



Level Of Knowledge n Maintenance Of Teeth And Mouth Cleanliness With Audio And Braille Leaflet Media In Blind Children in SLB N Semarang

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ABSTRACT

Dental health education is a learning process aimed at individuals and community groups to achieve the highest degree of community dental health. The problem is that blind children need the right media to increase knowledge of dental and oral health. Blind children use the sense of touch and hearing as a substitute for the sense of sight in the learning process. The purpose of the study was to see the level of knowledge on how to maintain oral hygiene in blind children with counseling using audio media and leaflet media *braille*.

This study uses an interventional analytic design with research subjects 24 blind children at SLB N Semarang using audio media and leaflet media *braille*. The data that has been obtained were analyzed using the statistical *Wilcoxon Test* and *Mann Whitney tests*.

Statistical test with *Wilcoxon Test* showed a significant difference with value p 0.003 between before and after counseling with audio media and there was a significant difference p 0.002 between before and after counseling with leaflet media *braille*. The *Mann Whitney Test* was used to see the level of knowledge of the two media, in this study showed a difference in the level of knowledge with a value of p 0.001 between the counseling group with audio media and leaflet media *braille*.

According to the results of the, it can be concluded that there is a difference in the level of knowledge on how to maintain oral and dental hygiene in blind children, where audio media counseling increases their knowledge more than leaflet media counseling *braille*.

Keywords: counseling, dental and oral hygiene, audio media, leaflet media *braille*.

Introduction

According to Law No. 36 of 2009 on Health is a state of health, both physically, mentally, spiritually and socially that allows everyone to live a productive life socially and economically¹. To realize the degree of health for the community, integrated health efforts are organized and decay in the form of individual health efforts and public health efforts. Health efforts are organized in the form of promotive, preventive, curative and rehabilitative activities that are carried out in an integrated, thorough and sustainable manner.

Indonesians have dental and oral health problems. Among them, 31.1 percent received treatment and treatment from dental medical personnel and another 68.9 percent did not receive treatment. This data shows that there are still high dental and oral health problems in Indonesia²

The prevalence of oral health problems in Central Java province is 25.4%. Meanwhile, the DMF-T Index is 4.3 with a value of 1.4 each: D-T = 1.4; M-T = 2.9; F-T = 0.05; which means tooth decay of central Java residents averages 5 teeth per person²

The number of dental health problems is very close to the number of dental caries in the community. Some of the factors that are closely related to the occurrence of dental caries, including age, gender, socioeconomic culture, medical behavior and knowledge and attitudes towards dental health³. To reduce dental health problems need to be done to provide knowledge about dental health for the community. The provision of knowledge about dental health is through dental health education. Dental health education is a planned and directed effort to create an atmosphere so that a person or community group wants to change old behavior that is less favorable for dental

health, to be more beneficial for dental health⁴

Extraordinary School (SLB) is a school for children with special needs, which is one type of school that is responsible for carrying out education for children with special needs. Children with special needs include deaf, deaf, deaf, deaf, *attention deficit hyperactivity disorder* (ADHD), deafness, autism, visually impaired, and visually impaired⁵.

Visually impaired people are those who have no vision at all (total blindness) until those who still have residual vision but are unable to use vision to read ordinary writing measuring 12 points in normal light despite being assisted by glasses (less alert). Generally they show better sense of hearing and touch sensitivity compared to normal children⁵

Sensitivity of the sense of touch from the good that must be prioritized in providing education, especially dental health education. Visually impaired people are very familiar and easily understand *braille* because of the pattern of reading with *braille*. Education on the maintenance of dental and oral health by using *braille* writing in the form of educational leaflets will be effective in supporting the optimization of the success and purpose of dental and oral education for the visually impaired, namely increasing dental and oral health knowledge of visually impaired people⁶

Visually impaired children also have good hearing sensitivity Hearing sensitivity in visually impaired children needs to be considered in providing dental health education. One method that uses hearing sensitivity is the audio method. In the provision of education it is necessary to

choose a learning medium that suits the child.

Knowledge about maintaining less dental and oral hygiene results in difficulties and limitations in maintaining healthy teeth and mouth. As a result, visually impaired children are at risk of having a worse dental and oral hygiene status compared to normal children. Poor dental and oral hygiene status will have an effect on the risk of dental caries in visually impaired children that are higher when compared to normal children.

The results of a previous study conducted by Dewi, R in 2015 found that there were significant differences in dental and oral health knowledge in visually impaired children were shown by an increase in average value before and after counseling using audio methods and *braille leaflets*.

From the background above, it is necessary to conduct research on dental and oral hygiene counseling to see the level of knowledge of visually impaired children.

Methods

Research Design

The study is an interventional analytical study, with a post-test pre-test group design, which measures the outcome variable before and after the intervention. Using a *cross sectional* approach because of the type of research whose variable measurements are carried out at only one moment (Dewi 2015).

In a way:

Stage 1

- 1) Interview with the target before extension with a kuesionar instrument that has passed the validation test. Assisted by teachers and enumerators. This stage is done as the beginning of the level of knowledge of visually impaired children called *pretest*.
- 2) The target is given extension material

with audio media for 10-20 minutes.

- 3) Interview back to the target after extension with the same kuesionar instrument this stage is called *posttest*.

Stage 2

- 1) Interview with the target before extension with the kuesionar instrument. Assisted by teachers and enumerators. This stage is done as the beginning of the level of knowledge of visually impaired children called *pretest*.
- 2) The target is given extension material with *braille leaflet* media for 20-30 minutes.
- 3) Interview back to the target after extension with the same kuesionar instrument this stage is called *posttest*.

Data Analysis

The data is obtained from primary data, which is the result of the custodist which is then suspended according to the correct answer. Data before treatment and after treatment that has been tabulated, will be processed statistics using the *Wilcoxon Test*, used to find out the increase in dental and oral hygiene knowledge before counseling and after counseling. Furthermore, *the Mann Whitney Test* was conducted to find out the difference in the level of knowledge how to maintain dental and oral hygiene after counseling with audio media and *braille leaflet media*.

Results

Test to find out if there is a difference before extension and after counseling with audio media and *braille leaflet media* to the level of knowledge of dental and oral hygiene then the *Wilcoxon Test* is carried out.

Table 1. Test Results Differ Before and After Counseling Group Knowledge with Audio Media

Knowledge	P Value	Interpretasi
Pretest	0,003	H0 rejected
Posttest		

Based on table 1 above it can be seen that the results of the *Wilcoxon Test* test value *p value* 0.003. So it can be concluded that H0 is rejected which means there is a difference before and after counseling with audio media to the level of knowledge in visually impaired children of SLB N Semarang.

Table 2. Test Results Differ Before and After Knowledge of Counseling Groups with Braille Media Leaflets

Knowledge	P Value	Interpretasi
Pretest	0,002	H0 rejected
Posttest		

Based on table 2 above it can be seen that the results of the *Wilcoxon Test* test value *p value* 0.002. So it can be concluded that H0 is rejected which means there is a difference before and after counseling with braille leaflet media on the level of knowledge in visually impaired children of SLB N Semarang.

Table 3. Test Results Differ Group with Audio Media and Braille Media Leaflets

Knowledge	P Value	Interpretasi
Media Audio	0,001	H0 rejected
Media Leaflet Braille		

Based on table 3 above, *mann Whitney Test* results *p-value* of 0.001. So it can be concluded that H0 is rejected which means there are differences before and after counseling with audio media and braille leaflet media to the level of knowledge in

visually impaired children of SLB N Semarang.

Discussion

1. Level of knowledge before and after audio media extension

Based on the results of research group knowledge before and after counseling with audio media in visually impaired children, the results before counseling with audio media obtained sufficient criteria. While after counseling with audio media obtained good criteria. The difference between before and after counseling with audio media is 2.7. This result was also reinforced by the results of the hypothesis test using the *Wilcoxon Test*, showing a difference in the level of knowledge between before and after counseling with audio media in visually impaired children, where the value of *p* is 0.003 (<0.05).

In the extension group with audio media there was a difference in value between before counseling and after counseling to the level of dental and oral hygiene knowledge.

Because when providing counseling to visually impaired children they actively listen and understand the contents of each audio media extension material so that the results of *posttest* research obtained good criteria counseling with audio media. This is as mentioned by the Ministry of Health in Pulungan in 2007 which states that extension is the addition of one's knowledge and abilities through learning practice techniques or instructions with the aim of increasing or influencing human behavior individually, group and society to be

able to be more independent in achieving life goals.

Counseling using audio media also experienced an increase in the level of dental and oral hygiene knowledge in children. In line with research that has been done which states that counseling with lecture or audio media can increase the level of knowledge.⁶

2. Level of knowledge before and after *braille* leaflet media extension

Based on the results of research group knowledge before and after counseling with *braille* leaflet media in visually impaired children obtained results before counseling with media leaflet *braille* criteria less. While after counseling with *braille* leaflet media obtained enough criteria. The difference between before and after counseling with *braille* leaflet media is 2. This result was also reinforced by the results of the hypothesis test using the *Wilcoxon Test*, showing a difference between before and after counseling with *braille* leaflet media in visually impaired children, where the value of *p* is 0.002 (<0.05).

In the counseling group with *braille* leaflet media there is a difference in value between before counseling and after counseling to the level of dental and oral hygiene knowledge counseling dental and oral hygiene extension with *braille* leaflet media can increase respondents' interest in reading it.

In visually impaired children sometimes have to take a little long time because of the limitations experienced by them to read *braille* where *braille* is one of the means for visually impaired children to obtain information and communicate. At the time of providing counseling with *braille* leaflet media respondents read well and thoroughly so that the results of *posttest* research

obtained criteria are quite extension with *braille* leaflet *media*. In the study explained that counseling using printing methods such as posters and leaflets proved to increase knowledge in children.⁶

The addition of knowledge to the group provided by *braille* leaflet media shows that *braille* has been shown to be used to improve reading skills. So, by reading the level of knowledge that visually impaired children have will increase and increase. The use of *braille* leaflet media is also strengthened by the opinion of Tumirah in 2012. which states that the use of *braille* writing aims to improve the reading ability of visually impaired children in getting information to increase their knowledge.

This media focuses on touch. The sense of touch of a visually impaired child is quite good. Thus, *braille* leaflet media is quite appropriate to increase the knowledge of visually impaired children. Visually impaired children can still gain knowledge, especially dental and oral knowledge. This is stated in the guidelines of Children's Health Services in Extraordinary Schools which states that the lower generally visually impaired children show better sense of hearing and touch sensitivity than normal children.

3. Knowledge level using audio media extension and *braille* leaflet media

Based on the results of research, audio media is more dominant in increasing the level of knowledge of children than *braille* leaflet media. This is also supported by the results of the hypothesis test using the *Mann Whitney Test*, showing a difference in the level of knowledge in visually impaired children between audio media and *braille* leaflet media where the value of

p is 0.001 (<0.05).

Audio media is more dominant than *braille* leaflet media because audio media with the target of visually impaired children emphasize hearing and *braille* leaflet media weighs touch. This according to Daryanto in 2016 audio is one of the components based on sound / sound that is very effective and very helpful for educators if used as a learning medium

Audio media can provide interesting messages and motivate learners. In addition to attracting and motivating audio media learners more effectively if they can stimulate learners to use their imagination, so that they can visualize the messages we convey.

Conclusion

Based on the results of research and discussion on the difference between audio media and *braille* leaflet media on the level of dental and oral hygiene knowledge is concluded as follows:

1. There is a difference between before and after extension with audio media to the level of knowledge in visually impaired children in SLB N Semarang with a value of $0.003 < 0.05$.
2. There is a difference between before and after counseling with *braille* leaflet media to the level of knowledge in visually impaired children in SLB N Semarang p value $0.002 < 0.05$.
3. There is a difference in extension media between audio media and *braille* leaflet media against the level of knowledge in visually impaired children in SLB N Semarang p value $0.001 < 0.05$.

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counseling in visually impaired children because it attracts and motivates learners more effectively can stimulate learners to use their imagination, so that he can visualize the messages we convey.

2. For further research is expected to develop research by combining audio media with *braille leaflet* media or with other media.

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