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# The Influence of Tell Show Do Method Based on Individualized Educational Program (IEP) to the Tooth-Brushing Behavioural Change among Slow Learner Children in Bukittinggi, Indonesia

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## ABSTRACT

**Objectives:** Slow learner children are the largest population of children with special needs in Indonesia, including 80.64% have poor oral hygiene caused by inappropriate tooth-brushing. An advance learning method needs to take behavioural change of children's tooth brushing habit. This study aims to investigate the Tell Show Do Method based on Individualized Educational Program (IEP) affected the behavioral changes of tooth brushing among slow learner children in elementary school Bukittinggi, Indonesia.

**Method:** This was a quasy experimental study with one group pre-test and post-test design. Total of 32 slow learner children, grade 4-6 were included in this study. Data was analyzed by using Paired McNemar test.

**Results:** The latest behavioural change on cognitive, affective and psychomotor became different into good category. Hence, there is significant difference before and after counselling ( $p=0,000$ ). So, it is concluded that Tell Show Do Method based on Individualized Educational Program (IEP) affect behavioural changes regarding tooth brushing among slow learner children in elementary school Bukittinggi, Indonesia.

**Keywords :** *Counselling, Tell Show Do, IEP, Slow Learner, Behavioural Change*

## Introduction

Dental Caries is one of the most common oral hygiene issue in the world, including in Indonesia. One of the main factor is inappropriate of tooth brushing technique. According to RISKESDAS 2013, only 2,3% people in Indonesia use correct method of tooth brushing.<sup>1</sup> It may affect oral hygiene neither healthy person nor children with spesial needs. This study concerned about slow learner children.<sup>4</sup> Slow learner children are a group of children with IQ of 70-90 (slightly below average) without mental retardation. Fourteen percent children in Indonesia are slow learner and 80,64% of them have poor oral hygiene.<sup>1</sup>

Education and counselling could improve children oral hygiene.<sup>3</sup> There is a need of early counselling with proper method according to their ability, mainly in children with special needs. Slow learner children are categorized into children with special needs, but they can learn something as long the given method is a proper method. So thus proper education and counselling method for this population is needed.

One of the method of pediatric dentistry is Tell Show Do method.<sup>6</sup> Tell Show Do is the most effective non-pharmalogical techniques use by pediatric dentist.<sup>7</sup> This method is done by telling, introducing, and showing dental hygiene procedure to children. Information can be delivered verbally with language that easy to understand, and also by giving the children opportunity to observe and apply the given information.<sup>6,8</sup> Study by Arun Sharma and Rishi Tyagi in India in 2011, suggested that Tell Show Do method showed positive impact and very effective to modify children behavior.<sup>9</sup>

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Slow learner children need special technique, unlike normal children.<sup>10</sup> Individualized Educational Program (IEP) is a program made to serve children with special needs. This program is adjusted for each individual, according to their ability, method, and learning speed so one can understand the given subject. In other word, this learning technique gives children chance to learn based on their ability so thus we can maximize their ability as well.<sup>10</sup> In Indonesia, this program was commonly used as an educational program to serve children with special needs including slow learner children. Whereas combination of Tell Show Do method to IEP is a new innovation that was never been done before. So, this study aims to investigate Tell Show Do based on IEP with behavioural changes on tooth brushing, among slow learner children.

## Materials and Method

This was a quasy experimental study with one group pre test- post test design. Pre test was done at the beginning of the study by using a questionnaire, and respondents were given treatment using Tell Show Do based on IEP. Before counselling, first step to do was recognized the characteristics of slow learner children and grouped based on the results of that assessment. Then, counselling given individually with Tell Show Do method. At the end, evaluated the effect of counseling using post test with the same questionnaire. This study took place in Al Azhar Elementary School Bukittinggi, West Sumatera, Indonesia on February 2018. Fourth-sixth grade slow learner students were recruited. Data was analysed using Paired McNemar to investigate signification of each behavioural domain including cognitive, affective, and psychomotor, and considered significant if  $p < 0,05$ .

## Results

**Tabel 1: Differences of behaviour domain before and after counselling using Tell Show Do method based on IEP (n = 32)**

Behavior Domain	Before Counselling				After Counselling				P value
	Good		Poor		Good		Poor		
	n	%	n	%	n	%	n	%	
Cognitive	12	37,5	20	62,5	30	93,75	2	6,25	0.000
Affective	11	34,37	21	65,63	30	93,75	2	6,25	
Psychomotor	10	31,25	22	68,75	29	90,63	3	9,37	

Based on table 1, frequency distribution of good categories increased after counselling. Before counselling, almost respondent had poor category to use tooth-brushing technique in cognitive, affective and psychomotor domain (62.5%, 65.63%, 68.75%) respectively. On other hand, cognitive, affective and psychomotor domain decreased in poor category after counselling with 93.75%, 93.75%, 90.63% respectively. So, there were significant difference of behaviour change before and after counselling using Tell Show Do method based on IEP with p value 0,000.

## Discussion

Study showed that there were behavioural changes of tooth brushing among slow learner children after counselling using Tell Show Do method based on IEP observed by behavioural domain including cognitive,

affective, and psychomotor. Firstly, counselling with the method of Tell Show Do based on IEP was done by recognizing the characteristics of slow learner children. Secondly, children with the same characteristics were classified into the same group. Then, they were given counselling on each group by using the Tell, Show and Do method gradually. Counselling in each group was different, depending on the level of children's ability, so it can be absorbed quickly or even takes a long time. Hence, this method is called by IEP.

The cognitive level was changed significantly due to counselling design according to the level of children's ability. The results of this study similar to the theory by the American Academy of Pediatric Dentistry (AAPD) claimed that the Tell Show Do method can changes children's knowledge of dental health care because of clearly explanations to children about the dental health

procedures at the “Tell” stage and shown the procedure to make them easier to understand at the “Show” and “Do” stage.<sup>11</sup> The significant change of the cognitive level in this research was also caused by appropriate service education to slow learner children with IEP. The results of this study is similar to Budiyanto et al in 2013 stated that the IEP is an efficient program to provide knowledge in children with special needs and can be absorb well. The program is implemented individually on each slow learner children according to the level of ability.<sup>12</sup>

In affective level category after counselling, there were significant changes to better affection than before counselling caused by education process of knowledge could produce good attitude. It also supported by Notoatmodjo 2010, respondent with good cognitive level also had good affective level too.<sup>3</sup>

Significant change of psychomotor level toward to good category because the counselling not only giving raw material at Tell and Show stage, but also giving opportunity to practice direct knowledge among slow learner children. Meanwhile, Do stage can stimulate their motor skills in brushing action. The children’s motor skills can be stimulated by practical activities of their knowledge. Its supported by the AAPD in 2015 stated that the Tell Show Do method can give children the opportunity to try out their own procedures more precisely at the Do stage, so it more easily to understand and implement the procedure.<sup>11</sup>

Thus, the behavioural improvement was due to children’s awareness to change their behaviour through health counseling.<sup>1</sup> Tell Show Do method can be used in behavioral management in pediatric dentistry.<sup>6,8,13</sup> This study similar to Arun Sharma and Rishi in India, suggested that Tell Show Do method had positive effect and can be used on behavioural management in pediatric dentistry.<sup>9</sup> Tell Show Do also can be used to explain oral hygiene to children with special needs. Not only verbal information and easy language, but also method enables children to observe and apply their knowledge under supervision.<sup>14</sup>

Tell Show Do method in this study was done through IEP. Study showed learning through IEP increased behavioural changes of tooth brushing among slow learner children. This was in accordance with theory by the ministry of education and cultural in 2013, suggested IEP could serve children with special needs.<sup>13</sup> Blackwell

et al in United States argued that IEP was an appropriate and an effective program for children with special needs because it was adjusted with individual needs.<sup>15</sup> Ruble et al from United States also argued that IEP was the only program compatible to treat children with special needs due to children’s needs and education based on their interested and understanding.<sup>16</sup>

## Conclusion

Tell Show Do method based on Individualized Educational Program (IEP) has significant correlation with behavioural change on tooth brushing among slow learner children in elementary school Bukittinggi, Indonesia.

**Ethical Clearence:** Taken

**Conflict of Interest:** There is no conflict of interest of this study.

**Source of Funding:** This study was conducted by self-funding.

## REFERENCES

1. Riskesdas. Badan Penelitian dan Pengembangan Kesehatan Kementerian Kesehatan RI. Jakarta; 2013.
2. Arianto, Shaluhiah Z, Nugraha P. Perilaku Menggosok Gigi pada Siswa Sekolah Dasar Kelas V dan VI di Kecamatan Sumberejo. *Jurnal Promosi Kesehatan Indonesia*. 2014; 9 (2).
3. Notoatmodjo. *Ilmu Perilaku Kesehatan*. Jakarta: Rineka Cipta; 2010
4. Sutijan. Mengajar Peserta Didik Lambat Belajar di Sekolah Dasar. *Jurnal Rehabilitasi dan Remediasi*. 2011; No 2 ISSN 0854-0020.
5. Sugiarti R dan Pribadi AG. Analisis Faktor yang Mempengaruhi Keberhasilan Belajar Siswa Slow Learner di Sekolah Luar Biasa Semarang. *Jurnal Psikologi Proyeksi*. 2012; 6(2): 1.
6. Singh H, et all. Techniques for the Behaviors Management in Pediatric Dentistry. *International Journal of Scientific Study*. 2014; 2(7).
7. Sharma K, Malik M, Sachdev V. Relative efficacy of Tell-Show-Do and live modeling techniques on

- suburban Indian children during dental treatment based on heart rate values: a clinical study. *Journal of Dental Specialities*. 2016; 4(2): 178-182.
8. AAPD. Guideline on Behavior Guidance for the Pediatric Dental Patient. Reference Manual. 2015; 17 (6).
  9. Sharma A and Tyagi R. Behavior Assesment of Children in Dental Settings: A Restrospective Study. *International Journal of Clinical Pediatric Dentistry*. 2011; 4(1): 35-39.
  10. Rahman, M. M. Memahami Prinsip Pembelajaran Anak Berkebutuhan Khusus. *Elementary*. 2014; 2 (1).
  11. American Academy of Pediatric Dentistry. Guideline on Behavior Guidance for the Pediatric Dental Patient. Reference Manual. 2015;17 (6).
  12. Budiyanto, et all. Modul Pelatihan Pendidikan Inklusif. Jakarta: Kemendikbud 2013.
  13. Farhat MH, Hafouche A dan Souaid P. Techniques for Managing Behavior in Pediatric Dentistry: Comparative Study of Live Modelling and Tell-Show-Do based on Children's Heart Rates During Treatment. *Journal Canadian Dental Association* 2009; 75(4): 283.
  14. Vinodhini BJ, Asokan S, Priya PR dan John B. It's Lame to Tame-Children with Spesial Health Care Need. *Journal of Academy of Dental Education*. 2014; 39-44.
  15. Blackwell WH, dan Rossetti ZS. The Development of Individualized Educational Programs. *Sage Journals*. 2014; 1-15.
  16. Ruble LA, McGrew J, Dairymple N dan Jung LA. Examining the Quality of IEPs for Young Children with Autism. *Jurnal Autism Dev Disord*. 2011; 40 (12): 1459 – 1470.