

**The Effect of Dental and Oral Health Education Using Methods  
Demonstration of Students' Level of Toothbrushing Knowledge  
Mental retardation SLB Jenetallasa Gowa Regency**

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ABSTRACT

Mentally retarded children are children who experience mental retardation which is indicated by intelligence functions below average, experiencing limitations in function intelligence and adaptive behavioral functions such as self-care communication, social skills, security, and academics are one of the obstacles to obtaining knowledge that is still lacking, especially in the field of dental and oral health. This research aims to determine the effect of oral health education using the demonstration method on the level of knowledge of toothbrushing in mentally retarded SLB students Jenetallasa, Gowa district. The benefit of this research is to provide information on mentally retarded children regarding the importance of maintaining healthy teeth and mouth. This type of research using *Quasy Experimental Design* with a *One group Pret-test and approach Post-test*. Research location at SLB Jenetallasa, Gowa Regency on 11-13 October 2023. Analysis of *Wilcoxon signed Rank statistical test data*. The results obtained are  $\bar{y}$  value= 0.000. This shows that there is an increase in toothbrushing knowledge among students with intellectual disabilities. The conclusion of this research is that there is an influence of oral health education using the demonstration method on students' level of toothbrushing knowledge mentally retarded SLB Jenetallasa Gowa district. It is recommended for mentally retarded students always apply how important it is to maintain healthy teeth and mouth and how to brush your teeth properly and correctly.

**Key words:** Counseling, Dental and Oral Health, Children with Mental Disability

## A. Introduction

Health is a state of being healthy, both physically, mentally and spiritually and social issues that enable everyone to live productively social and economic. To achieve the highest level of health for the community, individual health efforts are carried out and public health efforts. Dental and oral health services It is also carried out to maintain and improve health status community in the form of improving dental health, preventing disease teeth, treatment of dental disease and restoration of dental health by the government, local government and/or community which is carried out in an integrated, integrated and sustainable manner (AW. Qomariyah, et al, 2020).

According to WHO (2015) regarding the World Report on Disability, that In Indonesia there are 60% of children with special needs at school level junior high. According to the results of the National Socioeconomic Survey (Susenas) implemented by the Central Bureau of Statistics (BPS) in 2012, the number of people with disabilities in Indonesia was 6,008. 661 people. of the amount That's around 402,817 people with intellectual disabilities or mentally retarded, while the number of new students at Special Schools (SLB) in 2015/2016 was 26,617 students, 13,794 students (51.8%) were students with the mentally retarded.

## B. Research Methods

The type of research used in this research is *Quasy Experimental*. Quasy Experimental is an experiment that is carried out without randomization but still using a control group. By using the One group Pret-test and Post-test approach. The research was conducted twice, namely before the intervention and after intervention. By providing an initial assessment (*Pretest*) before being given treatment (Intervention), then treatment is given by providing dental and oral health education using the demonstration method after which a final assessment (*Post-test*) will be carried out (Ahmad Adil, et al, 2023).

## C. Results and Discussion

Research entitled "The influence of dental health education and mouth using the demonstration method of the level of knowledge brushing teeth of mentally retarded students at SLB Jenetellasa, Gowa district" which was carried out on October 11-13 with the number respondents were 24 mentally retarded students. This type of research uses *Quasy Experimental* with a *One Group Pret-test and Post-test approach*. The research was carried out with an initial assessment stage (*prett-test*) first before the intervention was given, then a final assessment (*Post-test*) was given after the dental and oral health education intervention.

Knowledge data of mentally retarded students at Jenetallasa Special School The initial test (*Prettest*) is as follows: Table 5. 4 Respondents' knowledge data pret-test

<b>Pret-test</b>			
<b>No. Criteria Amount</b>		<b>Percentage</b>	
1.	Good	1	4.2%
2.	Enough	4	16.7%
3.	Not enough	19	79.2%
<b>Total</b>		<b>24</b>	<b>100%</b>

Data from table 5.4 shows that the results of the knowledge of respondents obtained a pret-test score with good criteria 1 (4.2%), sufficient criteria 4 students (16.7%) and poor criteria quite high 19 students (79.2%).

Knowledge data of mentally retarded students at Jenetallasa Special School final test (*Posttest*) as follows:

Table 5. 5 Post-test Respondents' Knowledge Data

<b>Post-test</b>			
<b>No. Criteria Amount</b>		<b>Percentage</b>	
1.	Good	8	33.3%
2.	Enough	14	58.3%
3.	Not enough	2	8.3%
<b>Total</b>		<b>24</b>	<b>100%</b>

Data from table 5.5 can be seen from the number of respondents who obtained scores final test (*Post-test*) with good criteria 8 students (33.3%), sufficient criteria 14 students (58.3%) and poor criteria 2 students (8.3%).

Research conducted on mentally retarded students at SLB Jenetallasa Gowa district with a total of 24 samples that have been determined. This research was conducted for 3 days. On the knowledge questionnaire Dental and oral health contains 10 positive and negative statements. The first and second days were given a pret-test, before the counseling treatment was carried out, most of the respondents did not understand about dental health and correct tooth brushing, especially when brushing your teeth twice a day during the morning shower and afternoon shower.

From the results before dental and oral health education was carried out. It is known that only one student has knowledge of brushing teeth mentally retarded who have good criteria, namely 4.2%, only sufficient criteria has 4 students (16.7%), and respondents who have 19 students (79.2%) lacked knowledge in the criteria. Then on the third day after counseling about dental and oral health using demonstration methods, researchers give a post-test assisted by fellow D4 dental therapy students to see the level of knowledge the students have mentally retarded after counseling. Based on the average value obtained after knowledge counseling for mentally retarded students

experienced an increase in knowledge to 8 (33.3%) students with good criteria, experienced an increase of at most 14 (58.3%) students with sufficient criteria and experienced a decrease in poor criteria to 2 (8.3%) students.

#### D. Conclusions and

**Recommendations Conclusion** Based on the results and discussion of the research, it can be concluded that dental and oral health education using the demonstration method has an effect on the level of knowledge of brushing teeth of mentally retarded students at SLB Jenetallasa, Gowa district. Shows a very different difference between the level of knowledge of brushing teeth before and after dental and oral health education using the demonstration method by obtaining statistical test results, namely a value of  $\dot{y} 0.000 < 0.05$ . The demonstration method is a teaching aid that can help convey material in order to obtain optimal results and increase knowledge

target.

- Suggestions
1. Students with intellectual disabilities are expected to always apply how important it is to maintain healthy teeth and mouth and how to brush their teeth properly and correctly.
  2. For institutions, it is hoped that it can be used as a facility and infrastructure for further learning at the STIKES Amanah Makassar library
  3. For future researchers who want to research further about the influence of oral health education using the demonstration method on the level of knowledge of tooth brushing among Jenetallasa SLB students, Gowa Regency, this research can be used as a source of information or guidance in preparing good research.

Bibliography Adil,

- Ahmadi et al. 2023. *Health Research Methodology*. Get Press Indonesia: Indonesia Arifian, E., Chairanna, I., &
- Prasetyowati, S. (2022). The Relationship between Teeth Brushing Practices and the Debris Index of Mentally Disabled Students at SLB BC Optimal Surabaya. *Journal of Health Scales*, 13(2), 113-121.
- Nur Lubis. 2021. The Influence of Dental and Oral Health Education on the Level of Knowledge and Attitudes of Elementary School Age Children in Implementing Dental and Oral Health at SD N 200111 Padangsidumpun City.  
The thesis is not published. Faculty of Health, Afa Royhan Budi Darma University. 2021.
- Research Statistics Using Spss (Validity Test, Reliability Test, Simple Linear Regression, Multiple Linear Regression, t Test, F Test, R2 Test)*. GUEPEDIA: Indonesia Daniati, N., Apriliani, DR, & Anang, A. (2022). Media Question Card Towards Knowledge Of Dental And Oral Health In Elementary School Age Mentally Retarded Children. *The Incisor (Indonesian Journal of Care's in Oral Health)*, 6(2), 269-280.
- Eldarita, E., & Amanullah, R. (2021). The Effect of Guidance on Teeth Brushing Techniques on the Dental and Oral Hygiene Status of Children with Intellectual Disabilities. *Encyclopedia Social Review*, 3(1), 63-71 Gurnida, DA, Nuraeny, N., Hakim, DDL, Susilaningsih, FS, & Herawati, DMD (2019). Overview of Body Mass Index (IMT) and Oral Health of SLB-D Ypac Students in Bandung City. *Journal of Community Service*, 3(3), 63-66.
- Ilmazura, CA, Siti Sulastri, SS, & Almujadi, A. (2020). The Effect of Counseling Using Video Media on the Level of Knowledge of Toothbrushing in Children with Mental Disabilities at SLB-C Wiyata Dharma IvGodean. *Journal of Dentistry and Oral Medicine*, 2(1), 66-78.
- Jelita, TI, Hanum, NA, & Wahyuni, S. (2020). The Effect of Counseling Using the Virtual Animation Video Screening Method on the Level of Knowledge of Teeth Brushing in Grade 5 Elementary School Children. *Journal of Dental and Oral Health (JKGM)*, 2(2), 41-44.
- Karamoy, Y., & Sakaranti, P. G. (2022). The Influence of Demonstration Methods on Knowledge about How to Brush Teeth of Bartemeus Malayang Satu Timur Special School (SLB) Children, Malayang District, Manado City. *Dental Health Journal*, 9(2), 67-77.
- Republic of Indonesia Ministry of Health, 2021. Republic of Indonesia Law no. 36 of 2009 concerning Health, Development Agency and Human Resources Empowerment.  
Jakarta: Republic of Indonesia Ministry of Health.
- Kencana, IGS, Artawa, IMB, & Gejir, N. (2022). The Influence of Dental Health Education on Toothbrushing Skills in Disabled Children in SLB Negeri Tabanan. *Dental Health Journal*, 9(1), 7-15.
- Mega Rahmawati Pasaribu. 2019. *The Effect of Dental and Oral Health Education Using Simulation Demonstration Methods and Animation Video Media*

- On the Ability to Brush Teeth in Preschool Children at Fajar Kindergarten*, thesis. Medan: study by Ners-Stikes Santa Elisabeth Munggaran, RP (2022). *The Effect of Education on Dental and Oral Health Care Using Hand Puppets on the Dental and Oral Hygiene of Children with Mental Disability at SLBN Cineam, Tasikmalaya Regency* (Doctoral dissertation, Poltekkes Kemenkes Tasikmalaya).
- Nurjanah, E., Edi, IS, & Hidayati, S. (2023). The Relationship between Family Support and the Level of Dental and Oral Hygiene of Mentally Disabled Students (Study at SLB Karya Bhakti and SLB BC Optimal Surabaya). *Indonesian Journal of Health and Medical*, 3(1), 53-62.
- Priambodo, YA, Hatta, I., & Wardani, IK (2022). Effectiveness of Implementing Demonstration Methods and Videos in Dental Health Education on the Oral Health Knowledge Level of Schizophrenia Patients at RSJ DR. Radjiman Wediodiningrat, *Dentin*, 6 (2).
- Primawati, RS, Kamelia, E., & Rinaldi, R. (2022). The relationship between parents' level of dental and oral hygiene knowledge and the dental and oral hygiene status of mentally retarded children. *Indonesian Journal of Health and Medical*, 2(2), 234-240.
- Qomariyah, AW, Prasko, P., & Nugraheni, H. (2020). Level of Parental Knowledge about Maintaining Dental and Oral Hygiene with the Status of Dental and Oral Hygiene of Children with Special Needs at SDLB Negeri Wiradesa, Pekalongan Regency. *Journal of Dental Health*, 7(1), 79-82.
- Ratih, IADK, & Yudita, WH (2019). The relationship between the level of knowledge about how to maintain oral health and the availability of toothbrushing tools among class IIB inmates at the Gianyar Detention Center in 2018. *Dental Health Journal*, 6(2), 23-26.
- Rismayani, L., Kristen, A., & Asmara, AD (2021). The Influence of Training Methods on Teeth Brushing Habits and Dental and Oral Hygiene of People with Intellectual Disability. *Scientific Journal of Dental Nursing*, 2(3), 631-643.
- Rosalina, Y., Sopianah, Y., & Taftazani, RZ (2019). The Effect of Counseling on How to Brush Your Teeth Using Braille on Knowledge and Dental and Oral Hygiene among Blind People in Special Schools in Tasikmalaya City. *ARSA (Actual Research Science Academic)*, 4(1), 31- 43.
- Sugiyono (2016). *Quantitative, Qualitative and R&D Research Methods*. Bandung: Alfabeta.
- Sukarsih, S., Silfia, A., & Asio, A. (2022). Education on Dental and Oral Health Care for Elementary School Students. *BINAKES Journal*.
- Sumiati, A. (2020). Relationship between knowledge of brushing teeth and the status of the Debris Index for mentally retarded children in Sdlb Bc Wiyata Dharma Iv Godean. *Dental and Oral Journal*, 2(1), 66-78.
- Suriani Br. Gintig . 2022. Counseling on mothers' level of knowledge in preventing stunting. NEM Publisher: Indonesia Alhamid. 2019. *Data Collection Instrument*, (online), <http://osf.io/s3kr6/download>, accessed 28 August 2023.
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Wawan A and Dewi M. (2019). Theory & Measurement of Knowledge, Attitudes and Behavior  
Man. Yogyakarta: Nuha Medika

Widiastuti, NLGK, & Winaya, IMA (2019). Specific principles and types of educational  
services for children with intellectual disabilities. *Journal of Santiaji Education (JSP)*,  
9(2).

Yuliantho, T. (2022). Comparison of Educational Methods for Toothbrushing Techniques  
Demonstration Using the Method of Viewing Videos on YouTube  
Dental and Oral Hygiene in Grade 5 Students of SDN Kepongpongan 2,  
Talun District, Cirebon Regency.

Yunita, M., Sri Ningsih, N., Yuliasati, Y., & Makhrus, I. (2020). Description of Parents'  
Anxiety Levels in Caring for School-Aged Children with Intellectual Disabilities  
(6-12 Years) At Slb C Tunas Kasih 2 Bogor City.