Before and After Counseling Using Media Leaflet and Snake Ladder Media

Variable	Category	Leaflet Mean ± SD	Snake and Ladder Mean ± SD
Knowledge	Before	9.67 ± 0.61	9.03 ± 1.45
	After	9.83 ± 0.75	9.8 ± 0.66
	pValue	0.417*	0.011*
Attitude	Before	9.27 ± 1.94	9.00 ± 2.18
	After	9.37 ± 1.25	11.07 ± 1.26
	P Value	0.925*	0.000*
Habit	Before	7.70 ± 1.51	7.40 ± 1.40
	After	7.83 ± 1.46	8.77 ± 0.97
	P Value	0.510*	0.000*

From table 1 above it can be concluded that the statistical test results show that there is no significant difference mean value of knowledge, attitudes and habits of mother before and after counseling using media leaflet ($p > 0.05$), while counseling by using snake media ladder showed a significant difference in mean value of pretest and post-test of knowledge, attitudes and habits of under-five mothers ($p < 0.05$)

Table 2. Average Differences in Knowledge Changes, Attitudes, and Respondents Habit between Counseling Using Leaflet Media and Snake Ladder Media.

Changes	Leaflet Mean \pm SD	Snake Ladder Mean \pm SD	p Value
Knowledge	0.17 \pm 0.99	0.77 \pm 1.55	0.172 ^a
Attitude	0.10 \pm 1.51	2.07 \pm 2.12	0.000 ^a
Habit	0.13 \pm 1.66	1.37 \pm 1.45	0.000 ^b

From table 2 above it can be concluded that there is no significant difference of knowledge change using media leaflet and using ladder snake media ($P > 0.05$), whereas there is a significant difference of attitude and habit change between counseling using media leaflet and using snake ladder ($p < 0.05$)

DISCUSSION

The results of the study in Table 1 showed that there was no significant difference in mean values of knowledge, attitudes and habits of mothers before and after being given counseling on the group of media leaflets ($p > 0.05$), but it is seen that the average value is slightly increased. The least increase in knowledge on this leaflet method is caused by the weakness of the leaflet method that the leaflet is two-dimensional visual media that only rely on the eye senses, therefore this media can not provide in-depth information about something. Whereas in the group of mothers who were given counseling using snake ladder media there was a significant difference mean value of knowledge, attitude and habit in nutrition control of children before and after given counseling ($p < 0.05$). The average value of knowledge, attitudes and habits of mothers is higher after counseling using snake ladder media is given. Most of human knowledge is acquired through the sense of sight and hearing. When we are playing the snake ladder games, we used both sight and hearing sensory. In this snake ladder game, the information about the child's nutritional control is given repeatedly so that the mother understands the information and can determine the appropriate attitude in the nutrition of children.

Table 2 shows that there is no significant difference in knowledge between counseling using leaflet media and with ladder snake media, but on the average of knowledge change value is higher on snake ladder compared with leaflet. At the same time the changes in attitude and habits indicate a significant difference between counseling with media leaflets and snakes ladder which can be seen from the average value of attitude and habit changes where the average value of attitude and habit changes higher is on counseling using media snake ladder. Thus it can be concluded that counseling with ladder snake media is more effective than media leaflets.

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THE INFLUENCE OF GARGLING WITH THE SOLUTION OF HUMP PINEAPPLE EXTRACT (*Ananas Comosus* (L) Merr.) TO SALIVARY PH OF STUDENTS OF SDN 10 KUBU KECAMATAN AMPEK ANGKEK KABUPATEN AGAM

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ABSTRACT

Primary school-aged children are very at risk of dental and oral diseases such as dental caries. According to the World Health Organization (WHO) in 2005 showed that 90% of children worldwide experience tooth decay problems. Decrease in salivary pH can be caused by foods containing carbohydrates to make the mouth become acidic so that the formation of bacteria asidogenik. Hump pineapple extracts (*Ananas comosus*(L)Merr.) contain bromelin enzyme that serves as an antibacterial that can inhibit bacterial growth. This study aims to determine the effect of gargling with the solution of pineapple extract to salivary pH. The method used is quasi-experimental with one pre-post test design group. The subjects of the study are 15 students of SDN 10 Kubu Kecamatan Ampek Angkek Kabupaten Agam. Preparation of the extract is done by maceration. Measurements are performed before and after gargling with 7.5% of the solution of pineapple extract. Data were analyzed by T-test ($p < 0,05$). The results of this study show the average salivary pH before being given the solution of hump pineapple extract is 6.49 and salivary pH after being given the solution of hump pineapple extract is 7.01. Provision of 7.5% hump pineapple extract solution can increase salivary pH. There is an influence of gargling with the solution of hump pineapple extract. Gargling with pineapple extract can be used as a mouthwash to maintain oral health.

Keywords: Hump pineapple extract, antibacterial, salivary pH

INTRODUCTION

Dental caries is the most common dental and oral problem in Indonesia.¹ Caries is the process of demineralization of tooth enamel caused by an interaction between microorganisms, saliva, parts of food and enamel.² Theoretically, caries occurs due to multifactorial interactions of interconnected and supportive causes, such as host (saliva and tooth), microorganisms, substrates, and time.³ One component that contributes to the acidity (pH) of the mouth is saliva. Saliva acts as a buffer system to maintain optimal pH of the mouth, which tends to be alkaline. If no saliva, then every food we eat will form an acidic environment that will support the growth of bacteria that damage the teeth. In saliva, there are also ions such as calcium and phosphate which are the components of the tooth structure. One function of saliva is to maintain the degree of acidity (pH) of the oral cavity. The decrease in pH of the mouth below 5.5 will cause the demineralization of enamel and increase the risk of caries. Saliva plays an important role in maintaining enamel integrity with modulation of remineralization to prevent dental caries. Remineralization involves deposition of calcium phosphate from the saliva to reshape the dissolved enamel crystals.⁵

Prevention can be done in various ways, including mechanical and chemical. Gargling activity is the prevention of oral diseases chemically. Mouthwashes are useful for cleansing the mouth of debris, an antibacterial agent, preventing and reducing plaque

accumulation and reducing the activity of microorganisms that cause bad breath, thereby improving oral health.⁶

Utilization of pineapple plant waste in the form of stems, leaves, stumps and skin has not been optimally utilized, whereas part of the pineapple plant contains several active components such as bromelin enzyme.⁷ Bromelin enzyme can inhibit the growth of anaerobic bacteria and acid-producing aerobic bacteria. Bromelin enzyme has been used as antibacterial, anti-inflammatory, anticoagulant, antitumour and anticancer. In addition, pineapple plants also contain citric acid. Citric acid in pineapple can increase salivary secretion. The increase in salivary flow rate is directly proportional to the increase in salivary pH due to the presence of bicarbonate which serves to maintain the buffer system in the oral cavity. Selection of appropriate mouthwashes affects the salivary state of the oral cavity to prevent the occurrence of caries and periodontal disease. This study aims to determine the effect of gargling with hump pineapple extract (*Ananas comosus* (L) Merr.) to salivary pH. The research hypothesis is the increase in salivary pH of the oral cavity after gargling with hump pineapple extract (*Ananas comosus* (L) Merr.).

METHOD

Tools and Materials. Oral diagnostic set, gargle rouge, tissue, handsocon, mask, stopwatch, measuring glass, digital pH meter, salivary pH inspection format, small bowl for saliva, pineapple, aquadest and ethanol 96%. **The Conduction of Research.** The first stage is the researcher requests a research permit to Poltekkes Kemenkes Padang, which is intended for SDN 10 Kubu and makes a permit to the laboratory of Politani University Andalas in Payakumbuh. The making of this extract uses maseration technique. The second stage is the researcher gives an explanation of the research about to be conducted; the selection of research subjects meets the inclusion criteria and gathering the research subjects in the classroom by filling and signing the informed consent. Subjects were instructed to brush their teeth before taking saliva and then they consumed biscuits containing carbohydrate and glucose that have been determined by researchers. After 10 minutes, their saliva was taken before gargling. Then the researcher collected it in a saliva container, after that the research subjects were asked to gargle with the hump pineapple extract 7.5% for 60 seconds as much as 10 ml which was calculated by a stopwatch. After 60 seconds of gargling, the control group subjects were instructed to spit out the mouthwash and three minutes later the subjects were instructed to collect their saliva in the saliva container. Thereafter, salivary pH measurements were calculated by using a digital pH meter from the scale of 0.0 to 14.00 in the subjects' saliva that had been collected in the saliva container and the results of the examination were recorded in salivary pH format. The analysis is used to see the relationship of two variables: gargling with the solution of hump pineapple extract 7.5% to salivary pH. The analysis is done by using T-test.

RESULTS

Salivary pH was measured before and after the treatment hence the differences in salivary pH were obtained.

Table 1. salivary pH before rinsing with the hump pineapple extract 7.5%

Variable	f	Mean± SD
Salivary pH before rinsing	15	6,49 ± 0,64

Based on table 1 in this study, the average salivary pH before rinsing with the solution of hump pineapple extract from 15 subjects is 6,49 and the standard deviation is 0,64

Table 2. salivary pH after rinsing with the hump pineapple extract 7.5%

Variable	f	Mean± SD
Salivary pH after rinsing	15	7,01 ± 0,37

Based on table 1 in this study, the average salivary pH after rinsing with the solution of hump pineapple extract from 15 subjects is 7,01 and the standard deviation is 0,37

Table 3. The comparison of the effect of salivary pH before and after rinsing with the solution of hump pineapple extract

	Salivary pH before rinsing	Salivary pH after rinsing	P
Salivary pH	6,49 ± 0,64	7,01 ± 0,37	0,02

Bivariate analysis in this study uses paired T-test to test the difference of average salivary pH value before rinsing with the solution of hump pineapple extract 7.5% (6,49) with average salivary pH value after rinsing with the solution of siwak extract 7,5% (7,01). The result of paired T-test shows that $p = 0,02$ so there is a significant difference between saliva before rinsing and after rinsing with the solution of hump pineapple extract 7.5%. Gargling with the solution of hump pineapple extract 7.5% can increase salivary pH in oral cavity.

DISCUSSION

The solution of hump pineapple extract is able to increase salivary pH through chemical components it contains such as bromelin enzyme that can inhibit the growth of anaerobic bacteria and acid-producing aerobic bacteria. In addition, citric acid in pineapple can also increase salivary secretion. The increment of salivary flow rate is directly proportional to the increment in salivary pH due to the substance of bicarbonate which serves to maintain the buffer system in oral cavity.

From the results of the study, the increment of salivary pH can also occur because the chemical substance in the solution of hump pineapple extract is an antibacterial that can prevent acid formation by bacteria in oral cavity and hence there is no decrease in salivary pH. The increase of salivary pH showed in this study is within normal range and

not at alkaline stage. Salivary pH which is too alkaline in oral cavity can stimulate deposition of calcium salt and phosphate which create the occurrence of calculus.

CONCLUSION

The average of salivary pH before gargling with the solution of hump pineapple extract is 6.49. The average of salivary pH after gargling with the solution of hump pineapple extract is 7.01. There is a significant difference $p < 0.05$ between salivary pH before and after gargling with the solution of hump pineapple extract. Gargling with the solution of hump pineapple extract is capable of increasing salivary Ph

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"ONE HUSBAND ONE CLIENT" PACKAGE AND PREGNANT WOMAN ACCOMPANIMENT TO CONSUME FE TABLET IN TANJUNGPINANG CITY IN 2017

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ABSTRACT

Maternal and neonatal mortality is the leading cause of mortality in developing countries, including Indonesia, 40% of deaths in pregnant women are associated with anemia. The Government of Indonesia has made efforts to overcome anemia, such as by giving Fe Tablet. The incidence of anemia in pregnant women in Tanjungpinang City in 2016 is 12.21% when it has been given Fe tablets. Pregnant mothers in Tanjungpinang City who get Fe tablets in 2016 amounted to 89.8%. Most (80%) pregnant women consume iron tablets irregularly because they forget. In addition, there has never been any activity involving husbands of pregnant women in performing assistance on consumption of Fe tablets. The purpose of this research is to know the relationship of One Husband One Client Package to compliance of pregnant women consuming Fe tablet. The research design is cross sectional analytic descriptive with Chi Square data analysis. This research was conducted in Tanjungpinang City from July to October 2017. The population in this study were all pregnant women who consumed Fe tablet in Tanjungpinang City. The number of samples in this study were 56 respondents. Data collection through questionnaire and observation. The result of the research is One Husband One Client related with compliance of pregnant mother consuming Fe tablet (p value 0,000). It is expected that there is a mentoring module for the husband of pregnant women as guidance to pregnant women who consume Fe tablets.

Keyword: One Husband One Client, compliance, Fe tablets

INTRODUCTION

Maternal and neonatal mortality is a major cause of mortality in developing countries, including Indonesia and both together causing 2.5x3.4 million deaths of people in developing countries including Indonesia. A total of 40% of deaths in pregnant women are associated with anemia. In Indonesia the prevalence of anemia in postpartum and pregnant women is still very high at 37.1% according to data of Basic Health Research (Riskesdas) 2013. In developing countries, one in two pregnant women is estimated to be anemic. Anemia becomes a serious health problem if prevalence is more than 40 % in a region. (Julianti, ED, Purnamasari, Y, Adidianti.2015).

In 2015 in Indonesia, pregnant women who get Fe tablets amounted to 85.17%. This means that has increased although not optimal from the year 2010. While in Riau Islands Province Pregnant women who get Fe tablet in 2015 is 79.07%. From this information, the achievement of Riau Islands Province is still below the national achievement (Pusdatin, 2016). Pregnant mothers who get Fe tablets in 2016 in Tanjungpinang City is 89.8%. The incidence of anemia in pregnant women in Tanjungpinang City in 2016 was 12.21% (Health Profile of Tanjungpinang City, 2016).

Through the iron tablets program is expected to reduce the incidence rate of anemia in pregnant women in Indonesia. However, the results have not been so satisfactory, seen from the prevalence number is still high. According to previous studies the low level of adherence of pregnant women in taking iron supplements is one of the

causes (Purwaningsih et al, 2004). Niven (2002) mentions that one of the factors that can affect patient compliance in undergoing treatment program is family support. (Neherta.M, Nelwati, Maisa, EA.2010). But so far there has been no special monitors for the consumption of fetablet also affect the compliance of pregnant women. Based on a preliminary study of 10 pregnant women and their husbands at BPM in Tanjungpinang City on May 23, 2017, it was found that all husbands (100%) of pregnant women never reminded their wives to drink Fe tablets. Most (80%) of pregnant women consume iron tablets irregularly because they forget. Based on interviews with the manager of the Family Health Program of the City Health Office of Tanjungpinang on the date of 24 May 2017 obtained the result that there is no special assistance for pregnant women to consume Fe tablets. In addition, there has never been any activity involving husbands of pregnant women in performing assistance on consumption of Fe tablets.

Therefore, the researcher is interested to conduct research on supervision and supervision of Fe tablets by husband to pregnant women who are consuming Fe tablet in "one husband one client and compliance of pregnant mother consuming Fe tablet in Tanjungpinang City". The purpose of this study is to determine the relationship of one husband one client with compliance pregnant women consume Fe tablet in Tanjungpinang City.

METHOD

The research design used in this research is cross sectional analytic. Prior to mentoring, the companion is given knowledge about anemia and Fe tablets . The research will be done in the city of Tanjungpinang from July to October 2017. Population in this study is all pregnant women who consume Fe tablets and her husband in Tanjungpinang City. Sampling technique in this study using the *Non Probability Sampling-Purposive Sampling Type*. The number of samples according to the calculation is 56 samples. To anticipate the occurrence of Drop Out samples then the number of samples plus 10%, got the total sample used in this study is 6 samples. So Total sample is 61 samples. Analyze that used the relation of One Husband One Client Package with the compliance level of pregnant women consuming Fe tablet using chi square test with $p < 0,05$.

RESULT

Tabel 1. The relationship of husband's accompaniment (One Husband One Client Package) with compliance consumes Fe tablets

Accompaniment	Obedience				Total		<i>P value</i> ^a
	Not obey		Obey		N	%	
	N	%	N	%			
Accompany	15	40,5	22	59,5	37	100	0,000 *
Not accompanying	17	89,5	2	10,5	19	100	

Descriptively it can be seen that in the group of pregnant women who get mentoring more than half (59.5%) obedient in consuming Fe tablets. While in the group of pregnant women who did not get assistance most (89.5%) did not adhere to consuming Fe tablets. Based on the statistical calculation can be seen that p value =

0,000 means there is a relationship husband's accompaniment (One Husband One Client Package) with compliance pregnant women consume Fe tablets.

DISCUSSION

In the group of pregnant women who received mentoring more than half (59.5%) adhered to consuming Fe tablets. Based on the statistical calculation can be seen that p value = 0.000 means there is a relationship of accompaniment with compliance pregnant women consume Fe tablets. . Similar research results suggest that pregnant women with high family support, morethan half (61.5%) of pregnant women have full adherence to Fe consumption. Force Field Analysis by Lewis (quoted from Hutapea, 2008) that for the behavior of patients more obediently reinforced by the driving force by promoting persuasion and provide information in this case can be obtained from the family. While in the group of pregnant women who did not get assistance most (89.5%) did not adhere to consuming Fe tablets. Pregnant women who get low family support, almost most have low compliance consumption of Fe tablets. In accordance with Nivenstatement (2002) that the degree to which the patient does not get assistance from the nearest person such as family, relating negatively with compliance. Patients who do not get enough family support will be very likely not to comply with the treatment program given to him. If women are cared for and loved by their partners during pregnancy it is easier to adjust during pregnancy and less risk of labor complications (Nugroho et al, 2014).

In the group of pregnant women who did not receive counseling, a small percentage (10.5%) adhered to consuming Fe tablets. Mothers who have a good understanding of the need to consume Fe tablets during pregnancy even without adequate family support can still decide to adhere to the instructions on consumption of Fe tablets (Neherta.M, Nelwati, Maisa.EA. 2010).

RECOMMENDATION

Creation of assistance modules for husbands to facilitate providing assistance to pregnant women in consuming Fe tablet.

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EFFECTIVENESS OF BOOKLET UTILIZATION IN NUTRITIONAL COUNSELING TO COUNTERMEASURE FOOD DISPOSAL OF DIABETES MELLITUS PATIENTS AT DR. M. DJAMIL HOSPITAL PADANG YEAR 2017

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ABSTRACT

From the research at Dr. M.Djamil Hospital Padang in 2012, it is obtained that amount of disposed food of the inpatients is 66.0% (Mourbas, 2012) and the latest research results at Dr. M.Djamil Hospital Padang it is obtained that average amount of the patient's food disposal is 23.4%. This number exceed food disposal limitation based in Minimum Service Standard (SPM) of nutrition service set on < 20%. The research aim to find out the effectiveness of booklet utilization in Nutritional Counseling against knowledge change and food disposal amount for patients with Diabetes Mellitus (DM) in Dr. M.Djamil Hospital Padang. The research type is quasi experiment with Two Group Pretest Posttest Design, where 1 group is given nutrition counseling by using booklet and 1 group without booklet. The sample is consist of 42 people for 2 research groups. Knowledge data are obtained by interview method using questionnaire, food waste data obtained by weighing food that was served by RS for patient before and after meal. The univariate analysis looks at the mean and standard deviation values and the proportions of each variable. Bivariate analyzes looked at differences in mean values of knowledge and food waste and changes in mean values of each variable between before and after counseling in each group. Bivariate analysis is using T-test analyzes with 2 mean dependent and T test difference with 2 independent mean with 95% confidence level ($\alpha = 5\%$). The conclusion is nutritional counseling by using booklets can improve knowledge and more effectively to reduce food disposal of patients with DM.

Keywords : Nutritional Counseling, Diabetes Mellitus, Booklet, Patient Food Disposal

INTRODUCTION

Food that served with no leftovers afterwards is a success in the provision of food (Mukrie, 1990). However, the remaining food phenomena is still present in many hospitals in Indonesia. Some research in many hospitals found that the high number of patients food disposal exceeds the standard set by the Ministry of Health RI at <20%.

Knowledge of the food role and the use of food in the cure of disease for Diabetes Mellitus patients are as important as the knowledge of medicine role to cure disease. Research results on Diabetes Mellitus patients showed that there is a relationship between food that brought from outside of the hospital and food disposal (Moehyi, 1992; Dewi, 1999; Puspita, 2011) and there is a relationship with eating habits with food disposal (Puspita, 2011). These results are related to the behavior that has been had by the patient. A method that can be used in order to overcome and reduce food disposal in Diabetes Mellitus patients is by educating or nutrition counseling for the patients and their family members in order to improve the knowledge and attitude of Diabetes Mellitus patients. Higher nutritional knowledge will affect the attitude and behavior of food consumption (Fikawati S, 2007). One of method of nutrition education is nutrition counseling especially for inpatients with Diabetes Mellitus. The purpose of nutritional

counseling is to change the food portion and diet of Diabetes Mellitus patients. (Association AD, 2008; Indonesia PE, 2011).

A media that can be used to providing counseling to Diabetes Mellitus patients is booklet, wherein contain nutritional messages in a book form. The advantages of booklet is the information contained could be more complete, more detailed and clear and educative. In addition, booklet as a media in nutrition counseling can be read repeatedly and stored (Suliha, 2001). In general, purpose of this study is to determine the effectiveness booklets utilization in nutritional counseling against changes in knowledge and food disposal of DM patients.

METHODS

This research uses quasi experiment design with Two Group Pretest Posttest Design where 1 group is counseled with booklet while 1 group without booklet. 2 times counseling session is given to each patient / sample. The sample is consist of 42 peoples for 2 research groups. Knowledge data are obtained by interview method using questionnaire, food waste data obtained by weighing food that was served by hospital for patient before and after meal. The univariate analysis looks at the mean and standard deviation values and the proportions of each variable. Bivariate analyzes looked at differences in mean values of knowledge and food waste and changes in mean values of each variable between before and after counseling in each group. Bivariate analysis is using T-test analyzes with 2 mean dependent and T test difference with 2 independent mean with 95% confidence level ($\alpha = 5\%$).

RESULT

Table 1. Average Difference of Knowledge and Food Disposal Before and After Counseling on DM Patients in the Internal Disease Inpatient Room And “Morning Dew” Room of Dr. M. Djamil Padang Year 2017

NO	Variabel		<i>Booklet Mean ± SD</i>	<i>Without Booklet Mean ± SD</i>	<i>p Value</i>
1	Knowledge of DM disease and Diet	Before	22.67±5.72	20.67±5.57	0.25 ^b
		After	28.71±1.62	28.43±1.53	0.44 ^c
	<i>p Value</i>	0.00 ^a	0.00 ^a		
2	Food Disposal	Before	45.16±19.60	31.28±17.51	0.020 ^b
		After	40.13±19.05	37.94±21.55	0.729 ^b
	<i>p Value</i>	0.07 ^a	0.02 ^a		

Table 1 shows that the average knowledge in groups of booklets is higher compared to group without booklets both before and after counseling. However, after the T-test, there was no difference in knowledge between the two counseling groups ($p > 0.05$) both before counseling ($p = 0.25$) and counseling ($p = 0.44$). On the other hand, from T-test dependent on each group, the result show that there is difference of knowledge before and after counseling ($p < 0,05$) both in booklet group ($p = 0.00$) and in group without booklet ($p = 0.00$).

Table 2. Differences in Knowledge Changes and Food Disposal Before and After Counseling on DM Patients in Internal Disease Inpatient and “Morning Dew” Room. Dr. M. Djamil Padang Hospital Year 2017

NO	Average Change	Booklet Mean ± SD	Without Booklet Mean ± SD	p Value
1	Knowledge of DM disease and Diet	6.05±5.78	7.76±4.74	0.300
2	Food Disposal	-5.03±12.03	6.66±12.84	0.004

From table 2, it is obtained an illustration that there is an increase in the average value of knowledge in both counseling groups (with and without booklets). It can also be seen that the change in the mean value of knowledge in the booklet group is lower (6.05) compared with the group without the booklet (7.76). From independent T-test it is known that there is no difference in knowledge change between group of booklet and group without booklet ($p > 0.05$).

From food disposal data, it is obtained that the average change of percentage of food disposal in the booklet group is decrease (-5.03%) while the mean change of percentage of food waste in group without booklet is increased (6.66%). After an independent T-test was conducted in both counseling groups, it is found that there is a difference of change in mean value of food disposal percentage on between counseling groups ($p < 0.05$).

DISCUSSION

Viewed from food disposal data, it turns out that the average change in the percentage of food disposal in the booklet group decrease by -5.03% (from 45.16% to 40.13%), while in the group without booklet increase by 6.66% (from 31.28% to 37.94%).

After T-test independent is performed in both counseling groups, it is found out that there was a difference in food disposal changes between counseling groups ($p < 0.05$). The results of this study is differ from the results of other studies about the effect of education by using booklets and lectures, which found that there was no difference in attitude changes between treatment groups (DwiSyafitri, 2016). Differences in these results may be due to the different aspects of behavior measured, where other study measures the attitude that is still abstract while in this study measures the behavior or action that is real that is food disposal.

The decrease in the mean percentage of food disposal in the booklet group after counseling and the difference in the mean value of the percentage of food disposal between two groups showed that counseling with booklet was better or effective in order to reduce food disposal than counseling without booklet. Based on observations during the research, it is known that the booklet is read and used by the family in motivating the patient to spend his food. In addition to booklets utilization, this condition is also supported by good knowledge levels of most respondents even before counseling is given, where the higher level of knowledge will affect the attitude and behavior of food consumption of patients (Fikawati S, 20017). This makes it easier for the family to grasp the message of the material contained in the booklet. In addition, in counseling process, there is extracting process of information using listen and learn skills and build patience confidence so that they are able to take decisions and solve its own problems

(Persagi, 2011). The purpose of counseling in DM patients is to change the food portion and diet of the patient (Association AD, 2008, Indonesia PE, 2011). Counseling by using booklets in counseling may help respondents to understand the importance of knowledge about Diabetes Mellitus diet and apply it by finish food served by the hospital.

REKOMENDATION

Counseling with booklets increase knowledge and more effectively to decrease the amount of food disposal for Diabetes Mellitus patients compared counseling without a booklet.

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THE EFFECT OF CREATING SIMPLE PHANTOM FOR THE PRACTICE OF KDM COURSES IMPROVING STUDENT ACHIEVEMENT OF MIDWIFERY DEPARTMENT AT POLTEKKES KEMENKES PADANG

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ABSTRACT

Education is an effort to cultivate the potential of human resources of learners by encouraging and facilitating their learning activities. Law No. 20 of 2003 on National Education system is said that the education of conscious and well planned business to realize the learning and learning process and the teaching process actively enabling learners. Of the 1945 Constitution Article 31 paragraph 1 stating that every citizen is entitled to education, paragraph 3 states that the government seeks and organizes a national education system. Similarly 2 with the fulfillment of facilities and infrastructure of learning support. The result showed that the average achievement of students' learning skill before creating phantom for practice 65,83, achievement average has been made simple phantom 81,17, average sub and after pretation of learning skill 15,333. The existence of the effect of creating simple phantom of skill achievement of students of D IV midwifery in Padang Polytechnic year 2017 (P value = 0,000). The conclusion of this research, there is the effect of creating simple phantom for the practice of KDM subject to the improvement of student achievement of midwifery in Poltekkes Kemenkes Padang. The authors hope in the process of learning skills need to be equipped with visual aids so that students can get the skill achievement is achieved and have the same perception.

Keywords: Simple Phantom, Practice of KDM, Student Achievement

INTRODUCTION

Education is essentially an effort to cultivate the potential of human resources of learners by encouraging and facilitating their learning activities. According to Law No. 20 of 2003 on the National Education system it is said that the education of conscious and well-planned business to realize the learning and learning process and the teaching process so that learners actively participate develop their potential to have spiritual spiritual power, controlling, self-control, personality, intelligence, noble ahlak as well as the skills needed himself, society, nation, and State. National development is a means to realize national goals. One of the national goals is to educate the life of the nation. To realize this goal the government seeks to organize a national education system. Education as a human right every citizen has been recognized in the 1945 Constitution Article 31 paragraph 1 which states that every citizen is entitled to education, while paragraph 3 states that the government seeks and organizes a national education system that increases faith and piety and noble character in order to.

One of the problems facing education today is the weakness of the learning process, less children are encouraged to develop thinking ability (Sanjaya, 2010: 1). In the learning process, students are equipped with the ability to memorize information and theory. Furthermore, the information and theory that have been memorized is applied to understand the next material without being able to apply the theory. It is feared to affect their understanding and skills in the learning process which will have an impact on student learning outcomes.

Practical activity using phantom in the laboratory is used as a way to make students easy to understand the material skills and students can perform skills, and can build knowledge by experiencing the process or experiment own practice itself. The higher the involvement of mahasiswa in practical activities in addition to the learning process in the classroom, it is expected to improve the achievement of understanding and skills mahasiswa in accordance with the potential owned so as to improve student learning outcomes.

Factors that affect the learning process, in the learning activities there are three points, namely input (input), process, and output (output). The issue of entry concerns the subject or the learning goal itself with its various backgrounds. The problem of the process of mechanism or the process of culpability changes in the subject of learning kemampuan. In this process there is mutual influence between various factors, such as the subject of learning, the teacher or the learning facilitator, the method used, the learning aids or phantom and the material or material being studied. While the output is the result of learning itself that consists of new abilities or new changes in the subject of learning.⁵

Based on preliminary observation at Poltekkes kemenkes Padang in Midwifery Department of phantom equipment dilabolatorium for practice of KDM subject matter (basic human basic). The writer asked the phantom labolatorium officer who used for the skill, there is one phantom in the form of human framework is used two Prodi D III and D IV Midwifery, this incomplete condition is still inentaris School of Nurses in the past, this panthom for the achievement of skillful practice among others : intravenous infusion, counting infusion droplets, perital (intra-muscular, intra venous, intra-cutaneous, sub-cutaneous) phantom substitutes and none of the phantoms required for skills training tools (basic human needs), in practice ketempilam students using phantom of his students can achieve the desired coopency and mengresresepikan direction on the pasein directly.

Based on the above description the authors want to know the effect of creating a simple phantom for the practice of basic human needs subjects improve student achievement mahasiswa majoring in midwifery. Formulation of the problem
Based on the background that has been described above, the formulation of this research problem is whether there is influence create simple phantom for the practice of subjects KDM improving student achievement of midwifery in Poltekkes Kemenkes Padang in 2017.

METHODS

This type of research is Quasy Experiment with Two-Group Pre-Test-Post-Test design that is grouping of experiment group members. This study examines the changes that occur in the group after the experiment (treatment). The design form is as follows. The population in this study are all second-year students of D-IV midwifery IV program. The sample is the object that is researched and is considered to represent the entire population. Samples taken by using the technique is non probability sampling that is purposive sampling with the number of 30 students to practice the basic human subjects skill course for experimental research.

RESULT

Table 1. Achievement Of Student's Learning Skill Before Creating Phantom For Practice Of Basic Human Requirement in Department of Midwifery Poltekkes Kemenkes Padang in 2017

Learning achievement			
Mean	SD	Min-Max	n
65,83	5,584	4,44	30

Based on table 1, it can be seen that the average of student achievement is 65.83 before phantom for the practice of subjects of basic human needs standard deviasi5,584 in the Midwifery Department in 2017.

Table 2. Achievement Of Students' Learning Skill After Creating Phantom For Practice Of Basic Human Requirement in Department of Midwifery Poltekkes Kemenkes Padang in 2017

Learning achievement			
Mean	SD	Min-Max	n
81,17	4,58	4,44	30

Based on table 2 obtained average achievement of student learning 81,17 after phantom to practice subjects basic human needs standard deviation 4.58 with the number of samples of 30 students in the Department of Midwifery in 2017.

Table 3. The Average Of Student Achievement Achievement Before And Before Given Phantom That Was Created For The Practice Of Basic Human Needs Subject in Department of Midwifery Poltekkes Kemenkes Padang in 2017

T - Test	Mean	Std Deviation	95% confiden interval of the deference Lower Upper	t	df	P value
Pretest and postest	-15.333	5.713	-17457 -13.20	14,699	29	0,000

Based on table 3, it can be found that the average of student achievement before and after phantom sehana - 15,333 for the basic needs of human subjects standard deviation 5,713 with the number of samples of 30 students of midwifery in 2017.

Table 4. Given The Influence Of Creating Simple Phantom For The Practice Of Subjects Basic Needs Human Perctasi Learning Student Study in the Department of Midwifery Poltekkes Kemenkes Padang in 2017

T - Test	Mean	Std Deviation	95% confiden interval of the deference		t	df	P value
			Lower	Upper			
Pretest	-15.333	5.713	-17.457		14,699	29	0,000
And posttest			-13.20				

Based on table 4, it can be seen that the average of student achievement before and after phantom hence - 15,333 standard deviation 5,713. The result of statistics obtained p value (0,000) small from $\alpha = 0,05$, hence can be concluded existence of influence create simple phantom for practice of course Basic human need peningkatan student achievement of Midwifery Department in Poltekkes Kememkes Padang year 2017.

DISCUSSION

The visual aid tool is anything that can be used to facilitate the delivery of the material so as to stimulate one's thoughts, feelings and concerns to understand more and more clearly the material being learned. Some of the benefits of using props for are: display tools can support the learning process of the material, the props can make the learning process more effective, the props can make the delivery of the material on target, the props can evoke imagination in a person's mind to be more explorative, the visual aids are a real picture of something from the theory being studied. From some of the above description we can conclude that, the role of props as a supporter of learning is an important fact and true existence. Assumption is achieved with good achievement values will be in accordance with the expected student can be a good achievement value must be supported by a good props that patronize human anatomy so that student apersipsi will be good and the skill will be achieved which is applied from the result of bivariate data analysis.

In this case of course in the implementation of student skill practice needs to be supported by good props and resembles human body that plant high student apersipsi to be able to improve understanding of student about the material practiced, knowing the first grade student is still shallow introduction of human anatomy and physiology tentative, hence by therefore the need for the availability of a good props and resemble human anatomy and physiology as in this study the researchers created sistim urine physics about urbanization such as male sex instrument and female students can measure the length of urethra and latitude difference a bkelamin male and female, the student can see blas (bladets) where urethra penyimpana temporarily before full jar before full, student tools such as human motion; the tool can see two pieces of kidney and ureter. This performance catheter tactile action need to use phantom that resembles the human body can not be replaced with other objects such as bottles as a male penis, this result of student apersipsi very much different from not using phantom that resembles human body.

In the world of education, the role of props is very important to support the progress of academic ability of the students. One obvious example is the high school of medical

science, keperawatan and midwifery which is a printing school of personnel who will go directly to deal with physical problems. Without the teaching aids in their lectures, they will not be able to absorb the theory to the maximum if it will be deployed directly to handle patients in the field. This perception is the right thing and is in line with our logic. Therefore, the use of tools in high school health is a must since the first until now everywhere.

CONCLUSIONS

Based on the results of research: The average achievement of students' learning skill before creating phantom for the practice of basic human needs subjects obtained the average of student achievement of 65.83 standard deviation of 5,584 in the Midwifery Department in 2017. The average achievement of students' learning skill after creating phantom for the practice of basic human subjects 81,17 standard deviation 4,58 with sample number 30 student in Midwifery Department in 2017. Difference average of student achievement before and after preaching simple phantom - 15,333 for the practice of basic human standard subjects 5.713 standard deviation with the number of samples of 30 students of midwifery in 2017. The results of statistics obtained p value (0,000) small from $\alpha = 0.05$, it can be concluded the existence of the effect of creating a simple phantom for the practice of subjects Basic human needs increase student achievement Midwifery Department in Poltekkes Kememkes Padang in 2017.

RECOMMENDATIONS

It is suggested to managers of the labor organization of student skill practice the necessity is supported by good props and resembles human body that plant high student apersipsi to be able to improve understanding about material which is practiced. For policy makers Poltekkes kemenkes Padang is an educational institution that produces knowledgeable masculine and have high skills in this case very need good props, broken need to be replaced and props that not necessary in the inventions. The purpose of creating quality students.

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FACTORS OF BULLYING IN THE SCHOOL CHILDREN AT SOLOK CITY ELEMENTARY SCHOOL IN 2017

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ABSTRACT

Violent behavior that is intentional behavior (verbal and nonverbal) to injure a person in the form of sexual assault, physical, mental, social, economic triggered by various reasons. Aggressive behavior is repeated and persistent, called bullying. Some factors of bullying factor personality, parenting, peer groups and school climate. The consequences of growing as a bully or victim can lead to anxiety, depression, self-esteem issues and concentration deficits, decreased school performance and suicidal risk behavior. The results of the analysis found that there is no relationship of personality, parenting, school climate with bullying behavior. While peer behavior is related to bullying behavior. The results of the study are expected to be input for nurses to socialize bullying for students, teachers and parents in cooperation with teacher of conseling.

Keywords: *Bullying, personality, parenting, peers, school climate*

INTRODUCTION

Aggressive behavior if it continues, especially in children, becomes a thing that is considered normal to do, causing children to lose sensitivity to the actions that can make others injured (Berkowitz, 1984 in Surbakti, 2008) and if aggressive behavior is done repeatedly and settled, then the behavior is called bullying which currently occurs in many parts of the world and in Indonesia. Bullying is a negative and often aggressive/manipulative act or set of actions performed by one or more of others over a period of time and is grounded due to an imbalance of power (Sullivan, Cleary & Sullivan, 2005)

The recent incidents in violence in children have been astounding. October 2014 and then in Bukittinggi City an elementary school student was subjected to violence by her friends while in class, her video uploaded to cyberspace (www.republika.co.id; www.kpai.go.id). Furthermore, in Payakumbuh, October 2015, an elementary school student died of being hit by a school friend only a stationery problem (www.posmetropadang.co.id). This shows the violence of ordinary things for schoolchildren. Reports from the Solok Kota Police Reskrim Unit in 2015 occurred 25 cases of violence in children.

Traumatic events have a profound impact on children (Sadock & Sadock, 2007). Impact of mistreatment include children can experience psychological disorders, become moody, closed, unable to adapt and socialize, lack of concentration and decreased academic performance. The consequences of growing as a bully or victim can be severe, cause anxiety, depression, self-esteem issues and concentration deficits, decreased school performance and suicidal risk behavior (Centers for Disease Control and Prevention, 2011 in Stuart, 2016). Added also by Schreier et al, 2009 that the risk factor for attempted suicide by children is due to depression, sexual abuse, previous suicidal ideas and bullying (Stuart, 2016).

METHOD

This study is a cross sectional study. The study population is all elementary school students of Solok City. Sampling is multistage random sampling and proportional systematic random sampling. Data collection through interview. Chi-square statistical test with level of significant $\alpha = 0.05$.

RESULTS

Table 1. Distribution of Respondents Frequency Based on Bullying Behavior, Personality, Parenting, Peer Interaction and School Climate at Solok City Elementary School in 2017 (n = 97)

	Variabel	f	%
Bullying Behavior	Mild Bullying	73	75.3
	Middle Bullying	24	24.7
Personality	<i>Agreeableness</i>	21	21.6
	<i>Conscientiousness</i>	26	26.8
	<i>Neuroticism</i>	50	51.6
Parenting	Permissive	43	44.3
	Democratic	24	24.7
	Authoritarian	30	31
Peer Friends Interaction	Not at risk Bullying	37	88.1
	Risk of Bullying	60	61.9
School climate	Height	44	45.4
	Medium	53	54.6

The table above shows that respondents mostly experience mild bullying behavior (75.3%), peer interactions are mostly at risk of bullying (61.9%), personality traits over half the personality of neuroticism (51.6%), parenting patterns less than half permissive (44.3 %) and school climate more than half the temperate climate (54.6%).

Table 2. Distribution of Respondents According to Personality and Bullying Behavior at Solok City Elementary School in 2017

Personality	Bullying Behavior				Total	P value	
	Mild Bullying		Middle Bullying				
	n	%	n	%	n	%	
<i>Agreeableness</i>	13	61.9	8	38.1	21	100	0.208
<i>Conscientiousness</i>	21	80.8	5	19.2	26	100	
<i>Neuroticism</i>	39	78	11	22	50	100	
Total	73	75.3	24	24.7	97	100	

The table above shows no relationship between personality and bullying behavior.

Table 3. Distribution of Respondents According to Parenting Parenting Patterns and Bullying Behavior at Solok City Elementary School in 2017

Parenting	Bullying Behavior				Total		P value
	Mild Bullying		Middle Bullying		n	%	
	n	%	n	%			
Permissive	29	67.4	14	32.6	43	100	0.271
Democratic	20	83.3	4	16.7	24	100	
Authoritarian	24	80	6	20	30	100	
Total	73	75.3	24	24.7	97	100	

The table above shows no relationship between parenting parenting and bullying behavior.

Table 4. Distribution of Respondents by Interaction of Peers and Bullying Behavior at Solok City Elementary School in 2017

Peer Friends Interaction	Bullying Behavior				Total		P value
	Mild Bullying		Middle Bullying		n	%	
	n	%	N	%			
Not at risk Bullying	34	91.9	3	8.1	37	100	0.006
Risk of Bullying	39	65	21	35	60	100	
Total	73	75.3	24	24.7	97	100	

The table above shows there is a relationship between peer interactions with bullying behavior.

Table 5. Distribution of Respondents by School Climate and Bullying Behavior at Solok City Elementary School in 2017

School climate	Bullying Behavior				Total		P value
	Mild Bullying		Middle Bullying		n	%	
	n	%	n	%			
Height	34	77.3	10	22.7	44	100	0.855
Middle	39	73.6	14	26.4	53	100	
Total	73	75.3	24	24.7	97	100	

The table above shows no relationship between school climate and bullying behavior.

DISCUSSION

The results showed there was a relationship between peer interaction with bullying behavior. This shows that respondents with school age as well as the development of psychosocial abilities of school-aged children (6-12 years) are the ability to produce a work, interact and perform in learning based on their own ability. The ability of the child to generate pride in him, on the contrary failure leads to low self-esteem of children until adulthood, so that children difficult to socialize (Keliat, Helena, Farida, 2011). One of the

most important things in school-age children is their peers. Through relationships with the peers, children will learn how to deal with domination and hostility, connect with leaders and holders of power, and explore ideas and physical environment. (Wong, Eaton, Wilson, Wingkelstein, Schwartz, 2009). Peer-to-peer relationships provide the most important social interaction for school-aged children. The experience they gained during interacting with peers was first to learn to respect the different perspectives shown in the group, with the difference of opinion the child will learn how to argue, persuade, negotiate, cooperate and compromise to maintain his friendship. Second, the child will become increasingly sensitive to social norms and pressure from the group. The group sets the standards for acceptance or rejection, so that for children who want to be accepted by the group must be able to modify its behavior. Third, relationships among peers play a role in establishing friendly relationships with same-sex peers (Wong, Eaton, Wilson, Wingkelstein, Schwartz, 2009).

In accordance with the results of research conducted by Nation et al., (2007) in Italy and USA found a relationship between bullying behavior with peer pressure. Students who engage in bullying behavior are caused by peer pressure to be accepted in the group.

The result showed that bully interaction condition was 35% bullying. This is because the students in the peer group according to Benitez and Justicia (2006) who have problems in school will have a negative impact on schoolchildren such as violence, truant behavior, low respect for friends and teachers. Friends in the school environment ideally acts as a "partner" of students in the process of achieving educational programs. However, with a moderate and high school climate this can minimize bullying behavior.

CONCLUSION

There is a relationship between peer interactions with bullying behavior. There is no relationship between personality, parental parenting, school climate premises bullying behavior.

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EFFECT OF MATURE PAPAYA CONSUMPTION ON HB LEVEL INCREASE IN YOUNG WOMEN WITH ANEMIA IN PADANG CITY 2017

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ABSTRACT

Adolescence is the stage of age that comes after childhood ends, marked by rapid physical growth. In adolescents this often arises problems including anemia. Anemia is a condition when red blood cells in the body are very small, or its ability to carry oxygen is insufficient for the body's cells (Hb <12gr%). Causes of anemia: low levels of parental education, low family economic level, lack of knowledge about anemia from young women, lack of iron, vitamin C, and duration of menstruation. Research hypothesis: there is influence of maize papaya consumption to increase Hb levels in Young Women with anemia in Padang city year 2017. The result of research indicate the average Hb level between before and after consuming the mature papaya obtained increase of Hb level as much as 1.00 mgr% with SD 1.45 mgr%, p value = 0.018 with alpha 0.05, it means there is a significant increase of female teenage Hb level before and after treatment. It is recommended to Puskesmas officers to give tablets added 1 tablet of blood / week and give examples and suggestions to young women to keep consuming 100gr pepaya matur every day

Keywords: consumption of papaya mature Fe tablet fund

INTRODUCTION

National Medium-Term Development Plan (RPJMN) 2016-2019, One of the targets is the improvement of nutritional health status in children (Ministry of Health RI 2016). Women between the ages of 14-18 should consume at least 15 mg of iron every day (Kemenkes RI 2016). In these teenagers often arise problems including anemia. (Burner, 2012). Anemia is a condition when the red blood cells in the body are very small. Iron deficiency in adolescents physically results in pallor, weakness, fatigue, dizziness, and decreased learning concentration (Suyogo, 2006)

According to the World Health Organization (WHO) (2013), prevalence of world anemia ranges from 40-88% found in adolescent girls, said anemia if Hb <12 gr / dl (Proverawati, 2011). In Indonesia the prevalence of anemia in adolescent women is 26,50%, (KemenkesRI, 2013). In the province of West Sumatra adolescent girls who experienced anemia as much as 22.7% (Risksedas 2013), In Padang city, the highest incidence of anemia among girls was found in the work area of Puskesmas Anak Air (35%) According to the Health Service of Padang City 2016, who had anemia in the working area of Puskesmas Anak Aia 1713 people.

In a preliminary study that researchers conducted at Puskesmas Anak Aia on 24 Mai 2017, the incidence of Anemia in teenagers most found in SMP 15 Padang (working area of Puskesmas Anak Aia Padang). Based on the above background, as well as the title of this research has not been studied by other researchers, the researchers are interested in doing research on "The Effect of Mature Papaya Consumption on Increasing Hb Levels on Teenagers with Anemia in Padang City Year 2017".

METHODS

The research design used was quasi-experiment with One-Group Pre-Test-Post-Test only approach which is subject before given a certain treatment (examination of haemoglobine level) given pre-test, then after the treatment was done again measurement (post-test) for know the consequences of the treatment (Nursalam, 2009). This research will be conducted in Padang City March - December 2017. The population in the study are all young women who are in the work of Puskesmas Anak Air Padang city in 2016 as many as 1713 people. Sample taken as many as 15 respondents, this is done because of the limited cost available. The sampling technique used is purposive sampling. Researchers identified young women who had anemia, then signed an informed consent. Secondary Data Taken from the Provincial Health Office of West Sumatra, and from Padang City Health Office and Puskesmas Anak Air Padang City in 2017.

RESULTS

Table 1. Distribution of Respondents According to Hb Levels Before Treatment Year 2017

Variabel	Mean Medium	SD	Min-Max	95% CI	N
Kadar Hb sebelum	10.28 10.40	1.28	7.5-11.9	9.6-10.96	15

The result showed that the average Hb responden level was 10.28 mgr% with 95% CI (9.6-10.96) mgr%, median 10.40 mgr% and standard deviation 1.28 mgr%. Lowest Hb level of 7.5 mgr% and highest 11.9% mgr. From the interval estimation result it can be concluded that 95% believe that average Hb level of respondent is between (9.6-10.96) mgr%.

Table 2. Distribution of Respondents According to Hb Level Before After Treatment Year 2017

Variabel	Mean Medium	SD	Min-Max	95% CI	N
Hb after	11.28 11.30	1.97	8.1-14.40	10.19-12.37	15

The result showed that the average Hb level of respondents was 11.28% mgr with 95% CI (10.19-12.37) mgr%, median 11.30 mgr% and standard deviation 1.97 mgr%. The lowest Hb level is 8.1% mgr and the highest is 14.40% mgr. From the estimation result, it can be concluded that 95% is believed that the average Hb level of respondent is between (10,19-12,37) mgr%.

Table 3. Distribution of Hb Levels Differences Measurements Before and After Mixing of Mature Papaya on the Same Person

Variabel	Mean	SD	S.E	P.Value	N
Standard					
Hb	10.28	1.22	0.31	0.018	15
Before	11.28	1.97	0,50		
After					

The result of the analysis showed that the Hb level of the respondent of the measurement before the treatment was 10.28 mgr% with the standard deviation of 1.22 mgr%. In the post-papaya sampling or treatment the mean Hb level was 11.28 mgr% with a standard deviation of 1.97 mgr%. Seen mean value between before and after treatment of mature papaya is 1.00 mgr% with standard deviation 1.45 mgr%. Statistical test results obtained p value = 0.018, then with a 5% alpha can be concluded there is a significant difference between Hb levels of measurement results before after the administration of papaya mature.

Table 4. Differences in Hb Levels Measurements Before and After Papaya Ripening in the Same People (T Dependent test)

Variabel	Mean	Sd	SE	P.V	N
Kadar Hb					
Sebelum	10.2867	1.228	0.317	0.018	15
Sesudah	11.2867	1.971	0.509		

The mean Hb level on the measurement before papaya was 10.2867 gram% with a standard deviation of 1.228 gram%. In the post-papaya measurement obtained Hb level is 11.2867 grams% with standard deviation of 1971 grams%. Visible mean value between measurement before and after 1,000 gram% with standard deviation 1.447 gram%.

DISCUSSION

The average of result was found adolescent girl Hb standart before intervention is 10,28 mgr% until 1,22mgr% and after intervention was applied the average was found around 11,28 mgr% until 1,97 mgr%. So it was found that average levels of hb between before and after consuming papaya obtained an increase in hb level of 1.00 mgr% with sd. 1.45 mgr%, obtained p value = 0.018 with alpha 0,05, hence can be concluded there is significant increase of hb level of adolescent daughter before and after treatment. The results of this study are similar to the Meirida et al 2006 study, a combination of juce bayan and tomato given to white mice obtained an increase in hb levels in mice. Then research wijayanti in 2006 giving juce spinach to white mouse with concentration 50%, which is obtained increase of hb level of rat. Zulaika research in 2007 at Sail Pekan New Health Center, giving a combination of iron and vitamin C in pregnant women, obtained hb levels of pregnant women increased. In adolescent girls being menstruated, given 1 tablet Fe and 100 gr papaya cooked every day. In girls who are not on menstruation, they are given 1 Fe tablet once a week and 100 grams of cooked papaya every day.

REKOMENDATION

The results of this study are similar to the Meirida et al 2006 study, a combination of juice bayam and tomato given to white mice obtained an increase in hb levels in mice.

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UTILIZATION OF BROWN RICE (*Oryza nivara*) AND PASSION FRUIT (*Passiflora quadrangularis* L) IN THE MAKING OF SNACK BAR AS ALTERNATIVE SNACK WITH HIGH FIBERS FOR ELEMENTARY SCHOOL CHILDREN

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ABSTRACT

The obesity of children might be one of the risk factors of degenerative diseases. Because of that, they need healthy snacks which are low calories but high nutrition with high fibers. *Snack bar* is a snack product that has bar shape and mixture of cereals, nuts, fruits which has high fibers nutrition. Brown rice (*Oryza nivara*) is a high fibers nutrition and good for digestion. A fruit that is usually used as binder in snack bar is passion fruit. This research aims to know organoleptic quality and nutrients of brown rice (*Oryza nivara*) in snack bar and passion fruit (*Passiflora quadrangularis* L) as high fibers snacks. This research uses data analysis of ANOVA to see the difference between the treatments. If the results are significantly different ($F_{count} > F_{table}$) then it will continue using Duncan's New Multiple Range Test (DNMRT) at 5% level. Organoleptic test results obtained by color, aroma, flavor, and texture for brown rice and passion fruit (Rasmersa) snack bars are the favorite of panelists. There is real different to the given treatment in statistic test result towards color, aroma, flavor, and texture of snack bar using ANOVA. Nutrition of snack bar Rasmersa obtained carbohydrate ranges from 50-58%, fat 20-22% and fiber 5-8%. Snack bar rasmersa with a ratio of 60 g of brown rice and 72 g of passion fruit essence is the best treatment of six treatments.

Keywords: *snack bar, brown rice, passion fruit, fiber*

INTRODUCTION

Lifestyle changes especially in urban areas that bring change of diet among people including school children who tend to choose foods that are practical in their dietary needs. Unfortunately, school children tend to consume high risk foods that can lead to obesity. Obesity is a nutrition disease which usually happens in variety of community, such as school children. Obese children will be at risk of degenerative diseases as they mature.

Cases of obesity increases steadily, Riskesdas data in 2013 mentioned that the prevalence of obesity in boys as much as 10.70% and girls 7.70%. (Riskesdas, 2013). According to the data of Padang city Health Office, children's obesity was included in 10 diseases in elementary school children in Padang with 9.2% prevalence in 2010-2011 and this exceeds national prevalence of 5%. Obesity can be caused by low fiber intake, because obese children will tend to eat foods that are high fat and more easily digested than fiber. Research in SD Sompok 01 states that obese child who consumes fiber <25 grams (AKG) tend to consume high fat intake (Mexitalia, 2005). Snack bar is a snack product that has bar shape and mixture of cereals, nuts, fruits which binds using binding agent (binder) that is usually consumed as snack and has high fiber nutrition (Christian, 2011). One of the good and healthy local food ingredients used in the making of snack bars is brown rice. Characteristics of brown rice are having energy content and high fiber nutrition which is suitably used as alternative food for people with degenerative disease such as obesity. The aim of this research is to know organoleptic and nutrients of snack

bar of brown rice (*Oryzanivara*) and passion fruit (*PassifloraquadrangularisL.*) as high fiber snack.

METHODS

This research is an experimental research using a complete randomized design (RAL) with six treatments and twice repetitions with brown rice as filler and passion fruit as a binder: 50gr: 62gr, 50gr: 50gr, 62gr: 50gr, 60gr: 72gr , 60gr: 60 gr, 72gr: 60gr in the making of snack bar. This research will be conducted at Food Technology Laboratory of Nutrition PoltekkesKemenkes Padang started from April until November 2017. The main raw materials used in this research are brown rice and yellow passion fruit obtained from AlahanPanjangSolok District. The subjective observation is used to see the nutrients of snack bar, such as carbohydrate (Luff School method), fat (Soxhlet method), and fibers. This research uses data analysis of ANOVA to see the difference between the treatments. If the results are significantly different ($F \text{ count} > F \text{ table}$) then it will continue using Duncan's New Multiple Range Test (DNMRT) at 5% level (Sastrosupadi, 2000).

RESULT

A. ORGANOLEPTIC TEST

1. Color

Table 1. The Average Value of Acceptance of Panelists To Snack Bar's Color

Treatment (brown rice :passion fruit)	Average	Description
F1(50:62)	3.52	Really Like
F2(50:50)	2.48	Rather Like
F3(62:50)	2.52	Like
F4(60:72)	3.32	Like
F5(60:60)	2.72	Like
F6(72:60)	2.00	Rather Like

The average valuation of panelists on the color of the snack bar ranges from 2.00 to 3.52 where the value started from rather like until really like level. The treatment with a ratio of 50 g of brown rice and 62 g of passion fruit obtained by the color of snack bar and favored by panelists. Snack bar products produced colors with the highest average value which is brighter and more interesting than the other snack bars. The result of variety investigation is $F \text{ count}$ is bigger than $F \text{ table}$ which means there is a real difference between the given treatments to the color of snack bar.

2. Flavor

Table 2. The Average Value of Acceptance of Panelists To Snack Bar's Flavor

Treatment (brown rice :passion fruit)	Average	Description
F1(50:62)	3.20	Like
F2(50:50)	2.64	Like
F3(62:50)	2.48	Rather Like
F4(60:72)	3.20	Like
F5(60:60)	2.96	Like
F6(72:60)	2.48	Rather Like

Valuation of panelists to the flavor of snack bar is in range of 2.48 until 3.20; where the value started from rather like until like level. Treatment with ratio of 60 g of brown rice and 72 g of passion fruit essence also 50 g of brown rice and 62 g of passion fruit essence obtained the flavor of snack bar which is favored by panelists. Adding more passion fruit essence gives better and strong flavor to snack bar products.

The result of variety investigation is F count is bigger than F table which means there is a real difference between the given treatments to the flavor of snack bar.

3. Taste Table 3. The Average Value of Acceptance of Panelists To Snack Bar's Taste

Treatment (brown rice :passion fruit)	Average	Description
F1(50:62)	2.64	Like
F2(50:50)	2.08	Rather Like
F3(62:50)	2.48	Rather Like
F4(60:72)	3.24	Like
F5(60:60)	2.96	Like
F6(72:60)	2.56	Like

Based on hedonic test to the taste of snack bar, it is known that the average of panelists' acceptance is in range of 2.08 – 3.24 from rather like until like criteria. The highest average value of panelists' acceptance is in range of 60 g of brown rice and 72 g of passion fruit which are favored by panelists. Those snack bars produced sweet taste mixed with a little bit sour but they still like it. Sour taste arises because there is a passion fruit essence in it.

The result of variety investigation is F count is bigger than F table which means there is a real difference between the given treatments to the taste of snack bar.

4. Texture Table 4. The Average Value of Acceptance of Panelists To Snack Bar's Texture

Treatment (brown rice :passion fruit)	Average	Description
F1(50:62)	3.44	Like
F2(50:50)	2.60	Like
F3(62:50)	2.44	Rather Like
F4(60:72)	3.48	Like
F5(60:60)	3.04	Like
F6(72:60)	2.00	Rather Like

Valuation of panelists to texture of snack bar is in range of 2.00 until 3.48; where the value started from rather like until like level. Treatment with ratio of 60 g of brown rice and 72 g of passion fruit essence obtained texture of snack bar which is favored by panelists. Those snack bars have balanced textures between fillers are brown rice and binders are passion fruit.

The result of variety investigation is F count is bigger than F table which means there is a real difference between the given treatments to the texture of snack bar.

B. NUTRIENT CONTENT

Table 5. Analysis Result of Nutrient of Snack Bar Rasmersa (100 Gram)

Nutrient Analysis	F1	F4	F5
Carbohydrate	50.13	58.58	56.02
Fat	22.05	20.35	21.58
Fiber	5.66	7.67	8.93

The result of nutrient content analysis of brown rice and passion fruit snack bar (Snack Bar Rasmersa) obtained carbohydrate content which is not really different to three treatments. Likewise with the fat content of snack bar. Fiber content in snack bar has ratio of 60 g of brown rice and 72 g passion fruit essence are not much different to snack bar with ratio of 60 g of brown rice and 60 g of passion fruit essence. There is high fiber of brown rice as the main ingredient which is produced by snack bar Rasmersa.

CONCLUSION

Organoleptic test results obtained color, flavor, taste and texture for Rasmersa snack bar which is preferred by panelists. The value of Carbohydrate content for three best treatments ranges from 50-58%. The value of Fat for three best treatments ranges from 20-22%. The value of fiber for three best treatments ranges from 5-8%. Snack Bar Rasmersa with ratio of 60 g of brown rice and 72 g of passion fruit essence is the best treatment.

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DETERMINANTS OF FOOD HYGIENE IMPLEMENTATION AT TANJUNGPINANG CITY ELEMENTARY SCHOOL

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ABSTRACT

One important aspect that needs to be considered in the management of healthy canteens in schools is the hygiene of food handlers. Based on the initial observation results from 8 schools, data showed that most schools still had unqualified canteens sanitation, unhealthy food hygiene practices, and types of PJASs sold are less diverse. This research aims to know the determinant of applying hygiene of food handler at school in Tanjungpinang City. The research method used cross sectional design. The population is 69 schools with a sample of 34 schools. Method of data collection was with observation and questionnaire. The results showed that there was no correlation between food handlers, knowledge and availability of handwashing facilities on the application of personal hygiene $p > 0.05$. The conclusion of the research is the determinants of education level, knowledge and availability of hand washing sanitation facilities have no significant relationship with the hygiene implementation, but based on low PR level of education, less knowledge and no hand washing facilities have the risk of implementing sanitation hygiene which does not qualify. We recommend that the school should have a high quality of food handler, conduct activities to improve the knowledge of food handlers, and provide handwashing facilities to support the implementation of qualifying food hygiene suppliers.

Keywords: hygiene hygiene, healthy canteen,

INTRODUCTION

Food security is a matter of concern because it can impact health, both for adults and for children. National food safety policy mandated in Law No. 18 of 2012 on Food and its details contained in the Government Regulation of the Republic of Indonesia number 28 of 2004 on Security, Quality, and Food Nutrition, authorizes the BPOM Agency to supervise the safety, quality and nutrition of food which circulated where one of the food priorities that received special attention was PJAS. One of PJAS's food safety forms is the effort of applying food canteen hygiene and canteen sanitation. Food talks play a very important role in the effort. Some form of sanitation hygiene that must be applied based on Permenkes No. 1096 Year 2011 is a place, sanitation facilities, equipment, nourishment and food. Good hygiene application of hygiene will ensure food hygiene. The results of a study on healthy schools conducted by the Department of Physical Education Development Center in 2007 at 640SD in 20 provinces studied, as much as 40% did not have canteens. While those who have canteens (60%) as much as 84.3% of their canteens have not yet fulfilled their health requirements.

Based on the initial survey of 8 elementary schools in Tanjungpinang City, all primary schools have canteen in the school fence and the construction of food handlers by the City Health Office has been done, but most schools still have poor canteen sanitation, poor hygiene food hygiene practices, and PJAS types sold in a variety of ways. The purpose of this research is to know what is the determinant of food hygiene in the Tanjungpinang City School in 2017.

METHODS

This research is analytic observational research with cross sectional approach. The research was done by using cross sectional design. The study was conducted from April to October 2017 at Elementary School in Tanjungpinang City. The variables examined were the use of hygienist hygienists as dependent variables as well as, respondent characteristics, knowledge and availability of handwashing facilities. The sanitation hygiene implementation variables were measured by observation using checklist sheet categorized as eligible and not eligible. Characteristic variable of respondents and knowledge was measured by using interview questionnaire, while variable availability of facility was measured using observation sheet using observation sheet and categorized with available and unavailable. The data obtained were processed and analyzed descriptively and the determination of the determination of food hygiene implementation was processed by logistic regression statistics test using Microsoft Excel program and Statistical Program for Social Science (SPSS) version 21.0 for windows. The processing process includes coding, inputting and analyzing

RESULTS

Table 1. Food Inheritance Characteristics

No	Characteristic	n	%
1	Gender		
	Female	29	85,29
	Male	5	14,71
	Total	34	100
2	Age		
	<44 years old	16	47,05
	≥ 44 years old	18	52,95
	Total	34	100
3	Education		
	Low education	16	47,05
	High Education	18	52,95
	Total	34	100
4	Working Hours		
	<66 months	23	61,76
	≥ 66 months	11	38,24
	Total	22	100
5	Certificate Ownership		
	Yes	2	5,88
	No	32	95,12
	Total	34	100
6	Routine Health Checkup		
	Yes	10	29,41
	No	24	70,59
	Total	34	100

Based on Table 1. It can be seen that more than half of the food handlers have a good level of knowledge which is 58.82% and the other include in less category that is 41.18% less category.

Table 2. Knowledge of Food Poachers about Personal Hygiene

	Category	n	%
1	Good	20	58,82
2	Less	15	41,18
	Total	34	100

Based on Table 2, It can be noted that the application of hygiene of food handlers is still very low (Not Eligible 82.36%).

Table 3. Implementation of Food Hygiene

No	Category	n	%
1	Eligible	6	17,64
2	Not Eligible	28	82,36
	Total	38	100

Based on Table 6, it can be seen that availability of sanitation facilities is still diverse. There are schools having sanitation facilities and the other hand there are also schools that have not provided them at all. For the criteria of availability of handwashing facilities, 18 schools (52.94%) have not provided, including 24 school handwashing soap (70.59%) that is not provided. Around 50% of schools have provided trash but the condition is not closed (55.88%). 70.59% school has provided a dishwasher and has been equipped with cleaning agents (76.47%). Similarly, many canteens have provided a floor cleaner (79.41%).

Table 4. Availability of Canteen Sanitary Facilities

No	Sanitation Facility	n	%
1	Hand wash facility availability:		
	Facility:		
	= 1	13	38,32
	≥ 1	3	8,82
	Unavailable	18	52,94
	Total	34	100
2	The availability of soap		
	- Yes	10	29,41
	- No	24	70,59
	Total	34	100
2	Availability of waste disposal		
	Facility :		
	= 1	17	50,00
	≥ 1	14	41,18
	Unavailable	3	8,82
	Total	34	100

DISCUSSION

Based on the univariate analysis, the characteristics of food handlers are quite diverse. There are more female handlers that may be due to the activity of a woman who is more in a still and constant location at the stall, only a handful of men doing daily activities at the stalls. Generally men sell his food as a traveling trader and rarely live in a stall.

Education is categorized into two parts, namely primary education (elementary and junior high) and higher education (high school and college). Primary learner education is elementary and highest is scholar. Intermediaries with undergraduate education are teacher at that school

The lowest average working time is 2 months and the oldest is 360 months (30 years). Almost all the hunters did not yet have training certificates as food handlers. However, from the information obtained they stated that they had ever received counseling and training but no certificates were given.

A handle should be healthy and regularly checkshis health. Based on the observation results, more than half the driver did not perform regular medical check up and there were only 29.41% of the detainees who regularly checked. It is because they have a history of illness and not because they are aware of the importance of health for a caretaker.

Knowledge of food handlers about personal hygiene with good criteria is only 58.82%. This may be due to the fact that not all food handlers who get information about personal hygiene either through counseling or training on personal hygiene or sanitation hygiene. It can be seen from the ownership of training certificates that is very low, 70.29% without certificates. The lowest point is on the question of personal hygiene implementation, only 35.29% are able to answer it correctly.

Based on observation results, it is known that hand washing using soap only 58.73% that have already done so. Whereas food hygiene is one of the most important things to keep in mind so that its food products have high quality and safe for consumption. It can be done by improving the behavior of clean and healthy life (PHBS).

In addition, most of the handlers (91.17%) have not yet used personal protective equipment at work (apron and headgear). Though the tool is very important to be used to protect the handkerchief while working. One reason the driver does not use it because there is a sense of discomfort during the activity when using it. For health checkpoints, only 29.41% of the handlers who periodically do so and they do it because the driver has a history of illness on him.

The results of the chi square analysis show that none of the characteristics of food handlers have an effect on the application of hygienists, but each variable has different PR values. Based on sex, age and working hour, it is known that $p > 0,05$ which means that there is no difference in sex to the hygiene handler application, there is no influence on age to the hygiene of the handler and there is no effect of working time on the hygiene handler. On the other hand, based on a PR value of 0.97; 0.975 and 0.861 then these indicate that gender, age and knowledge are at risk of 0.967; 0,975 and 0,861 times the handler to have a hygienic hygiene does not qualify. A small PR value of 1 (one) indicates that the risk caused is not large.

The result of chi square analysis based on the level of education, knowledge and availability of hand washing facilities is known as $p \text{ value} > 0,05$ which means that there is

no influence between low and high education toward the hygiene handler application. There is no correlation between good and lack of guidance on the hygiene handler application. There is no influence between available and unavailable handwashing facilities toward hygiene handler application. But the PR value of each <1 (one) is 1,125; 1,098 and 1,421 in which this shows that the risk of each variable to affect the application of hygiene of food handlers is not eligible.

Knowledge is the result of human imitation, or the result of knowing one's object to the object through its own senses (eyes, nose, ears and so on) (Notoadmojo, 2010). Knowledge of personal hygiene of food handlers is measured using questionnaires containing questions about personal hygiene. Handlers with the good category knowledge (16) the handlers did the application of hygiene, handlers were not eligible.

One of the important points of a person's food hygiene is the habit of handwashing with soap. Clean hands thoroughly using soap and clean water that is done before cooking or preparing food, before or after touching the food, after touching the raw material, after the toilet, and after holding the dirty objects (money, dirty dishes and others) (Authorized Nutrition, 2011). This hand washing behavior can reduce the risk of disease to food handlers and be transmitted to others. To support the behavior, it is necessary to wash hands so that it can motivate the handlers to always wash their hands before the activity or after doing things related to dirt.

REKOMENDATION

Determinant of level of education, knowledge and availability of hand washing sanitation facilities have no significant relationship with the hygiene application of the handlers, but based on low PR level of education, lack of knowledge and unavailability of handwashing facilities are at risk of poor sanitation hygiene application.

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DISTRIBUTION OF SPESIES AEDES SP POST INTEREST IN THE CITY OF JAMBI

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ABSTRACT

In 2016 Dengue fever disease in Jambi city was 131 cases, in 2015 cases to 575 patients with IR 4.32 per 100,000 population and CFR 1.33 per 100,000 population, while in 2014 1010 cases with IR 1.8 per 100,000 population and in 2013 as many as 638 cases with IR as much as 2.8 per 100,000 population, in 2014 increased by 1%. Conducting Swif Net Survey around the district with a radius of 20M each sub-district in the city of Jambi. The captured mosquitoes were taken to a laboratory and then identified by species. Determined INP and mosquito Morisita index based on region thus that known abundance, distribution and spreading. Obtained an abundance of *Aedes aegypti* mosquito is more than *Aedes albopictus*. Important value index (INP) of *Aedes aegypti* 0.93 and *Aedes albopictus* 0.07. Morisita index of *A.aegypti* 3.57 and *A. Albopictus* 3.70 with a clustered distribution pattern. The mosquitoes was found in Jambi City consist of two species, *Aedes aegypti*, *Aedes albopictus*. *Aedes aegypti* is the dominant species in Jambi City with INP of 93%, based on calculations using the Morisita Index, the pattern of mosquito spreading in Jambi City area is clustered.

Keyword: distribution Aedes Sp, INP, Indek Morisita

INTRODUCTION

In 2016 Dengue fever disease in Jambi city was 131 cases, in 2015 cases to 575 patients with IR 4.32 per 100,000 population and CFR 1.33 per 100,000 population, while in 2014 1010 cases with IR 1.8 per 100,000 population and in 2013 as many as 638 cases with IR as much as 2.8 per 100,000 population, in 2014 increased by 1% (Dinkes of Jambi City, 2015). The activities of epidemiological surveillance of dengue disease, surveillance of disease in the population continuously and sustainably¹ by conducting the surveillance can explain the pattern of the disease and provide basic data for disease control and countermeasures, including the spreading pattern of *Aedes sp* as its vector, by knowing the spread of species then the *Aedes sp* which is dominant in an area and region will be obtained, thus the countermeasures plan can be done more effectively. Several factors influencing the spread and transmission of dengue disease are rapid urbanization, progress of suburban development, lack of clean water supply, easy transportation that causes the smoothness of traffic interregional. the presence of global warming that may affect *Aedes aegypti* bionomics. (Fahri, 2014). *Aedes sp* mosquitoes besides causing dengue can also transmit the Zika and Chikungunya viruses, the type of mosquito that can transmit is *Aedes africanus* in Africa and also *Aedes albopictus* in other regions. *Aedes sp*. Mosquitoes are active during the day and can live indoors or outdoors.

Relating to climate change in Indonesia, one of them in Jambi City allows for behavioral and bionomic change for *Aedes* breeding. The last pattern of bionomic breeding and the extent of the species is necessary to know. Thus, it is easy in the effort of control and need to know about some kind of mosquito which is vector of some

disease that hit area of Jambi City, therefore conducted observation to know the distribution of *Aedes* sp mosquitoes, which was conducted in all District in Jambi City, thus can know some genus or species that are the mosquito that causes dengue in the area of Jambi City.

METHODS

The research was conducted by survey method in November-December 2016. The sample of the research was conducted in 11 sub-districts and 62 urban villages in Jambi were taken purposively. The sampling location was conducted in Jambi city, with 60,955 residents spread in 11 sub-districts and 62 sub-districts. The total area of Jambi City is about 205.4 km² each district is caught by mosquitoes with the area of catching each sub-district with Radius 20 M, with residential area of the residents.

Mosquito catching is done by using swif net, by going around with radius of 20 M every sub-district with criteria of mosquito breeding outside the house such as drums, tins, bottles, pots, and ornamental plants pot filled with rain water. The captured mosquitoes were taken to a laboratory and then identified by species.

The Importance Value Index (INP) was used to establish the dominance of a species against another type or in other words an important value describing the ecological position of a species within the community. Calculating F (Frequency), K (Abundance), FR (Relative Frequency) and KR (Relative Abundance), analysis using Microsoft Excel 2007. INP (Importance Value Index) can be known by: $INP = KR + FR$ Relatively stable 3 .

Determination of Population Spread with Morisita Index, to know the pattern of population distribution can be determined by using Morisita Index with the formula

$$Id = n \frac{(\sum x_i^2 - \sum x_i)}{(\sum x_i)^2 - \sum x_i}$$

Dimana:

X= Jumlah total individu dalam plot

n= Jumlah plot

Xi2= kuadrat jumlah individu pada plot ke i

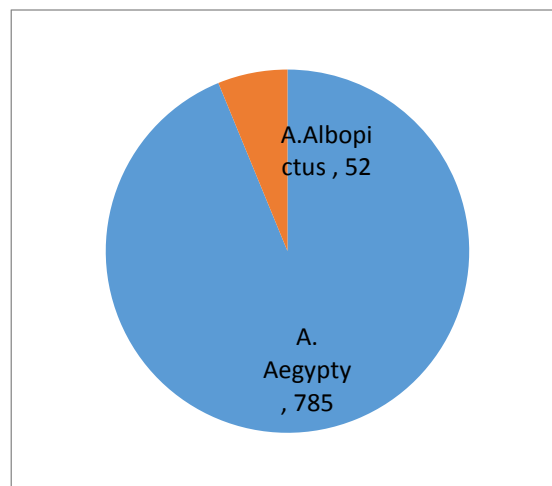
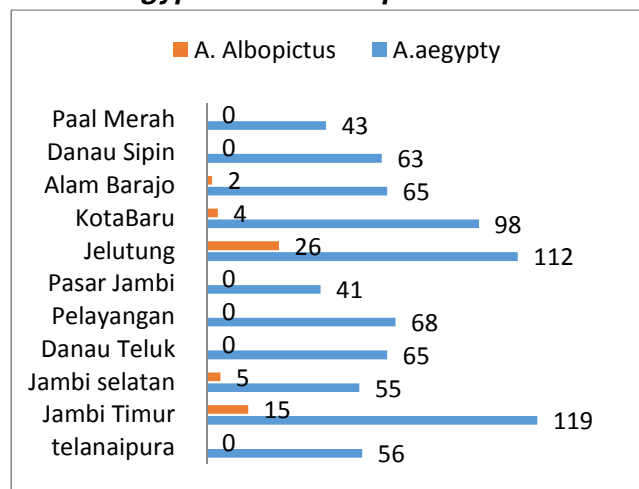
RESULTS

Mosquitoes caught with swif net in Jambi City area based on examination results using identification keys found 2 species of mosquitoes namely *Aedes aegypti*, *Aedes albopictus*,

Table 1. Abundance of mosquito species in Jambi City

Kecamatan	<i>A.aegypty</i>	<i>A. Albopictus</i>
Telanaipura	56	0
Jambi Timur	119	15
Jambi Selatan	55	5
Danau Teluk	65	0
Pelayangan	68	0
Pasar Jambi	41	0
Jelutung	112	26
Kotabaru	98	4
Alam Barajo	65	2
Danau Sipin	63	0
Paal Merah	43	0

Figure 1. Comparison *A.Aegypti* dan *A. Albopictus*



The dominated species was *Aedes albopictus* with *Aedes Albopictus* Value Index (INP) of 0.07 followed by *Aedes aegypti* of 0.93

Table 2. The Result Of Conclusion INP in Jambi City

Spesies	INP
<i>Aedes aegypti</i>	0,93
<i>Aedes albopictus</i>	0,07

DISCUSSION

Aedes albopictus more commonly found, because the condition outside the house is still a lot of place that became a mosquito resting place. While in the house was founded many of *Aedes aegypti*. This is in accordance with previous research which states that in the urban area *Aedes aegypti* mosquito is more dominant than *Aedes albopictus*, but in this study *Aedes albopictus* more dominant. Densely populated urban areas and high density housing and environments with inadequate housing supported by tropical climatic conditions as cities in Indonesia allow for the proliferation of mosquitoes that cause dengue fever, environmental conditions around the house that have plants and the presence of garden plants is made mosquito breed possible. *Aedes albopictus* mosquitoes are found in residential areas, *Aedes albopictus* mosquitoes are found in residential areas, the presence of lush vegetation, the most dominant plantation of species at the time of the *Aedes aegypti* mosquito-catching survey is the dominant species in urban areas due to the location of the housing so that the mosquito breeding increases. Based on the calculation by using Index Morisita *A. Aegypti* mosquito dispersal patterns and *A. Albopictus* in Jambi obtained:

Based on the value of the morality index obtained *Aedes aegypti* and *Aedes albopictus*. The mosquito has a group distribution because I_d is more than 1. The result of the research is got to the two mosquitoes are captured outside the house and with similar physical environmental quality, from the data analysis then the distribution is clustered, the mosquito has instinct and the ability to choose live in the most suitable habitat, temperature, humidity and geographical conditions. Distribution patterns of species tend to cluster due to several things such as environmental conditions, eating habits, and how to reproduce and resting habits. The clumping patterns of distribution will make it easier for individuals to connect with others for different needs such as reproducing and feeding. Distribution is uniform due to environmental factors such as temperature and humidity at the site is not much different between the location of the city and the district. There are various physical environments that can influence the distribution of mosquitoes, such as house design, container type, altitude, and climate.

RECOMENDATION

The mosquitoes was found in Jambi City consist of two species, *Aedes aegypti*, *Aedes albopictus*. *Aedes aegypti* is the dominant species in Jambi City with INP of 93%, based on calculations using the Morisita Index, the pattern of mosquito spreading in Jambi City area is clustered.

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ALTERNATIVE OF CHEMICALLY WASTE WATER TREATMENT IN CHEMICAL LABORATORY OF HEALTH POLYTECHNIC OF KEMENKES PADANG 2016

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ABSTRACT

Chemical waste from activities in laboratories generally is not processed but simply dumped directly into drain in the laboratory, the possibility of absorption of chemicals in the soil, and go through water. These events will cause pollution to soil, water and disruption in living things around, especially humans. Therefore, it is necessary to process the chemical waste with the right techniques. One of the techniques is chemical processing with the use of alum and Poly Aluminium Chloride (PAC). The hypothesis in this study was there is no difference in the use of coagulant alum and PAC to the decline of metal, Total Suspended Solid, Biological Oxygen Demand, Chemical Oxygen Demand of chemical waste laboratory. From the results show that PAC is more effective with an effective dose of 700 ppm and percentage decrease in TSS, BOD, COD is greater. Based on the Mann-Whitney test there are differences in decreased levels of TSS and COD and there is no difference decreased levels of BOD and Fe between alum and PAC. This is due to the coagulant PAC has active group aluminate work effectively in a bind colloidal and reinforced with polymer chains of the polyelectrolyte group. Thus, PAC can be used as a coagulant in sewage treatment chemical.

Keywords: Wastewater Chemical Laboratory

INTRODUCTION

Health Polytechnic of Kemenkes Padang is an educational institution supported by means of infrastructure to produce skilled health workers and compatible. In achievement of student skills, it is obtained by doing practice in laboratory, one of them is chemical laboratory. Chemical laboratory activity will produce waste undoubtedly. Waste is residual of human activity, personally or from another activity such as industry, hospital, laboratory, and others (Darmono, 1995). Waste have the form of solid (solid wastes), liquid (liquid wastes), or gas (gases wastes). Chemical laboratory wastes is an outcome of chemical material, equipment washing process, which categorized as Hazardous and Toxic Waste. Type of chemicals that often used in chemical laboratory are sulfuric acid, hydrochloric acid, oxalic acid, acetic acid, phosphoric acid and nitric acid, and bases such as sodium hydroxide, ammonium hydroxide. Anorganic chemicals such as sodium chloride, ferric chloride, ferrous ammonium sulfate, potassium chromate, potassium bichromate, copper sulphate, otherwise the organic chemicals are ethers, alcohols, acetone, formaldehyde and chemicals as a support such as detergents as a cleanser. This laboratory wastes are dangerous for environment, and categorized as Hazardous and Toxic Waste which is dangerous for any creatures. Its toxic and dangerous can be seen by physical and chemical characters.

Waste treatment is meant to lower the contamination level in waste so it will be safe to thrown away to environment. We can use several methods of waste treatment, which are chemically and biologically. Chemically waste treatment such as coagulation, aeration, sedimentation, electrolysis and disinfection. Biological waste treatment is

using microorganism with aerobic system to get an alternative detention time, then addition of growing media for bacteria and oxygen.

Researches are done to waste treatment, one of them is done by Roheiti dkk, that waste treatment wit PAC coagulation method that can reduce the color of waste water and the concentration of Nickel (Ni), Chromium (Cr) and Plumbum (Pb). Application of chemical waste treatment is necessary to find a right method in chemically treatment by using Alum (Al) and PAC in reducing the concentration of metals, TSS, BOD, and COD in waste water of chemical laboratory in Health Polytechnic of Kemenkes Padang in 2016.

METHODS

This research is held on May to November 2016 in Laboratory of Health Polytechnic of Kemenkes Padang and SMAK Padang. The design of this research is laboratory experiment, which is to knowing the difference between chemicals reduction chemically (coagulation and sedimentation) and biologically (blower and microorganism) from chemical laboratory waste water. Inspection is done to metals, TSS, BOD, COD, and Ferrum (Fe) concentration before and after chemical and biological treatment. Research design is using pretest measurement, posttest measurement, and observation so that te reduction of concentration by chemical an biological treatment can be observed. Bivariate analysis in ocured by using two different groups test to observe the average different of concentration reduction of metals, TSS, BOD, COD and Ferrum (Fe) with chemical and biological treatment.

RESULT

Table 1 shows that some chemicals concentration in chemical laboratory waste water is exceed the standart in Regulation of Minister of Environment No.5/2014, but the Plumbum (Pb) and Copper (Cu) concentration is still below the standart, and pH number which is far below the required number.

Tabel 1. Measurement Result Of Metals, Tss, Bod, And Cod Before And After Treatment By Using Alum And Pac

PARAMETER	METHODS	Regulation of Minister of Environment NO 5/2014 (mg/l)	CONCENTRATION (mg/l)	TREATMENT			
				CHEMICAL		BIOLOGICAL	
				CONCENTRATION (mg/l)	%	CONCENTRATION (mg/l)	%
pH	Potensio-metri	6 s/d 7	2	6	-	7	-
TSS	Gravimetri	200	345.5	15.458	96	4.33	99
BOD	Titrimetri	150	555.27	136.925	75	81.917	85
COD	Refluk	300	976.08	198.083	80	145.083	85
Fe	AAS	5	5.0071	3.748	25	3.125	38

Table 2 above shows that after the treatment of waste water chemically and biologically, reduction of TSS, BOD, COD, and Ferrum (Fe) is occurred with average pH number is 6 by chemical treatment and 7 by biological treatment. Based on the measurement result, the concentration of 5 parameters is not above the standart in Regulation of Environment Minister No. 5/2014. reduction percentage for TSS, BOD, COD, and Ferrum (Fe) is higher after it is proceeded with biological treatment (blower and microorganism).

DISCUSSION

Waste water produced by chemical laboratory comes from the residual of laboratory practice done by students, which is also the used water of washes that thrown away directly into the sewage. Based on qualitative test of waste water sample, it is contain some metals such as Plumbum (Pb), Ferrum (Fe), Copper (Cu), Chromium (Cr), and Manganese (Mn). Examination done with AAS method. Ferrum has the highest concentration in number of 5.010 mg/l. Aside from metal, another paramater that is measured are TSS, BOD, and COD. Those parameters are used as indicator of waste water pollution. Based on the examination, TSS, BOD, COD concentration is above the standart. That means waste water treatment chemically and biologically is necessary.

Different groups test is done statistically to observe the difference of concentration of TSS, BOD, COD, and Fe with chemical treatment or chemical followed by biological treatment. Based on the test, TSS, BOD, COD, and Fe have p value of 0,002, it can be concluded that there is an average concentration reduction of TSS, BOD, COD, and Fe between chemical treatment and chemical followed by biological treatment.

This result is appropriate with research done by Hartini Eko (2011) that chemical treatment (PAC coagulant) can reduce the concentration of COD and TSS in laboratory waste water. This research is a bit different with a theory of Jesse in 1991 that chemical treatment (PAC coagulant) can reduce the value of chemical oxygen demand COD, BOD and Total Suspended Solid (TSS) in waste water.

RECOMENDATION

Chemical laboratory waste water treatment is necessary because of the impact that will affect humanity. Besides, it needs efficiency of chemicals usage in every activity of chemical laboratory to reduce the waste water produced by that activity.

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THE MODEL OF WEIGHT PREDICTION OF ADULT PATIENT IN SOME ANTHROPOMETRY PARAMETERS

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ABSTRACT

In the valuation of nutritional status, weight data is necessary because it refers to determination of nutritional needs of patients and the provision of therapy such as medication or other therapies. Objective parameter is measuring weight every week. The problem is when the measurement cannot apply to all treated patients using weight scales. The aim of this research is making the model of weight prediction of adult patient in some anthropometry parameters. Data analysis took gradually using univariate and bivariate analysis using t-test, Pearson correlation and multivariate analysis with multiple linear regression. The research held in RSUD Rasidin and RSI Ibnu Sina Padang. The sample is 95 people who are 40 male and 55 female. The result of the mean difference test between weight from weighing result and weight from the predicted result showed no significant difference ($p > 0,05$). It can be said that the weight gain equation obtained in this study is feasible to use

Key words: anthropometry parameter, weight, prediction model.

INTRODUCTION

In determining the nutritional status of patient, it needs to evaluate of nutritional status in hospital continuously and accurately also the relation with malnutrition clinically. Nutrition status is also required to monitor changes in nutritional status during therapy (Bozzetti, 1987 in Supriasa, 2001). Assessment of the patient's nutritional status uses anthropometry, such as weight and height measurement.

In determining nutritional status, it needs weight data in order to decide nutritional needs of patient and give therapy such as medicine or other therapies (Arupah, 2010, Darnis, et al, 2012, Melo, et al, 2014). Objective parameter is measuring weight every week. The problem is when the measurement cannot apply to all treated patients using weight scales (Arupah, 2010). Some countries have formula in predicting weight using anthropometry parameter calculation, such as knee height, upper arm circumference, abdominal circumference, calf circumference and sub scapular skin fold and more applications to adult. However, this formula is not suitable to Indonesian people. The similar research results have not been implemented in Indonesia and have not been applied in hospitals. The aim of this research is making the model of weight prediction of adult patient in some anthropometry parameters

METHOD

The design of the research uses cross sectional study which took place at two hospitals in Padang city started from March until November 2017. The population is all adult patients in inpatient rooms whereas using promotion estimation formula to conduct 95 people as the sample purposively. Collecting anthropometry data uses weighing and upper arm circumference data, knee height, hip circumference, abdominal circumference, calf circumference of body weight by measurement. Analysing data uses univariate and bivariate analysis with t-test independent to see whether there are

variable differences by sex, Pearson correlation test to determine the relation between variables and multivariate analysis with multiple linear regression to build weight prediction models of other anthropometric parameters.

RESULT

Sample Characteristics

This distribution of research sample is based on age and sex that can be seen as the following table:

Table 1. Sample distribution by age group and sex

Age (Years old)	Numbers of Sample			
	Male	%	Female	%
18 – 29	7	17.5	16	29.1
30 – 39	5	12.5	10	18.2
40 – 49	7	17.5	12	21.8
50 – 65	21	52.5	17	30.9
Total	40	100	55	100

Table 1 shows that sample age ranges from 18 until 65 years old, more than half of the sample of male in age range from 50-65 years old are 52.5% and 30.9% in the female group.

Mean Different Test of Measure Result of Anthropometric Parameters by Sex

The result of Mean Different Test of Measure Result of Anthropometric Parameters by Sex as the following table below:

Different Test of Measure Result of Anthropometric Parameters by Sex

Variable	Sex	N	Mean	Std. Deviation	p
Weight	male	40	60.96	12.62	0,045*
	Female	55	55.10	14.68	
Upper Arm Circumference	male	40	27.59	3.87	0,889
	Female	55	27.73	5.70	
Hip Circumference	male	40	91.40	9.76	0,200
	Female	55	94.36	11.91	
abdominal circumference	male	40	83.51	13.57	0,738
	Female	55	82.51	14.81	
Calf circumference	male	40	32.30	3.26	0,359
	Female	55	31.51	4.59	
Knee height	male	40	48.95	2.24	0,003*
	Female	55	46.11	5.61	
Age	male	40	46.62	15.25	0,053
	Female	55	40.65	14.23	

Based on table 2, it is known that there is difference with significant ($p < 0,05$) the mean of weight and knee height of male and female. However, there is a tendency that the average of upper arm and hip circumferences on female are bigger than male's whereas the average of abdominal and calf circumferences on male are bigger than female's.

Relations between Variables

Table 3. Relation between Anthropometry Variables by Sex

Sex	Variable	Upper Arm C.	Knee Height	Hip Circm	Abdomi nal Circ.	Calf Circm.	Age	
Male n = 40	Weight	0.858	0.576	0.715	0.734	0.878	-0.038	
	p-Value	0.000	0.000	0.000	0.000	0.000	0.816	
	Upper Arm C.		0.370	0.667	0.720	0.872	0.063	
	p-Value		0.019	0.000	0.000	0.000	0.698	
	Knee Height						0.014	
	p-Value						0.930	
	Hip Circm.		0.544		0.604	0.631	0.141	
	p-Value		0.000		0.000	0.000	0.385	
	Abdominal C.		0.512			0.656	0.298	
	p-Value		0.001			0.000	0.062	
	Calf Circm.		0.476				-0.017	
	p-Value		0.002				0.917	
	Female n = 55	BB	0.717	0.089	0.923	0.780	0.830	-0.024
		p-Value	0.000	0.519	0.000	0.000	0.000	0.864
Upper Arm C.			-0.011	0.627	0.577	0.441	0.063	
p-Value			0.934	0.000	0.000	0.001	0.650	
Knee Height							-0.146	
p-Value							0.288	
Hip Circm.			0.076		0.755	0.755	-0.051	
p-Value			0.582		0.000	0.000	0.711	
Abdominal C.			0.015			0.486	0.216	
p-Value			0.915			0.000	0.114	
Calf Circm.			0.117				-0.265	
p-Value			0.395				0.051	

Based on table 3, it is known that there is age variable relation with the other variables ($p < 0,05$) whether male or female. There is strong relation between weight of male and female with upper arm and calf circumferences variable with $r = 0,858$ ($p = 0,00$) and $r = 0,878$ ($p = 0,00$). The same relation can be seen between upper arm and calf circumferences variable with $r = 0,872$ ($p = 0,00$). In contrast, another variable relation is in strong and medium categories.

Relation between variables in female group based on table 3, there is strong relation between weight variable with hip, abdominal, and calf circumferences ($r = 0,923$, $r = 0,780$, $r = 0,830$ with $p = 0,00$). The other variable relations show the strong and medium relations.

The Result of Multivariate Analysis is described as following table:

Table 4..The result of multiple linier regression analysis

Sex	Variable	Koef. Beta	SE	T	p-Value	
Male	Constants	-88.614	19.662	-4.507	0.000	R =0.901
	Upper Arm C.	2.432	0.249	9.749	0.000	R ² = 0.813
	Knee Height	1.685	0.431	3.905	0.000	
	Constants	-31.085	9.400	-3.307	0.002	R =0.879
	Upper Arm C	2.234	0.343	6.515	0.000	R ² = 0.772
	Hip	0.333	0.136	2.443	0.019	
	Circumfence					
	Constants	-42.999	9.099	-4.726	0.000	R =0.910
	Upper Arm C.	0.820	0.501	1.639	0.110	R ² = 0.828
	Abdominal C.	0.197	0.093	2.126	0.040	
	Calf Circum.	2.007	0.547	3.672	0.001	
	Constants	-51.224	9.806	-5.224	0.000	R =0.919
	Upper Arm C	0.629	0.494	1.274	0.211	R ² = 0.844
	Abdominal.C	0.157	0.092	1.706	0.097	
	Hip C.	0.227	0.120	1.892	0.067	
Calf Circum.	1.886	0.532	3.545	0.001		
Female	Constants	-7.865	13.560	-0.580	0.564	R =0.723
	Upper Arm. C	1.848	0.246	7.498	0.000	R ² = 0.523
	KneeHeight	0.254	0.250	1.014	0.315	
	Constants	-51.933	5.556	-9.347	0.000	R =0.940
	Upper Arm. C	0.587	0.156	3.749	0.000	R ² = 0.883
	Hip	0.962	0.075	12.830	0.000	
	Circumfence					
	Constants	-47.766	4.307	-11.090	0.000	R =0.960
	Upper Arm C.	0.699	0.127	5.493	0.000	R ² = 0.921
	Abdominal C.	0.360	0.050	7.158	0.000	
	Calf Circum	1.705	0.148	11.543	0.000	
	Constants	-54.480	4.018	-13.557	0.000	R =0.971
	Upper Arm. C	0.557	0.114	4.867	0.000	R ² = 0.943
	Abdominal.CHip	0.223	0.054	4.145	0.000	
	Circ.	0.411	0.095	4.336	0.000	
Calf Circum.	1.174	0.176	6.655	0.000		

DISCUSSION

The statistical results show that the upper arm circumference (UAC) and knee height of men has a significant value ($p < 0.05$), this means both of these parameters could be included in the prediction equation. Then the weight gain equation is: Weight of Male = 2,432 (UAC) + 1,685 (knee height) – 88,614. The male determinant coefficient (R^2) of the equation obtained is very high which is $R^2 = 0.813$. This shows that the equation explains the proportion of male variable diversity of 81.3%.

The prediction equation obtained for female's weight based on upper arm circumference and height knee was a significant result ($p < 0.05$). The equation obtained is: Weight of female = 1.848 (UAC) + 0.254 (knee height) – 7.865. The female determinant coefficient (R^2) of the equation obtained is very high which is $R^2 = 0.523$. this shows that the equation describes the proportion of female variable diversity of 52.3%. The prediction equation obtained for male's weight based on upper arm and hip circumferences was a significant result ($p < 0.05$). The equation obtained is:

$$\text{Weight of male} = 2.234 (\text{UAC}) + 0.333 (\text{hip circumference}) - 31.085$$

The male determinant coefficient (R^2) of the equation obtained is very high which is $R^2 = 0.772$. this shows that the equation describes the proportion of female variable diversity of 77.2%. The prediction equation obtained for female's weight based on upper arm and hip circumferences was a significant result ($p < 0.05$). The equation obtained is: Weight of female = 0.587 (UAC) + 0.962 (Hip Circumference) – 51.933 The female determinant coefficient (R^2) of the equation obtained is very high which is $R^2 = 0.883$. this shows that the equation describes the proportion of female variable diversity of 88.3%.

The prediction equation obtained for female's weight based on upper arm, abdominal and calf circumferences was a significant result ($p < 0.05$). The equation obtained is:

Prediction equation obtained for female's weight based on upper arm, abdominal and calf circumferences was a significant result ($p < 0.05$). The equation obtained is: Weight of female 0.699 (UAC) + 0.360 (Abdominal C.) + 1.705 (Calf C.) – 47.766 The female determinant coefficient (R^2) of the equation obtained is very high which is $R^2 = 0.921$. this shows that the equation describes the proportion of female variable diversity of 92.1% The prediction equation obtained for male's weight based on upper arm, abdominal, hip and calf circumferences was a significant result ($p < 0.05$). The equation obtained is:

Weight of male = 0.629 (UAC) + 0.157 (Abdominal C.) + 0.227 (Hip C.) + 1.886 (Calf C.) -51.224 The female determinant coefficient (R^2) of the equation obtained is very high which is $R^2 = 0.943$. this shows that the equation describes the proportion of female variable diversity of 94.3%. The result of the mean difference test between weight from weighing result and weight from the predicted result showed no significant difference ($p > 0,05$).

RECOMENDATION

Based on the research above, it can be concluded that there is difference between weight and knee height between male and female ($p < 0,05$). There is strong relation between weight of male and female with upper arm circumference variable and calf circumference with $r = 0.858$ ($p = 0,00$) and $r = 0.878$ ($p = 0,00$). There is strong relation between weight variable with hip, abdominal, and calf circumference ($r = 0.923$, $r = 0.780$, $r = 0.830$ with $p = 0.00$). The equation of weight prediction between male and female as follows:

The result of the mean difference test between weight from weighing result and weight from the predicted result showed no significant difference ($p > 0,05$). It can be said that the weight gain equation obtained in this study is feasible to use.

This equation is expected to be used in predicting patients' weight whose weight cannot be measured.

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EFFECTIVENESS OF EDUCATION METHOD OF MODIFICATION CBIA (INTERACTIVE COMMUNITY BASED APPROACH) ON KNOWLEDGE, ATTITUDE, AND BEHAVIOR OF DIABETES PATIENTS ABOUT FOOT CARE AT ANDALAS HEALTH CENTER IN PADANG

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ABSTRACT

Foot Care is needed to prevent complications of diabetes ulcers. According Hasnan and Sheikh (2009) most of the patients diabetes have less knowledge about foot care and that care little leg action. The purpose of this study was determine effectiveness of education by modification C[”]BIA to knowledge, attitudes, and behavior of diabetic patients about foot care. The study design is quasi-experimental pretest and posttest control group of non equivalent to 32 sample. Analysis using the Wilcoxon Signed Ranks Test and Mann Whitney test with a confidence level of 95%. There are significant differences between the knowledge of the intervention group with the control group (p 0.000), but no difference in attitude (p 0.080) and behavior (p 0.897) were significant between the two groups. CBIA method effectively improve the knowledge, attitudes, and behavior. Recommended for use in service and continued with studies using time series on a larger sample.

Keywords: foot care, CBIA, education, diabetes

INTRODUCTION

Diabetic ulcers are the most feared complication by diabetes patient, treatment and long treatment spent a lot of patients without ulcer (Soegondo, 2004). Singh, Armstrong and Lipsky (2005)said due to ulcers in diabetic patients can result in disturbance, emotional, physical, decreased productivity, and finance. Efforts to prevent diabetic ulcers is glicemic control, diet, physical activity, medications, and monitoring, as well as foot care. According Hasnan and Sheikh (2009) most of thepatients with diabetes have less knowledgeabout foot care. Based Approach Interactive (CBIA) is a method of public education that emphasizes the role active of participants in finding information. CBIA method proved effective in increasingthe ability of the mother to choose a drug (Hartayu, 2003), and effectively improve the knowledge,attitudes, and actions of self-care of patients with diabetes (Hartayu, lhzam, Suryawati, 2012)

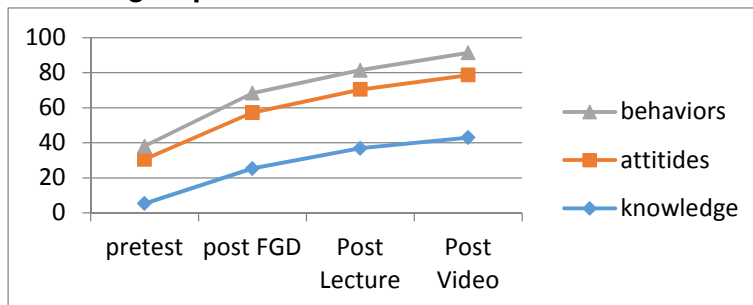
METHOD

The research desainis pretest quasi-experimental and control non equivalent post test groups. The study was conducted at Andalas Community Health Care in March to December 2017with population of diabetic patients are all members of the club in andalas Diabetes Health Centerand sample 32 people taken at random. Analysis of the differences in knowledge, attitudes, and behaviors before and after intervention in each group were testedwith the Wilcoxon Signed Rank Test and the differences in knowledge, attitudes, and behavior after the intervention between the two groups using the Mann Whitney test with a confidence level of 95%.

RESULTS

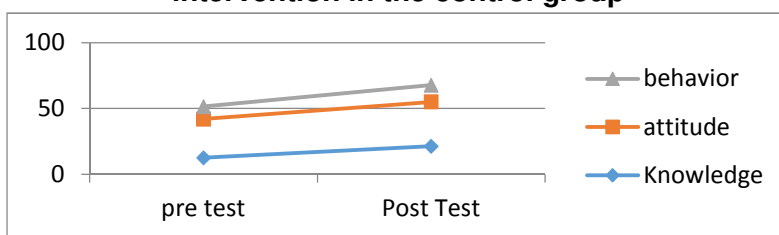
The average knowledge, attitudes, and behaviors before and after intervention in the control group and the intervention group

Graph 1. Knowledge, Attitudes, and Behavior before and after intervention in the intervention group



Average knowledge, attitude, and behavior of respondents increased after interventions CBIA. Skor increase in knowledge, attitudes, and behavior also occurs after each stage of intervention CBIA.

Graph 2. Average Knowledge, Attitudes, and Behavior before and after the intervention in the control group



Graph 2 above shows there is an increase in knowledge, attitudes, and behavior after the intervention in the control group.

Differences of knowledge, attitudes, and behavior of diabetic foot care before and after intervention in the intervention group

Table 1. Differences of knowledge, attitudes, and behaviors diabetes patients about foot care before and after intervention in the intervention group

No	Variabel	Mean Rank	Z	P Value
1	Knowledge	8,50	-3,517 ^a	0,000
2	Attitude	8,50	-3,518 ^a	0,000
3	Behavior	7,96	-3,212 ^a	0,001

There are significant difference between knowledge, attitudes, and behaviors before and after intervention in the intervention group.

Table 2. Differences of knowledge, attitudes, and behaviors diabetes patient about foot care before and after the intervention in the control group

NO	Variabel	Mean Rank	Z	P Value
1	Knowledge	8,50	-3,531 ^a	0,000
2	Attitude	8,50	-3,529 ^a	0,000
3	Behavior	10,33	-2,911 ^a	0,004

There are significant difference between knowledge, attitudes, and behaviors before and after intervention in the control group.

Differences of knowledge, attitudes, and behaviors of people with diabetes about foot care after intervention between the control and intervention groups

Table 3 Differences of knowledge, attitudes, and behaviors diabetes patient about foot care after intervention between the control and intervention groups

No	Variabel	Mean Rank	Mann-Whitney U	P Value
1	Knowledge Intervention	22,34	34,50	0,000
	Control	10,66		
2	Attitude Intervention	19,41	781,50	0,080
	Control	13,59		
3	Behavior Intervention	16,20	124,50	0,897
	Control	16,72		

There are significant difference between knowledge intervention group and control group there was no difference in the attitude and behavior significantly between the two groups.

DISCUSSION

There was an increase in the average score of knowledge, attitude, and the behavior of the two groups. A greater improvement in the group in accordance with Association Theory by Notoatmodjo (2010), which explains that learning is taking and incorporates a response, repeated stimulus provided more the response obtained. Knowledge, attitudes, and behavior of the group receiving the higher CBIA method than in the control group because stimulus on methods CBIA more than in the control group. There are significant differences in knowledge, attitudes, and behavior between before and after education in the control and intervention groups. Several studies has demonstrated the effectiveness of the method CBIA previous education, including the study Sunarsih (2002) to increase the early detection of breast cancer, Hartayu, Izhama, and Suryawati (2012) about the knowledge, attitudes, and self-care behaviors in patients.

Association theory by Notoatmodjo (2007), explains that learning is taking and combining responses to stimuli are repeated more and more stimulus is given, the response obtained. This is also supported by Hebb learning model, known as Hebbian

Learning (Sary, 2015) which states the repetition of the same stimulus causes the brain faster response to stimuli, in addition to more objects or information received, the body will process information from next information. Improve the knowledge, attitudes, and behavior can occur because the stimulus in the methods CBIA more diverse and repetitive.

In addition to the method of education, knowledge, attitudes, and behaviors of course also influenced by the media used. CBIA has three stages, namely the FGD method with Booklet media, Lecture with power point, and watch a video demonstration of foot care. Learning media is one of the factors that affect, in accordance with the opinion of Guilbert (1976) in Notoatmodjo (2007) which states that the learning effect is material, environmental, and instrumental. CBIA modification method effective in improving knowledge, attitudes, and behaviors, because through several stages are structured, and using the media supports to improve the understanding of the participants, as well as allowing participants to be active in the learning process. This method is also effective in patients with chronic disease who have an average age approaching old age characteristics and changes in demand in knowledge and attitudes, and behaviors of a lifetime.

There are significant differences between knowledge, but there is no difference in attitude and behavior after the intervention between the two groups. This is different from the opinion of Hartayu et al (2012) which states that the CBIA is one of the methods of education in improving knowledge, attitudes, and practices in the self-care of patients with type 2 diabetes where an increase of knowledge of 40% to 80%. The manner in which the individual will determine. By understanding attitude can be expected what behaviors will be taken.

RECOMMENDATIONS

Knowledge, attitudes, and behavior of respondents increased after intervention CBIA either the control or intervention group. There is a significant difference between knowledge, attitudes, and behaviors before and after intervention either the control group or the intervention group. There are significant differences between the knowledge of the intervention group and control group after the intervention ($p < 0.000$), but no difference in attitude ($p = 0.080$) and behavior ($p = 0.897$) were significant between the control group with intervention. Recommended education foot care in diabetes patients can use CBIA and research design time series on a larger sample.

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THE EFFECTIVENESS OF THE MODEL KIE SETTING THE PATTERN OF DIET DM AND DIABETES FEET GYMNASTICS THROUGH THE ILLUSTRATION MEDIA FOR DM PATIENT'S KNOWLEDGE AT THE NANGGALO PADANG HEALTH CENTER 2017

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ABSTRACT

Diabetes Mellitus (DM) is a group of symptoms that is characterized by the increased of blood glucose level as a result of deficiency of insulin, either relative or absolute. According to the estimate of the IDF (2015) the number of 415 million diabetic people around the world have DM, this prevalence will be increase, by the year of 2040 approximately 642 million (55 %). This research use the method of Quasy experiment with the design used is the design of the Twou-Group pretest–Posttest Design, the respondent are 30 people in the experimental group and the control group. Sampling of respondents took with purposive sampling, instrument used questionnaire and model KIE picture book. The results of study Posttest and Pretest of Knowledge about setting the pattern of diet and feet gymnastics DM after treatment with the Model of KIE Setting the Pattern of Diet and Diabetes Feet Gymnastics Through the Media Illustrated in the experimental group at the Nanggalo Padang Health Center significant $p= 0.005$, while in the control group not significant $p=0,869$. Conclusion there is the influence of the Model of KIE Setting the Pattern of Diet DM and Gymnastics Feet Diabetes through Illustration MediaforDM Patient's knowledge at the Nanggalo Padanghealth center. It is recommended to the leader of Nanggalo Health Centertocontinue the use of the model KIE through Illustration media in the management of DM patients to enhance their knowledge about the disease diabetes.

Keyword: diabetes, diet model, media

INTRODUCTION

According to the estimation of IDF (2015), the number of people with diabetes are 415 million people worldwide had diabetes melitus, the prevalence will beincreased by the year of 2040, about 642 million (55 %). Estimation of the proportion of patients with DMyetundiagnosed is 46.3%. One of two people with diabetes do not know that they had the disease. The prevalence of DM in south east Asia in 2015 is 8.3%, with cases that are not yet diagnosed is 52.8%. Deaths due to DM in patients aged under 60 years are 53.8%. By the year of 2035 the prevalence of DM in south east Asia will be increased10.1% (IDF, 2015). WHO estimates that diabetic patients in Indonesia increased from 8.4 million people in 2000 to 21.3 million in 2030. Diabates with complication is one of the highest causes of death, the third rank of the highest death cause in Indonesia with a percentage of 6.7% after heart (12,9%) and stroke (by 21.1%). Meanwhile, data from the International Diabetes Federation (IDF) 2015 tells, the number of diabetics in Indonesia is estimated at 10 million of the total adult population in Indonesia (age 20-79 years) is as much as 156,7 million people, the fourth highest rank in the world, with the prevalence of highest diabetes in the world after India, China, and the United States.

METHODS

The type of research is Quasy experiment using the Twou-Group pretest–Posttest Design, the respondents are 30 people in the experimental group and the control group. The population of patients with diabetes mellitus (DM) was recorded as the patient's regular visits each month at the health center Nanggalo are 31 people, all of them will be the sample. Instrument Glucotest and the questionnaire.

RESULTS

Table 1. Characteristics Of Respondents By Category Sugar Levels Early

Description		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Valid Less	8	23,5	53,3	53,3
	Enough	1	2,9	6,7	60,0
	Good	6	17,6	40,0	100,0
	Total	15	44,1	100,0	

Source: Processing Of Primary Data, 2017

Table 2. Characteristics Of Respondents Based On Category Of Sugar Levels The End

Description		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	less	10	29,4	66,7	66,7
	Good	5	14,7	33,3	100,0
	Total	15	44,1	100,0	

Source: Processing Of Primary Data, 2017

Table 3. The results of the Paired Sample T test Test Control Group On the Variable Blood Sugar Levels of Diabetic Patients at the Nanggalo Padang Health Center

Variabel	Rate	N	SD	SE	P-Value	description
Pretest	158.80	15	77.235	19.942	0.333	not significant
Posttest	168.20	15	78.729	20.328		

Source: Processing Of Primary Data, 2017

The Results of the Paired Sample T test Test Control Group On the Variable Blood Sugar Levels of Diabetic Patients at the Nanggalo Padang Health Center is, In the average Pre-Test blood Sugar Levels of diabetic patients In the Control Group amounted to 158.80 on the Bad category, but the Mean Levels of fasting blood Sugar increased by 9.4 Points to 168.20 in the Good category. If compared to the results the levels of fasting blood sugar and sugar Levels at Any time, seen that there is no significant influence between sugar levels pretest and posttest in the control group.

Table 4. Posttest and Pretest of Knowledge about the setting of diet pattern and DM feet gymnastics after treatment with the Model of KIE the Setting of Diet Pattern and Diabetes Feet Gymnastics Through the illustration media in the group of treatment at the Nanggalo Padang Health Center

Variabel	Rate	N	SD	SE	P-Value	Description
Pretest	11.33	15	6.726	1.737	0.005	significant
Posttest	13.33	15	5.420	1.400		

From the Results of the Paired Sample T test Test Treatment Group with the effect of Knowledge about the setting of the diet pattern and gymnastics feet DM after treatment with the Model of KIE Setting the Pattern of Diet and Gymnastics Feet Diabetes Through the illustration media obtained the average Post-Test Amounted to 11.33, and the average pre-test at 13.33 with a significant relationship means there is an increase in knowledge after administration of the KIE Model Picture Book.

Table 5. Posttest and Pretest of Knowledge about setting the pattern of diet and gymnastics feet DM after treatment through the KIE is conventional in the control group at the Nanggalo Padang Health Center

Variabel	rate	N	SD	SE	P-Value	Description
Pretest	14.73	15	3.575	0.923	0.869	not significant
Posttest	14.80	15	3.590	0.927		

Source: Processing Of Primary Data, 2017

From the Results of the Paired Sample T test Test Test Treatment Group through KIE, there is no increase in knowledge of respondents before and after administration of treatment. Judging from the average pretest amounted to 14.73 and the average posttest 14.80

DISCUSSION

The results of the Paired Sample T test Test Control Group On the Variable Blood Sugar Levels of Diabetic Patients at the Nanggalo Padang Health Center are, the average Pre-Test blood Sugar Levels of diabetic patients at the health center Nanggalo In the Control Group amounted to 158.80 on the Bad category, but the Mean Levels of fasting blood Sugar increased by 9.4 Points to 168.20 in the Good category. If compared to the results the levels of fasting blood sugar and sugar Levels at Any time, there is no significant influence between sugar levels pretest and posttest in the control group. Controlling blood sugar early with the distance of time 1 week with control sugar blood in the end will not be achieved because the self management education diabetes optimally requires active participation of the patient in changing unhealthy behavior.

The results of the Paired Sample T Test Treatment Group with the effect of Knowledge about the setting of diet pattern and DM feet gymnastics after treatment with the Model of KIE Through the illustration media obtained the average Post-Test Amounted to 11.33, and the average pre-test at 13.33 with a significant relationship which means, there is an increase in knowledge after administration of the KIE Model Picture

Book. The influence of short-term (immediate impact) so as to produce a change or increase in knowledge. Knowledge can be affected by the media/electronics. The Media is very effective to convey information, especially to promote things related to health, (Soetjningsih, 2010).

RECOMENDATION

Conclusions from this research is, there are significant influence because of the Model of KIE Setting the DM Diet Pattern And Diabetes Feet Gymnastics Through the illustration media Knowledge In DM Patients At the Nanggalo Padang Health Center. It is recommended to the leader of the Nanggalo Padang Health Center to continue the use of the model KIE using illustration media in the management of DM patients to enhance their knowledge about the diabetes disease.

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THE EFFECT OF PSYCOEDUCATION THERAPY ON CAREGIVER LOADS IN TREATING STROKE PATIENTS

Mira Agusthia

ABSTRACT

Stroke patients in Indonesia are increasing every year and have a high degree of dependence on caregiver. The more severe the load perceived by the caregiver the more severe the emotional level felt by the caregiver, therefore caregiver requires upbringing in reducing the burden he feels that is by providing psychoeducation therapy. The purpose of this study was to determine the effect of psychoeducation therapy on caregiver load in treating stroke patients. This research was conducted at National Stroke Hospital of Bukittinggi from July 31st to September 1st 2017. The research type was quasi-experimental with pretest and posttest with control group design using Zarit Burden Interview questionnaire. The sample of 34 Caregiver using Purposive Sampling technique. The results showed that there was a decrease of Caregiver load in the intervention group as much as (12,71), deviation standard (4,566) with p value 0,000 and the weight loss control group (0,41) standard deviation (0,795), with p value 0,050. It is expected that nurses in hospitals may be able to provide psychoeducation therapy to families to reduce Caregiver's burden in treating stroke sufferers at home

Keywords: Caregiver, Burden, Psychoeducation, Stroke

INTRODUCTION

Stroke is a sudden brain dysfunction with focal and global clinical signs and symptoms that last for 24 hours or more causing death from circulatory disorders. National Health Research (Riskesdas) National 2013, stroke prevalence in Indonesia based on health personnel diagnosis of 7 per mile and diagnosed by health personnel (nakes) or symptoms of 12.1 per mile. Thus, as many as 57.9 percent of stroke diseases have been diagnosed by nakes. While in the National Stroke Hospital the number of stroke patients is 12.2 per mile, meaning 122 out of 1000 people suffer from stroke, because the incidence rate in National Stroke Hospital is similar to the national average thus National Stroke Hospital is the highest in Indonesia .

The needs of stroke patients vary from physical (mobility), communication (verbal and nonverbal), nursing (feeding, clothing, toileting), as well as emotional and psychological changes. So it makes caregiver must balance the double responsibility to care for stroke patients. Caregiver must divide the time between work, family and caring for stroke patients. Due to its debilitating and chronic nature, treating stroke victims often puts a burden on the caregiver. The higher the degree of disability of stroke patients the higher the burden felt by caregivers that can affect their physical, psychological, social and economic conditions. Approximately 30-68% caregiver caring for people with stroke experience psychological burden of anxiety and depression. Anxiety experienced by the caregiver over a long period of time can lead to depression in the caregiver itself. Of the 29% of depressed caregivers, 5% were severely depressed. This resulted in caregiver should consume antidepressant drugs to reduce depression experienced

The high burden felt by the caregiver is closely related to the emotional caregiver itself. The higher the load perceived by the caregiver, the higher the caregiver's emotional level. Therefore, caregivers need to be intervened, especially nursing

interventions to overcome the burden felt by caregiver and hope this intervention can maximize the care that will be given to family members who are sick. The intervention that can be given to the caregiver to overcome the burden is to provide psychotherapy.

Individual psychotherapy is a therapeutic method that aims to change the individual by way of assessing the feelings, attitudes, ways of thinking and how the individual is in the behavior. Adapaun type of psychotherapy that can be applied to caregiver psychosocial problems namely; Thought stopping Therapy, Cognitive Therapy, Progressive Muscle Relaxation Therapy, Psychoeducation Therapy

Group	Burden	n	Mean	SD	SE	95% CI	<i>p value</i>
Intervention	Before	17	68,1	2,31	0,56	66,93 66,31	0,000
	After	17	55,41	5,20	1,26	10,35 15,05	
	Difference	34	12,71	4,56	1,10	10,00 14.58	
control	Before	17	66,24	3,93	0,95	64,21 68,26	0,050
	After	17	65,82	3,97	0,96	2,87 5,12	
	Difference	34	0,41	0,79	0,19	9,92-14,66	

Based on the above research shows that effective psychoeducation is given to caregiver in caring for sick family members because psychoeducation therapy provides information and education for caregiver in overcoming the problems it feels like one of them is stress management and family load management. Psychoeducation therapy is one of the effective methods given to caregivers. Psychoeducation consists of 5 sessions, namely session 1; assessment of problems felt by the family, session 2; client care, session 3; family stress management, session 4; family load management, session 5; community empowerment helps families (Nursing Team 2016). The goal of psychoeducation in caregivers is to increase understanding of the course of family member illness, reduce relapse rates and improve family and client function (Stuart, 2016).

METHODS

This research uses quantitative research method with quasi experimental research design with pre-post test group approach with control criteria that is single caregiver who cares for stroke patient \pm 10 hours and live at home with stroke patient, aged 20 - 59 years, cooperative, and able-bodied. The sample technique used in this study is

purposive sampling, the number of samples obtained by 34 respondents. Data processing through univariate and bivariate data analysis.

RESULTS

The average caregiver load prior to psychoeducation therapy was 67.18 (95% CI: 66.62 - 66.23), with a standard deviation of 3.122, a minimum load value of 68 and a maximum load of 55. From the interval estimation result it can be concluded that 95% it is believed that the average load of caregiver is 66.62 to 66.23. Based on equality test results obtained $p > 0.108$, meaning that in the intervention group and the control group before being given psychoeducation therapy is equivalent.

The average caregiver load prior to psychoeducation therapy was 68.12 with a standard deviation of 2,315, whereas after psychoeducation therapy was 55.41 with a standard deviation of 5.209, from the statistical test obtained ($\alpha = 0,000$) with a decrease in load of 12.71 meaning that there is a significant difference in load on caregiver between before and after getting psychoeducation therapy. In the control group the average caregiver load before the intervention was 66.24 with a standard deviation of 3.930 whereas after intervention was 65.82 with the standard deviation of 3.972, from the statistical test obtained ($p \text{ value} = 0.050$) with a decrease of 0.41, there was no significant difference in caregiver load between before and after psychoeducation therapy.

Average load of caregiver is 60,16 (95% CI -13,602 - (-7,221), with standard deviation 4,590 and minimum load value 57 and maximum load value 64. The result of statistical test obtained $p \text{ value} \leq 0,05$, meaning there is difference a significant burden in the intervention group and the control group after psychoeducation therapy

DISCUSSION

The results showed that the average load of caregiver in the intervention group prior to psychoeducation therapy was 68.12 with the lowest load score 64 and the highest 72. While in the control group it was found that the mean value of caregiver load was 66.24 with the lowest load score 56 and the highest is 72. Based on the load value shown, Zarit categorizes the load of caregiver on heavy load.

The results of the study in the intervention group found that prior to psychoeducation therapy was 68.12 and after psychoeducation therapy was given to 55.41. The difference of change before and after psychoeducation therapy was 12.71 with $p \text{ value} = 0.000$. These results indicate that there is a decrease in caregiver load after psychoeducation therapy, meaning that the decrease in the intervention group decreased significantly after psychoeducation therapy. in the control group also found a decrease in load from 66.24 to 65.82. Despite the decline, the decrease was not significant with ($p \text{ value} 0.050$). In line with Iswadi research (2016) showed a decrease in caregiver load to 46.45 with ($p \text{ value} 0,000$).

According to Stuart & Laraia (2005) family psychoeducation is one form of mental health care therapy by providing information and education through terapeutik communication aimed at improving family's emphasis on disease, and teaches techniques to overcome the problems felt by the family in caring for family members who ill with family stress management and family load management.

This family psychoeducation therapy has an effect on the burden of the burden on the family with stroke patients because in the implementation of family psychoeducation therapy sessions there is health education and training on load management provided by lecture method, discussion, and demonstration how to solve the problem. Health education provided at the 4th session of manajemen burden in the form of material that includes; understanding, process of occurrence, type of load, impact and how to overcome the burden. In the implementation of family psychoeducation therapy using leaflets as a documentation media for the family so that when the family is no longer with the therapist can still remember the material that has been delivered by rereading the leaflet given.

From the above statement the researchers analyzed that family psychoeducation therapy that is given able to reduce the burden of the family which ultimately can minimize the perceived impact in treating stroke patients, so that families are able to care for people with a stroke well. Other factors such as religion, culture, hope and service also affect the burden felt by the caregiver, therefore in the control group there can also be a decrease in the burden

The results showed that average caregiver load in the intervention group after psychoeducation therapy was 55.41 with the lowest load score 50 and the highest 65. While in the control group it was found that the mean value of caregiver load was 65.82 with the lowest load score 56 and high 72. This means that there is a significant difference in caregiver burden in treating stroke patients in the intervention group and control group after psychoeducation therapy (p value 0,000). Based on the decline in load values shown that the load perceived caregiver after given psychoeducation therapy is in the category of moderate to severe load.

Family psychoeducation therapy is one of six previous evidence-based practices supported by mental health care centers for individuals to be delivered to individuals with chronic mental illness (Jewell, Downing, & McFarlane, 2009). Based on the result of the research, it is found that all caregiver (100%) in the intervention group decreased the load after psychoeducation therapy, the average load loss was 11-19 points. This decrease is seen in the reduction of signs and symptoms felt by the caregiver after psychoeducation therapy such as caregiver said not feeling angry, not feeling depressed, feeling sad, not feeling dizzy, headache, etc. Based on the above statement the researchers analyzed that with the provision of psychoeducation therapy in caregiver caring for stroke patients can reduce the load caregiver. This research is said to be good because in caregiver psychoeducation therapy get information and knowledge about stress management and load management, and caregiver is taught practice and special skill in caring for stroke patient if during recurrent stroke.

REKOMENDATION

Based on result, it is recommended that the hospital to be performed by the nurse at the time of discharge planning or re-control and conduct counseling and home visits to identify and see the development of caregiver in treating stroke patients.

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APPLICATION OF COGNITIVE BEHAVIOR THERAPY AND ASSERTIVE TRAINING FOR CLIENT WITH RISK OF VIOLENCE BEHAVIOR BASED ON ADAPTATION STUART MODEL AND ROY'S ADAPTATION APPROACH

Arya, AchirYaniS.Hamid, Novy Helena

ABSTRACT

Violence behavior is a maladaptive response of anger. Violence behavior is understood as the behavior or actions of a person when he is not able to cope with environmental stressors they experienced, can also be a habit or an attempt to reflect these stressors (Stuart, 2013). The aim of this Study is to describe the application of *Cognitive Behavior Therapy* and assertive training by using Roy Adaptation Model to client risk of violent behavior at Marzoeki Mahdi Hospital. In Bogor. Nursing interventions was cognitive behavior therapy and assertive training on 8 people and assertive training to 10 clients during 17 February to 18 April 2014 at GatotKaca Room RSMM in Bogor. The results of the implementation of assertive training and cognitive behavior therapy may reduce signs and symptoms of violence behavior in cognitive, affective, physiological, behavioral and social and increase in adaptive coping skills to face of events that raises violence behavior. Based on the result above, recommendation from this paper is Cognitive Behavior Therapy and Assertive Training can be used as standard therapy of psychiatric nursing specialist to client with risk of violence behavior

Key Word: Risk of Violence Behavior, Cognitive Behavior Therapy, Assertive Training

INTRODUCTION

Mental disorder is a change in behavior patterns, psychological, perceptions and feelings of a person due to stressors that cause impaired social role function and decreased quality of life when it is not due to social deviation or community conflict (Stuart, 2013). One form of severe mental disorder is schizophrenia. Schizophrenia is a chronic brain disease in the form of a clinical syndrome that involves changing thoughts, emotions, perceptions, movements and individual Behavior and requires long-term management strategies and coping skills (Videback, 2010).

According to WHO (2009) the prevalence of mental health disorders is estimated as many as 450 million people where about 10% of adults who have mental health disorders and 25% of the population is expected to experience mental health disorders at a certain age during his life. The prevalence of mental health disorders according to riskesdas in 2007 shows national prevalence data for severe mental health disorder that is 4.6 per 1000 population. While the prevalence of severe mental health disorder according to Riskesdas 2013 reached 1.7 per 1,000 population in Indonesia. It can be concluded that the mental disorders that occur both in the world and in Indonesian are large enough included schizophrenia.

Violent behavior is common in untreated schizophrenic patients. Maladaptive behavior of the positive symptoms of schizophrenia such as hallucinations can trigger violent behavior (Ranjan, Prakash, Sharma & Shigh, 2010). Hallucinations are a false perception experience without stimulus and perception experience is a real thing for the client so that hallucinations can trigger violent behavior due to wrong perception and the commands of hallucinations that are heard (Lelono, Keliat, & Besral, 2011). Some studies suggest that the group of individuals diagnosed with schizophrenia have a higher

incidence of experiencing violent behavior (APA, 2000 in Sadino, 2007). From a survey conducted by the National Institute of Mental Nursing Health's Epidemiologic Cathment Area to 10,000 people who had committed violent behavior found 12.7% associated with schizophrenia (Kaplan & Saddock, 1995 in keliat 2003). Wahyuningsih (2009) states that schizophrenic clients have a history of violence either as perpetrators, victims or witnesses of 62.5%. So it can be concluded violent behavior can be triggered from the positive symptoms of schizophrenia is called hallucinations.

Violent behavior is a maladaptive response from anger. Violent behavior is understood as a person's behavior or actions when he or she is unable to cope with the environmental stressors it undergoes, it can also be a habit or attempt to reflect the stressors (Stuart, 2013). Anger is a normal response but if not expressed improperly it can lead to animosity and aggression (Videback, 2010). This way of expressing anger fluctuates within the adaptive and maladaptive ranges ranging from assertive, passive and aggressive (Varcarolis, 2009; Stuart, 2013). Anger that can not be expressed assertively can extend to the most maladaptive response of violent behavior. Violent behavior is a form of behavior that can injure oneself, others, the environment verbally or physically (Stuart & Laraia, 2005). So it can be concluded that violent behavior is maladaptive response from anger that can lead to behaviors that can injure yourself, others and the environment both physically and verbally.

Based on the number of clients treated by the students of GatotKaca room 81 people, the description of medical diagnosis are paranoid schizophrenia 60 clients (85,18%), acute psychotic 10 client (12,3%) and bipolar 2 person (2,4%). While the description of nursing diagnoses obtained as follows violent behavior risk 80.24%, hallucinations 87.65%, social isolation 55.5%, HDR 55.5% and 7.4%.

The Specialization of nursing actions on this study are cognitive behavioral therapy and assertive therapy. This therapy is given to help clients improve the function and balance of behavior through nurturance, protection and stimulation. It is hoped that by giving this therapy can make the client to adapt to new stimuli and maintain the expected behavior (nurturance), conduct new behaviors that are trained (stimulation) and maintain behavior From a less favorable stimulus (protection).

Assessment is an important step that is done to determine the cause of clients experiencing mental disorders. With the Stuart Adaptation Stuart Model approach (2013) divide the assessment into several components of predisposing factors, precipitation stressors and assessment of stressors and koping sources. While Roy's adaptation divides into focal stimuli, contextual stimuli and residual stimuli. If the client is unable to adapt to the stimulus it receives by using appropriate coping mechanisms, it can have an impact on self-concept, role function and interdependence as well as behaviors that give rise to signs of violent behavior that can be directed at oneself, others can even damage the environment. The basic foundation of Roy's adaptation theory model (2009) used in discussing cases of violent Behavior is that every person always uses positive and negative coping while one's adaptability is influenced by the main cause of change and adaptation experience.

The purpose of this research is to analyze the application of cognitive behavior therapy and assertive training using Roy's adaptation model approach in GatotKaca Room in RSMM Bogor.

METHODS

This study used Quasi Experiment Pre-post Test without Control Group Design with two group intervention. One group was given cognitive behavior therapy and assertive training (8 person), other group only got assertive training (10 person). The sample of this study are client with risk of violent behavior.

RESULTS

The results of the most age-appropriate client assessment of the risk of violent behavior in the age range 25-60 years. Research Pardede (2013) average age of clients of schizophrenia is 35 years old where the youngest age 19 years and the oldest age of 58 years. Sudiatmika research (2011) on schizophrenic clients in RS Marzoeki Mahdi Bogor average age is 32 years with the youngest age 18 years and age 55 years old. Similarly, a study conducted by Sulistiowati (2012) on schizophrenic clients in RS Marzoeki Mahdi with 60 respondents that the average age of 30 years with the youngest age 19 years and the oldest age of 45 years. Based on the presentation of the age of schizophrenic clients above can be concluded that the average age of respondents is the age of young adulthood and middle age which in accordance with the opinion of Stuart (2009) which states age is the socio-cultural aspects of mental disorders with the highest frequency risk at age 25- 44 years old. The gender identified in GatotKaca's room is 100% male with the risk of violent behavior. The room for intervention for data retrieval is the male intermediate space.

Clients treated with the problem Risk of violent behavior in GatotKaca room, the majority of middle-class (junior-high school) are 72.2%. In accordance with the education conducted Hastuti (2013) where obtained the result that clients who conduct acts of violence with educated medium as much as 46.5%. This finding differs from previous research by Keliat (2003) in which clients who engage in violent behavior are usually lowly educated. While research conducted by Pasaribu (2013) where 53.84% of clients treated in the room GatotKaca who perform acts of violence with high educated. Stuart (2013) explains that coping strategies are closely related to cognitive functioning. The level of education will affect the way of thinking, analyzing a problem, making decisions and solving problems, and affect how the client's assessment of stressors. This ability is reflected by the individual at the time of troubleshooting. The higher level of education will be directly proportional to the coping skills possessed. Based on the results of the assessment, clients who experience mental disorders are in adulthood. According to the stage of Erikson's development, in adulthood the stage to be achieved is to have an intimate relationship with a kind lwan in marriage bonds. Stuart (2013) states that the predisposing factors of violent behavior one of them is the inability to love so that clients who are divorced or not have a partner at risk of mental disorders. From the assessment data, 9 (50%) clients with the risk of violent behavior have not been married. Pasaribu research (2013) is 69.23% and Hastuti (2013) study is 53.3% of clients of violent behavior risk have unmarried marital status.

The result of assessment of predisposing factor on client with risk of violent behavior in room of GatotKaca was obtained previous history of mental disorder. This is in accordance with the results of the assessment conducted Walter (2011) where the client social isolation found yudistira found 77.1% of clients have a history of previous mental disorders. Other studies have shown that patients with a history of mental

disorders, a history of trauma, an unpleasant experience and lack of social support are risk factors for mental illness (Brewin et al 2000 in NCCMH, 2010).

Psychological-related predisposing factors were found as 18 clients (100%) had experienced failure / loss. Stuart (2013) says that psychological factors that include self-concept, intellect, personality, morality, past experience, coping and communication skills verbally influence one's behavior in relation to others. Past experience of failure / loss will affect the individual response in overcoming stressors. Socio-cultural predisposing factors found in 13 clients (72.2%) did not work. Townsend (2013) says that violent behavior is associated with social status issues. Low socioeconomic status is more potentially mental disorder than high economic level including schizophrenia. This is supported by the Sudiatrika (2011) study on schizophrenic clients who do not work as much as 53.3%.

DISCUSSION

Violent behavior is the behavior that occurs when the individual faces the stimulus and violent behavior is maladaptive or ineffective so that need to be directed to be adaptive behavior. Precipitation factor can be a stimulus trigger the emergence of violent behavior.

Cognitive response on the client with the risk of violent behavior that has negative thoughts in the face of stressors as many as 14 people (77.8%). Clients with violent behavior are unable to control their violent behavior. The affective response of the client's risk of violent behavior was frustrated as much as 18 people (100%).

The physiological response of the client's risk of violent behavior is that the face appears tense and vigilance increases by as many as 10 people (55.6%). The physiological response to violent behavior arises because the activity of the autonomic nervous system reacts to the secretion of epinephrine so that blood pressure increases, tachycardia (increased heart rate), reddened face, pupils swell, urinary exhaust frequency increases. Increased heart rate, preparing people to move, and increasing blood flow to the hand, preparing them to attack (Novaco, 2010).

Response of client behavior of risk of violent behavior is throwing and destructing goods counted 16 people (88,9%). Often pacing, unable to sit still, hands clench, stop motor activity suddenly, words suppress, loud voice, reign (Stuart, 2009). Social response is by withdrawing as many as 15 people (83.3%). Clients with the risk of violent behavior tend to blame others, talk about other people's mistakes, ridicule, harsh and deny relationships, breaking personal boundaries while interacting (Rawlins, Williams & Beck, 1993), verbal abuse against others in the form of words, Harsh words, high tone and hostile (Morison, 1993). Threats aimed at real or imaginary objects, create distractions to attract attention, loud, pressing words (Stuart, 2009).

From the results of the assessment, some clients of violent behavior risk know how to solve the problem of violent behavior risk that is 10 people (55,6%). Most client families are not aware of the risk of violent behavior and are unable to care for the risk of violent behavior of 15 people (83.3%). Clients do not get community support and group support. Most health insurance clients use is BPJS. The average source of health services is close to the client's residence (88.9%). 18 clients have the confidence to recover and be confident with the health services they are living. Results obtained on clients treated at GatotKaca, coping mechanism is the most widely used is silent / buried

problems of 72.2%. Roy said the coping mechanism applied aims to achieve an adaptive model.

This is seen from the evaluation results where there is a decrease in signs and symptoms of RPK after CBT and AT therapy on the cognitive response of 1.89 points, the affective response of 2.5 points, physiological response of 3 points, behavioral response of 3 points and Social response of 2.38 points. In the client who received AT therapy also decreased the signs and symptoms of RPK where the cognitive response decreased by 1.3 points, the affective response of 2.3 points, the physiological response of 1.4 points, the behavioral response of 2 points and Social response of 1.5 points.

REKOMENDATION

The recommendation of this study is the implementation of AT and CBT specialist nursing therapy management in the GatotKaca RSMM Bogor room using the Stuart Adaptation Model approach and Roy's Adaptation Model in nurse service .

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RELATED FACTORS WITH GRANTING OF ACTIVE FOOD IN CHILDREN AGE 6 -24 MONTHS IN SUKA MAJU VILLAGE DISTRICT MESTONG MUARA JAMBI IN 2017

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ABSTRACT

The infant mortality rate in Indonesia in 2015 is 198 per 100,000 live births. One of the causes is nutritional problems. The high nutritional problems is an important issue that needs to be followed up, so that the impact of nutritional problems does not occur. So far known to the public is that children should be given a nutritious diet. But do not know food and feeding patterns in children. Suka Maju Village is a target area of Poltekkes Kemenkes Jambi, and found the existence of the parent of children who are difficult to eat. This study aims to determine the factors associated with active feeding in children aged 6 -24 months. The research was conducted in Suka Maju Village Mestong Muara Jambi Year 2017. The results of active feeding in children only performed 41.2%. Good knowledge 40%, Husband who plays as much as 63.5%. Officers who contribute as much as 58.9%. There is a relationship of knowledge ($P-v = 0.013$), husband role ($P-v = 0.004$) and the role of officer ($P-v = 0.000$) with active feeding in 6-24 bula children in Suka Maju Village Mestong District Muara Jambi. It is expected that cadres increase the knowledge of the type, quantity, frequency and texture of children's food 6-24 months. And officer puskesmas more active give counseling especially about type, amount, frequency and texture of children food 6-12 month. Poltekkes Kemenkes Jambi continue to be guided by community service related to child nutrition.

Keywords: active feeding, knowledge, husband role, role of officer

INTRODUCTION

Malnutrition or malnutrition in underfives can result in disruption of their physical growth and intelligence. If enough people belong to this group, the community is very difficult to develop. Thus it is clear that nutrition is a common problem and all families should act or do something for nutrition improvement (Sayoga, 2014).

The lack of nutrient cycles in children results in less optimal brain growth, continuing to produce low human resources, the number of children not attending school or lower education increases, entering productive periods of low per capita income, disrupted economic growth. Nutritional status influenced by nutrient input is indirectly influenced by several factors. Among them are family characteristics of the family, especially the mother associated with child growth. Mother as the person closest to the environment of child care plays a role in the process of developing the child through the nutritional food provided. Characteristics help the child's nutritional status.

According to WHO (2015), the infant mortality rate (IMR) from 2013 to 2014 has decreased considerably, but by 2015 increasing again as a result of various crisis that hit Indonesia, infant mortality rate (IMR) is estimated at 45 per 1000 live birth in 2014 then rose to 57 per 1000 livelihoods by 2015. Based on data from the Director General of Nutrition and MCH in 2015, the under-five mortality rate in Indonesia is 198 per 100,000 live births.

The data of Jambi Province Riskesdas in 2013 gives a fluctuating picture of 18.4 % (2013) then increased to 19.6% in 2014 (riskesdas, 2014). The high nutritional problems

is an important issue that needs to be followed up, so that the impact of nutritional problems does not occur. So far known to the public is that children should be given a nutritious diet. But do not know food and feeding patterns in children. And how many parents complain that their children will not eat, then replace them with milk. While milk alone is not enough to meet the needs of children. This is where the active role of parents in feeding their children.

This research was conducted in Suka Maju Village of Mestong sub-district, because the area is the assisted village of health Polytechnic of kemenkes jambi with hope that this research result can be followed up directly to the society. The research problem is parents have not implemented active feeding with research variable of active feeding for children 6-24 months, knowledge, husband role and role officer.

METHODS

This research is an analytic research with the design of this research is cross sectional. The study was conducted in Suka Maju Village, Mestong Muara Jambi in May until August 2017. The population is all mothers with children age 6-24 months in Suka Maju Village Mestong Muara Jambi sub-district amounted to 439. Samples were 85 people with technique of proportional random sampling (Ariawan). The research instrument is questionnaire and data-collecting method by filling questioner by respondent. The analysis used is univariate and bivariate with chi square test.

RESULTS

Based on the results of research factors related to active feeding in children aged 6-24 months can be described as follows.

Table 1. Distribution of Respondents Base on Active food delivery. Knowledge of Role Husband and Role of Officer

Variables	Category	Distribution	
		frequency	%
Active Feeding	0. Not Doing	50	58.5
	1. Doing	35	41.2
Knowledge	0. Less Good	51	60
	1. Good	34	40
The Role of Husband	0. No role	31	36.6
	1. Role	54	63.5
Role Officer	0. No Role	35	41.2
	1. Role	50	58.8

Active feeding in children 6-24 months performed only 41.2% of respondents. Some husbands have been instrumental in providing active food in children 6-24 months 63.5%. Some officers play a role in giving explanations to respondents to provide active food in children 58.8%.

DISCUSSION

Active feeding in children is a series of activities that must be done by parents. Who is responsible for giving food and motivating for the child to eat alone is mother and father. But in reality the duty in giving food, weaning and facing difficulties to eat in her child is mother. Father (husband) is more focused on providing funds to meet the needs of feeding his son. Many husbands are impatient with difficult children to eat.

In helping the child to want to eat and can alone then the steps that must be done by parents is let the children eat from his plate (caregiver will know how many children ate). In helping the child to want to eat and can alone then the steps that must be done by parents is let the children eat from his plate (caregiver will know how many children ate). Sit with the child, be patient and encourage him to eat. Given food that can be taken and held by children, children often want to eat alone. Give her the urge to do that, but make sure that the food does indeed go into the child's mouth. Mother/father/caregiver can use his hand to tap the child. Give/provide various foods for children over 6 months. Feeding children is the most perfect way of interacting with a child. Assist with active and responsive feeding of children over six months, several times a day or more frequently and large portions as the child grows large (DG of Community Nutrition and KIA Ministry of Health, 2014).

Based on the categories, respondents are well-informed about the provision of active eat in children 6-24 months 40 % and the less good knowledge of good 60%. The most respondents know is that the baby/child get enough food mother/parents should encourage children to eat 97.6%, mother do when the child is difficult to eat is divert attention, for example by giving toys or walks so that children want to eat 88.2%. In order for the nutritional needs of children are met, especially help the digestion mother gives vegetables at each feeding children 87.1%. Good food for infants age 6-9 months is breast milk + food 78.8%. So that children do not get tired of receiving food that mothers give, then what is done is to provide food varies between morning, day and night 76.5%. However, at least the respondents know that good food for children aged 12-24 months is: ASI + Adult food 24.7% and in order for children to eat alone, it must: let children eat alone while observed 44.7%.

In general, the organization of food in everyday households is coordinated by the mother. Mothers with high nutritional knowledge and nutritional awareness will practice healthy eating habits as early as possible to all their sons and daughters. Children will usually imitate what their parents do. When a child sees his or her parents want to eat whatever your mother is serving at the table, then the child will imitate eating as well. It is important to train children to choose healthy foods (Suhardjo, 2003).

The description of the role of husband in giving food to children is very large ranging from providing funds, determine the type of food and the amount and how to motivate the child to eat. In reality the husband only provides funds for his son's nutrition, and rarely eats with the child, is impatient with the child who eats while playing and hands over the weaning of the child to the wife. Based on data of some husbands have been instrumental in providing active food in children 6-24 months 63.5% and who did not play 36.6%. Giving food to children 6-24 months is the responsibility of both parents. Not only charged to the wife but also the husband needs to pay attention and motivate the child to eat.

The role of officers also determine in giving service to the community. Officer is the person who is heard by his client. Information provided by health workers is a first step for clients to do. The health worker should give an explanation to the mother of a toddler about the food that should be given the type, amount and manner of giving, so that the food can meet the needs of the child.

Based on data of some officers who play a role in providing an explanation to the respondents to provide active food in children 58.8% and who did not play 41.2%. The number of health workers who have not played a role because none of the officers explain the amount of food given to children according to age, and Officers who explain how to give food distraction in children only 41.2%. The amount of food given to children 6-9 months 2-3 tablespoons full of porridge every meal. Gradually increase to half (250 ml cup). Children aged 9-12 months. Gradually increase half to three-quarters of the bowl. Children aged 12-24 months Give three to four to one bowl, with a meal frequency of 6-9 months 2 to 3 meals with 1 to 2 times food interludes. 9 -24 month-old male eating frequency 3 to 4 meals with 1 to 2 times the interlude between eating a lunch with lunch and between noon with afternoon or evening (Director General of Nutrition and Kia Ministry of Health RI, 2014).

Table 2. Distribution of Respondents Based on Bivariate Test Results between Independent Variables and Active Food Delivery in Children Age 6-24 Month

Variables	Not Forming	Forming	Number	Pvalue
Knowledge				
0. Less Good	36(70.6%)	15(29.4%)	51	0.013
1. Good	14(41.2%)	20(58.8%)	34	
The Role of Husbands				
0. No Role	25(80.6%)	6(19.4%)	31	0.004
1. Role	25(46.3%)	29(53.7%)	54	
The Role Of Officers				
0. No Role	35(100%)	0(0%)	35	0.000
1. Role	15(30%)	35(70%)	50	

Based on the above table the proportion that does not do active feeding in children 6-24 months from the less knowledgeable (70.6%) is greater than good knowledge (41.2%). But from good knowledge some (58.8%) do active feeding on their children, with p-value = 0.013 meaning that there was an active feeding relationship in children 6-24 months with the knowledge in Suka Maju village Mestong Muaro Jambi sub-district.

DISCUSSION

Knowledge is the basis of parents to provide active food in children. With this knowledge the parents can manage their child's eating and anticipate if found difficulty to eat in children, it is proven that many mothers who this knowledge less impact on not providing food according to age in children. Children decrease their appetite because the more age, children prefer to play from the sit down and eat in a place that has been

determined. If the child does not want to eat, then the immune system will decrease and the child vulnerable to disease.

Various efforts that need to be done in order to overcome the child's parents to eat is an extra patient patience and not emotional. Some tips for children to eat the first meal with family every day, by seeing parents and other family members eat together, children will be interested to eat. Second serve food in moderate or small portions but often, too much food makes it difficult for children to spend it. And if the child is able to spend his food give praise to the child. Thirdly do not give too much snack between meals. Fourth create a fun atmosphere every time children eat, new children in the learning stage to eat should not be given in a hurry. Fifth serve varied food every day so that children do not get bored. Sixth serve food with an appealing look. Seventh occasionally change the child's eating atmosphere by taking him to a place of recreation. Eighth suapi if children do not want to eat alone (informasitips.com).

In giving parenting especially to meet the nutrition of children is the responsibility of parents, not only the mother but also the responsibility of the father. Nutrition fulfillment in children, starting from seeking information, planning and providing food itself should be done together. Children will get used to eating by imitating the diet of their parents. This is evident from the results of research that do not play a role most of the husband does not provide active food in children. Mother with all her busy housekeeping sometimes sometimes impatient with difficult children to eat, so impose food on their children by feeding, while children have to be trained to feed themselves with observation and assistance.

The proportion that does not do active feeding in children 6-24 months from the non-role officer (100%) is greater than the officer who plays (30%). However, most of the officials (70%) did active feeding for their children, with p-value = 0.000 meaning there is a relationship of active feeding in children 6-24 months with the role of Officers in the village Suka Maju Mestong Muaro Jambi.

RECOMMENDATIONS

It is expected that cadres increase the knowledge of the type, quantity, frequency and texture of children's food 6-24 months and for officers puskesmas more active provide counseling, especially about the type, number, frequency and texture of children's food 6-24 months.

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THE RELATIONSHIP OF LEACHING BY NUMBER OF GERMS TABLEWARE AT RESTAURANT IN THE REGION SEEK SEI JANG TANJUNGPINANGCITY

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ABSTRACT

Indicators of tableware is said to satisfy the health requirements if the number of germs on dishware that has washed not more than 100 colonies/cm². The purpose of the research is to find out the relationship between infrastructure and facilities-washing tableware, tableware washing-way, tableware, storage and Food Handler equipment packed with germs tableware at the restaurant in the region Seek Sei Jang Tanjungpinang City.The study was observational research with cross sectional design, objects of research are 20 restaurants. There is a significant relationship between facilities and infrastructure of the washing equipment packed with germs tableware, there was no significant relationship between the way of washing tableware by number of germs tableware, there was no significant relationship between the place of storage of the equipment packed with germs tableware at the restaurant.

Keyword: washing of tableware, the number of germs

INTRODUCTION

Value cleanliness or indicators to determine whether the cutlery meet or do not meet the health requirement is the total number of germs as much as 100 colonies/cm², while the numberbacteria of E. coli must be 0/cm² of the surface of the tool is checked (MOH, 2004). This study purposed to determine hygiene and sanitation laundering cutlery and tableware number of bacteria in the restaurant at working area Puskesmas Sei JangTanjungpinangat2016. The research hypothesis is to determine the presence or absence of a relationship between infrastructure washing eating utensils, method or technique washing cutlery, food equipment storage area, executive power washing cutlery with the number of bacteria tableware at restaurant in PuskesmasSei. Jang Tanjungpinang City.

METHODS

This research was an observational study with design cross sectional.This research was conducted in Puskesmas Sei Jang. The research instrument used in the collection of data in this study is in the form of check listrestaurant.Supplies of equipment for making wipe cutlery in order to test number of bacteria in the laboratory.

RESULT AND DISCUSSION

Table 1. Means and washing Relations, by washing, and Cutlery storage area with the total number of germs to the restaurants in PuskesmasSei. Jang TanjungpinangCity 2016

Variables Sig. (p)	Logistic Regression (Score)	Sig. (p)
Infrastructures Laundering Cutlery	20,000,	0,000
How or Engineering Laundering	0,117	0,732
Storage Cutlery	0,456	0,556

Relationships infrastructure washing cutlery with the number of germs on dishes logistic regression correlation coefficient value sig (p) = 0,000. Turns $p < 0.05$, it can be concluded that there is a significant relationship between the means of washing tableware by number of bacteria on dinnerware dishes at the restaurant in Puskesmas Sei Jang Tanjungpinang City.

DISCUSSION

Relationships by washing cutlery with the number of bacteria on equipment eat dishes logistic regression correlation coefficient with value sig (p) = 0.732, turns $p > 0.05$, it can be concluded there was no significant relationship between how washing cutlery with a number of bacteria on tableware at restaurant in Puskesmas Sei Jang Tanjungpinang City. Relationships place storage of cutlery with a number of bacteria on plates cutlery logistic regression correlation coefficient obtained sig (p) = 0.456. Turns $p > 0.05$, we can conclude there is no significant relationship between storage tableware with a number of bacteria on tableware at the restaurant in Puskesmas Sei Jang Tanjungpinang City. Results this study shows that the infrastructure washing cutlery at restaurant in Puskesmas Sei. Jang 90% did not eligible, but the requirements are holding a very important role in the process of washing equipment ate (plates) are hygienic and healthy. The result of logistic regression correlation with sig (p) = 0.000, indicating no significant relationship between infrastructure washing equipment with a number of bacteria. In this research note that most of the restaurants that exist in Puskesmas Sei Jang Tanjungpinang City way his dishes or washing techniques 95% did not eligible. correct equipment will produce or provide the correct equipment washing results, and will produce or provide equipment safe and healthy eating. Therefore, a method or technique washing eating utensils properly.

The results of this study showed that most of the restaurants in Puskesmas Sei Jang Tanjungpinang city feeding equipment storage area has been eligible (80%). But the test results obtained by logistic regression sig value (p) = 0.456 or $p > 0.05$, which means there is no connection between the storage area with total of germs tableware at restaurant in Puskesmas Sei Jang Tanjungpinang City.

RECOMMENDATION

For the manager of the restaurant that is in Puskesmas Sei. Jang Tanjungpinang to pay attention to the process of washing tableware mainly infrastructure washing cutlery at home eating / restaurant, in order to obtain cutlery that meet the health requirements, in accordance with the Regulation of the Minister of Health No. 1098/Menkes/SK /VII/2003.

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THE EFFECT OF MORINGA LEAF CAPSUL ON THE HEMOGLOBIN LEVELS IN YOUNG WOMEN AT SMP SABBHISMA PADANG

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ABSTRACT

In adolescents, the function of iron is not only as energy metabolism in the body, but also to improve learning achievement. Due to iron deficiency resulted in fatigue, concentration, memory and learning ability is disrupted, and lead to iron deficiency anemia, especially in young women. The purpose of this study was to determine the effect of leaf moringa capsules on hemoglobin levels in adolescent girls in Sabbihisma Junior High School. This research used quasi method of pretest and posttest experiment with control group design. The sample of the study were 32 people, 16 cases (moringa leaf capsule) and 16 control group. Data collection was done through observation and laboratory examination of hemoglobin levels before and after treatment. The data were tested with paired sample T-test. The results showed that there was a significant difference of female hemoglobin level in case group with $p = 0,000$, while control group was not significant with $p = 0,091$.

Keywords: *moringa leaf capsule, hemoglobin level, female adolescent*

INTRODUCTION

As with any other nutrient, the need for iron in adolescents increases with the rapid growth and increased muscle mass and blood volume. Iron serves as an energy metabolism in the body. In adolescent, iron also serves to improve learning achievement because some parts of the brain have high iron content obtained from iron transports that are affected by receptors transformation. As a result of iron deficiency leads to fatigue, concentration, memory and learning ability are disrupted and can also lead to iron deficiency anemia especially in adolescent girls (Almatsier, 2012). Studies showed that the negative effects of iron deficiency have an effect on optimizing the growth and development of adolescents, lowering learning achievement due to fatigue, loss of passion and inability to concentrate (Asrori, 2005). The long-term consequences of iron deficiency anemia in adolescent girls is that if the teenage daughter later becomes pregnant, she will not be able to meet the nutrients for herself and the fetus in her womb and during her pregnancy. This anemia can increase the frequency of complications, the risk of maternal death, prematurity, LBW and perinatal mortality (Hayati R, M. 2010).

Young women are susceptible to anemia because in general, Indonesian people consume more vegetable foods with less iron content, compared with animal foods, so the body's need for iron is not met. Young women usually want to look slim, thus limiting food intake. Every day humans lose 0.6 mg of iron in excretion, especially through feces (stool), and girls experience menstruation every month, where the loss of iron ± 1.3 mg per day, so the need for iron more than men (Mahfudz, et al. 2009)

. Studies on anemia and Leaf of Moringa include: Yulianti, et al (2015): the consumption of Moringa leaf extract in adolescent girls in SMU MuhammadiyahKupang can increase Hemoglobin, Sylvie S, Ponombon, 2013: Leaf marmilla supplements effectively increase the Hb level of pregnant women the Anemia in Menado, Sartika, W, (2015) iron intake of mostly young women with deficit categories (80%) in Sabbihisma

Junior High School - Padang, and MaifahRissa, et al (2016) most of the anibitalHb levels of anemic pregnant women increased by providing leaf moringa capsules in the city of Pariaman.

METHODS

This type of research is a quasi experiment or quasi experiment pretest and posttest with control group design that is used to determine the effect of moringa leaf capsule on hemoglobin level in female adolescent. Place and time of research The study was conducted in Sabbihisma Junior High School from April to November 2017. The study population was all girls in SMP SabbihismaPadang which amounted to 78 people. The sample amounted to 16 people for the case group and 16 people for the control group, so all the samples were 32 people. Data analysis technique was done by using Univariate and bivariate analysis. Univariate analysis was done to describe the research variables by making the table of frequency distribution and distribution of data in tabular form. Bivariate analysis was done on two variables to know the existence of correlation or correlation, difference. The test used was Paired Samples T-test, used to compare the average of two sets of data (data before and after) pairwise.

RESULT

Characteristics of Respondents

Table 1. Distribution of Respondent Hb Levels Before Treatment in Case and Control of Young Women in Sabbihisma Junior High School of Air Padang Children in 2017

Hb Levels	Mean	Minimum	Maximum	Std. Deviation
Case Group	10.631	7.0	14.3	1.5339
Control Group	11.931	9.0	14.1	1.4907

Table 2. Distribution of Hb Rate of Respondents After Treatment in Case and Control of Young Women in Sabbihisma Junior High School of Air Padang Children in 2017

Hb Levels	Mean	Minimum	Maximum	Std. Deviation
Case Group	13.225	10.2	15.0	1.1457
Control Group	12.288	10.0	14.1	1.2323

Bivariate Analysis

Table 3 The Differences of HB Levels of Before and After Treatments in Case Group of Young Women in Sabbihisma Junior High School of Air Padang Children in 2017

Hb Levels	N	Mean	SD	p-value
Before	16	10,63	1,53	0,000
After	16	13,22	1,14	

Table 4 The Differences of HB Levels of before and After Treatments of Control Group of Young Women Sabbihisma Junior High School of Air Padang Children in 2017

Hb Levels	N	Mean	SD	p-value
Before	16	11,93	1,49	0,091
After	16	12,28	1,23	

DISCUSSION

The results showed that female adolescent girls' Hb levels before treatment averaged 10.63gr / dl in case group and 11.93 gr / dl in the control group. Both show Hb status with mild anemia (Hb 10-11,9gr / dl). This is in line with the results of Yulianti et al (2015) where the average Hb rate of 10.37 was obtained before the application of Moringa leaf extract in adolescent girls at SMU MuhammadiyahKupang. However, the minimum value of Hb 7mg / dl in case group and 9mg / dl in the control group showed Hb status with severe anemia (<8mg / dl) and moderate (8-9.9mg / dl) before treatment in Sabbihisma junior high school Padang. Hemoglobin levels are the size of respiratory pigments in blood granules.

The result of statistical test with T-test showed that there was a significant difference mean of Hb levels before and after treatment in case group ($p = 0,000$), and there was no significant difference mean of Hb level before and after in control group ($p = 0.091$). This is also in line with Yulianti's (2015) results, where the test shows that there is a significant difference between female and female Hb levels before and after morph leaf extract intervention ($p = 0.00$). The results showed that in the case group that consumed moringa leaf extract can further increase blood levels of Hb, compared with the control group, so that leaf moringa leaf capsules are good in giving to teenage girls especially who have anemia. If there is anemia, there is an increase in iron absorption due to the high demand so that there is an increase after the intervention in the form of Moringa leaves capsule containing iron and vitamin C content that helps in the absorption of iron (Wibowo et al., 2013 and Almatsier, 2010).

RECOMMENDATIONS

Based on this research, it can be concluded that moringa leaf capsule can increase the Hb level of adolescent girl, especially for anemia. It is suggested to SMP Sabbihisma to further improve the supply of iron and vitamin C in the girls' dormitory menu, as well as to inform parents about the efficacy of leaf moringa in preventing and overcoming anemia in adolescent girls. To program planners, cross-sectoral cooperation is required to popularize moringa as a natural and safer alternative to chemical drugs to raise hb levels in achieving lower prevalence of anemia, especially in young women.

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DEVELOPING POTENTIAL LOCAL FOOD FISH BADA (StolephorusInsularis) AS MICRO NUTRIENT SUPPLEMENT AND ITS EFFICACY FOR PREGNANT WOMAN IN PADANG CITY

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ABSTRACT

This study aims to determine the effectiveness of additional functional food formulas from bada fish flour to Hb levels of pregnant women in the city of Padang, West Sumatra Province. This research is a continuation of previous research that is preparing additional food formula product of anemia pregnant woman (FUMIA) based on local food of bada fish in the form of cookies. The study design was One Group Free Teest Post Teest with a 21-day intervention. The results showed an increase in mean Hb levels between subjects before intervention and after intervention of 0.35 mg%, but did not differ significantly. For further research it is necessary to increase the number of study subjects / samples and the implementation of longer interventions and interventions accompanied by the feeding of high-vitamin C content for better iron absorption.

Key words: Bada fish, food supplement for pregnant woman

INTRODUCTION

The prevalence of anemia in pregnant women in West Sumatera Province in 2009 amounted to 18.64% and in 2010 there was an increase to 24.63% (Balitbangkes, 2010; Balitbangkes, 2013). Padang City as Provincial Capital Province has anemia rate of pregnant mother which is higher than province number that is 26,01% (Kemenkes, 2013). Recognizing the complexity of the cause of this anemia, an effective strategy with an integrated multi-sectoral and multifactorial approach is needed to achieve this global target (Stevens et al., 2013; WHO, 2012; Wrottesley, Lamper, & Pisa, 2015). Community health efforts strategies to prevent and control anemia should innovate on improvements in the diversity of foodstuffs; fortified foods with iron, zinc, folic acid and other micronutrients (WHO, 2012). One way to accelerate the prevention of maternal anemia problem is in the form of supplementary food with local food variety (Alia Lathifah Hanum, 2009). This research is a continuation of research that has been done in 2016, where in the new research to make model of PMT for pregnant mother with product of cookies from bada fish flour. This study aims to determine the effectiveness of additional functional food formulas from bada fish flour to Hb levels of pregnant women in the city of Padang, West Sumatra Province.

METHOD

This research is an efficacy study with 2 stages of research, namely: Stage 1: Laboratory experimental research to prepare additional pregnant food formula products. Stage 2: Pre experimental study to test the efficacy of intervention in supplementary feeding formula of pregnant woman (FUMIA) which have been obtained in phase 1 of research. The research design used is One Group Freetest Post Test. The second phase of research was conducted in 2017 by testing the efficacy of FUMIA formula intervention on Hb level with 21 days intervention. The second phase of research is

located in the working area of Puskesmas Nanggalo, Padang City. The ingredients used are the formula product of Pregnant Food of Pregnant Mom (FUMIA formula) which have been produced in phase I research that is in the form of cookies. The population is the first graduate student of Nutrition Poltekkes Kemenkes Padang who suffer from anemia with the assumption if there is a change of Hb levels in the student then it will also occur in pregnant women. Data collected from questionnaires, checklists, checks and direct measurements and results of laboratory analysis were processed and analyzed manually to determine the status of anemia or not. Data of nutrient intake was processed by using nutri survey program. Final observations were made on Hb level data and nutrient intake. then analyzed descriptively to find the mean value of each variable. To see the difference of Hb levels before and after the intervention was used a dependent t-test with 95% confidence level. Ethical clearance is obtained from the ethical commission of the Ministry of Health Research and Development and Informed consent of selected research subjects.

RESULTS

Hb Levels Before and After Intervention

Table 1. Hb Levels Subject Before and After Intervention

Kadar Hb	Mean	Standar Deviasi	Minimum	Maksimum
Sebelum	10.79	0.67	9.0	8.6
Sesudah	11.14	1.56	11.8	14.3

Differences in Hb Levels Before After Intervention

The difference in Hb levels between subjects before intervention and after intervention was 0.35 mg%. Statistical test results obtained p value = 0.388 it can be concluded there is no significant difference between Hb levels before with after intervention. The absence of this significant increase may be due to long intervals that are too short for only 21 days apart from it may also be because the sample size is too small and the absorption of iron is not maximized because iron absorption would be better if accompanied by the provision of vitamin C.

Table 2. Average Differences in Hb Levels Before and After Intervention

Hb level	n	Mean	SD	SE	Diffrent	P Value
Before	18	10.79	0.67	0.16	0.35	0.388
After	18	11.14	1.56	0.37		

CONCLUTION

There was no significant difference between Hb levels of subjects before and after intervention but an increase in mean Hb levels after intervention.

RECOMENDATION

For further research it is necessary to increase the number of study subjects / samples and the implementation of longer interventions and interventions accompanied by the feeding of high-vitamin C.

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THE INTERVENTION MODEL WASHING CABBAGE VEGETABLES BY USING SALT SOLUTION IN ORDER TO REDUCE TOTAL PLATE COUNT

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ABSTRACT

The results of observations at the food processing plant seen some traders in processing vegetables cab for fresh vegetables only washed with running water and partly just wash in the basin. The washing process can not kill bacteria. The objective of this study was to produce an intervention model of vegetable leaching process by using salt (concentrations of 1.5%, 3%, and 6%) in reducing total plate count. The smallest decrease was found at concentration of 1.5% with soaking for 10 minutes at 24% and the greatest decrease was at 6% concentration with 60% submersion by 53%. Anova test results on the three salt concentrations obtained p value (0.000) <0.005, so it can be concluded that the average of these three treatments is significantly different. There was a difference of total plate count in cabbage vegetables after soaking with salt solution for 10, 30, and 60 minutes at concentrations of 1.5%, 3% and 6%. Before vegetable cabbage is used as fresh vegetables need to be soaked with salt solution. Research results need to be socialized to food traders in order to create food security.

Keywords: Vegetable Cabbage, Salt, Total Plate Count.

INTRODUCTION

The observation results show that all traders in the process of making the food just by soaking in the basin, thus the bacteria or worm eggs that had been released can be attached to the vegetables. Techniques or how to wash vegetables are things to note before vegetables are served as fresh vegetables to avoid contamination of microorganisms. In addition to blanching techniques (blanching) can also by soaking in salt solution. Salt may cause a denatured microbial protein because microbial cells become lysed because of changes in osmotic pressure. Chloride ions present in the salt (NaCl) have high toxicity in microbes, can block the respiration system. As for the formulation of the problem in this research is how is the intervention model washing of cabbage vegetables by using salt solution in order to reduce total plate count.

METHODS

This research is quasi experiment with Pretest-posttest design, research object is vegetable cabbage (*Brassica oleracea*). This research was conducted with 3 (three) treatments (1.5%, 3%, and 6%) after soaking for 10 minutes, 30 minutes, and 60 minutes. Data analysis was done by Anova test . Weigh PCA and Pepton as needed and sterilize with the tools used. Take cabbage aseptically and cut into four parts aseptically. Each piece was used 1 for control and 3 parts for treatment (soaked in 1.5%, 3%, and 6% salt solution) for 10 minutes, 30 minutes and 60 minutes. Weigh aseptically each piece is weighing 30 grams. Blend aseptically for 2-4 minutes each of these pieces with 0.1% phosphate buffer of 270 ml. This homogenate is dilution 10^{-1} . Pipet each sterile dilution as much as 1 ml and insert it in a petridisk then pour the PCA and homogenize. Place in incubator at 37°C for 24 hours. Count the number of colonies.

RESULTS

Table 1. AVERAGE TOTAL SCENE RATE ON VEGETABLES CABBAGE AFTER TO BE CONDUCTED WITH SALT SOLUTION

Concentration of Salt	Immersion					
	10 minutes	% decrease	30 minutes	% decrease	60 minutes	% decrease
0 %	320		310		290	
1,5 %	244	24	234	25	206	29
3 %	217	32	200	35	170	41
6 %	197	38	169	45	137	53

From the table above can be seen the smallest average decrease is at concentration of 1.5% with soaking for 10 minutes by 24% and the biggest decrease is at the concentration of 6% with immersion for 60 minutes by 53%.

Anova test results on the three concentrations of salt (1.5%, 3% and 6%) with various immersion periods obtained p value (0.000) <0.005. which means Ho is rejected so it can be concluded that the average of the three treatments is indeed significantly different. The bonferroni test results for all treatments obtained p value <0.05, then Ho is rejected which means there is a difference of salt concentration at all treatments.

DISCUSSION

From the results of this study it can be concluded that cabbage vegetables soaked in salt solution longer and higher salt solution will decrease the total number of total plates on the vegetables. This occurs because the addition of the salt concentration will increase the osmotic pressure in the liquid so that the outlet liquid and saline solution enter into the material which causes the salt to be high, the higher the salt concentration, the more saline solution diffuses into the food. This is due to the presence of chloride chemical compounds that can function as powerful oxidizing agents and can damage bacterial cell walls.

Efforts to minimize the disease through food is to pay attention to the quality of food to be used and food processing. In the process of food processing, must follow the rules of Good Food Production Method (CPMB) or Good Manufacturing Practice (GMP). In order for a good way of producing food can be applied then the knowledge of traders need to be improved because knowledge is a very important domain for the formation of one's actions. With the high knowledge of food handlers on hygienic food handling is a crucial element in preventing foodborne diseases.

CONCLUSIONS

The largest decrease in total plate counts in cabbage vegetables occurred after soaking with saline solution for 60 minutes. In the salt solution 1.5% decrease by 29%, 3% salt solution by 41% and 6% salt solution decreased by 53%.

To reduce the occurrence of foodborne diseases can be done through counseling to food traders who use vegetable cabbage as fresh vegetables. The results of this study should be socialized in the form of community service to food traders in order to create food security

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EFFECTIVENESS OF GIVING CORK FISH EXTRACT (OPHIOCEPHALUS STRIATUS) TO THE GROWTH OF STUNTING CHILDREN UNDER FIVE IN PADANG CITY YEAR 2017

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ABSTRACT

One indication of the incidence of malnutrition in children is the incidence of stunted in toddlers. Stunted is growth disorders cause the child to be unable to achieve genetic potential, indicating long-term outcomes and the cumulative impact of insufficient nutritional intake, inadequate health and care conditions (ACC / SCN, 1990). The purpose of this research is to know the effectiveness of giving cork fish extract to the growth of stunting children under five in Padang City year 2017. In the treatment group, the mean of height before study was 74.3 cm and after study 75.4 cm. In the control group, the mean of height of the children under five before study was 79.4 cm and after study was 79.9 cm. There was a significant difference in mean of height before intervention and after intervention in the treatment group and control group, and there was a significant difference in mean of height between treatment group and control group.

Key word: Giving Cork Fish Extract- Stunting Children

INTRODUCTION

Indonesia has a phenomenal triage that greatly affects the nation's development, are the problem of population growth, nutritional problems, and the high rate of child morbidity and mortality which is a difficult cycle to break. One indication of the incidence of malnutrition in children is the incidence stunting at the age of under five years. linear growth disorder cause the child to be unable to achieve genetic potential, indicating long-term outcomes and the cumulative impact of insufficient nutritional intake, inadequate health and care conditions (ACC / SCN, 1990). In developing countries including in Southeast Asia, 40% of children under five years are stunted (WHO, 2000). In Indonesia the stunting prevalence of children under five years ranges from 36-40%, the national average is 35.6%. In West Sumatera the stunted figure in 2010 was 32.8%. In 2015 there was a decrease with the discovery of 28% of children aged under five years stunted (8.5% severestunting and 19.5% stunting). The highest stunted prevalence was found in Sijunjung District (41.3%), followed by Solok District (37.4%) and Mentawai District (35%). In the city of Padang found stuntingprevalence in 2015 is 21.4%. Stunted problems occur due to unmet feeding requirements, for this required improvement of the quality of food with the provision of special nutrients that potentially needed in greater quantities for the growth of bone tissue. One effort to preserve the nutrition of children by providing snacks that are easily digested and nutritious, which also contains nutrients zinc and high albumin is a cork fish extract. Dr. Eddy Suprayitno (2003) reported in his research that the protein content of cork fish is high enough compared to other fish that is 25.2 gr/100 gr of fresh cork fish. The cork also contains 6.2% of albumin and 0.001741% zinc with essential amino acids.

METHODOLOGY

This research is a quasi experiment with non-randomized pretest-posttest control group design. The study was held in working area of Nanggalo Public Health Center in Padang in April - October 2017. The population of this research is all stunting children under 5 years old aged 12-59 months in Padang City in 2017. The number of samples for treatment and control group is 15 samples. Data on the characteristics of age samples of children and the sex of children were obtained through interviews with parents of children using questionnaires. The cork fish extract was given by a sample of 100 cc for 30 consecutive days on the morning before meals. The data of sample and parent characteristic were analyzed univariate with the frequency distribution table. Height of children under five years before and after intervention is distributed and described by analysis of central tendency and variation to obtain average, median, standard deviation and range values. The difference in mean of height of the child before and after the treatment was tested by hypothesis test difference with dependent t test on the significant level of 5%, while to know the difference of the child's height in the treatment and control group was tested by independent t test on significant level 5%.

RESULTS AND DISCUSSION

Table 1. Frequency Distributions of Sampel by Sex

Sex	n	%
Male	10	33,3
Female	20	66,7
Total	30	100

Based on table 1 it can be seen that more than half of children aged under five years (66.7%) are female.

Table 2. Distribution of Fatherand Mother Age

	Father	Mother
Mean + S	35 ± 7,5	34 ± 5,9
Median	34	34
Minimum	24	21
Maximum	54	43

Based on table 2 it can be seen that mean of the father age is 35 years old, with younger age is 24 years and olders age is 54 years. While mean of mothers age is 34 years old with younger age is 21 years old and older is 43 years old.

Table 3. Frequency Distribution Based on Father's Occupation

Fathers Occupation	n	%
Private	6	20
Entrepreneur	6	20
Farmer	1	3,4
Labour	15	50
Driver	2	6,6
Total	30	100

Based on table 3 it can be seen that the occupation of the father at most is as a laborer that is 50%.

Table 4. Frequency Distribution Based on Mother's Occupation

Mother's Occupation	n	%
Teacher	2	6,7
Private	1	3,3
Entrepreneur	2	6,7
Housewives	25	83,3
Total	30	100

Based on the results of the research in table 4 it can be seen that most of the mother of children under five years are worked as housewives (83.3%).

Table 5. Height Distributions at Treatment Group Sample

Variables	Mean	Median	Min - Max	SD
Before	74,3	75,3	60,3 – 87,4	8
Mid	75,3	75,8	60,5 - 88	7,4
After	75,4	76,2	61,6 – 88,4	8

The results of the study in Table 5 showed that the height mean of sampel before study was 74.3 cm with median 75.3 cm, the lowest height 60.3 cm and the highest height 87.5 cm and standard deviation 8 cm. The height mean of sample after intervention was 75.4 cm with median 76.2 cm, the lowest was 61.6 cm and the highest was 88.4 cm and the standard deviation was 8 cm.

Table 6. Samples Distribution Based on Initial TB, 15 Days of Observation and End of Control Group

Variabel	Mean	Median	Min - Maks	SD
Before	79,4	80,3	70 - 94	7,1
Mid	79,7	80,3	70,4 – 94,2	7,1
After	79,9	81	70,6 – 94,4	7,2

The results of the study in table 6 showed that height mean of children under five years of control sample before study was 79.4 cm with median 80.3 cm, the lowest 70 cm and the highest 94 cm with a standard deviation is 7.1 cm. While the height mean after study was 79.9 cm, median 81 cm, lowest 70.6 cm, highest 94.4 cm and standard deviation 7.2 cm.

Table 7. Analysis of Height Differences Before and After Intervention at Treatment Group

		Mean	N	Std. Deviation	Std. Error Mean	P value
Pair 1	Before	74,347	15	8,0409	2,0761	
	After	75,380	15	7,9843	2,0615	0,000

In table 7 it can be seen that the height mean of sample before is 74.3 cm, and after study is 75.4 cm. Thus the height mean difference of children under five years during 1 month intervention is 1.1 cm. Based on the statistical t dependent test obtained p value = 0,000 ($p < 0.05$), thus there is a significant difference in height mean before intervention and after intervention in the treatment group.

Table 8 shows that the height mean of the control group before study was 74.35 cm, while the measurement after study was 75.38 cm. Thus there was a height difference during the study of 1.0 cm. Based on statistical of t dependent test obtained value $p = 0,000$ ($p < 0,05$), thus there is difference significant height mean before study and after study in control group.

Table 8. Height Differences Between Treatment Group and Control Group

	Group	N	Mean	Levene's Test p value	p Value
PERUBAHAN	TREATMENT GROUP	15	1,0333	0,594	0,000
	CONTROL GROUP	15	,5133		

Based on the results in Table 9 it can be seen that change of height mean in the treatment group for 1 month intervention was 1.03 cm, whereas in the control group was 0.51 cm. Based on the homogeneity test of variance, it turns out that both groups of intervention and control of the variance are homogeneous. After the statistical test with independent t test, obtained p value = 0,000 ($p < 0.05$). Thus

RECOMMENDATION

Need more intensive cultivation of cork fish in West Sumatera Province. Cork fish extract can be a solution to decrease stunting rate in children under five years old. This product can be used nutritional program manager in Padang City. Further research with the addition of several extracts of fruits to enhance the micro nutritional value and taste of the product.

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EFFECTIVITY OF TAKAKURA METHOD AND TAKAKURA PLU LOCAL RICE MICROORGANISM (MOL) IN COMPOST MAKING BY USING WASTE FOOD RESIDU IN PATIENT OF RSUP M. DJAMIL PADANG

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ABSTRACT

Food material residu has become serious phenomenon in several hospitals. This phenomenon may damage hospital's environment and another risks. The amount of waste food residu in several hospital already exceeded the standard, in which Ahmad Muchtar Hospital (2012) contributes 56,7% of waste food residu, RSUD Batusangkar 39.0%, RSUP M. Djamil Padang (2012) for 66.0% and in 2014 contributes for 23.4% of waste residu. This research is using descriptive method with the sample of waste food residu in patient collected each day from the kitchen of RSUP M. Djamil Padang. Collection of data was done in August 2017. The data collected and measured each day. The waste will be separated and selected only for vegetable and fruit skin waste. The effectivity of compost was determined by using EM4 starter and rice mol in the term of time, pH, humidity, color and temperature. Thus, the collected data was compared by SNI-19-7030.2004. The data was shown by using table and graphic using descriptive method. The result of this research showed that takakura method using EM4 starter was riper based on the standard of SNI.00.7030.2004 compared to takakura method using rice mol based on parameter of time, pH, temperature, humidity and the color of compost. Compost in takakura method by using EM4 starter already perfectly formed in the 21st day, however takakura method using rice mol perfectly formed in the 28th day. There was a difference in the term of time for about 1 week to produce a ripe comost by using both methods. However, the using of rice mol is also suggested to be used in the hospital because it has a lower costand more natural since the material was safe.

Keywords: *takakura method, EM4 and rice mol*

INTRODUCTION

The food waste in RSUP M.Djamil Padang has become prior problem. This became serious since the smelly waste stack still can be found in the nearest trash bin. The smelly and dirty waste may cause health problems and another environment problems. The purpose of this research is to compare the result of compost in the term of time, pH, temperature, humidity and color by using takakura method and takakura plus rice mol method which will be compared with SNI-90. SNI-19-7030.2004. Data shown by using table and graphic which then will be described. The result of this research shown that takakura method is faster when it used EM4 starter compared to rice mol by the parameter of time, temperature, pH, humidity and the color of compost. Compost in takakura method by using EM4 starter already perfectly formed in the 21st day, however takakura method using rice mol perfectly formed in the 28th day. Usage of rice mol in composting process can be suggested to be used in hospitals, not only because of its natural material but alsomore economic than EM4 starter.

METHOD

The method using in this research is descriptive method with waste food residu as its sample. Observation and measurement was done to compare both takakura methods. The compared terms were time, pH, temperature, humidity and color of compost. Collected data was compared to SNI-19-7030.2004.

RESULTS

Implementation of compost making using takakura by EM4 starter and rice mol was done with the similar methods. However, there found several differences in the term of time, temperature, pH, texture and color. Based on 19-7030-2004, time needed to produce high quality compost is from 50 to 60 days, but to reach the perfect result 2 years will be needed.

Composting implementation using takakura method in the hospital is strongly suggested because anaerobic composting may reduce the smelly scent. Aerobic process may produce smelly compound such as organic acids (acetat, butirate acid, valerate acid), ammonia and H₂S.

The comparison of time needed to reach compost ripeness based on the temperature, pH, humidity, texture and color based on SNI-19-7030-2004 about compost process. Thus, compost making in this research is using waste food residu of patient in RSUP M. Djamil Padang showed a 7 days faster result by using takkura method with EM4 starter which was in the day of 21. However, rice mol starter had reached the perfect result in the day of 28. Composting using local microorganism (mol) is considered as the better method because its natural process, more economic and efficient. Based on this, takakura method is strongly suggested to be used in hospitals. The compost may also be used as plant fertilizer in hospital area. This case hopefully can be implemented by another institutions not only for estethical but also to support natural environment.

CONCLUSION

According to SNI 19-7030-2004, takakura method using waste food residu using EM4 starter is faster than using rice mol in the form of time, temperature, humidity, pH, texture and color.

SUGGESTION

The most suited takakura method for RSUP M.Djamil Padang is the one with rice mol starter to reduce organic waste impact.

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EFFECTIVENESS OF IMPLEMENTING DENTAL TECHNIQUES OF FINANCIAL AND HORIZONTAL COMBINATIONS ON THE DEBRIS INDEX URBAN PRIMARY SCHOOL'S STUDENT AND RURAL PRIMARY SCHOOL'S STUDENT

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ABSTRACT

Maintaining dental health is necessary since early, but there are still many people who ignore dental and oral health. Brushing teeth serves to eliminate food scraps contained on the surface of teeth and between teeth. The objective of this research is to know the effectiveness of the application of toothbrush combination technique of Fone's and Horizontal to the index debris of SDN students in urban and rural areas. Research output is expected to be useful as a reference in improving oral hygiene by brushing teeth using a combination of fone's technique and horizontal technique. The results showed the index debris of elementary school pupils in urban and rural primary before brushing teeth with combination technique of fone's technique and average horizontal technique on medium criterion and and good criteria after brushing with combination technique. Statistical test results obtained p value = 0.00. The conclusion of the study is that there is a difference of debris of student debris index before and after brushing with combination of fone's technique and horizontal technique, it is suggested to students to get used to brush their teeth with combination technique of fone's technique and horizontal technique.

Keywords: index debris, brushing technique, a combination of fone's and horizontal techniques

INTRODUCTION

Dental and oral health is important to be notice and an integral part of health that requires immediate treatment (Yaslis, 2001). Tooth brushing is the recommended way to clean up the soft deposits on tooth surfaces and gums. Brushing techniques include the fone's and horizontal techniques. Brushing your teeth with fone's technique is recommended for young children as it is easy to do. This technique has the disadvantage of not being able to clean the lingual and palatinal surfaces. Horizontal techniques are recommended for occlusal surfaces. The excess corresponds to the occlusal surface anatomy. The downside is not being able to clean the interproximal part so it still leaves the rest of the food around the unreachable part (Putri, 2012).

Observations in primary schools in both urban and rural areas rarely get coaching from health workers, especially dental workers. Visits are made only in the beginning of the school year for general examination activities and there is no special education for dental field. Based on a preliminary study on grade IV and V SD students it was found that 9 out of 10 students were accustomed to using the toothbrushing technique with a back and forth movement for all surfaces of the teeth and brushing was usually done in the morning and evening baths, but there were 1 students using vertical techniques and roll at the right time ie after breakfast and before bedtime with oral and dental hygiene at 8 students in middle and low ktiteria. From the above explanation, the researcher wanted to know the difference of index debris of grade IV and V SD students before and after brushing teeth with combination of fone's technique and horizontal technique at

elementary school both in urban and rural area, hopefully later can result guide to brushing implementation which is a combination model of fone's and horizontal brushing techniques to achieve optimal dental and oral hygiene.

METHODS

This research is an experimental research using Pre Experimental One Group Pre and Posttest design with pretest and after Fone's technique and horizontal technique by checking the final Debt Index (posttest) into population is all students of class IV and V SD. The tool used for data collection is diagnose set (mouth mirror, sonde, tweezers, excavator), nierbekken, gargle, and index debris examination format. Data analysis is done by computer program

RESULT

General description of respondents.

Table 1. Distribution of Student Frequency based on Urban's Primary School and Rural's Primary School Year 2017

SDN	F	%
SDN 10 Sapiran Bukittinggi City	35	50
SDN 06 Gadut Agam District	35	50
Total	80	100

Debris index of respondents before and after brushing with a combination of fone's and horizontal techniques.

Table2. Debris Criteria for Respondent Index Before Brushing Teeth with Combination of Fone's Technique and Horizontal Technique at Urban and Rural Element of Year 2017

Primary School	N	Debris Index's Average	Criteria
Urban	35	1,69	Medium
Rural	35	1,75	Medium

The frequency distribution of index debris after brushing with a combination of fone's technique and horizontal techniques

Table3. Debris Criteria of Respondent Index After Brushing Teeth with Combination of Fone's Technique and Horizontal Technique at Urban and Rural Element of Year 2017

Primary School	N	Debris Index's Average	Criteria
Urban	35	0,28	Good
Rural	35	0,32	Good

Differences of debris index of research subjects before and after brushing with a combination of fone's technique and horizontal techniques.

Table 4. Statistical Test Results Paired t-test Debris Respondent Index Before and After Brushing Teeth with Combination of Fone's Technique and Horizontal Technique at Urban and Rural Element of Year 2017.

<u>Debris Index before and after brushing with a combination of fone's and horizontal techniques</u>	Mean	Std.Deviation	T	Sig.(2-tailed)
	0.5735	0.3458	9.671	0.00

DISCUSSION

Based on the result of the research, it is known that debris index of respondent index before brushing teeth with combination of fone's technique and horizontal technique is mostly with medium criterion. According to the researchers, this is because since the small respondents only use a brushing technique that is horizontal techniques that still leaves the rest of the food on the surface of teeth.

This is reinforced by the theory that states since childhood have learned to brush teeth to clean teeth and may continue to use the same technique until adulthood later. The introduction of correct techniques in brushing such as brushing with a combination of horizontal and fone techniques is one way to brush your teeth in a good and proper way, but the response or behavior of a person's adaptation to change of something new can not be learned overnight, but gradually over the years so it must be applied continuously to get used and become a habit for the respondent (Sari, 2010).

The frequency distribution of the respondent's debris index after brushing with a combination of fone's and horizontal techniques.

Based on the research results can be seen that the average debris of the index of respondents after brushing teeth with a combination of fone's techniques and horizontal techniques is by good criteria. According to researchers this happens because the respondents have been trained and have been able to apply a combination of fone's and horizontal techniques in accordance with what has been taught, although there are some respondents who are not used so there are still respondents who can not perfectly clean up the leftovers.

This is reinforced by the theory that the introduction of the right toothbrush technique motivates respondents to regular toothbrush and proper toothpaste selection. Horizontal brushing technique is performed on buccal and lingual surfaces by brushing back and forth. This is highly recommended for occlusal surfaces in accordance with anatomical forms of occlusal surfaces. The fone technique is commonly recommended for young children because it is easier to perform, bristle brush position on the fone's technique perpendicular to the gingival edge with soft pressure then the toothbrush is moved in a circular motion in small circles to form movement at the edges of the gingiva and the entire surface of the tooth cleaning debris effectively (Putri, dkk., 2012).

In trained toothbrushing that has not been used, someone will have difficulty practicing brushing teeth, but someone serious and serious in training brushing teeth with a combination that is taught then will be able and proficient so that will be able to clean teeth and mouth and avoid the disease teeth and mouth (Subroto, 2010).

Debris difference of respondent index before and after brushing with combination of fone's technique and orizontal technique.

To know difference of debris of index of respondent before and after brushing with combination of fone's and horizontal technique is done by statistical test "paired sample t-test" obtained p value = 0,00 ($p \leq 0,05$) accepted meaning there is significant difference to decrease of debris index of respondents after brushing teeth with a combination of fone's and horizontal techniques. Researchers believe this is due to the effects of tooth brush movement with a combination of fone's and horizontal techniques. Both techniques have complementary advantages to clean up the remains of food in the oral cavity. Tooth surfaces that can not be cleaned with horizontal techniques can be cleaned by fone's technique.

This is reinforced by the theory that tooth brushing with fone's and horizontal techniques is often recommended by the dentist because it is able to release the remains of food tucked between the curves of the tooth surface also between the teeth and gums. Brushing your teeth with the usual fone technique is recommended for young children as it is easier to do. This technique has the disadvantage of not being able to clean the lingual and palatinal surfaces so that it is replaced with a back and forth movement. Horizontal techniques are highly recommended for occlusal surfaces because they correspond to the anatomical forms of the occlusal surfaces. The disadvantage can not clear the proximal part so it still leaves the rest of the food around the unreachable part (Putri, 2012).

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of research conducted on 70 respondents got the following conclusions: Debris index before brushing teeth with combination of fone's technique and average horizontal technique on medium criterion, Debris index after brushing teeth with combination of fone's technique and horizontal technique average good criterion . There is difference of debris of research subject index before and after brushing with combination of fone technique and horizontal technique, p value 0,00 ($<0,05$). It is recommended to all elementary school students to maintain their dental and oral hygiene by applying and getting used to brushing teeth with a combination of fone's and horizontal techniques routinely every tooth brushing.

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RELATED FACTORS WITH BULLYING EVENTS IN CHILDREN CLASS IV, V AND VI SD, IN SD X KOTA PADANG

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ABSTRACT

Violent behavior among students in recent years has increased. Violent behavior is shown not only done by high school and junior high school students, even at the elementary level was already a lot happening. This violent behavior among students is better known as Bullying. The purpose of this study to determine the factors associated with the occurrence of Bullying In Children Class IV, V, And VI Elementary School, In SD X Kota Padang. The result of the research analysis shows that the most influencing variable on Bullying occurrence is environmental factor with P Value 0.073 (OR = 4,092) and it can be interpreted that if elementary students are exposed to Bullying risk factors once, then the elementary students will be at risk to behave Bullying 4 times.

Keywords: violent behavior, bullying, students

INTRODUCTION

Violent behavior among students in recent years has increased. This is marked by the number of news about the incidence of violent behavior in print, television and even social media. Violent behavior is shown not only done by high school and junior high school students, even at the elementary level was already a lot happening. This violent behavior can be a threat or logging, taunting, bullying, harassing, harassing and so forth. Forms of threat or logging usually appear more often like asking for food, ask for tasks, ask for a cheat sheet during the exam. Another behavior that is in the form of mockery to his friends to friends who mocked crying. In addition, there is also a habit to call a friend with n ama parents or not the name of the real student with the aim to harass. This violent behavior among students is better known as Bullying.

The prevalence of bullying in schools occurring in some European, American and Asian countries is estimated at about 8% -50% (Soedjatmiko et al, 2011 in Diyantini, Yanti and Lismawati, 2015). Dake, Price and Telljohann (2003), stated that bullying behavior generally occurs in primary school (SD) ie 11.3% - 49.8%. While in Indonesia, based on KPAI data from 2011 to August 2014, there are 369 complaints relating to this behavioral problem where 25% are in education (Setyawan, KPAI, 2014). The KPAI data also states that 87.6% of children claim to have experienced school violence in various forms, where 29.9% of the violence was committed by teachers, 42.1% were done by classmates, and 28% were performed by other classmates (Prima, 2012, in Latifah, 2012).

Observations made on students of SD X Padang, found that one of the students became the head of the class and authorized by the teacher to collect the names of enthusiasts of activity Eskul Pramuka intimidation on some students and students who did not like that is prohibiting a student join the activity scout with the reason "not necessarily you are allowed to join the scout by your mama" so that students who want to join the scout had to cancel follow the scout eskul activity, on another occasion the same student scolded the other students for no apparent reason so the student is crying. On

another occasion when the teacher is unable to attend and the substitute teacher has not arrived, the same student acts as a teacher in front of the class and instructs his friends to do what he asks, for students who do not want to follow his orders, then the student will issue words of mockery until others are forced to follow him. Although the research on bullying has already been done a lot but looking at the above conditions, the researchers are interested in doing research on "Factors - Factors associated with the occurrence of Bullying in Children Class IV, V, and VI SD, In SD X Padang" this can be reduced or even avoided so that our children can get a conducive learning atmosphere and can be more free expression so that achievement in learning can increase.

METHODS

This research is a quantitative research using descriptive correlation research design with cross sectional approach. The correlational descriptive research aims to describe the relationship between variables (Polit & Beck, 2004). Researcher take student and student of grade IV, V, and VI SD in SD X Kota Padang as respondent by using simple random sampling technique. proportional sampling. The inclusion criteria required in this study are: students and elementary school students who sit in the class IV, V, and VI; physically and mentally healthy; and willing to be a research respondent. The researchers used univariate, bivariate, and multivariate analyzes. Univariate analysis is done for individual data, peers and the environment. Bivariate analysis was used to find out the correlation between factors causing Bullying and Bullying occurrence in elementary students with Chi Square statistic test. While for multivariate analysis this research use multiple logistic regression analysis with risk factor model to link Bullying cause factor with Bullying event and also to know which variable is most dominant related to Bullying occurrence. This multivariate analysis also analyzed the relationship between confounding variables (age, sex, and class) with dependent variables (Bullying events).

RESULT

Table 1. Distribution of Individual Factors with Bullying Occurrences In Grade IV, V, and VI students in SD X Kota Padang West Sumatra (n = 129)

Individual Factors	<i>Bullying</i>				Total		OR (95% CI)	<i>p</i> Value
	There's an Event		No Genesis					
	N	%	N	%	N	%		
Cause	24	100	0	0	24	100	0,352	0,000
Not a cause	37	35,2	68	64,8	105	100	(0,272-0,457)	
Total	61	47,3	68	52,7	129	100		

Table 2. Peer Factor Distribution with Bullying Event In Grade IV Students, V, VI at SD X Kota Padang West Sumatra (n = 129)

Peer Factor	Friend	<i>Bullying</i>				Total	OR (95% CI)	P Value
		There's an Event		No Genesis				
		n	%	N	%			
Cause		27	67,5	13	32,5	40	100	0,004
Not a cause		34	61,8	55	38,2	89	100	
Total		61	47,3	68	52,7	129	100	

Table 3. Distribution of Environmental Factors with Bullying Occurrences In Grade IV Students, V, VI at SD X Kota Padang West Sumatra (n = 129)

Environmental factor	<i>Bullying</i>				Total	OR (95% CI)	P Value
	There's an Event		No Genesis				
	n	%	N	%			
Cause	17	85	3	15	20	100	8,371
Not a cause	44	67,5	65	32,5	109	100	(2,314-30,2789)
Total	61	47,3	68	52,7	129	100	

Table 4. Results Multivariate Modeling The relationship of individual factors, peer factors, and environmental factors with the occurrence of Bullying in the Student Class IV, V, VI at SD X Kota Padang West Sumatra

Variables	B	P	OR
Individual Factors	21,344	0,998	1,861
Peer Friend Factor	0,170	0,759	1.185
Environmental factor	1,409	0,073	4,092
Age	0,012	0,976	0,976
Sex	0,597	0,183	0,183
Class	0.169	0,693	0,693

The result of multivariate analysis based on table 3.4 is obtained by the following results: the most influencing variable on Bullying occurrence is environmental factor with P Value 0.073 (OR = 4,092) and it can be interpreted that if elementary students exposed to environmental factors that risk Bullying once, these elementary students will be at risk to behave bullying 4 times.

DISCUSSION

The students of grade IV, V, and VI of elementary school X who were almost half respondents (38%) were 11 years old and female were more than half (59.7%) and some (24%) had gangs in school. This is in line with the results of Diyantini, Yanti and Lismawati (2015) research which states that most respondents (63.6%) are 11 years old and a small minority are aged 10 years (30.9%) and 12 years (5.5%). Similarly, research

conducted by Dewi (2014), which states that more than half (52.7%) of respondents aged 11 years. However, the results of this study differ slightly from some studies where male respondents more. Latifah (2012) states that respondents who have group tendency (have gangs) is 20% of the total respondents. The researchers' analysis is also supported by Thompkin's (2000, Diyantini, Yanti and Lismawati (2015), AASA, (2009) views, suggesting that school gangs are often associated with an increase in school violence.

While explained that almost half (47.3%) students of grade IV, V, VI SD X Padang West Sumatra experienced Bullying events. Latifah (2012), stated that the incidence of Bullying in primary school children is 65%. And research conducted by Uba and Juhari (2010 in Goddess, 2014), states Bullying incidence of 49.2% with a total sample of 242 people. Bullying has been known as a social problem mainly found among schoolchildren. Almost every child may have experienced a form of ill treatment from another older or more powerful child (Krahe, 2005 in Saifullah, 2016). The results of this study are supported by Bukhim (2008 in Purwanto, 2010) suggesting that the various deviant behaviors that the child is doing are caused by the lack of understanding of the child against positive self-esteem. The result of this research shows that this bullying can happen when the child or individual does not have positive moral understanding in self-assessment so it is easy to wobble in attitude, especially if they get pressure from peers or the environment.

While based on the analysis of Individual factor relationship with the occurrence of bullying in SD X there are as many as 100% of students who have individual factors as the cause of Bullying events, as many as 67.5% of students who have peer factors as the cause of Bullying events, and as many as 85% of students who have factors environment as the cause of Bullying events. Research conducted by Ningrum et al (2015), found that the individual factors that allow students to become a bully is because the previous students are victims of bullying by their older siblings. Pratiwi, Puspita and Rosalina who stated that most of the role of respondents in the category of respondents support for bullying is 39 respondents (57.4%) and a small part of respondent's peer role in the category does not support for the occurrence of bullying that is 29 respondents (42.6%). This shows that there is a relationship of peer role with the behavior of bullying at school age children in grade 5 and 6 in SD Sriwedari 02 Jaken District Pati Regency. While Soedjatmiko et al (2013), states that about 60% of perpetrators do bullying on peers. Meanwhile Magfirah and Rachmawati (2009), which states that there is a very significant negative relationship between the school climate with the tendency of bullying behavior. The more positive the school climate, the lower the tendency of bullying behavior, the more negative the school climate, the higher the tendency of bullying behavior.

The researcher's analysis and observation result of the researcher found that individual factors that contribute to this bullying are individuals who tend to have an aggressive personality, lack of empathy and have physical advantages over their victims. From individual factors, peers and environments, the most influential variable of Bullying occurrence is environmental factor with P Value 0.073 (OR = 4,092) and it can be interpreted that if elementary students are exposed to Bullying risk factors once, The SD will be at risk for Bullying to behave 4 times. Astuti (2008 in Rachmijati, 2015), characterizes schools that are generally easy to find bullying cases: 1). Schools in which

there are discriminatory behaviors both among teachers and students; 2). Lack of supervision and ethical guidance from teachers and school staff; 3). There is a large gap between rich and poor students; 4). The existence of a discipline pattern that is very rigid or too weak; 5). Improper guidance and inconsistent regulations. Environmental factors include the situation, atmosphere or atmosphere of an internal characteristic within a school that distinguishes it from other schools and influences the behavior of people within it with the school climate of Hoy and Miskel (in Rovai et al., 2005). A positive school climate will have positive social control as well. Where one of them is peer involvement in supervising the behavior of other students, supervision by teachers in school will be easier to do when students are in the class than outside the classroom. Social control includes ties to teachers, ties to school friends, commitment to school, school policy, and student involvement with extracurricular activities and religious activities (Adilla, 2009).

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IMPLEMENTATION OF CULTURE-BASED “MENGGUYU” STIMULATION MODULE MINANG KABAU TO OPTIMIZE MOTOR DEVELOPMENT OF AGES 12-15 MONTHS IN THE WORK AREA OF COMMUNITY HEALTH CENTER NANGGALO PADANG 2017

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ABSTRACT

Child's motor skills must be developed as early as possible. Playing as a form of learning activities, creative and fun play can develop a child's motor. The aim of this research was whether the *mangguyu* stimulation model based on Minang Kabau culture can improve motor development of children aged 12-15 months in the working area of Nanggalo Community Health Center. There was influence of health education using module *mengguyu* to mother, fine and rough motor child in work area of Community Health Center Nanggalo Padang. To stimulate the development of fine motor and gross motor, the *mangguyu* module can be used as an alternative. Furthermore, it needs to socialize *mengguyu* module on mothers at activity in working area of health centre.

Keywords: *Child development, fine motor and rough, stimulation, mangguyu*

INTRODUCTION

Motor ability of children should be developed early on either gross motor skills and fine motor skills (Lolita Indraswari, 2012). In the aspect of its development, children should get stimulation in order to develop according to the stages of development. Every child needs to get regular stimulation early and continuously at every opportunity. Lack of stimulation can cause deviation of growth and even sedentary disorder (Sulistiyawati, 2014).

The effort to develop the abilities of children is always based on the element of play. Playing as a form of learning activities, creative and fun play can develop a child's motor. According to Lanford (2009), "During the preschool years, physical development is fairly steady for the most children". At the age of 12-15 months is the best age for the physical and motor development of children.

The results of previous research on infants aged 6 - 9 months to 18 months of age in Tanah Datar regency of West Sumatra Province in 2013 found that the combination of nutritional supplementation and psychosocial stimulation showed significant effect on the growth and development of children and the care of children's psychosocial environment more at home (Helmizar, 2015).

In the working area of Nanggalo Community Health Center in 2016, the number of children with DDTK contact was 3,485 people. The coverage of early detection and development of 74.2% growth, while viewed from the national standard on the target and coverage of early detection coverage of growth of toddlers was 90%. (Report of Puskesmas Nanggalo, 2016).

In a study to be conducted activities of child-based *mangguyu* Minang Kabau culture was expected to stimulate and provide stimulation of fine motor abilities and rough. The aim of this research was to know the effect of *mangguyu* stimulation module which was done to motor development of children aged 12-15 months in working area of Community Health Center Nanggalo Padang.

METHODS

The type of research used quasy experiment which aims to see whether or not there is "The Influence of Stimulation Mangguyu Based on Minang Kabau Culture for Optimal Motor Development of 12 - 15 Months Child in Puskesmas Nanggalo Padang City Working Area of 2017", with the design used is One-Group Pretest -Posttest Design (Siswanto 2014).

Before the research activity was done the measurement of mother's knowledge, and the development of fine and coarse motor in the measurement (pre test) first, then trained mangguyu way/technique used Minang Kabau culture through playing with child. Furthermore, children are given treatment by giving the game 14 kinds of matches adjusted to the age of the child, every day the mother or family is expected to perform manguyu activities at least 3 times per week. After that followed by taking the data after the treatment is done (Post-test) is again see the development of fine motor skills and gross motor child.

The population of this study were all mothers and children aged 12 - 15 months in the working area of Puskesmas Nanggalo. For sampling used Lemeshow proxy test in Siswanto (2014), a sample of 60 people was obtained. The data were analyzed by using t test statistic t / paired t test.

RESULT

Table 1. Distribution of Respondents Based on Mother Characteristic and Child Characteristics

Variables	(f)	(%)
Characteristics of Mother		
Level of education		
Elementary School	2	3,3
Junior High School	4	6,7
Senior High School	36	60,0
College/University	16	30,0
Work		
Housewife	40	66,7
Private	9	15,0
Entrepreneur	3	5,0
Civil servants	8	13,3
Characteristics of Children Gender		
Men	27	45,0
Women	33	55,0
Number of Siblings		
1 person	21	35,0
2 persons	22	36,7
3 people	8	13,3
4 people	5	8,3
5 people	4	6,7
Nutritional status		
Good	49	81,7
Less	11	18,3

Table 2. Mean Differences in Mother's Knowledge Before and After were Given Treatment

Mother's Knowledge	Mean	SD	Std. Error	P value
Pre test	14,07	3,324	0,429	
Post test	16,55	2,375	0,307	0,000
Difference	2,483			

From the data there is influence of education using Module of Mengguyu Anak to mother knowledge in stimulating motor development of Child in Work Area of Puskesmas Nanggalo Padang.

Table 3. Average Differences of Smooth Motoric Progress Before and After Given Treatment

Development Smooth Motorcycle	Mean	SD	Std.Error	P value
Pre test	5,01	2,031	0,262	
Post test	6,77	0,533	0,069	
Difference	1,667			0,000

From the data there is influence of usage of Module of Mengguyu Anak to development of fine motor of child in Work Area of Puskesmas Nanggalo Padang.

Table 4. The Average Difference of Rough Motor Development Before and After is Given Treatment

Development Rough Motoric	Mean	SD	Std. Error	P value
Pre test	5,40	2,010	0,260	
Post test	6,45	0,872	0,113	
Difference	1,050			0,000

From the data shows there is influence of using Mengguyu Module to motor development of child rough in Work Area of Puskesmas Nanggalo Padang.

DISCUSSION

Maternal knowledge factor is one of the factors that influence child growth. From the previous research results obtained data that a high level of knowledge of the mother of 72.5% good development of children, while mothers with low knowledge of child development is less that is 50.0%. This indicates that there is a tendency of higher level of mother's knowledge about stimulation better also level of gross motor development of preschool child (Aprilina, Marisa, 2006).

Children who get stimulated and directed stimulation from parents / mother / the environment will develop faster, especially in the development of rough motor child, such as walking, singing, jumping and up and down stairs (Soetjningsih, 2008). If the child's motor skills of this period develop well, then the next development will be good too, and

vice versa. The child given Mangguyu has better cognitive, linguistic and motoric intelligence already proven from previous research (Helmizar, 2015).

CONCLUSION

The average maternal knowledge level before treatment was 14.07 and after treatment was increased to 16.55. Average Motoric Fine Motorcycles before treatment was 5.01 and after treatment purchased increased to 6.77 and average motor rough motorcycle before treatment was 5.40 and after purchased treatment increased to 6.45. There is influence of health education using mangguyu module to mother, fine and rough motorcycle child in work area of Community Health Center Nanggalo Padang. In order to stimulate the development of fine motor and gross motor, the mangguyu module can be used as one of the alternatives that can be used. Furthermore, it needs to socialize Module mangguyu on mothers at posyandu activity in working area of puskesmas.

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MODIFICATION OF LIQUID FOOD INGREDIENTS BALANCED NUTRITION FOR PATIENTS Diabetes Mellitus

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ABSTRACT

One type of liquid food by the hospital is a liquid diet diabetes mellitus liquid / sonde. Liquid food is given by hospital standards not yet fulfill the needs and balanced nutrients. Modification of the right diet is one alternative to increase the intake in patients at the Hospital. Based on this it is important to do research on Modified Food Liquid Substances Balanced Nutrition for Diabetes Mellitus. The results showed the resulting liquid food has led to a balance that is the content of macro-nutrients and fiber are in accordance with the needs. Rganoleptic test shows the results of kind of like to like by the panelists in terms of color, taste, aroma and texture. The best formula is the formula D is the addition of bananas 75 gr. Chemical test best formula shows the results of the carbohydrates 7.98%, protein 3.78%, fats 2:26%, and crude fiber 1.04% out modification of the liquid diet balanced nutrients and rich in fiber to the DM already sup menu balanced and are advised to use the formula of addition of 75 g can be as food liquid for patients with diabetes mellitus. Need to do additional research to see acceptance and impact on patient Diabetestes Mellitus

Keywords: liquid food, a balanced nutrition, Diabetes Mellitus

INTRODUCTION

Nutritional therapy or diet therapy is part of treatment of diseases or clinical conditions which must be observed that the gift does not exceed the ability of organs. Nutritional therapy should always be adapted to the changes in organ function. Giving the patient's diet should be evaluated and repaired in accordance with changes in the clinical situation and the results of laboratory tests, both inpatients and outpatients. Patients receive an appropriate dietary intake of health conditions in an effort to speed the healing process, maintain and improve the nutritional status is the goal of nutrition services performed in the inpatient unit (MoH, 2013) One of the nutrition therapy given to patients is the provision of food in liquid form. Liquid food according to Almatsier (2014) is a food that has a liquid consistency until thick. Liquid food is given to patients with impaired chewing, swallowing and digesting food due to reduced consciousness, high temperature, nausea, vomiting, post bleeding gastrointestinal tract, as well as pre and post-surgery. Liquid food can be administered orally or enteral. This liquid diet consists of clear liquid foods and liquid foods thickened. Viscous liquid food is a food with a liquid consistency but not invisibility. These foods can be administered orally or via pipe / sonde. One type of liquid food by the hospital is a liquid diet diabetes mellitus liquid / sonde. Liquid food is given by hospital standards are insufficient and unbalanced nutritional needs.

Based on calculations done using Nutrysurvey substances on the standard liquid food given to patients with diabetes mellitus RS M. Djamil Padang men to diet DM 1231 kcal of energy obtained in 1500, still less than the requirement, protein 41.8, still less of a need 51.1 grams, fat 65.9 excess of the needs of 36.5 grams, 122 grams carbohydrates,

still lower than the needs 235 and 14.2 grams of fiber, is still lower than the requirement of 25 grams.

In principle, the liquid diet low in nutrients. So it can not be given in a long time. Suppose the patient is not physically have the ability to consume other foods that are more dense and require that these patients should receive liquid food, then it implies that the patient will experience a shortage gizi. Sehingga necessary modifications to this liquid diet so that this liquid diet can meet the nutritional needs of patients in a long time. The purpose of this study was to obtain a modification of the balanced liquid food nutrients in Patients with Diabetes Mellitus

METHODS

This research is an *experiment* that was conducted from March to November 2017. This study was conducted in two places, in the Laboratory of Food Science Technology Nutrition Department Padang MoH Health Polytechnic Institute Industrial Research and Development Gadut Padang. This study makes a modified liquid diet balanced nutrition for patients with Diabetes Mellitus who mendatkan 1500 DM diet with supplements of bananas with a certain ratio. Data obtained from the organoleptic tests are presented in tables to calculate the average value of the reception. Results of average values were analyzed using analysis of variance (ANOVA) at 5% level. If there is a difference between the treatment then continued with Test *Duncan Multiple Range* (DNMRT) at test level 5%.

RESULTS

Liquid Formulations Modified Food Balanced Nutrition Substances

Table 1. Composition of Formula Modification of Liquid Food Seimang nutrients for diabetic patients

composition of	B	C	D
liquid milk (ml)	50	50	50
Skimmed milk liquid (ml)	200 200		200
Egg (gram)	30	30	30
Flour tempe (g)	5	5	5
corn Oil (g)	10	10	10
Water (ml)	200 200		200
Carrots (g)	50	50	50
Banana (g)	25	50	75
Guava (g)	100 100		100
Papaya (g)	150 150		150

This formula has already approached the nutrient content ie energy needs 1427.3 kcal, 55.4 g protein, 43.62 grams of fat, 264 grams of carbohydrates and 24.1 gram fiber

Organoleptic Tes

Table 2. Average Revenue Panelists Against Food Quality Appearance LiquidDM

Treatment (Addition bananas))	Flavor	Color	Texture	Aroma	average
A (0 grams)	2:40 a	2:37 a	2:50 a	2.34a	2:40
B (25 grams)	2.70 a	2:42 a	2:52 a	2.56a	2:55
C (50 grams)	of 2.96 b	2.88 b	2.82 b	2.76ab	2.85
D (75 grams)	2.98b	2.98ba	b2.88	2.90ab	2.93

In table. 2 shows that the value of the average level of preference for the taste of food Liquid DM balanced nutrients ranged from 2.40 up to 2.98 which is at a level a little love to love, the color ranges from 2.37 up to 2.98 which is at a level a bit like until Like, texture ranges from 2.50 up to 2.88 which is at a level a little love to love and aromas ranging from 2.34 up to 2.90 which is at a level a little love to love

In table 2 are also visible from treatment D is treated best when D treatment has the highest average value of the race, aroma, color and texture. So we can say that the best treatment is the treatment of D with the addition of 75 g banana

Test results of variance (ANOVA) at 5% level was found that the taste, color and aroma tesltur DM Liquid food is significantly different between treatments. After further tests with test DNMR, it was found that the sense of treatment A significant difference with treatment B but significantly different with treatment C and D, the color treatment A significantly different with treatment C and D, the texture treatment A significant difference with treatment B but significantly different treatment C and D, aroma significantly different treatment A treatment B but significantly different with treatment C and D.

Characteristics of Food Chemistry DM Liquid Substances Balanced nutrition

Table3. Characteristics of Fiber Rich Food Chemistry DM Liquid Best

Chemical Characteristics	Units
Protein	3.78%
Fat	2:26%
Carbohydrate	7.98%
Fiber	1.04% out

Table 3 shows that the chemical characteristics or content of the highest nutritional value of DM Liquid food contained in the carbohydrates.

DISCUSSION

Modification DM Liquid Food Balanced Nutrition substance when seen from the composition of the nutritional value is approaching nutritional balanced menu. Fat somewhat fewer carbohydrates somewhat less but still within tolerance advantages and disadvantages. While the nutritional composition of DM Liquid Food Standards RS fiber is considerably less once also energy and carbohydrates. As for the excessive protein and fat above the tolerance. Balanced nutritional composition on Food Liquid Fiber Rich

will certainly meet the needs of patients with diabetes, so this will speed up the healing process.

Modifications of the standard RS DM Liquid food with the addition of a banana can also boost acceptability liquid diet DM panelist on both the color, flavor, aroma and texture. The more the addition of the higher banana preference level panelists. There was also a mix of flavors guava with bananas also strengthens the color, flavor and aroma of the liquid food.

Formula balanced liquid food rich in nutrients and fiber selected is the average amount of color, flavor, aroma and texture highest. Selected Formula D with the addition of 75 grams of banana, slightly sweet taste with a light reddish yellow color, aromas of banana and guava, watery texture. For patients with diabetes mellitus banana is one food source that contains a low Glycemic Index (51). A low glycemic index may extend the gastric emptying can reduce secretion of insulin and total cholesterol in the body.

Chemical test results on the best formula was found that the composition of Carbohydrates 7.98%, 2.26% fat, 3.78% protein, and fiber is 1.04%. Means to 100 ml of liquid balanced food rich in nutrients and fiber containing 7.98 grams of carbohydrates, 2.26 grams of fat, 3.78 grams of protein and 1.04 grams of fiber. Liquid food given to patients for one administration is given 500 ml. So every time the provision contains 39.9 carbohydrates, 11.3 grams fat, 18.9 grams of protein and 5.2 grams of fiber. Liquid food made this a main meal where the food will be given three times a day. The content of the nutritional value for a day to 3 feedings is 119.7 g carbohydrates, 56.7 grams protein, 33.9 grams of fat and 15.6 grams of fiber. The new nutrient content derived from primary food. When compared with the need to meet the 51% carbohydrate, 110% protein, 92.8% fat and 62.4% of the fibers.

RECOMMENDATIONS

Modification liquid diet balanced nutrition for patients with diabetes mellitus based on test organolep show results rather likes to dislikes by panelists in terms of color, taste, aroma and texture. The best formula is the formula D is the addition of bananas 75 gr. Based on the chemical test best formula shows the results of the carbohydrates 7.98%, protein 3.78%, fats 2:26%, and crude fiber 1:04%,

liquid food DM with the formula the addition of 75 g can be used as a liquid diet for patients with DM and encouraged additional research to see power received and its impact on patient DiabetestesMellitus

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INTEGRATED ANTHROPOMETRY MEASUREMENT DEVELOPMENT COMPUTER BASED

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ABSTRACT

This study aims to develop a high-tech integrated body weight and height measuring instrument and access to computerized nutritional programs to provide effectiveness in the measurement of nutritional antropometry in the community. The result of the research shows that Anthropometric Measure (Weight and Height) Measurement tool has been created which is integrated Computer Based. Based on Testing Access Measure Tool with Sofwer program can be produced that when the Object is positioned in the area, then the results are directly readable on the LCD and access with the laptop using sofwer excel program created. Further development is needed to make this tool more perfect, Validation and Reliabelity Tools need to be followed up. Revision of Product in accordance with the advice of experts or experts in their field, Development of Measuring Tool is also integrated with the Body length of Under Fives Age under 2 Year in the position of lying down or sleeping and access with Computerized.

Keyword: *Anthropometry, Weight Loss, Height, Digital Sofwer and Nutrition Program*

INTRODUCTION

In the nutritional program planning is necessary data valid and reliable. The availability of anthropometric measurements in quality and quantity and practical in its use is an important instrument in early detection of development of children under five . Measuring body length support application nutrition management program. During this time weight measurement and child height measure manual sistem. Learning experience, at the time of guiding the students of the Department of Nutrition indicate that the measuring instrument used, the way of recording the measurement results, the data processing , and the presentation of the data in a manual manner which seems to be a long time consuming process and alotof wrong in recording the results measuring.

METHODS

The device (tool) designed in the form of boxes (*boxes panel*) with a frame made of aluminium with a length of 30cm, width 18cm and 4.5cm thick. On the front and rear sides coated with *acrylic*. The physical device design (tools) can be seen in Figure 2.1 below.

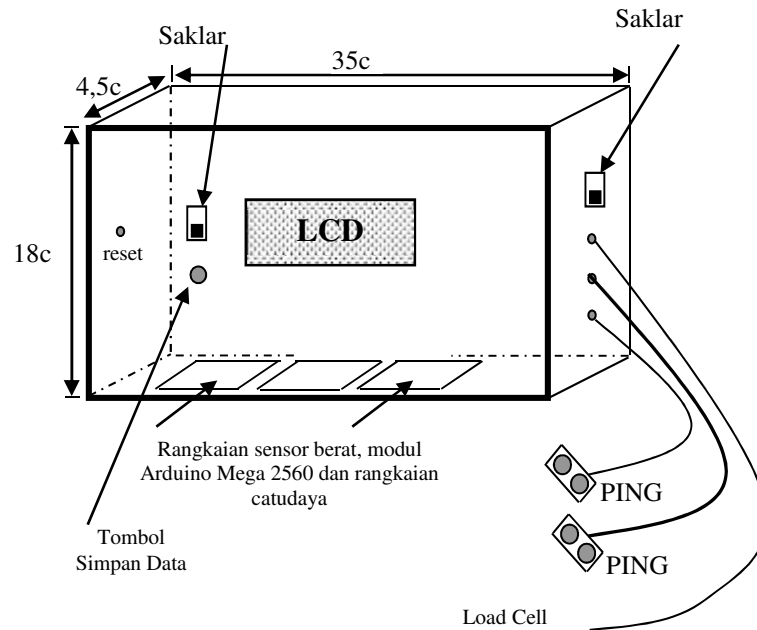
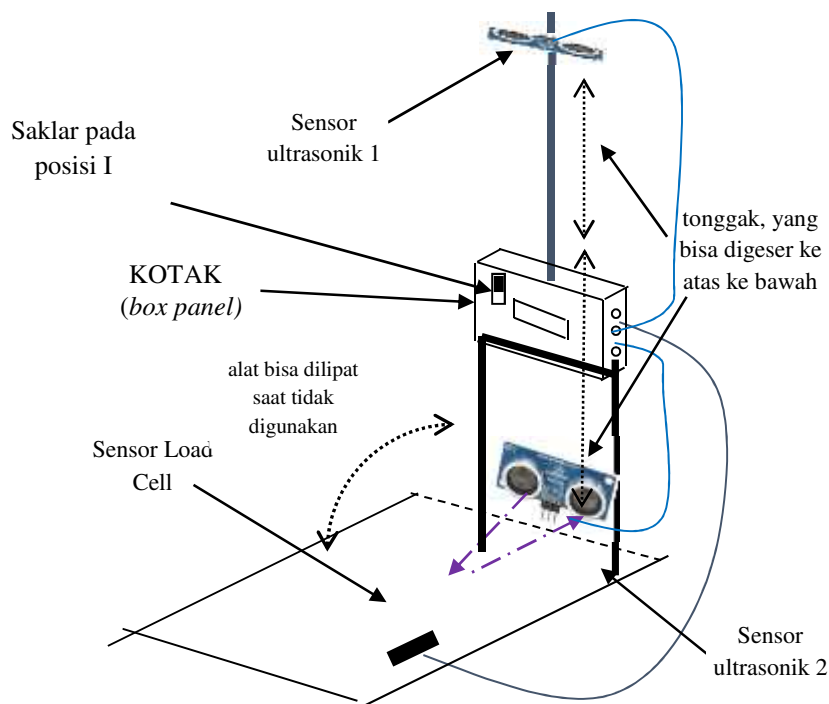
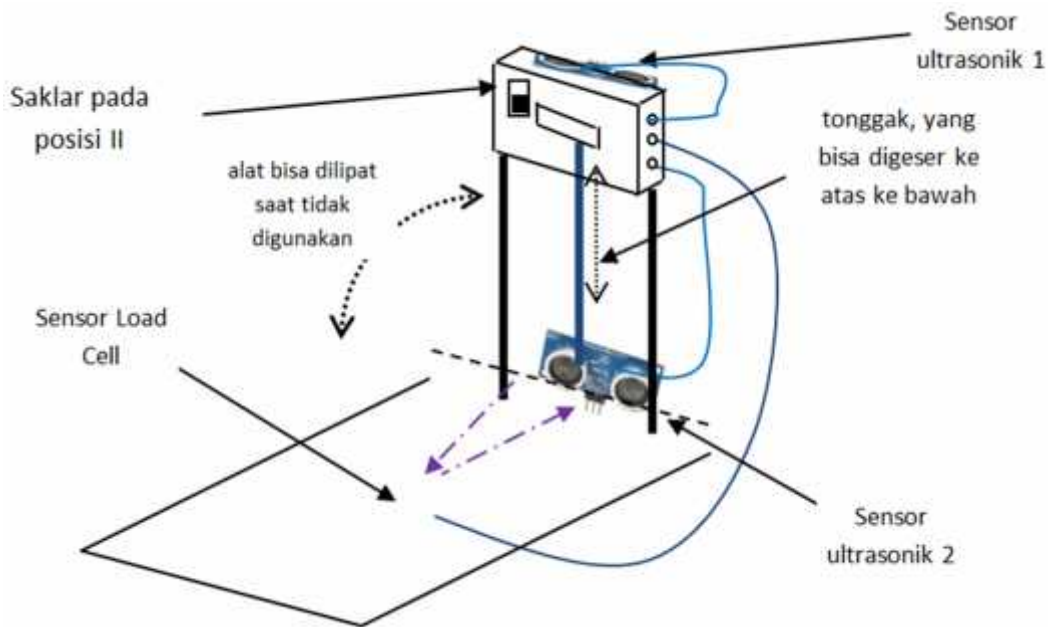


Figure 2.1 Physical Device Design (Tools)

In Figure 2.1.1 shows that each sensor is connected with the cable out of the box (*box panel*). Mega2560 Arduino circuit, power supply circuit and a series of sensors placed in the box (*box panel*). LCD (*Liquid Crystal Display*) placed on the front side to display the value of height / length and weight can be clearly seen from the outside. The examples of the application design of this tool (tool) designed can be seen in Figure 2 .1.1 below.



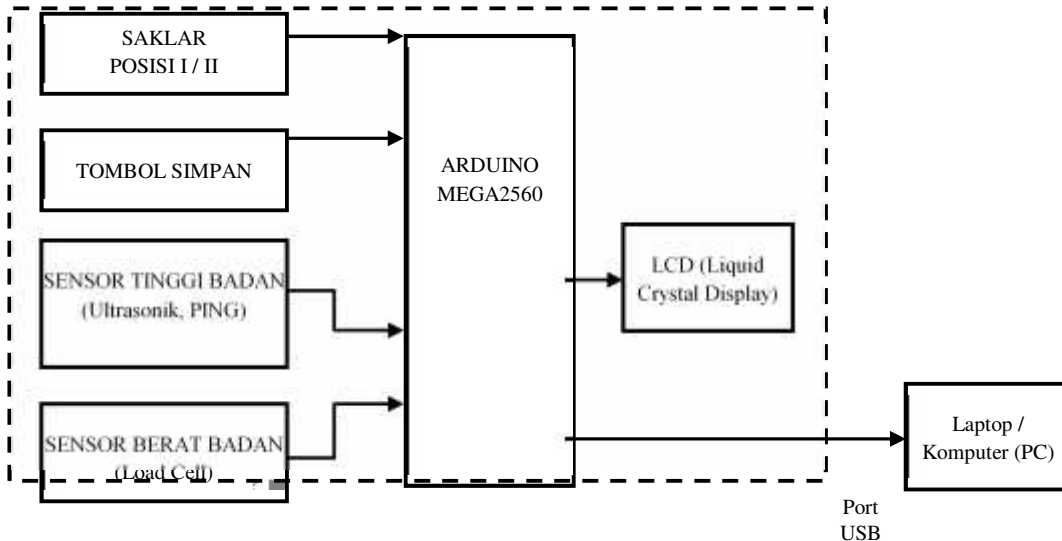
(a. Condition of the tool when measuring height and weight of children)



(b. Condition of the instrument when measuring the length and weight of the baby)

Figure 2.1.1 Example Device Implementation Tool (Tool)

2.2 Block diagram of the designed



RESULT

Research on the development of anthropometry measuring instrument which was originally expected to be developed for on the creation of weight and height measuring instruments as well as Digital Length for Toddlers integrated with sofwer proram nutrition. Due to the limited facilities and budgets, the development of this measurement tool for the first phase is focused on the creation of only Weight and High Height Digital Agency for children aged 2 years and above computer-based connected LCD and Computer (Leptop) with the following results : "**Integrated Anthropometry Based**

Measurement Development Computer " Development of measuring devices Anthropometry follows the following systems and inputs : This designed system is realized by creating a tool that uses the main components :

- a. Position I / II switch, serves as an input to select the type of measurement, if the switch is in position I, then the measurement process undertaken is the process of measuring height and weight of children. If the switch is in position II, then the measurement process undertaken is the process of measuring the length and weight of the baby.
- b. The Save button, serves as an input for Arduino Mega2560 to perform high data storage and weight.
- c. Ultrasonic sensor (PING), serves as a sensor to measure height / body length. The output of this sensor is supplied to one of the Arduino Mega2560 pins.
- d. Load Cell sensor, serves as a sensor to measure weight. The output of this sensor is supplied to one of the pins of the Arduino Mega2560.
- e. Arduino Mega2560, serves as a designed system control center, processes input data of height (length) and weight then displays the value of the data to LCD (*Liquid Crystal Display*). If the equipment is connected to a laptop / computer (PC), then the high value (long) and weight data are also sent to the laptop / computer (PC) via a USB port.
- f. LCD (*Liquid Crystal Display*), serves to display the high value (length) and weight of the person being measured (*testee*).
- g. Laptop / Computer (PC), reads data from the laptop / Computer (PC) and displays it on the laptop / computer (PC) monitor screen. Then the data height (length) and weight is processed into nutritional status.

In the block diagram below (Block Diagram) it appears that before Arduino Mega2560 controller there is an *input* block which is a collection of several sensors, namely Ultrasonic Sensor and Load Cell sensor . Meanwhile, after the Arduino Mega250 controller there is LCD (*Liquid Crystal Display*) .

Anthropometry Weight and Height Measurement Tool Display

Based on specific objectives of this study, the authors have result tool measuring Weight and Height Digital seen in Figure 3 .2 below. This tool is simply designed with designs made from a combination of plywood board and A luminium board. The body sensor pole is modified from " HP selfie stick "which can be shifted up or down to adjust the position of the height sensor body with Object measure .



Picture. 3.2. Measurement Tool and Height Children Toddler Digital

Western Measurement Body and Height The digital body is connected to the LCD shown in Figure 3.3. Automatic measurement can directly connect with the computer (leptop) with sofwer special , so the result by pressing the save button is automatically stored data in Leptop (Figure 3.4).



Picture. 3.3.



Picture 3.4

Integration of Measurement Results by Using Sofwer

When a child goes up on Measure then pressing button 1 will activate the measurement of Height, and when we press button 2 it will activate blank record BB, with execute save data then data implied in Leptop (See Figure 3.6). Display data is designed according to the needs of the officer. Examples of Nutrition Status Display Data can be seen in table.

RECOMMENDATIONS

Validation and Reliability Tools need to be acted. Revision Prodak in accordance with the advice of experts or experts in their field. Development of Measurement Tool is also integrated with the Body length of Under Fives Age under 2 Year in the position of lying down or sleeping and access with Computerization. This Measurement tool development study needs to be continued and it is expected that in the period of Risbinakes 2018, the development of this tool can be continued with the appropriate funds.

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EFFECTIVENESS OF LEAFLETS AND BOOKLETS IN HEALTH PROMOTION ABOUT PHBS IN HOUSEHOLDSTO INCREASEOF KNOWLEDGE OF MOTHER WITH TODDLERS IN THE WORKING AREA OF RASIMAH AHMAD PUBLIC HEALTH CENTER IN BUKITTINGGI 2017

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ABSTRACT

Clean and healthy living behavior (*PHBS*) in the household is an effort to empower the household members to know, willing and able to implement PHBS and play an active role in the community health movement. Based on Basic Health Research (*Riskesdas*)2013, the national proportion of households with good PHBS was 32.3% of the target achievement in 2014 as much as 70%. PHBS in Province of West Sumatra was 20%. PHBS in Bukittinggi was 19.8% (2017), from the target achievement of 65%. The lowest achievement of PHBS in households was Rasimah Ahmad Public Health Center, 19,3% from 1500 (48,79%) of the built households. The result of this study, there was increase of respondent knowledge after giving health promotion by using leaflets and booklets. The average of knowledge level using leaflets was 16.60 and booklets was 17.60. Health promotion about PHBS in households by using booklets was more effective than leaflets on knowledge aspect. It was expected that health workers could increase the use of booklets and leaflets in providing health promotion about PHBS, and could be understood and used as a guide in its application.

Keywords : Health Promotion, Leaflets, Booklets, Knowledge, Attitude

INTRODUCTION

Clean and healthy living behavior (*PHBS*) in the households is an effort to empower the household members to know, willing and able to implement PHBS and play an active role in the community health movement. (Center of Health Promotion Ministry Of Health RI, 2011). Based on Basic Health Research (*Riskesdas*)2013, the national proportion of households with good PHBS was 32.3% of the target achievement in 2014 as much as 70%. PHBS in Province of West Sumatra was 20%. Elitha Fauziah (2008) study on Household Survey in Bukittinggi found 31.9% of households met the PHBS indicator. Based on the report of Health Promotion Division of Bukittinggi Health Office, PHBS in 2017 was lower (19.8%) than the target achievement (65%). The lowest achievement of PHBS in households was Rasimah Ahmad Public Health Center, 19,3% from 1500 (48,79%) of the built households. According to Artini (2014), there was difference of knowledge in leaflets group between pre and post test. There was difference of knowledge in booklets group between pre and post test. Health education using booklets was more influential on increasing of respondents knowledge than using leaflets. The aim of this study was to know the effectiveness of leaflets and booklets in health promotion about PHBS in households to the increase of knowledge of mother with toddlers in the working area of Rasimah Ahmad Public Health Center in Bukittinggi 2017.

METHODS

This study was experimental with quantitative approach, Quasi Experimental design with Two Groups, pre-test and post-test, was grouping sample into two different treatment groups. The populations in this study were housewives with toddlers in the working area of Rasimah Ahmad Public Health Center, TangahSawah Village. Analysis of data used Paired t test, 15 people for each treatment. Total samples were 30 people. Sampling used Simple Random Sampling technique. For FGD samples were taken as many as 10 people. Measuring tool in this study was questionnaire. Analysis of data using *Paired t-Test* was to assess the average difference of knowledge before and after PHBS promotion in Households. To know the difference of health promotion effect using leaflets and booklets used *independent t-Test*.

RESULTS

Table 1. Distribution of Average Knowledge of Respondents, Before and After Health Promotion about PHBS in households by using Leaflets in Tangah Sawah Village, Bukittinggi 2017

Variable	Mean	SD	SE	Minimum Score	Maximum Score	P value	n
Knowledge (Pre Test)	13.00	1.813	0.468	9.00	15.00	0.000	15
Knowledge (Post test)	16.60	0.828	0.214	15.00	18.00		

The average knowledge of respondents before being given health promotion by using leaflets was 13.00, with standard of deviation 1.813, and after being given health promotion was 16,60 with standard of deviation 0,828.

Table 2. Distribution of Average Knowledge of Respondents Before and After Health Promotion about PHBS in households by using Booklets in TangahSawah Village, Bukittinggi 2017

Variable	Mean	SD	SE	Minimum Score	Maximum Score	P value	n
Knowledge (Pre Test)	12.27	2.43	0.628	7.00	16.00	0.000	15
Knowledge (Post test)	17.73	0.79	0.524	16.00	19.00		

The average knowledge of respondents before being given health promotion by using booklets was 12.27 with standard of deviation 2.43, and after being given health promotion was 17.73, with standard of deviation 0.79.

Table 3. Average Difference of Knowledge of Respondents Before and After Health Promotion about PHBS in Household by using Leaflets and Booklets in TangahSawah Village, Bukittinggi 2017.

Variable	Leaflets		Booklets		p
	Rata-rata	SD	Rata-rata	SD	
Knowledge (Pre Test)	13.00	1.813	12.27	2.433	0.000
Knowledge (Post Test)	16.60	0.828	17.73	0.799	0.000

The average knowledge of respondents before being given health promotion by using leaflets was 13.00 and using booklets was 12.27. The result of statistical test showed that p value was 0,00 ($p < 0,05$). It could be concluded that there was significant difference between the knowledge in the group of using leaflets and booklets group before health promotion about PHBS in Households. After being given health promotion about PHBS in the households, there was an increase of knowledge in the group using leaflets (16.60) and booklets (17.73). Statistical test results obtained p value was 0.00 ($p < 0.05$). It could be concluded that there was significant difference of knowledge after getting health promotion about PHBS in households between the group using leaflets and booklets.

Table 4. Average Difference between Knowledge of Respondents Before and After Health Promotion about PHBS in Household using Leaflets and Booklets in TangahSawah Village, Bukittinggi2017

Variable	Leaflets		Booklets		p
	Rata-rata	SD	Rata-rata	SD	
Knowledge	3.600	2.164	5.467	2.386	0.000

The result of *Paired Sample Test*, showed the difference of mean difference of respondent knowledge before and after health promotion about PHBS in Households by using media leaflets was 3,600 with standard of deviation (SD) 2,164 and by using booklets was 5,467 with standard of deviation (SD) 2,386. Statistical test results obtained p value was 0.000 ($p < 0.05$), it could be concluded that there was significant difference between the difference of knowledge using leaflets and booklets.

DISCUSSION

The result of data analysis obtained, the average distribution of respondent's knowledge value before being given health promotion by using leaflets was 13.00 with SD 1.813, and increased after health promotion (16.60) with SD 0.828. Health promotion by using booklets, from 12.27 with SD 2,434, increased to 16.13 with SD 2,031. The result of statistical test obtained, p value was 0,00 ($p < 0,05$), before and after health promotion by using leaflets and booklets. It could be concluded that there was significant difference of knowledge between the group using leaflets and booklets, after and before getting health promotion about PHBS in households. This result showed that promotion of health with appropriate media and appropriate delivery methods, would provide good results or in accordance with expected goals

The result of *Paired Sample Test*, The difference of mean difference of respondent knowledge before and after getting health promotion about PHBS in Household by using leaflets was 3,600 with SD 2,164 and using booklets was 5,467 with SD 2,386. Statistical test results obtained, p value was 0.000 ($p < 0.05$), it could be concluded that there was significant difference between the difference of knowledge by using leaflets and booklets.

The average knowledge by using leaflets was 16.60 with SD 0.828, while using booklets was 17.60 with SD 17.60. It could be concluded that health promotion about PHBS in Households using booklets was more effective than leaflets in increasing knowledge. The result of *independent samples t-Test* showed that there was significant

difference between health promotion group by using leaflets and booklets, p value 0.003 ($p < 0.05$). The result of this study was supported by study conducted by PermatasariDesi (2013) in Boyolali, indicating that there was an effect of providing health education using leaflets and audiovisual to increase knowledge about the danger of liquor. In line with the study by Budiyanto (2016), there was different knowledge in handwashing with real soap before and after using leaflets. The assumption of researchers that health promotion using booklets, with attractive designs, colorful images, good paper, loads more material, was interesting and more easily understood by respondents.

CONCLUSIONS

There was significant difference between the knowledge in the group using leaflets and booklets, before and after getting health promotion about PHBS in the household. Health promotion about PHBS in Households by using booklets was more effective than leaflets. The result of the *Independent Sample t-Test*, the p value was 0.003 (< 0.05), it meant that there was significant difference in the use of leaflets and booklets. The module of PHBS in households was useful for changes in knowledge, attitude and behavior. It was expected that health workers in providing health promotion about PHBS in households could increase the use of leaflets and booklets.

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THE DIFFERENCE OF FETAL WEIGHT ESTIMATION ACCURACY USING RISANTO, NISWANDER AND JOHNSON FORMULA'S

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ABSTRACT

Indonesia Demographic and Health Survey (SDKI) found that Maternal Mortality Rate (AKI) is about 359 / 100.000 live birth), and Neonatal Mortality Rate is 20/1000 live birth (BKKBN, 2013). One of the causes of maternal and neonatal mortality is the complications associated with fetal size, namely macrosomia and LBW. There is a need of accurate methods in estimating fetal weight, one of them is by using formula. The purpose of this research is to find the the difference of fetal weight estimation accuracy using risanto, niswander and johnson formula's. The method of this research is an analytical survey with cross sectional design, conducted in RSUD Dr. Rasidin and Puskesmas Kota Padang from June 2017 to October 2017. The population in this study is the intrapartum women in RSUD Dr. Rasidin and health center in padang as 77 samples were taken by using consecutive sampling technique. The data were processed using t-test dependent and ANOVA. The result of the research, the average of fetal weight using the Risanto formula, Johnson and Niswander respectively 3102 ± 320 gr, $2991,7 \pm 305$ gr, $3102 \pm 393,96$ gr. The average of infant birth weight is 3152 ± 379.4 gr. The mean difference of fetal weight estimation with birth weight using Risanto formula, Niswander formula and Johnson formula respectively $190,3 \pm 155,3$ gr, $290 \pm 167,7$ gr, $196,3 \pm 176,4$ gr. There is a significant difference between fetal weight estimation using the Risanto, Niswander and Johnson formula with birth weight ($p = 0,000$), there is a significant difference between fetal weight estimation and birth weight difference using Risanto and Johnson formula ($p = 0,000$), and there is no difference between fetal weight estimation with birth weight difference using Risanto and Johnson formula ($p = 0,284$). The conclusion of this study is that there is a significant difference between fetal weight estimation using the Risanto, Niswander and Johnson formula with birth weight, there is a significant difference between fetal weight estimation and birth weight difference using the Risanto and Johnson formula, and there is no difference between fetal weight estimation weight using Risanto and Johnson formula. Health workers can use the Risanto or Johnson formula in estimating fetal weight because it has the same level of accuracy

Keyword: *Fetal Weight, Risanto Formula's, Niswander Formula's, Johnson Formula's*

INTRODUCTION

The World Health Organization (WHO) estimates about 300,000 mothers die due to pregnancy and childbirth, and about 2.9 million newborns die within 28 days of birth (United Nations, 2014). Based on Indonesia Demographic and Health Survey (SDKI) in 2012, Maternal Mortality Rate (AKI) reached 359 / 100.000 live birth), and Neonatal Mortality Rate is 20/1000 live birth (BKKBN, 2013).

Maternal mortality and infant mortality is related with complications during pregnancy, childbirth and postpartum. Low birth weight and macrosomia are complications related to infant size that can increase maternal and neonatal morbidity and mortality. Asphyxia, hypothermia, hypoglycemia, abnormal neurological

development and neonatal mortality are complications that is caused by LBW (Cunningham, 2013). Macrosomia may increase the incidence of shoulder dystocia, trauma / fractures, prolonged labor, neonatal asphyxia, laceration, postpartum hemorrhage, cephalopelvic disproportion (CPD) and cesarean delivery (Nahum, 2014). These complications can be prevented if health workers are able to detect early complications during pregnancy and childbirth.

Fetal weight estimation is a component in the management of midwifery care that is useful in counseling, differential diagnosis and type of delivery planning. Accuracy of fetal weight estimation (FWE) is an important aspect of labor management and newborns (Kathiriya, 2014; Curti, 2013; Sharma, 2014; Ugwu, 2014). The measurement of simple, effective and inexpensive fetal weight is particularly important in developing countries while expensive and advanced medical equipment and expertise are limited (Torloni, 2008). One of the methods in calculating fetal weight estimation is formula using fundal height such as Johnson formula, Risanto formula, Dare formula and Niswander formula.

Various studies have been conducted to assess the accuracy of the formulas in estimating fetal weight. Johnson's formula is the most widely used formula by health workers including midwives in Indonesia, but Numprasert (2004) found that the estimated weight of the fetus using Johnson's formula was 227 grams higher than birth weight. There is a need to examine the accuracy of calculating the estimated fetal weight with various formulas in order to know the formula that closest to actual birth weight. Is there any difference of fetal weight estimation accuracy using Risanto, Niswander and Johnson formula's. The purpose of this research is to determine the difference of calculation accuracy of fetal weight estimation using Risanto formula, Niswander formula and Johnson formula

METHOD

This research type was observasional with cross sectional design, was conducted in RSUD Dr. Rasidin and health care in Padang from June 2017 to October 2017. Population in this research were intrapartum women in RSUD Dr. Rasidin and Health Care in Padang, samples were taken with inclusion criteria: agree to be involved in research, singleton pregnancy, head presentation. Exclusion criteria of this research is diagnosed hidramnion or oligohidramnion before delivery, premature rupture of membrane, maternal weight > 90 kgs, diagnosed intraabdominal tumor or uterine.

The number of samples in this study were 77 samples, with the technique of sampling by consecutive sampling. Data were collected by using observation sheet consisting of fundal height measurement, descent of fetal head and infant birth weight. Fundal height were measured by using non-elastic measuring tapes. Data were analyzed univariate and bivariate using t-test dependent and ANOVA.

RESULTS

Fetal Weight Estimation Using Risanto, Niswander and Johnson Formulas

Table 1. The Average of Fetal Weight estimation Using Risanto, Niswander and Johnson Formula's

Formula	Mean±SD	Median (Min-Max)
Risanto	3102±320	3100 (2218,5-3856,5)
Niswander	2991,7±305	2916 (2076-3636)
Johnson	3102±393,9	3100 (2015-4030)

Based on table 1 it can be seen the average of fetal weights using the formula Risanto 3102 gr, the same as the fetal weight estimation rough using Johnson formula. The average estimated fetal weight of the Niswander formula was 2991.7 gr.

The Average of Infant Birth Weight

Table 2. Mean Birth Weight of Infants

	Mean±SD	Median (Min-Maks)
Berat Badan Lahir	3152±379,4	3100(2000-4000)

Based on table 2 it can be seen that the mean birth weight of infants was 3152 ± 379.4 gr.

The Average Estimated Fetal Weight and Birth weight difference using Risanto, Niswander dan Johnson Formula

Table 3. The Average Estimated Fetal Weight and Birth weight difference using Risanto, Niswander dan Johnson Formula

Formula	Mean±SD	Median (Min-Maks)
Risanto	190,3±155,3	147,5 (50-900,5)
Niswander	290±167,7	284 (4-724)
Johnson	196,3±176,4	155 (0-900)

Based on table 3 it can be seen that the mean difference of fetal weight estimate with the highest birth weight with Niswander formula, while the smallest difference between the estimated fetal weight and birth weight was obtained by Risanto formula.

Differences of Fetal Weight Estimation Using Risanto, Niswander and Johnson Formulas with Birth Weight

Table 4. Differences of Fetal Weight Estimation Using Risanto, Niswander and Johnson Formulas with Birth Weight

	Mean±SD	Median (Min-Maks)	<i>P value</i>
Risanto	3102±320	3100 (2218,5-3856,5)	0,000
Niswander	2991,7±305	2916 (2076-3636)	0,000
Johnson	3102±393,9	3100 (2015-4030)	0,000
Berat Badan Lahir	3152±379,4	3100(2000-4000)	

The difference of fetal weight estimation using Risanto, Niswander and Johnson formula with birth weight was analyzed by Wilcoxon test. Obtained p value of 0.000 ($p < 0,05$). Thus it can be concluded there is a significant difference between the estimated fetal weight by using Risanto formula, Niswander formula and Johnson formula and birth weight.

The Difference between fetal weight estimation and birth weight differences using Risanto, Niswander and Johnson formula

Table 5. Difference between fetal weight estimation and birth weight differences using Risanto, Niswander and Johnson formula

Formula	Mean±SD	Median (Min-Max)	p value
Risanto	190,3±155,3	147,5 (50-900,5)	0,000
Niswander	290±167,7	284 (4-724)	
Johnson	196,3±176,4	155 (0-900)	

Using the Friedman test, $p = 0,000$ was obtained, so it can be concluded that there is at least a significant difference in fetal weight estimation in 2 formulas. Data analysis continued with post hoc test. Post Hoc test between Risanto and Niswander formula p value = 0,000, between Risanto with Johnson formula p value = 0,284 and between Johnson and Niswander formula p value = 0,000. Thus it can be concluded that there is a significant difference between fetal weight estimates using the formula of risanto and Johnson with the Niswander formula, but there is no difference between fetal weight estimates using the Risanto with Johnson formula.

DISCUSSION

Fetal Weight Estimation Using Risanto, Niswander and Johnson Formulas

Based on table 1 the average of estimated fetal weight using Risanto formula is 3102 gr, similar to the fetal weight estimation using Johnson formula. The average estimated fetal weight of the Niswander formula was 2991.7 gr. The results of this study is different from the research conducted by Wijayanti (2013) where obtained the average estimated fetal weight using the Risanto formula 3044,34 gr. Meanwhile, Basumatary (2015) research obtained the mean of fetal weight with Johnson formula is 3394,5 ± 233,67 gr

The differences in the results of this study may be due to differences in sample characteristics used in the study. In addition to genetic factors, parity, maternal age, lifestyle such as smoking and alcohol consumption can affect the birth weight of the fetus so it also affects the fetal weight estimation.

The Average of Infant Birth Weight

According to table 2 it can be seen that the mean birth weight of infants is 3152 ± 379.4 gr. The results of this study were higher than Pathmaperuma et al (2007) in Colombo with mean birth weight 2970 grams. However, the results of this study are lower when compared to the research of Asvold et al (2011) in Norway who get the average birth weight of the baby 3577gram.

Race, ethnicity, sex of the baby, parity and highland areas can affect baby's birth weight. Nearing delivery, the male fetus will weight 150 grams larger than the female (Haram, Softeland, & Bukowski, 2013). Maternal genes also have an effect on fetal growth. Maternal height may reflect uterine capacity and growth potential, so it can be one of the determinants of fetal size (Murphy, Smith, & Clifton, 2006). Thompson et al reported that infants born to mothers who were 170cm tall and 75kg weight would weigh 750 grams compared to babies born to mothers with 150 cm height and 40 kg weight.

The Average Estimated Fetal Weight and Birth weight difference using Risanto, Niswander dan Johnson Formula

From table 3 it is known that the mean difference of fetal weight estimation with Risanto formula with birth weight is $190,3 \pm 155,3$ gr. The result of this research is different with Vitrianingsih & Kartini research (2017) where the mean of TBJ difference with birth weight using Risanto formula is 128,5 gr.

The average TBJ difference using the Niswander formula with birth weight was 290 ± 167.7 gr. Unlike the results of research Vitrianingsih & Kartini get the difference TBJ with Niswander formula 505.9 gr. While the mean difference of TBJ Johnson formula with birth weight in this research is $196,3 \pm 176,4$ gr, unlike result of research of Wijayanti (2013) which get average of TBJ difference using Johnson formula with birth weight equal to 59,47 gr. The differences in the results of this study may be due to weight gain and maternal weight gain during pregnancy.

Differences of Fetal Weight Estimation Using Risanto, Niswander and Johnson Formulas with Birth Weight

The differences in fetal weight estimation using the Risanto, Niswander and Johnson formula with birth weight were analyzed using the Wilcoxon test. From the results of statistical analysis obtained p value of each 0.000 ($p < 0.05$). Thus it can be concluded there is a significant difference between the estimated fetal weight with the Risanto, Niswander and Johnson formula with infant birth weight.

The results of this study were similar to that of Wijayanti (2013) who found that there is a significant difference between the estimated weight of the fetus by using Johnson and Risanto formula with the actual weight of the infant. Similar result is also presented by Gayatri and Afiyanti (2003), where there are differences in fetal weight estimation using Niswander and Johnson formulas with birth weight.

The Difference between estimated fetal weight and birth weight differences using Risanto, Niswander and Johnson formula s between fetal weight estimation and birth weight using Risanto, Niswander and Johnson formula

From the Friedman test known that there is a difference between estimated fetal weight with birth weight differences using the formula Risanto, Niswander and Johnson. By using post hoc test, there is no difference in the estimated fetal weight difference between the risanto formula and the johnson formula. Thus it can be concluded that Risanto formula has similar accuracy with Johnson formula.

The results of this study is different with the research Wijayanti (2013) who found the difference between the formula Risanto and Johnson. However, the results of this

study are similar to Sumantri's (2013) research where there is a different accuracy between estimated fetal weight using Niswander and Johnson formula.

The simple, effective and inexpensive measurement fetal weights is particularly important especially in developing countries where expensive and sophisticated medical equipment and expertise are limited (Torloni, 2008). The accuracy of the methods used is necessary for good clinical decision making. The use of accurate fetal weight estimation formula is necessary especially in the birth process.. Based on this research, it is known that Risanto formula has the same accuracy as Johnson's formula in determining fetal weight estimation so that it can be used in calculating fetal weight estimation

CONCLUSIONS

The average of fetal weights with the Risanto, Niswander and Johnson formula were 3102 ± 320 gr, 2991.7 ± 305 gr, 3102 ± 393.6 gr. The average of infant birth weight is 3152 ± 379.3 gr. The average estimated fetal weight and birth weight difference using risanto, niswander dan Johnson formula 190.3 ± 155.3 , 290 ± 167.7 and 196.3 ± 176.4 gr. There is a significant difference between estimated fetal weights using the Risanto, Niswander and Johnson formula and birth weight. There is difference between estimated fetal weight and birth weight differences using Risanto formula with Niswander, johnson formula with niswander and there is no between Risanto and Johnson formula

RECOMMENDATIONS

For the next researcher, In order to do research using other formulas to assess the accuracy of the method of calculating fetal weight estimates, such as: Johnson modification, dare formula, etc. For health practitioners, Health practitioners can use the formula Risanto or Johnson formula because it has the same level of accuracy. For the academy, The academy is expected to give lecture about various methods and formula in estimating fetal weight

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THE EFFECTIVENESS OF CUTANEUS STIMULATION (SLOW STROKE BACK MASSAGE) TO DECREASE OF HAID PAIN (DISMENOREA) IN ADOLESCENT GIRLS

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ABSTRACT

Menstruation is a regular bleeding from the uterus as a sign that the pregnant organs are functioning properly. Pain during menstruation is called dysmenorrhea, dysmenorrhea is pain during menstruation caused by uterine muscle spasme. There are several ways to overcome non-medical menstrual pain include cutaneous stimulation (slow stroke back massage). This study aims to see the effectiveness of cutaneous stimulation utilization (*slow stroke back massage*) on decreasing menstrual pain (*dysmenorrhoea*). Research Design *Quasy experiment with one group pretest-posttest design*. implemented SMA N 1 Kota Solok. The population is adolescent girls who experience menstrual pain (*dysmenorrhoea*) during research conducted, sampling technique that is accidental sampling with amount 13 people. Data were collected by interview, then processed and analyzed univariat and bivariate using wilcoxon test. The results showed that after cutaneous stimulation (*Slow Stroke Back Massage*) there was a decrease of pain scale from median value 5 to 3. The statistic test showed that $p = <0.008$, it can be concluded that there were differences of pain scale before and after cutaneous stimulation (*Slow Stroke Back Massage*). It is recommended to health officials and UKS officers at school that Cutaneous Stimulation (*Slow Stroke Back Massage*) can be used as an alternative action to reduce menstrual pain (*dysmenorrhea*) in young women who experience menstrual pain (*dysmenorrhoea*).

Keywords: Dysmenorrhoea, Cutaneous Stimulation (*Slow Stroke Back Massage*), adolescent girls

INTRODUCTION

Pain during menstruation is called dysmenorrhea. Dysmenorrhea is pain during menstruation caused by uterine muscle spasme. The cause is the excessive amount of prostaglandin in menstrual blood, which stimulates uterine hyperactivity. The main symptom is pain, starting at the time of menstruation. Pain may be sharp, blunt, cyclic, or persistent, it may last within a few hours to 1 day. Sometimes the symptoms can be longer than 1 day but rarely exceed 72 hours. Symptoms of accompanying systemic symptoms include nausea, vomiting, diarrhea, headache, and emotional changes. (Price & Wilson, 2013: 1288). There are several ways to deal with non-medical menstrual pain, such as cutaneous stimulation (*slow stroke back massage*), usually this action has a very low risk to reduce pain. Cutaneous stimulation (slow stroke back massage) is a touch of sensory integration techniques that affect the autonomic nervous system in the form of massaging action with a slow stroke.

METHODS

Research Design *Quasy experiment with one group pretest-posttest design*. implemented SMA N 1 Kota Solok West Sumatra. The population is adolescent girls who experience menstrual pain during research conducted, sampling technique by accidental sampling with number of 13 adolescent daughter. Pain scale data before and after

collected by interview, with intervention procedures as follows: 1. Create a comfortable and quiet environment. 2. Inform the patient and keep the patient's privacy. 3. Describe the procedure and purpose of action 4. Allow to choose the desired position during the intervention, bias sloping, face down, or sitting. 5. Open the client's back and upper arms, cover the rest with a blanket. 6. Wash hands with warm water, warm the lotion in the palm of the hand or place the lotion bottle into warm water, pour a little lotion in hand, explain to the respondent that the lotion will feel cold and wet. Use the lotion as needed 7. Both hands close an area 5 cm wide on both sides of the spine bulge, from head to sacrum area, this technique lasts for 3 - 10 minutes, Do a sweep on the back by using the fingers and palms of the hand , if the client complained tidak convenient procedure immediately stopped. 8. End the sweep with a long movement and tell the client that it will end the sweep. 9. Clean the excess of the lubricant from the back of the client with a bath towel, tidy back the dress or help wear clothes / pajamas then help the client a comfortable position. After the data is collected, the data is processed and analyzed univariat and bivariate using Wilcoxon test, the meaning is seen at the level of $\alpha = 0.05$

RESULT

Table 1 : Statistical distribution of pain scale before and after cutaneous stimulation (Slow Stroke Back Massage) on Decreased menstrual pain (*dysmenorrhea*) in adolescent girls at SMA N 1 Kota Solok 2017

Variable	Mean	Median	SD	Min-Max
Pain scale before cutaneous stimulation (Slow Stroke Back Massage)	5,15	5.00	0,87	4 - 7
Pain scale after cutaneous stimulation (Slow Stroke Back Massage)	2,77	3.00	0,725	2 - 4

The mean of pain scale before cutaneous stimulation (Slow Stroke Back Massage) in adolescent girls who experienced menstrual pain (*dysmenorrhoea*) was 5.15 with standard deviation of 0.87, lowest score 4 and highest score 7. After cutaneous stimulation (*Slow Stroke Back Massage*) in adolescent girls who experienced menstrual pain (*dysmenorrhoea*) obtained a mean value of 2.77 with a standard intersection of 0.725, the lowest score 2 and the highest value 4.

Table 2 : Statistical distribution of pain scale before and after cutaneous stimulation (Slow Stroke Back Massage) on Decreased menstrual pain (dysmenorrhea) in adolescent girls at SMA N 1 Kota Solok 2017

Variable	n	Median Minimal-maksimal	Mean \pm sd	p
Pain scale before cutaneous stimulation (Slow Stroke Back Massage)	13	5 (4 – 7)	5,15 \pm 0.89	0,008
Pain scale after cutaneous stimulation (Slow Stroke Back Massage)	13	3 (2 – 4)	2,77 \pm 0.72	

The median score of pain scale before cutaneous stimulation (*Slow Stroke Back Massage*) in adolescent girls who experienced menstrual pain (*dysmenorrhea*) was 5 with a minimum value of 4 and a maximum value of 7 with a mean value of 5.15 and a standard intersection of 0.89. Whereas after performed cutaneous stimulation (*Slow Stroke Back Massage*) median value is 3 with a minimum value of 2 and a maximum value of 4 with a mean value of 2.77 and standard intersection 0.72. The statistic test results obtained $p = <0.008$ it can be concluded that there are significant differences in the scale of pain before and after the cutaneous stimulation (*Slow Stroke Back Massage*). The cutaneous stimulation of the body in general is often centered on the back and shoulders (Smeltzer 2001: 232) . Cutaneous stimulation stimulates the ferifer fibers to transmit implants via the dorsal horn of the spinal cord, while the implants carried by the A-Beta fibers dominate the gate mechanism closing so that the implants of pain are not delivered to the brain (Prasetyo, 2010; 70). The results of this study are in line with the results of research Mukhoirotin, et al, 2010 on "Exploitation of Cutaneous Stimulation (*Slow Stroke Back Massage*) on Decrease Intensity of Menstrual Pain" resulted in the effect of Cutaneous Stimulation (*Slow Stroke Back Massagge*) on the decrease in pain intensity. The results showed that although overall a decrease in the scale of pain but there is a decrease in one scale only because it is a condition of fatigue because the teenager at the same time there are also talent and interest activities such as arts, sports and other extracurricular activities. This is in accordance with the opinion of Potter & Perry (1999) fatigue will increase the perception of pain, fatigue causes more intense pain sensation and decrease the ability of koping.

CONCLUSIONS

Cutaneous stimulation (*Slow Stroke Back Massage*). Can be used as an alternative action to reduce menstrual pain (*dysmenorrhea*) in young women who experience menstrual pain (*dysmenorrhoea*).

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ECOLOGICAL ANALYSIS POTENTIAL PLACE *Aedes sp.* IN PREVENTION OF RISK DISEASES OF DENGUE HEMORRHAGIC FEVER DISEASES (DHF) PREVENTION IN PADANG CITY 2017

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ABSTRACT

Mosquitoes as vectors of living diseases in the human environment and interacting with each other, the population of ecological and habits of society to accommodate double burden, in addition to disease by the Dengue virus, suspect vectors managed for the chain and transmission of risk. The purpose of this is explain ecological components and potential *Aedes sp.* handling Dengue Hemorrhagic Fever (DHF) Problem In West Sumatera Year 2017. The results describe the ecological component of potential mosquito breeding in Korong Gadang Kuranji Padang City. Container Index (CI) is 21.7%. House Index (HI) is 48.1%. and Breteau Index (BI) number is 67 per 100 houses. Free number of larvae (ABJ) is 51.9%. The number of larvae density is high, the order of the six density numbers, shows Not Free Risk of Transmission Yet. Drain the containers regularly, closing buckets, drums, and reservoir tanks, utilizing containers and counseling and prevention and eradication of DHF based on the number and type of mosquitoes which further becomes the basis for assisting the community.

Keywords: Ecological Analysis, Potential breeding, Transmission of Risk

INTRODUCTION

The mosquito's infectious disease by the *Aedes aegypti* and *Aedes albopictus* is still a public health problem that has both social and economic impact. Social losses that occur, among others, caused panic in the family to the death of family members and reduced life expectancy. The immediate perceived economic impact on the patient is the cost of treatment, while the indirect is the loss of working time, school time and other costs incurred in addition to treatment such as transportation and accommodation during patient care. (Rizal et al., 2013)

The prevalence of incidence and risk of DHF and Chikungunya disease is transmitted by *Aedes aegypti* and *Aedes albopictus* mosquitoes in Padang city based on Padang City Health Office (DKK) report that Padang is an endemic area of dengue fever and sporadic that is almost encountered in 11 districts. This condition provides the spread of dengue cases that are still greater than the national Case Fatality Rate (CFR) that must be below 1%. Human factors contributed to the growth of mosquito populations, mostly large cities in Indonesia, has grown rapidly with all its implications, such as the growth of slums due to urbanization, limited water supply, and unprofessional environmental management, transmission caused by many potential places as nests used *Ae* mosquitoes. *aegypti* and *Aedes albopictus* to lay eggs such as tanks and water Tubs in WC, buckets, Drum, Bird food place, Overflow Refrigerator and Dispenser and other containers.

Ecological analysis is expected to be able to study the potential of the environment to be breeding places mosquitoes and merancang form of control that is easily applied by the community. The whole process of surveillance and epidemiological analysis. provides a means for visualizing and analyzing epidemiological data, showing trends,

dependencies and risk-related diseases including those transmitted by *Aedes aegypti* and *Aedes albopictus* mosquitoes and other mosquitoes as Suspect vectors.

Based on the above, the researcher is interested in conducting research "Ecological Analysis And Potential Spot Spot of *Aedes* mosquito sp. In Prevention of Risk of Dengue Haemorrhagic Fever (DHF) in 2017

METHODS

Descriptive analytic research through observation and larval surveys to obtain the distribution of Potential Spot Spot for *Aedes* sp. in Endemic Areas and the Risk of Dengue Haemorrhagic Fever Infection in 2016 to Korong Gadang Sub Districts shows endemicity which tends to increase compared to Research Time is for 6 (six) months from July to December 2017. Collecting mosquito larvae density data using larva survey form. a) Looking for secondary data, in the form of area and demographic data in local health centers and sub-districts, b) Determining the area in the survey of houses and water reservoirs (TPA), c) Home Inspection and TPA positif mosquito larvaed) Taking Larvae found in the TPA and Recording in the Survey Form, e) Obtain the boundaries of urban villages for spatial data, f)

Analysis Data research through the analysis of other variables in the form of tendency water reservoir characteristics that become mosquito nest or found larvae as an environmental component with the risk of transmission of DHF. Interpretation of density with Density figure year WHO-1972, as follows:

RESULT

Table 1. Frequency Distribution of Container Container Characteristics and Positive Containers Based on Type and Number of Containers Korong Gadang Padang Year 2017

No	Container Type	Σ Container	%	Σ Positive	%
	TPA :				
1	a. Bak mandi	118	18,8	42	30,6
	b. Buckets	136	21,7	34	24,8
	c. Drum	39	6,2	17	12,4
	d. Tanks	16	2,5	0	0
	Numbers	309	49,4	93	67,8
	Not TPA				
2	a. Flower pot	89	14,2	3	2,2
	b. Used goods	79	12,6	17	12,4
	c. Shelter dispenser	51	8,1	7	5,1
	d. Refrigerator spills	30	4,8	0	0
	Numbers	249	39,8	27	19,8
	Natural TPA:				
3	a. bamboo pieces	35	5,5	11	8
	b. Shell	31	4,9	5	3,6
	c. Stone Hole	2	0,3	1	0,7
	Numbers	68	10,8	17	12,4
	Containers Total	626	100	137	100

Table 1 explains container as a place for as many as 626 containers. And landfill 309 containers (49.4%), bucket of 136 (21.7%). As well as the density of larvae was 21.9%. Containers of water container containers were found as many as 187 houses.

Table 2. A positive home frequency distribution is larvae *Ae. aegypti* At Korong Gadang Padang Year 2017

No	Larvae at places	Number	%
1	The positive house of <i>Aedes</i> sp.	90	48,1
2	The negative house of <i>Aedes</i> sp.	97	51,9
Number		187	100

Table 2 in get the result that the positive house larvae *Ae* mosquito. *aegypti* is 90 (48.1%) homes while the house is negative mosquito larvae *Ae. aegypti* is 97 (51.9%) homes. So it can be calculated Breteau Index number as follows from the container that positive larva as much as 137 containers. Compared to the total of 626 container containers on 187 Homes, the Breteau Index is: of 73 Containers per 100 homes studied, so that if further analyzed by density figure which is the reference of the vector density, it is in the sixth order, and the high density is interpreted.

Table 3. Frequency distribution of Container condition based on position At Korong Gadang Padang Year 2017

No	Container Type	Indoor				Outdoor			
		Σ	%	(+) Larvae	%	Σ	%	(+) larvae	%
1	TPA :								
	a. Bak mandi	118	18,8	42	30,6	0	0	0	0
	b. Buckets	128	20,4	31	22,6	8	1,3	3	2,2
	c. Drum	30	4,8	14	10,2	9	1,4	3	2,2
	d. Tanks	3	0,5	0	0	13	2	0	0
	Numbers	279	44,6	87	63,5	30	4,8	6	4,4
2	Not TPA								
	a. Flower pot	24	3,8	1	0,7	65	10,4	2	1,5
	b. Used goods	10	1,6	1	0,7	69	11	16	11,7
	c. Shelter dispenser	51	8,1	7	5,1	0	0	0	0
	d. Refrigerator spills	30	4,8	0	0	0	0	0	0
	Numbers	115	18,3	9	6,5	134	21,4	18	13,2
3	Natural TPA:								
	a. bamboo pieces	0	0	0	0	35	5,6	11	8
	b. Shell	0	0	0	0	31	4,9	5	3,6
	c. Stone Hole	0	0	0	0	2	0,3	1	0,7
	Numbers	0	0	0	0	68	10,9	17	12,4
	Containers Total	394	62,9	96	70	232	37	41	30

Table 3 can be seen that the most found containers are in the house as many as 394 containers (62.9%) the highest is the in-house TPA of 279 containers (44.6%) and the most container is the bucket in the house 128 (20 , 4%). The most positive container *Ae. aegypti* larvae is in the house as much as 96 containers (70%), the highest is the in-house TPA of 87 (63.5%) and the most larvae container is bak mandi 62 (30.6%).

Table 4. Distribution of Risk of Prevention of Dengue Hemorrhagic Fever Infection At Korong Gadang Padang Year 2017

No	Risk Transmission	Number	%
1	House's with larvae	90	48,1
2	House's without larvae	97	51,9
Total		187	

Table 4. the results of house with larvae compared without larva is 48.1% with 51.9% indicating a lower number of 95% which means based on the target free number of larvae Risk of transmission is not Free from Risk.

DISCUSSION

Based on the results of research that has been done in Korong Gadang in get various index larvae that is Container Index (CI) = 20,3%, House Index (HI) = 50,3%, Breteau Index (BI) = 67 and free rate larvae (ABJ) = 49.7%. These results when correlated with the density figure which is the reference of the density of the DBD vector, are in the order of six, then the number of CI, HI, and BI in the can show high density.

This result explains the analysis that the potential of container / TPA as a mosquito breed in the form of container of water reserve in Kuranji sub-district, especially intervention must be inundated or accommodated when there is rain outside and yard of the house, so the effort to eliminate by removing or making use of used goods is efforts that can be done routinely to break the chain of transmission of mosquito-borne diseases of dengue disease indicated based larva index.

From the analysis of this research about the place of perindukan that need to be intervened with supervision (controllable) and disposable regularly need to be taught and empowered to society to prevent potential mosquito nest and health program in the form of eradication of mosquito nest, breeding control (PSN) maximal.

CONCLUSION

Ecological Component of Potential Mosquito breeding place in Korong Gadang Kuranji Area in Padang City based on Index of Container Index (CI) 21,7%. House Index (HI) 48.1%. Breteau Index (BI) 67%. Shows the sixth order in the density figure. The most common type of container found in *Ae. aegypti* is a water container (TPA) of 93 containers (67.8%). Risk of DHF Prevention by 48.1% House with larvae and 51.9% House without larvae with Interpretation Not Risk-Free of Transmission.

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EFFECT OF HEALTHY GYMNASTICS ON FEMALE LIPID BLOOD PROFILE AGE 35-55 YEARS IN KURANJI VILLAGE IN WORK AREA PUSKESMAS BELIMBING PADANG YEAR 2017

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ABSTRACT

Exercise is one of the necessary ways to maintain body condition and lower cholesterol. The appropriate type of sport is a type of sport that is aerobic such as walking, swimming and gymnastics. The Healthy heart gymnastics series V is one option to improve fitness and lower body fat, especially cholesterol. Because the healthy heart gymnastics series V is aerobic that many inhale oxygen and aims to smooth the flow of blood throughout the body. In addition, the preparation of his gymnastic movement based on the basic principles of exercise include cardiorespiration, muscle strength, muscle endurance, flexibility, motion coordination, agility and balance. The purpose of this study is to determine the effect of the healthy heart gymnastics series V on blood lipid profile of women aged 35-55 years in Kuranji Belimbing Padang Village Year 2017. This research type is quasi experimental research or design of pseudo experiments aimed at expressing causal relationships by way of involves the control group in addition to the experimental group, but is not used entirely to control the outside variables that influence the implementation of the experiment. The study design was pretest-midle-postest with control group meaning 01 pretest to measure total cholesterol levels of women aged 35-55 years before the exercise of healthy heart series V 02 midle measuring after 2 weeks of exercise implementation. While 03 postest to measure blood lipid profile after 1 month of exercise of healthy heart series V series. The population of this study is all women aged 35-55 years in Kuranji Belimbing village, amounting to 523 people. Data was processed by editing, coding, entrying, cleaning and analyzed by using univariate and bivariate method. The results showed that the participants of healthy heart series gymnastics in Maternity Clinic The working area of Belimbing Community Health Center in 2017 is an active participant. Bivariate analysis showed that the healthy heart series gymnastics had an effect on total cholesterol level of women of aged 35-55 years in Kuranji Urban Village in 2017.

Keywords: Healthy Gymnastics, Lipid Profile

INTRODUCTION

The age of modernization is growing. This lifestyle wrongly cures many fast food restaurants that sell foods containing high cholesterol and little nutrients. Eating these types of foods is at risk of degenerative diseases. In this disease the function and structure of a particular tissue or organ may deteriorate over time. The Diseases included in this group are coronary heart disease (CHD) and cardiovascular.¹

Heart disease is one of the leading causes of death in both developed and developing countries. In the United States each year 550,000 people die, in Europe 20-40,000 people from 1 million inhabitants suffer from CHD.¹

Framingham Heart Study in collaboration with the National Heart, Lung, and Blood Institute (NHLBI) cited from Durstine² defined total blood cholesterol levels exceeding 300 mg / dL would be three to five times more likely to have heart disease than those with blood cholesterol levels of 200 mg / dL. The relationship between cholesterol increase is related to the occurrence of heart disease.²

In Indonesia the prevalence of hypercholesterolemia at the age of 25-34 years is 9.3% while at 55-64 years of age 15.5%. Risk factors include genetic factors, diet and lack of exercise. The WHO report states that in 2002 4.4 million mortality of CHD was hypercholesterolemia. Exercise is one of the necessary ways to maintain body condition and lower cholesterol. The appropriate type of sport is a type of sport that is aerobic such as walking, swimming and gymnastics. Healthy heart gymnastics V series is one option to improve fitness and lower body fat, especially cholesterol. Because the heart-healthy gymnastics of the aerobic VASE series is much inhaled of oxygen and to facilitate the flow of blood throughout the body.⁵ A healthy heart gym is an exercise that is prepared by always putting the heart's ability, large muscle movement and joint flexibility, as well as oxygen suggestions. In addition to improving feelings of health and ability to cope with stress, the benefits of regular aerobic exercise are increased levels of HDL-C, decreased LDL-C levels, decreased blood pressure, reduced obesity, reduced heart rate at rest and myocardial oxygen consumption (MVO₂), and decreased insulin resistance.⁵ Based on the above background, the researchers wanted to examine the influence of healthy heart gymnastics series V on blood lipid profile of women aged 35-55 years in Kuranji Belimbing Padang Village. The general objective of the study was to determine the effect of healthy heart gymnastic series V on blood lipid profiles of women aged 35-55 years in sub-district kuranji Belimbing Padang.

METHODS

This study used quasi experimental research or a pseudo experimental design that aims to reveal causal relationships by involving the control group in addition to the experimental group, but not fully used to control the outside variables that affect the implementation of the experiment. The research design was pretest-middle-posttest with control group meaning 01 pretest to measure total cholesterol level of the women aged 35-55 years before the exercise of healthy heart series V 02 middle measuring after 2 weeks of gymnastics implementation. While 03 posttest to measure blood lipid profile after 1 month of implementation of healthy heart gymnastics series V. This research has been conducted in Maternity Maternity Clinic at the Working Area of Puskesmas Belimbing Padang in 2017. The population of this study is the population of this study are all women aged 35 - 55 years in Kuranji Belimbing village, amounting to 523 people. Sampling using purposive sampling method is all women aged 35 - 55 years in accordance with the criteria that participate in the implementation of healthy heart gymnastics series V in Kuranji Belimbing Padang village.

RESULT

In univariate analysis found that the participants of healthy heart gymnastics series V whose presence is less than 7 times gymnastics or less active is as many as 14 people or equal to 46.7%. Meanwhile, healthy heart series gymnastics participants who attend more than 7 times or active is as many as 16 people as much as 53.3%. It can be concluded that the participants of healthy heart gymnastics series V in Maternity Maternity clinics Working Area of Puskesmas Belimbing 2017 is an active participant.

The initial total cholesterol level of women aged 35 to 55 years in Kuranji Village before the implementation of healthy V series heart exercises in Maternity Maternity clinic as many as 19 people (63.4%) are in abnormal condition. While as many as 11

people (36.6%) are within normal limits. It can be concluded that the total initial cholesterol level of women aged 35 to 55 years before the implementation of the most healthy V series heart exercises is not normal. The total cholesterol level of women aged 35 to 55 years after healthy V series heart exercises was found to be more normal as many as 19 people (63.4%), while as many as 11 people (36.6) found total cholesterol levels not within normal limits.

In bivariate analysis found the average total cholesterol level in the first measurement was 224,03 mg / dl with standard deviation 40,616 mg / dl. In the second measurement, the average total cholesterol level was 173,63 mg / dl with standard deviation 24,931 mg / dl. The mean difference between the first and second measurements was 50.400 mg / dl with a standard deviation of 43.649 mg / dl.

Statistical test results obtained p value 0,000 then there is a significant difference between the first and second measurement Hb levels. It can be concluded that there is influence of the implementation of healthy heart series V on blood lipid profile of women aged 35 to 55 years in Kuranji Padang Village Year 2017.

DISCUSSION

There is a difference in the value between the total cholesterol levels of women aged 35-55 years before and after the implementation of healthy V series heart exercises and in accordance with the theory that exercise is one of the necessary ways to maintain body condition and lower cholesterol. Exercise appropriate is aerobic exercise one of the healthy heart gymnastics series V which is one option to improve fitness and lower body fat, especially cholesterol. Because the healthy heart gymnastics series V is aerobic that smooths the flow of blood throughout the body.

This study is in accordance with the theory that healthy heart gymnastics is a sport that is prepared by always put the heart's ability, great muscle movement and flexibility of joints, as well as efforts to enter as much oxygen as possible. In addition, the benefits of healthy heart gymnastics exercise this series of V can lower cholesterol levels, especially LDL-cholesterol, lower blood pressure, reduced obesity and lower insulin resistance.

The influence of healthy heart gymnastics exercises series V against total cholesterol levels is also in accordance with the theory that when doing physical activity one of them with gymnastics, the body will make the formation of energy in the form of adenosine triphosphate (ATP) of food consumed. So the food consumed is not much formed into cholesterol, consequently total cholesterol levels in the body decreases. The results of this study are also aligned with the results of research conducted by Tunggul Waloya in 2013 and research conducted by Paul D.Lopirinzi and Ovuokerie Addoh in 2016, but also described in a study conducted by wanda barbara pilch in 2015 that physical activity has a significant association with total cholesterol levels.

The limitation of this research is the researcher does not analyze data of respondent's diet which is one factor that can influence cholesterol level in body.

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ANALYSIS OF LOGISTICS MANAGEMENT IN COLD CHAIN IMMUNIZATION IN WORKING AREA OF NANGGALO HEALTH CENTRE 2017

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ABSTRACT

Inappropriate handling of vaccine may result in the occurrence of diseases which can be prevented by immunization (PD3I) and the appearance of untoward medical occurrence that follows immunisation (KIPI). In preliminary survey, it was found out that there were 24 cases of tuberculosis, 3 cases of measles, 2 cases of diphtheria, and 9 cases of clinical hepatitis. The result showed that there were sufficient numbers of paramedics, but the officer coordinator of immunisation still handled double tasks. There was enough of budget, eventhought it had to be used as minimally as they can for the officers honorarium. There was only one Cold Chain refrigerator in this community health center. The vaccine had been stored and handled in accordance with the standard procedure but the logistic storage was done only by the officer coordinator of immunisation. The logistic management of Cold Chain Immunisation had been handled in accordance with the guidelines eventhough it was still found out some problems available in the field. It is expected that the planning process is done in a bottom-up way (from lower level to upper level). It is also expected that there is an improvement in controlling system and in increasing immunisation program instruments.

Keywords : Cold Chain, Logistic Management System, Community Health Center

INTRODUCTION

Immunization has been recognized as the most effective disease prevention effort and has an impact on improving public health. Accordingly, the need for vaccines is increasing in line with the world's desire to prevent various diseases that can cause disability and death. Increased vaccine requirements have been supported by vaccine improvement efforts by increasing the effectiveness and safety of vaccines (MOH, 2005).

An effective and safe vaccine aims to ensure the successful quality of immunization services. Potential vaccine is very important to note in vaccine storage, vaccine potential, vaccine planning and vaccine distribution. Vaccine is a biological product that is very easily damaged and loses its potential when logistics are not properly managed. The vaccine chain equipment in the immunization program determines the potential for vaccines during storage and transportation.

In research Kusumaning (2011) the results of observations on the implementation of immunization services significantly related to the incidence of PD3I (a disease that can be prevented by immunization). This is because as many as (47.1%) immunization implementing officers did not check the condition of the vaccine while in posyandu. In addition, immunization service personnel (69.4%) did not place 4 cool packs in the vaccine carrier which increased the possibility that the temperature inside the vaccine carrier became unstable for storage temperature of the vaccine (2-80C). There are 61 immunization implementing officers or equal (71.8%) who do not label open hours or mixing vaccines. Incidental incidence is also accompanied by lay perception and also among ordinary health care workers all that happens with immunization as an allergic reaction to the vaccine. This incident often occurs in the immunization process due to

engineering and implementation techniques (MOH, 2005). Based on the phenomenon, researchers are interested to conduct research on Logistic Management Analysis in Cold Chain Immunization in the working area of Nanggalo Health Centre 2017.

METHODS

This research was conducted on July until Desember 2017 at Health Department of Padang and Nanggalo Public Health Center. In this study using semi-structural interview function is that the interview can be implemented freely and more openly and in this study using open questions and closed questions that function to enable informants to provide more extensive answers and information obtained have a specific answer true / false. The interview will begin by asking the information of general questions about immunization logistics management and continued with input, process and output questions. The interview session will be ended by thanking the informant and the researchers making a return appointment with the informant to summarize the results that have been obtained with a duration of 30 minutes at the Health Office of Padang and Nanggalo Public Health Center.

RESULTS

The result from Logistics Management Study in Cold Chain Immunization at Nanggalo Health Center. Overlay, the researchers made it in the following narrative:

a) Policy

The Health Office of Padang and Nanggalo Public Health Center is guided by Permenkes RI No.42 of 2013 on Immunization Implementation, which become the reference and guidance in organizing logistics management activities in cold chain of immunization, as result of in-depth interview with informant as follows:

"..... overall there is a regulation that underlies the implementation and provision of logistics in this immunization program that is Permenkes RI No.42 of 2013 on Immunization Implementation, in the minister's regulation already covers all regulation of compulsory immunization in Health centre, so we guided to an existing national policy" (Source IF 1)

(Reply long enough by first searching for books concerning the policy)

b) Power

The power involved in the implementation of logistics management in the cold chain of immunization must have special skills and reliability and the personnel must undergo special training such as technical guidance in Health Centre and have a Training certificate. As the informant's statement is as follows:

".... hmm, yes we have held special training such as technical guidance (bintek) at the health center, bintek held a day in a month, where it sometimes people come to the Public Health Service and sometimes we are called to the Department, who held it directly from the Office his ..." (Source IF 1)

(Answered very relaxed and somewhat hesitant)

d) Means

In Health Office and Nanggalo Health Center owned facilities for logistics management activities in the cold chain immunization is already complete ie there is already a storage building and other facilities that support the management of immunization logistics, such as informant statement as follows:

".... we have a complete facility that we have a special storage building and we have a cold chain 1 good fruit and 2 more damaged, refrigerator, thermos, vaccine, books for 13 complete villages, and computers to process data"(Source IF 5)

(Relaxed, sure, and by showing one by one the means owned in the logistics storage room)

e) Planning

Planning has been done in the Department of Health conducted at the beginning of each year. Nanggalo Health Centre undertook the planning of immunization logistics needs and its propose by submitting a request within a certain period of time ie monthly to the Health Office. As the result of in-depth interview as follows:

".... if the planning system we have made the target planning and vaccine needs and health centre put forward planning to the Office per month" (Source IF 3)

(Somewhat hesitant and quiet voice)

f) Procurement

Procurement of immunization logistics from Provinces applying to the Center, District Health Office only receives logistic goods once a year and is placed in the District Health Office. As the informant's statement is as follows

".... it is the deck, if the problem of procurement we do not understand, the procurement will be in the Province later, later submitted to the Center instead of us from health office" (Source IF 1)

(The answer is less sure because the informant does not understand the thing in question)

g) Distribution

Distribution of immunization logistics is done from Center to Health centre. Health centre then distributed logistics to 8 villages which were its working area during immunization at posyandu. As the informant's statement is as follows:

".... distribution from central level to Prov to KabKota then, to Health centre" (Source IF 1)

(Quick answer)

h) Storage

The storage process at the warehouse at Health centre is done after the logistic goods come to the health center, Korim checks and data collection of the type, amount, expiration time and after the completion of the drug is then arranged to the storage warehouse at the Health centre. This is in accordance with the results of in-depth interviews as follows:

".... goods that come to our health center do check first then, the goods are compiled according to the standard and we will check every day especially the vaccine temperature" (Source IF 5)
(Assertive)

i) Supervision

The supervision process in the responsible Health Office is the Section Head of P2PL Dinkes and supervision at the Health centre which is directly responsible from the Head of Nanggalo Health Centre. As the informant's statement is as follows:

".... if the supervision of the Health centre in charge of the Health centre head and if we are in Dinas ya we are part of Kasie" (Source IF 1)
(Answer casual and not fast)

j) Output

That the Implementation of Logistics Management in Cold Chain Immunization at Nanggalo Health Center has been done in accordance with the prevailing guidelines and laws covering aspects of planning, procurement, distribution, storage and supervision. So that although there are limited funds and facilities in the Health Centre implementation of immunization logistics management remains to be achieved. Although there are still some other problems of achievement targets, the targeting of logistics needs and the impact of immunization such as KIPi and PD3I still exists but has been overcome. As the informant's statement is as follows:

".... KIPi is reported once in 1 month and happened to have been formed here KOMNAS KIPi in the river city full of fever biasaya more than 10 days and swollen .. if for ordinary events it is not reported" (Source IF 4)

(Shows report book Follow-up incidents post immunization that decreased from previous year)

DISCUSSIONS

Based on the results of in-depth interviews with all informants and the results of observation and examination of documents in Health Centre was found that the personnel involved and responsible in the management of immunization logistics at Nanggalo Health centre as many as 15 people, 2 Korim and 13 officers who came to Posyandu. From the amount of energy to carry out the activities of management of immunization logistics at Health Centre Nanggalo is very sufficient. This is in accordance with the Minister of Health RI No.42 of 2013 states that the local government of Provinsi is responsible for the provision of manpower staffs to conduct compulsory immunization in their respective health offices, the manager shall consist of program manager, cold chain, vaccine manager, and logistics management, and then the manager must meet certain qualifications gained from education and training and the government is responsible for the implementation of the training.

Result of research in get Nanggalo Health Centre make planning once year and beginning of year have started to run later, early month held by Lokmin to evaluate result of activity which have been done. Planning for vaccine needs and targeting made by Health Office should planning is done in stages from Health centre to Central, data taken

for target setting not data from Health centre but data taken from Kesga (family health) health department data for that, target number will never fit in the field.

Result of research got all informant stated that procurement of logistics is held by Provincial Health Office then, once in one year place in District / Town Service and once in 1 month Health centre pick up logistic goods to Health Department. The logistics procurement process for Health Offices and Nanggalo Health Centre is organized by the provincial government as well as logistics that come within one year of being placed in the Health Department's warehouse and every month the Health centre asks the logistics needs to the Health Office.

The result of the research is that the distribution has been done from the center to the health center, then the distribution to posyandu no obstacles because of the distance posyandu approximately 10 minutes from the Health centre. Health centre Nanggalo has 8 posyandu which is the work area of each posyandu given 1 officer of Health Centre responsible in it. However, in distributing to posyandu for the last few years, midwives do not want to go down and be replaced by nurses, then posyandu schedule in Health centre every Thursday and if, there are people who are not recorded in Posyandu may come to Health centre for immunization. The distribution of immunization logistics has been done in stages from the top to the bottom level in accordance with the policies of each region. Health centre Nanggalo in distribution to posyandu using thermos vaccine to be taken to posyandu every day and schedule of immunization at health center every Thursday.

The results of research with informants and observation results on vaccine storage in Health centre and in Dinas Kesehatan are in accordance with the standard. In Nanggalo Health centre for immunization activities has 2 person immunization coordinator who is tasked to maintain the goods of immunization logistics especially vaccine. The results of in-depth interviews obtained by the task of the corps to check every day the quality of the vaccine by checking the state of vaccine temperature and raising the temperature chart according to the standard.

The results obtained through in-depth interviews with informants obtained direct supervision performed by head health centre Nanggalo then, supervision is also done by the way korim make reports per month and submitted to the head of the health centre. In addition, supervision is also done by the corps to monitor the state of the vaccine remains well preserved. Supervision of management implementation in the cold chain of immunization has been conducted directly supervision in both the Health Office, Health centre and Posyandu. The supervision at the Health Office responsible for the Section Head and the Health centre direct supervision was carried out by the Head of Health centre and the Immunization Coordinator.

CONCLUSIONS

Research on the Study of Logistics Management in Cold Chain of Basic Immunization at Nanggalo Health centre Padang City has been implemented in the period \pm 6 months. This research involves various parties related to logistics handling in cold chain of basic immunization at Health centre Nanggalo, that is Kasie Observation of Disease and Immunization of P2PL Program of Padang City Health Office, Nanggalo Health centre Head of Padang City, KIA Program Coordinator of Health centre Nanggalo Kota Padang and Immunization Program manager at Posyandu Health centre Nanggalo

Padang City. The research was conducted by using in-depth interview method and FGD on informants related to research consisting of logistics management in cold chain of immunization starting from planning to distribution and input factor (policy, personnel, fund, means) and process factors (planning, procurement, distribution, storage, supervision) and output.

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THE EFFECT OF PSYCOEDUCATION THERAPY ON CAREGIVER LOADS IN TREATING STROKE PATIENTS

Mira Agusthia

ABSTRACT

Stroke patients in Indonesia are increasing every year and have a high degree of dependence on caregiver. The more severe the load perceived by the caregiver the more severe the emotional level felt by the caregiver, therefore caregiver requires upbringing in reducing the burden he feels that is by providing psychoeducation therapy. The purpose of this study was to determine the effect of psychoeducation therapy on caregiver load in treating stroke patients. This research was conducted at National Stroke Hospital of Bukittinggi from July 31st to September 1st 2017. The research type was quasi-experimental with pretest and posttest with control group design using Zarit Burden Interview questionnaire. The sample of 34 Caregiver using Purposive Sampling technique. The results showed that there was a decrease of Caregiver load in the intervention group as much as (12,71), deviation standard (4,566) with p value 0,000 and the weight loss control group (0,41) standard deviation (0,795), with p value 0,050. It is expected that nurses in hospitals may be able to provide psychoeducation therapy to families to reduce Caregiver's burden in treating stroke sufferers at home

Keywords: Caregiver, Burden, Psychoeducation, Stroke

INTRODUCTION

Proses menua merupakan proses sepanjang hidup, tidak hanya dimulai dari suatu waktu tertentu tetapi dimulai sejak permulaan kehidupan. Menjadi tua merupakan proses alamiah, yang berarti seseorang telah melewati tiga tahap kehidupannya, yaitu anak, dewasa dan tua. Tiga tahap ini berbeda, baik secara biologis maupun psikologis (Wahjudi, 2008). Salah satu masalah psikologis yang dapat dialami oleh lansia adalah stres (Hidayati, 2009 dalam Devi 2012).

Stres pada lansia merupakan tekanan yang diakibatkan oleh stresor berupa perubahan-perubahan yang menuntut adanya penyesuaian diri lansia. Stres yang berkepanjangan dapat berdampak buruk bagi kesehatan lansia. Kondisi stres pada para lansia tersebut bisa diartikan dengan kondisi yang tak seimbang, adanya tekanan atau gangguan yang tidak menyenangkan yang biasanya tercipta ketika lansia tersebut melihat ketidaksepadanan antara keadaan dan sistem sumber daya biologis, psikologis, dan juga sosial yang erat kaitannya dengan respon terhadap ancaman dan bahaya yang dihadapi pada lanjut usia.

Stres yang dirasakan lansia memiliki reaksi yang berbeda-beda terhadap sistem tubuh. Hawari (2001) mengungkapkan bahwa stres dapat mengenai hampir seluruh sistem tubuh, seperti wajah tegang, serius, tidak santai, bibir dan mulut terasa kering, kulit dingin, telapak tangan dan kaki berkeringat, kesemutan, jantung berdebar-debar, sering berkemih dan otot sakit, se perti ditusuk-tusuk serta pegal (Sunaryo, 2013). Sehingga dengan kondisi tersebut dapat memperberat kondisi lansia yang secara fisiologis mengalami penurunan fungsi tubuh menurun.

Stres lansia dapat menimbulkan masalah yang merugikan lansia itu sendiri sehingga diperlukan beberapa cara untuk mengendalikannya. Relaksasi Benson salah satu terapi yang banyak digunakan baik untuk penurunan ketegangan, atau mencapai

kondisi tenang seperti menghilangkan nyeri, stres, kecemasan, insomnia, penurunan tekanan darah, dan depresi. Teknik ini merupakan upaya untuk memusatkan perhatian pada suatu fokus dengan menyebut berulang-ulang kalimat ritual dan menghilangkan berbagai pikiran yang mengganggu. Teknik relaksasi ini dapat dilakukan 10 sampai 20 menit sebanyak dua kali sehari (Setyowati dalam Nur inayanti 2012)..

Hal ini dibuktikan oleh Penelitian (Kadek, 2013) tentang pengaruh Terapi Relaksasi Benson terhadap penurunan tingkat stres pada lansia di Unit Rehabilitasi Sosial Wening Wardoyo Unggaran didapatkan hasil ada perbedaan yang signifikan tingkat stress lansia sebelum dan sesudah diberikan teknik Relaksasi Benson pada kelompok intervensi.

Tindakan keperawatan lainnya yang dapat diberikan kepada lansia agar lansia merasakan dirinya tetap rilek, tenang dan tidak stres adalah psikoterapi yang dapat meningkatkan hubungan interpersonal, meningkatkan harga diri dan keyakinan diri, menurunkan perasaan stres (Sadock & Kaplan, 1997; Stuart & Laraia, 2005). Pemberian psikoterapi ini dapat bersifat individual serta kelompok. Psikoterapi yang dilakukan dalam bentuk terapi kelompok lebih diutamakan terhadap lansia untuk memberikan persahabatan yang baru saat terjadi kehilangan teman, memiliki kesempatan membantu antara satu dengan yang lain, dan tetap rileks (Sadock & Kaplan, 1997). Salah satu terapi kelompok yang dapat menurunkan stres adalah logoterapi. Logoterapi merupakan sarana bagi lansia untuk menemukan dan meningkatkan makna dan tujuan hidupnya (Suprpto, 2013).

Logoterapi yang merupakan salah satu bentuk pelatihan kebermaknaan hidup ini, selain menjadi sarana bagi lansia untuk menemukan dan meningkatkan makna dan tujuan hidupnya juga dapat menjadi sarana bagi lansia untuk menurunkan depresi yang merupakan efek negative dari stres.

Logoterapi memiliki pengaruh terhadap penurunan stres pada lansia dengan jumlah penurunan sebesar 62,44%. Stres pada lansia dapat terjadi karena permasalahan psikologis yang dapat terjadi karena lansia tidak mampu menyelesaikan setiap tahapan perkembangannya dengan baik.

Tugas perkembangan lansia yaitu mampu menyesuaikan diri terhadap perubahan yang terjadi baik fisik/biologis, sosial ekonomi sehingga lansia mengerti dan menerima kehidupan serta mampu menggunakan pengalaman hidup untuk dapat mengikuti perubahan yang terjadi karena proses menua sehingga tercapai integritas diri. Selain dikarenakan permasalahan psikologis, kurangnya perhatian juga dapat berpengaruh terhadap tingkat stres lansia.

Berdasarkan data yang diperoleh dari Panti Sosial Tresna Werdha Sabai Nan Aluih Sicincin Oktober 2016, terdapat 110 orang lansia terdiri dari 69 laki-laki dan 41 perempuan yang ditempatkan di 14 wisma. Dan hasil wawancara terpimpin menggunakan *Depression Anxiety Stress Scale* (DASS) terhadap 5 orang lansia di Panti Sosial Tresna Werdha Sabai Nan Aluih didapatkan bahwa 3 orang lansia mengalami stres.

Lansia yang teridentifikasi stres mengungkapkan gejala stres seperti mudah merasa kesal dan marah, insomnia, sering terbangun pada malam hari dan terkadang terlalu banyak tidur, badan terasa letih, nafas sesak dan jantung berdebar-debar, sedih dan takut keluarga akan melupakannya, kehilangan semangat, otot punggung dan leher terasa tegang, sulit untuk konsentrasi dalam beraktivitas, mudah lupa dan tidak bisa

relaks. Satu orang lansia mengatakan masuk panti dengan keinginannya sendiri karena tidak memiliki anak dan kerabat yang lain sibuk bekerja sehingga tidak bisa mengurusinya, sedih karena kerabat sudah jarang menghubunginya, merasa sedih, takut dan cemas karena penyakit asam urat yang tidak kunjung sembuh. Dua orang lansia mengatakan masuk panti diantarkan oleh keluarga karena kemiskinan dan keluarga tidak mampu merawat di rumah.

Kegiatan rutin yang dilakukan lansia dalam mengurangi stres antara lain membuat kerajinan tangan setiap hari senin, wirid dan pengajian setiap hari rabu, senam lansia setiap hari selasa dan kamis, dan gotong royong bersama setiap hari jumat. Namun tidak semua lansia mengikuti kegiatan-kegiatan tersebut secara rutin. Usaha nonfarmakologis dengan untuk mengatasi stres lansia belum pernah dilakukan di PSTW Sabai Nan Aluih.

Berdasarkan fenomena di atas, peneliti tertarik untuk melakukan penelitian tentang "Pengaruh Benson Terapi dan Logo terapi terhadap Penurunan Tingkat Stres lansia di Panti Sosial Tresna Werdha Sabai Nan Aluih Sicincin Kabupaten Padang Pariaman. Diharapkan dengan pemberian terapi ini dapat menghasilkan penurunan tingkat stres dan mengurangi dampak buruk akibat stres terhadap lansia.

METHODS

Quasi-experimental research design is used with approach of pretest posttest with the control group. Research conducted at SDN 05 Surau Gadang Nanggalo Padang from March to November 2017. The sample was 64 students of SMAN 5 Padang City School Year 2016 / 2017 with purposive sampling (Lemeshow, 1997). The data is processed and analyzed by univariate analysis with descriptive statistics and bivariate analysis using independent test, sample T-test and ANOVA test

RESULTS

Penurunan Tingkat Stres Lansia Sebelum dan Sesudah diberikan Benson Terapi dan Logo terapi di PSTW Sabai Nan Aluih Sicincin Padang Pariaman

Tabel 1. Penurunan tingkat Stres Lansia Sebelum dan Sesudah Intervensi Benson Terapi dan Logo terapi di PSTW Sabai Nan Aluih Sicincin Padang Pariaman 2017 (n=64)

Kelompok	Kondisi	N	Mean	SD	SE	P Value
TS dan FPE	Ansietas Sebelum	32	33,91	4,321	0,764	0,000
	Sesudah	32	27,31	2,799	0,495	
	Selisih		6,6			
TS	Sebelum	32	32,44	2,873	0,508	0,000
	Sesudah	32	28,28	1,611	0,285	
	Selisih		4,16			

Berdasarkan tabel 1 diketahui bahwa rata-rata tingkat stres lansia pada kelompok yang diberikan Benson Terapi dan Logo terapi **di PSTW Sabai Nan Aluih Sicincin Padang Pariaman** sebelum intervensi 33,91 dimana berada pada kondisi stres tingkat berat dengan standar deviasi 4,321 setelah diberikan intervensi rata-rata kondisi stres menjadi 27,31 dimana berada pada kondisi stres tingkat sedang dengan

standar deviasi 2,799 Hasil uji statistik menunjukkan ada penurunan bermakna rata-rata kondisi stres lansia sebelum dan sesudah diberi intervensi Benson Terapi dan Logo terapi **di PSTW Sabai Nan Aluih Sicincin Padang Pariaman** dengan nilai $p = 0,000$ ($P Value < 0,05$)

Rata-rata kelompok yang hanya mendapatkan benson terapi sebelum diberikan intervensi 32,44 dengan standar deviasi 2,873 setelah diberikan intervensi rata – rata kondisi stres menjadi 28,28 dengan standar deviasi 1,611 Hasil uji statistik menunjukkan ada penurunan bermakna rata- rata kondisi stres sebelum dan sesudah intervensi benson terapi dengan nilai $p = 0,000$ ($P Value < 0,05$).

Pada kelompok yang diberikan Benson Terapi dan Logo terapi penurunan stres lansia sebesar 6,6. Pada kelompok yang hanya mendapat benson terapi penurunan kondisi stres sebesar 4,16

DISCUSSION

RECOMENDATION

Based on result, it is recommended that the hospital to be performed by the nurse at the time of discharge planning or re-control and conduct counseling and home visits to identify and see the development of caregiver in treating stroke patients.

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THE EFFECT OF BENSON AND LOGO THERAPY TO DECREASE THE DEGREE STRESS OF ELDERLY IN TRESNA WERDHA SABAI NAN ALUIH SICINCIN REGENCY OF PADANG PARIAMAN

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ABSTRACT

Stress in the elderly is the stress caused by stressors in the form of changes that require adaptation of the elderly. Prolonged stress can be bad for the health of the elderly. There are several ways to control it. Benson Therapy and Logo Therapy one of the therapies that is widely used either for tension reduction, or achieve calm conditions in elderly people who experience stress. The result of statistical test showed that there was a significant decrease of average of elderly stress condition before and after intervention of Benson Therapy and Logo therapy at PSTW Sabai Nan Aluih Sicincin Padang Pariaman with p value = 0.000 (P Value <0,05). It is hoped that Benson Therapy and Therapeutic Logo can be used as a model for decreasing dementia in elderly people in the community and PSTW.

Keywords: Benson Therapy and Therapeutic Logo

INTRODUCTION

The process of aging is a lifelong process, not only starting from a certain time but starting from the beginning of life. Being old is a natural process, which means that a person has passed through three stages of life, that of a child, an adult and an old one. These three stages are different, both biologically and psychologically (Wahjudi, 2008). One of the psychological problems that can be experienced by the elderly is stress (Hidayati, 2009 in Devi 2012).

Stress in the elderly is the stress caused by stressors in the form of changes that require adaptation of the elderly. Prolonged stress can be bad for the health of the elderly. The stressful conditions in the elderly can be interpreted by unbalanced conditions, the unpleasant pressure or disturbance that is usually created when the elderly sees a mismatch between state and biological, psychological, and social resources systems that are closely related to the response to threats and the dangers faced in the elderly.

Elderly stress can lead to problems that are detrimental to the elderly themselves, so there are several ways to control it. Benson relaxation is one of the most widely used therapies for either decreased tension, or achieving calm conditions such as relieving pain, stress, anxiety, insomnia, decreased blood pressure, and depression. This technique is an attempt to focus attention on a focus by repeating ritual phrases and eliminating disturbing thoughts. This relaxation technique can be done 10 to 20 minutes twice a day (Setyowati in Nur inayanti 2012).

This is evidenced by the Research (Kadek, 2013) on the effect of Benson Relaxation Therapy on the decrease of stress level in elderly in Wening Wardoyo Social Rehabilitation Unit. The result shows that there is a significant difference of stress level of elderly before and after the technique of Benson Relaxation in the intervention group.

Other nursing actions that can be given to the elderly so that the elderly feel themselves remain relaxed, calm and not stressed is psychotherapy that can improve

interpersonal relationships, increase self-esteem and self-confidence, reduce feelings of stress (Sadock & Kaplan, 1997; Stuart & Laraia, 2005) . Provision of psychotherapy can be individual and group.

Psychotherapy performed in the form of group therapy takes precedence over the elderly to provide new friendships in the event of loss of friends, have a chance to help with one another, and remain relaxed (Sadock & Kaplan, 1997). One of the group therapy that can reduce stress is logotherapy. Logoterapi is a means for the elderly to find and improve the meaning and purpose of life (Suprpto, 2013).

Based on data obtained from the Tresna Werdha Sabai Nan Aluih Sicincin Social House October 2016, there are 110 elderly people consisting of 69 men and 41 women stationed in 14 homesteads. And the results of a guided interview using the Depression Anxiety Stress Scale (DASS) of 5 elderly people at the Tresna Werdha Sabai Nan Aluih Social Institution found that 3 elderly people experience stress.

Elderly identified stresses such as irritability and anger, insomnia, often awakened at night and sometimes too much sleep, tired core bodies, shortness of breath and heart palpitations, sadness and fear of the family will forget it, lose spirit, muscle back and neck felt tense, difficult to concentrate in the activity, easy to forget and can not relax. One elderly person says to go to the home on his own because he has no children and other relatives are busy working so he can not take care of him, sad that his relatives have rarely contacted him, feel sad, afraid and anxious because of gout disease that does not heal. Two elderly people say admission is delivered by the family because of poverty and families unable to care at home.

Routine activities carried out by the elderly in reducing stress include making crafts every Monday, and religious activity every Wednesday, elderly gymnastics every day Tuesday and Thursday, and clean together every Friday. But not all elderly follow these activities regularly. Non-pharmacological efforts to overcome the stress of the elderly have never been done in PSTW Sabai Nan Aluih.

Based on the above phenomenon, researcher are interested to conduct research on "The Effect of Benson Therapy and Logo Therapeutic on Decreasing Stage of elderly Stress in Social House Tresna Werdha - Sabai Nan Aluih Sicincin Padang Pariaman. It is hoped that this therapy can produce a decrease in stress levels and reduce the negative effects of stress on the elderly.

METHODS

Quasi-experimental research design is used with the approach of pretest posttest with the control group. Research conducted at PSTW Sabai Nan Aluih Sicincin Padang Pariaman from March to November 2017. The sample was 64 people with purposive sampling (Lemeshow, 1997). The data is processed and analyzed by univariate analysis with descriptive statistics and bivariate analysis using independent test and dependent T-test

RESULTS

Table 1. Decreased Elderly Stress Levels Before and After Benson Therapy Intervention and Logo Therapeutic at PSTW Sabai Nan Aluih Sicincin Padang Pariaman 2017 (n = 64)

Group	Stress Condition	f	Mean	SD	SE	P Value
TS and FPE	Before	32	33,91	4,321	0,764	0,000
	After	32	27,31	2,799	0,495	
	Difference		6,6			
TS	Before	32	32,44	2,873	0,508	0,000
	After	32	28,28	1,611	0,285	
	Difference		4,16			

Based on Table 1 it is known that the average level of elderly stress in the group given Benson Therapy and Logo therapy at PSTW Sabai Nan Aluih Sicincin Padang Pariaman before intervention 33,91 which is in condition of stress level weight with standard deviation 4,321 after given intervention average stress conditions to 27.31 where in moderate stress conditions with standard deviation 2.799 Statistical test results showed a significant decrease in mean elderly stress conditions before and after intervention Benson Therapy and Logo therapy at PSTW Sabai Nan Aluih Sicincin Padang Pariaman with value $p = 0,000$ (P Value <0.05)

The average group who received only benson therapy before intervention 32,44 with standard deviation 2,873 after giving intervention average stress condition to 28,28 with standard deviation 1,611 The result of statistical test showed there was a significant decrease of mean of stress condition before and after benson therapy intervention with a value of $p = 0.000$ (P Value <0.05). In the group given Benson Therapy and Logo therapeutic stress reduction of elderly amounted to 6.6. In the group who received only benson therapy decreased the stress condition by 4.16

DISCUSSION

There is a degenerative aging process that will affect human changes. Changes that occur in the elderly include changes in physical conditions, changes in mental conditions, psychosocial changes, cognitive changes and spiritual changes. These changes directly or indirectly can be the cause of the elderly experiencing stress, anxiety, and / or depression (Yani & Parasdyasih, 2013). Logo therapy which is one form of training of meaningfulness of life, in addition to being a means for the elderly to find and improve the meaning and purpose of life can also be a means for the elderly to reduce depression which is a negative effect of stress.

Novitasari (2013) in his research says that most elderly who are in the orphanage experience moderate stress caused due to disappointment or anger in children, family or the environment. Moderate stress is usually accompanied by complaints such as sleep disorders, harder heartbeats, increased emotional tension. In addition to experiencing stress are also elderly people who experience mild stress is due to too much sleep. Situations like this usually last a few minutes or hours. For themselves, these stressors are not a significant risk for the onset of symptoms, however, many mild stressors in a short time may increase the risk of disease.

RECOMMENDATION

The statistical test results showed a significant decrease in mean stress conditions before and after therapeutic benson intervention with a value of $p = 0.000$ (P Value < 0.05). In the group given Benson Therapy and Logo therapeutic stress reduction of elderly amounted to 6.6. In the group receiving only benson therapy and therapeutic Logo reduction of stress conditions amounted to 4.16 From this study found that logotherapy and can affect the stress level in the elderly. Logotherapy and benson therapy is one form of training meaningfulness of life, in addition to being a means for the elderly to find and improve the meaning and purpose of life can also be a means for the elderly to reduce depression which is a negative effect of stress.

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