THE RELATIONSHIP BETWEEN ANTENATAL CARE IMPLEMENTATION AND LABOR PREPARATION OF THIRD TRIMESTER PRIMIGRAVIDA MOTHERS IN LUBUK BUAYA PUBLIC HEALTH CENTER

Ermawati[1], Yulizawati[2], Nabyla Annisa[3]

[1]DepartmenObstetric and Gynecology, RSUP DR M Djamil, Padang, Indonesia
[2]Bachelor of Midwifery, Faculty of Medicine, Universitas Andalas, Padang, Indonesia
[3]Bachelor of Midwifery, Faculty of Medicine, Universitas Andalas, Padang, Indonesia
ermawati@gmail.com[1]

Abstract

The readiness of a mother and family in facing labor is one of the factors that influence the incidence of maternal and neonatal mortality rate. An antenatal care visit helps mothers and families to prepare for a better labor process. Lubuk Buaya is the area with the lowest percentage of ANC visits in Padang. The aim of this study was "to determine the relationship between antenatal care implementation and labor preparation of third-trimester primigravida mothers in Lubuk Buaya Public Health Center working area". This type of research is observational analytic with the cross-sectional method. The samples of this study were primigravida trimester III and the samples were taken using Proportionate Stratified and Systematic Random Sampling techniques. The data collection involved 36 respondents in the Lubuk Buaya Health Center working area by filling out questionnaires. Data were analyzed by univariate and bivariate using Chi-square ($p \leq 0.05$). The results of this study found that the percentage of third-trimester primigravida mothers who had good labor preparations was higher in mothers who performed a good ANC (69.2%). Based on statistical tests, the results obtained p-value ($p = 0.013$), meaning that there is a significant relationship between the implementation of antenatal care and preparation for delivery in trimester III primigravida mothers in the working area of Lubuk Buaya Padang Health Center

Keywords : Antenatal care, childbirth preparation

INTRODUCTION

The World Health Organization (WHO) estimates that 830 women die every day due to complications from pregnancy and the birth process. About 99% of all maternal deaths occur in developing countries. The ratio of maternal deaths in developing countries in 2015 was 239 per 100,000 live births compared to 12 per 100,000 live births in developed countries. At the end of 2015, approximately 303,000 women died during and after pregnancy and childbirth (WHO, 2016).

The Global Heart Observatory (GHO) data, the number of maternal deaths decreased by 43% between 1990 and 2015. Globally, the maternal mortality rate has fallen by 44% over the past 25 years. Therefore, to accelerate the reduction in maternal mortality rates, countries are now united behind a new target to reduce maternal mortality rates, SDGs.

One of the targets in the Sustainable Development Goals (SDG's 2030) on health in the third number is to ensure a healthy life and promote prosperity for all people of all ages is to reduce mortality globally to less than 70 per 100,000 live births, with no country has a maternal mortality rate of more than twice the global average (WHO, 2016).

Several factors that influence the high MMR according to Prawirohardjo (2009) by 3 things include; there is still a lack of knowledge about causes and consequences as well as overcoming

complications that occur during pregnancy, childbirth, childbirth, lack of understanding and knowledge of reproductive health, lack of even distribution of midwifery services for the mother.

According to research conducted by Latifah, one of the causes of neonatal death is an ANC examination that is less than 4 times or incomplete pregnancy visits (Latifah, 2012). Therefore, efforts can be made to reduce maternal and fetal mortality by preventing delays in treatment through good labor preparation.

The preparation of labor can be done by preparing a birth plan and preparing a plan if complications occur in the delivery of the mother. Preparing a birth plan is a plan made by the mother, father, and health care officer to identify the helper and the place of delivery, as well as planning savings to prepare the cost of labor.

Then the family also needs to prepare a plan if complications occur in the delivery of the mother, such as identifying a place of reference and transportation to reach the place, preparing blood donors, making financial preparations and identifying the first decision maker and second decision maker if the first decision maker is not available (Saifuddin, 2009).

Childbirth is a natural process experienced by women, which is characterized by the issuance of conception results that are able to live outside the womb through several processes such as the thinning and opening of the cervix, as well as contractions that occur at certain times without complications or obstetric complications in the mother or fetus (Rohani, 2013).

Obstetric complications are the pain in pregnant women, mothers of childbirth, postpartum mothers, and fetuses in the womb, both directly and indirectly, including infectious diseases and non-communicable diseases that can threaten the lives of mothers and fetuses (Ministry of Health, 2015). To anticipate this, antenatal care needs to be done.

Antenatal care services are midwifery services provided by health workers to provide services to mothers during pregnancy, in the implementation of services carried out according to Midwifery Care Standards (Manuaba, 2010). The implementation of antenatal care is a service carried out by health personnel to monitor and support the health of normal pregnant women and detect mothers with complications in pregnancy (Saifuddin, 2009).

Antenatal care services are carried out with 10T service standards and at least four times during pregnancy, with one-time details in the first trimester (before 14 weeks' gestation) and the second trimester (during 14-28 weeks of birth), then at least 2 contacts at third trimester namely during pregnancy 28-36 weeks and after 36 weeks' gestation. Antenatal visits can be done more than 4 times depending on the condition of the mother and fetus (RI Ministry of Health, 2014).

Services provided at the ANC visit with the 10 T standard, namely: Weighing and measuring height, blood pressure, determining / nutritional status value (measuring LiLa), fundus uterine height, determining fetal presentation and fetal heart rate, Tetanus Toxoid immunization , Iron tablets, laboratory tests, case management, speech or counseling (including P4K, postpartum family planning, antenatal care services, pregnancy danger signs, maternity signs and information provided regarding pregnancy, childbirth, and childbirth) (RI Ministry of Health, 2008).

In the third trimester, many mothers prepare all their antenatal care services until a blood examination, which aims to determine the mother's blood type and prepare the donor before delivery.

The impact that occurs if irregular pregnant women carry out antenatal care, namely no detection of abnormalities that occur in pregnant women and fetuses, can not know the risk factors that occur in the mother and can not know early the disease suffered by the mother during pregnancy (Prawirohardjo, 2010).

Assessment of the implementation of health services for pregnant women (ANC) can be done by looking at the coverage of K1 and K4. Coverage K1 is the number of pregnant women who have received antenatal care for the first time by health workers compared to the target number of pregnant women in one work area for one year.

Whereas K4 coverage is the number of pregnant women who have received antenatal care according to the standard at least four times according to the schedule recommended in each trimester compared to the target number of pregnant women in one work area for one year (Ministry of Health, 2016: 106)

Research conducted by Murniati (2011), there is a tendency for the level of knowledge with the use of antenatal services, where mothers who use antenatal services tend to have good knowledge of the knowledge itself. Gebre, Gebremariam, and Abebe (2015) stated that birth readiness relates to mothers who are informed in antenatal care, have knowledge of at least two danger signs during pregnancy.

In 2015 K1 coverage in Indonesia was 95.75%, while K4 coverage was 87.48%, then in 2016 K4 visits were 85.35% (RI Ministry of Health, 2017). K4 coverage in West Sumatra in 2015 amounted to 79.19%, while in 2016 K4 coverage was 78.94%.

The coverage of antenatal care in Padang City in 2015 was K1 of 100.28% and K4 visits were 95.61% while in 2016 K1 visits were 99.58% and K4 visits were 96.29%. Antenatal care at the Lubuk Buaya Community Health Center is the lowest percentage of several health centers in the city of Padang, where K1 visits were 85.5% while K4 visits were 83.1% (Padang Health Office, 2017).

A preliminary study was conducted in the working area of the Lubuk Buaya Health Center on April 14, 2018 in 10 third trimester primigravida mothers. It was found that 4 mothers had good antenatal care, 1 mother who had poor antenatal care and found 2 women who were preparing childbirth is good, 2 mothers who have enough childbirth preparations, and 1 mother whose labor preparation is lacking.

METHOD

This study was an observational analytic study with a cross sectional approach. The sample in this study was the third trimester primigravida mothers who were in the working area of the Lubuk Buaya Padang Health Center in 2018 that met the inclusion criteria and the samples were taken using the proportional stratified random sampling technique. Data collection by questionnaire. Data were analyzed by univariate, bivariate analysis using Chi-Square (p-value ≤ 0.05).

RESULT

Univariate Analysis

Table 1. Distribution of Frequency Demographic Characteristics

Characteristics	F	%
Age		
≤20 years	1	2,8
21-35 years	34	94,4
>35years	1	2
Education		
- Elementary	2	5,6
-JuniorHigh School	5	13,9
- Senior High School	18	50
- College	11	30,5
Employment		
- Does not work	27	75
- teacher	3	8,3
- Entrepreneur	4	11,1
- Civil servants	2	5,6
Blood Type		
- A blood type	13	36,1
- B Blood type	10	27,8
- AB Blood type	5	13,9
- O Blood type	8	22,2

Based on table 1, the majority of mothers were in the age group of 21-35 years (94.4%). Most mothers have a high school education (50%), most mothers do not work (75%), and most mothers have blood type A (36.1%).

Table 2. Distribution of Frequency of Labor Preparation

Childbirth Preparation	F	%
Less	5	13,9
enough	10	27,8
Well	21	58,3
total	**36**	**100**

Based on Table 2 shows that most of the third trimester primigravida mothers had good labor preparation (58.3%).

Table3. Distribution of Frequency Antenatal Care Implementation

Antenatal care implementation	F	%
Not good	10	27,8
Well	26	72,2
Total	**36**	**100**

Based on Table3 shows that the majority of mothers get Antenatal Care services in accordance with ANC service standards (72.2%).

Bivariate Analysis

Table 4. The Relationship between Antenatal Care Implementation and ChildbirthPreparation in Primigravida Trimester III

Antenatal Care Implementation	Childbirth Preparation in Primigravida Trimester III						Total	*p-value*
	Well		Enough		Less			
	f	%	F	%	f	%		
Well	18	69,2	7	26,9	1	3,8	26	0,013
Less	3	30,0	3	30,0	4	40,0	10	
	21	58,3	10	27,8	5	13,9	36	

Based on table 4 shows that the percentage of third trimester primigravida mothers who had good labor preparations was more in mothers who performed a good ANC (69.2%).

Based on statistical tests, the results obtained p-value (p = 0.013), meaning that there is a significant relationship between the implementation of antenatal care and preparation for delivery in trimester III primigravida mothers in the work area of Lubuk Buaya Padang Health Center.

DISCUSSION

UnivariateAnalysis ofChildbirthPreparation

Based on the results of the study, the majority of third-trimester primigravidamothers in theLubukBuaya Community Health Center work area had good preparation (58.3%), adequate (27.8) and poor (13.9%).

Pregnant women who have good labor preparation are influenced by maternal age, where some mothers are aged 21-35 years (94.4%). This is in line with the research conducted by Rahmadani (2017) at the Banguntapan II Bantul Yogyakarta Public Health Center, showing that pregnant women at risk (20-35 years) have good labor preparation (68.8%), this is due to age These pregnant women have mature thoughts, so that they will be more confident in preparing everything for labor.

Whereas according to the theory put forward by Edyanti (2014), states that the risk of mothers aged less than 20 years or more than 35 years is greater for obstetric complications compared to mothers aged 20-35 years.

Mothers who have high school / equivalent (50%) and tertiary educationlevels (35%) are also supporting factors for good childbirth preparation for pregnant women, this study is in line with Astria's research (2009) which states that mothers who have a good level of education (High School and College), will be better prepared in the birth.

At the time of the study, researchers found mothers who did not work (75%). Work is also a good factor in the preparation of labor, this study is in line with Rusmita (2015), stating that pregnant women who do not work have a greater chance than pregnant women who work. And according to the MOH theory (2008), which states that if the mother leaves the house, it will take up a lot of her time so that it will affect her childbirth preparation.

Childbirth Preparation consists of Physical Preparation, Psychological Preparation, Financial Preparation and Cultural Preparation. One thing that should be prepared by pregnant women before labor is to avoid fear, panic, and be calm. Pregnant women can go through labor well and be better

prepared by asking for support and affection from the people closest to them. While Financial Preparation for pregnant women who will give birth by saving from the beginning of pregnancy to birth. And mothers also need to know the habits or customs that are not good for pregnancy and childbirth (Rosyidah, 2017).

From the results of the study, which was assessed by filling out the questionnaire by the respondents indicating that the question about the occurrence of an emergency at the time of delivery I agreed to be referred to the hospital was the most answered point disagreed by the respondent. This is most likely due to the lack of information provided by pregnant women regarding labor preparation and the impact if not referred.

From the results of research and interviews with respondents, most respondents stated that if they were taken to the hospital, the costs borne were expensive and there were still some mothers who thought that being taken to the hospital would make their body condition worse.

In achieving P4K, financial preparation has not been prepared, generally pregnant women provide 1 month before delivery and are prepared by pregnant women themselves. Even though the preparation of labor from the beginning of pregnancy will make the mother better prepared to face labor and know what steps to take if an emergency occurs.

Implementation of Antenatal Care

Based on the results of this study, themajority of third trimester primigravida mothers in the Lubuk Buaya Community Health Center work area had good ANC implementation (72.2%), while the rest were not good (27.8%). This research is in line with Anjarsari (2011) research in Depok II Sleman Health Center, showing that 53.4%of mothers had good antenatal care implementation, while 46.6% of mothers were in the poor category.

According to research conducted by Anjarsari, the good implementation of antenatal care is due to pregnant women realizing that antenatal care is important and useful for detecting complications that occur in the mother and fetus.

The results of this study are different from the research conducted by Junga (2016) in the Ranotana Weru Health Center in Manado City, which showed that 78.6% of mothers aged 20-35 years were in poor ANC implementation. This is due to the lack of knowledge factors that affect mothers in conducting Antenatal Care examinations.

The implementation of Antenatal Care is assessed based on the 10T Standard Implementation set by the Indonesian Ministry of Health (2014). From the results of the study it was found that the administration of TT immunization was most not carried out by pregnant women during ANC services. Most respondents stated anti-vaccine. Even though TT immunization is important because it can avoid the outbreak of tetanus which is at risk for both the mother and her baby.

Bivariate Analysis

The Relationship between Antenatal Care Implementation and ChildbirthPreparation in Primigravida Trimester III

Based on the results of the study, it was found that the percentage of mothers who had good childbirth preparations were higher for mothers who received good ANC services (69.2%) compared to mothers who received ANC with less implementation (30.0%).

The results of the statistical test using the Chi-Square test showed a p-value = 0.013 ($p \leq 0.05$). From these results it can be concluded that there is a significant relationship between the implementation of Antenatal Care and labor Preparation in trimester III primigravida mothers in the working area ofthe Lubuk Buaya Padang Health Center in 2018.

The results of this study relate to the research conducted by Oktafiana, et al. In 2016 in Srandakan Bantul Health Center, stating that mothers who carry out routine and quality antenatal care tend to

have good labor preparation (80.4%). This is because every visit, the mother gets information about the preparations that must be prepared during pregnancy until delivery.
For some mothers who do not carry out ancillary routinely, it is caused by a lack of awareness of mothers in checking their pregnancies. Mother thinks her condition and fetus are fine so there is no need to carry out ANC. Even though ANC is carried out in full according to the 10T standard and preparation for labor must be prepared from the beginning of the pregnancy can monitor the condition of the mother and fetus, can overcome quickly if there is a problem of pregnancy and the mother is more prepared to prepare the needs that will be used later in labor.
For this reason, it is necessary to provide information to the public regarding the implementation of antenatal care and preparation for labor, not only to the mother, but also to the husband, so that the husband understands and motivates the mother to check the pregnancy.

CONCLUSION

1) Most respondents are in the age group of 21-35 years, half of the respondents are mothers with high school / equivalent education, most of the respondents are mothers who do not work or housewives and most of the respondents have blood type A.
2) Most of the respondents were in preparation for labor in a good category.
3) More than half of the respondents in the Lubuk Buaya Puskemas have a good Antenatal Care Implementation.
4) There is a significant relationship between the Implementation of Antenatal Care and the Preparation of Childbirth in Primigravida Trimester III in the working area of the Lubuk Buaya Padang Health Center.

ACKNOWLEDGMENTS

Acknowledgments to the Faculty of Medicine and the Universitas Andalas Midwifery Study Program, Mr / Ms supervisors, academic staff and respondents who have supported all activities in this study.

REFERENCES

Anjarsari, Reza Wahyu. 2011. *Hubungan antara Paritas dengan Keteraturan Antenatal care di Puskesmas Depok II Sleman Tahun 2010*. Stikes Aisyiyah. Skripsi. Diakses tanggal 9 Januari 2019. http://digilib.unisayogya.ac.id/3592/1/NASKAH%20PUBLIKASI%20REZA%20WAHYU%20ANJARSARI_080105170.pdf

Astria, Y. 2009. *Hubungan karakteristik ibu hamil trimester III dengan kecemasan dalam menghadapi persalinan di poliklinik kebidanan dan kandungan RSUP Fatmawati*. Universitas Islam Negeri Syarif Hidayatullah. Skripsi.

Baston, H dan Hall J. 2011. *Midwifery Essentials* : Antenatal. EGC. Jakarta

Depkes RI. 2008. *Buku Kesehatan Ibu dan Anak*. Departemen Kesehatan RI

——— . 2008. *Faktor yang mempengaruhi kematian maternal*. Jakarta : Departemen Kesehatan Republik Indonesia

——— . 2008. *Asuhan Persalinan Normal*.Jakarta : Jaringan Nasional Pelatihan Klinik-Kesehatan Reproduksi

Dinkes, Kota Padang. 2017. *Profil Kesehatan Kota Padang Tahun 2016*. Dinas Kesehatan Kota Padang. Padang.

Direktorat Jenderal Bina Kesehatan Masyarakat. 2010. *Pedoman Pelayanan Antenatal Terpadu*. Kemenkes RI. Jakarta

Edyanti, D ., Indrawati, R. 2014. Faktor pada Ibu yang berhubungan dengan Kejadian Komplikasi Kebidanan. Surabaya : Departemen Biostatiska dan Kependudukan Universitas Airlangga

Gebre, M., Gebremariam, A., and Abebe, T.A. 2015. *Birth Preparedness and Complication Readiness among pregnant woman in Duguna Fango District, Wolayta Zone*, 103, 1-12

Gitanurani, Yanuarita. 2017. Faktor-faktor yang berhubungan dengan kesiapan persalinan di Puskesmas Jetis I Bantul Yogyakarta. Universitas Aisyiyah Yogyakarta. Skripsi.

Hidayat, A. A. A. 2014. *Metode Penelitian Kebidanan dan Tenik Analisis Data. Edisi kedua*. Jakarta : Salemba Medika

Junga, Ministi Ratri. 2016. Faktor-faktor yang berhubungan dengan Keteraturan Pemeriksaan Antenatal Care (ANC) Ibu Hamil Trimester III di Puskesmas Ranotana Weru Kota Manado. *Jurnal Fakultas Kedokteran Unsrat Universitas Sam Ratulangi*. Diakses pada 5 Januari 2019. http://ejurnal.unsrat.ac.id/FKep/article/view/109332

Khoeriyah, Hikmatun. 2010. *Hubungan Tingkat Pengetahuan Ibu hamil tentang pemeriksaan kehamilan dengan frekuensi kunjungan (ANC) di BPS Eko Murniati Kulonprogo*. Stikes Aisyiyah. Skripsi.

Kementrian Kesehatan RI. 2010. *Pedoman Pelayanan Antenatal*. Direktorat Bina Kesehatan Ibu.

Kementrian Kesehatan RI. 2014. *Profil Kesehatan Indonesia*. Jakarta : Kementrian Kesehatan RI

Kementrian Kesehatan RI. 2015. *Profil Kesehatan Indonesia 2015*. Jakarta : Kementrian Kesehatan RI

Kementrian Kesehatan RI. 2017. *Profil Kesehatan Indonesia Tahun 2016*. Jakarta : Kementrian Kesehatan RI

Khasanah, Fidratul. 2017. "*Gambaran Kunjungan Antenatal Care di Puskesmas Pondok Jagung Kota Tangerang Selatan"*. Universitas Islam Negeri Syarif Hidayatullah. Skripsi.

Latifah Noor A. 2012. "*Hubungan frekuensi kunjungan ANC selama kehamilan dengan kejadian kematian neonatal (Analisa Data DKI 2007)".* UI Repository and Archive. Skripsi.

Manuaba, I.B.G. 2010. *Ilmu Kebidanan, Penyakit Kandungan, dan KB untuk Pendidikan Bidan edisi 2*. Jakarta : EGC

Marmi, S.ST. 2011. *Asuhan Kebidanan Pada Masa Antenatal*. Pustaka Belajar :Yogyakarta

Matterson. 2001. *Womans health during bearing years*. Mosby. St louis

Mochtar, Rustam. 2012. *Sinopsis Obstetri*. Jakarta : EGC

Mukoramah, H., Saenun,. 2014. *Analisis Faktor Ibu Hamil terhadap Kunjungan Antenatal Care Di Puskesmas Siwalankerto kecamatan Wonocolo kota Surabaya*. Jurnal Kesehatan Masyarakat.

Notoadmodjo, S. 2007. *Pendidikan dan Prilaku Kesehatan*. Jakarta : Rineka Cipta

Oktafiana, Difa., Diyah, P, N., Nastiti, M., 2016. *Hubungan Kunjungan Antenatal Care dengan Kesiapan persalinan Ibu Trimester III di Puskesmas Srandakan Bantul tahun 2016.* Akademi Kebidanan Yogyakarta. Skripsi

Prawirohardjo, Sarwono. 2009. *Ilmu Kandungan.* Bina Pustaka Sarwono Prawirohardjo. Jakarta : EGC

Prawirohardjo, Sarwono. 2010. *Ilmu Kandungan*. Bina Pustaka Sarwono Prawirohardjo. Jakarta : EGC

Prawirohardjo, Sarwono. 2011. *Ilmu Kandungan*. Bina Pustaka Sarwono Prawirohardjo. Jakarta : EGC

Putranti, Visi Prima Twin. 2014. Tesis: Hubungan pengetahuan dan sikap tentang persalinan dengan kesiapan primigravida menghadapi persalinan. Surakarta : Universitas Sebelas Maret.

Rahmadani, Riska. 2017. Faktor-faktor yang berhubungan dengan Kesiapan Persalinan di Puskesmas Banguntapan II Bantul Yogyakarta. Universitas Aisyiyah Yogyakarta. Skripsi.

Riskesdes 2013. 2013. *Riset Kesehatan Dasar. Laporan Nasional 2013*. 1 - 384

Rohani. 2013. *Asuhan Kebidanan pada Masa Persalinan*. Jakarta: Salemba Medika

Rosyidah, Siti Syafa'atur. 2017. Faktor yang berhubungan dengan Kesiapan Persalinan pada Ibu Hamil Trimester III di Puskesmas Pleret Bantul. Universitas Aisyiyah Yogyakarta. Skripsi.

Rusmita, E. 2015. Pengaruh Senam Hamil Yoga Terhadap Kesiapan Ibu Hamil Menghadapi Persalinan di RSIA Limijati Bandung. Bandung: Politeknik Kesehatan TNI AU Ciumbuleuit Bandung. Skripsi.

Saifuddin. 2009. *Pelayanan Kesehatan Maternal dan Neonatal*. Jakarta : Bina Pustaka Sarwono Prawirohardjo

Sjafriani. 2007. *Perawatan Kebidanan Jilid II*. Jakarta : Bhatara Karya Aksara

Syafrudin dan Hamidah. 2009. *Kebidanan Komunitas*. Jakarta : EGC

Varney, Hellen. 2007. *Buku Ajar Asuhan Kebidanan Volume 2*. Jakarta : EGC

WHO. 2016. *Global Health Observatory (GHO) Data - Maternal Mortality*. Online Available at : http//www.who.int/gho/maternal_health/mortality/maternal/en/. 10 Juni 2018 Pukul 22.20 WIB.