

RESEARCH ARTICLE

The Increased Knowledge of Children Dental and Oral Health at the Baitus Syukur Orphanage in Bandung

Siska Nia Irasanti,¹ Yuniarti Yuniarti,² Yuli Susanti,¹ Yani Dewi Suryani,³
Revika Ilma Nurul Uswah,⁴ Risya Farisatul Aini,⁴ Novita Arya Cahyani,⁴
Hilal Muhammad Dimas Nugraha,⁴ Muhammad Mufti⁴

¹Department of Public Health, Faculty of Medicine, Universitas Islam Bandung, Bandung, Indonesia,

²Department of Anatomy, Faculty of Medicine, Universitas Islam Bandung, Bandung, Indonesia,

³Department of Child Health, Faculty of Medicine, Universitas Islam Bandung, Bandung, Indonesia,

⁴Medical Undergraduate Study Program, Faculty of Medicine, Universitas Islam Bandung, Bandung, Indonesia

Abstract

The COVID-19 pandemic has led to restrictions on visits to the dentist except for emergency cases. It causes the examination and treatment of dental and oral diseases to be hampered, which is feared to impact a person's overall health condition negatively. Therefore, each individual is expected to maintain optimal dental and oral health to prevent it. Until now, based on the results of interviews with the head of the Baitus Syukur orphanage, it was stated that the level of awareness of foster children on the importance of maintaining dental and oral health was low, and they did not yet have a special examination program related to dental and oral health. This study aims to analyze whether there is an increase in children's knowledge in the Baitus Syukur orphanage after counseling on oral health. This type of research is a quasi-experiment with pre and post-test methods in March–April 2021. This study uses a total population of 24 children in the Baitus Syukur orphanage. The data were analyzed with the results of the Wilcoxon Test analysis at a 95% confidence level. It showed that statistically, there was a significant difference between the values before and after giving counseling materials to participants with p value=0.003 (p value \leq 0.05). The conclusion is that there is an increase in children's knowledge about dental and oral health at the Baitus Syukur orphanage after counseling.

Keywords: Counseling, dental health, knowledge, oral health

Peningkatan Pengetahuan Kesehatan Gigi dan Mulut Anak di Panti Asuhan Baitus Syukur Bandung

Abstrak

Kondisi pandemik COVID-19 menyebabkan pembatasan kunjungan ke dokter gigi kecuali untuk kasus penyakit kesehatan gigi dan mulut darurat. Hal ini menyebabkan pemeriksaan dan perawatan penyakit gigi dan mulut terhambat yang dikhawatirkan akan menimbulkan dampak negatif terhadap kondisi kesehatan seseorang secara menyeluruh. Untuk mencegah hal ini, setiap individu diharapkan dapat menjaga kesehatan gigi dan mulutnya secara optimal. Sampai saat ini, berdasar atas hasil wawancara dengan Ketua Panti Asuhan Baitus Syukur menyatakan bahwa tingkat kesadaran anak asuh dalam menjaga kesehatan gigi dan mulut rendah dan belum memiliki program pemeriksaan khusus terkait kesehatan gigi dan mulut. Penelitian ini bertujuan menganalisis apakah terdapat peningkatan pengetahuan anak di Panti Asuhan Baitus Syukur setelah dilakukan penyuluhan mengenai kesehatan gigi dan mulut. Jenis penelitian ini adalah eksperimen quasi dengan metode *pre and post-test* pada Maret–April 2021. Penelitian ini menggunakan total populasi anak di Panti Asuhan Baitus Syukur yang berjumlah 24 orang. Data dianalisis menggunakan Uji Wilcoxon pada derajat kepercayaan 95% menunjukkan bahwa secara statistik, terdapat perbedaan yang signifikan antara nilai sebelum dan setelah pemberian materi penyuluhan pada partisipan dengan $p=0,003$ ($p\leq 0,05$). Simpulan, terdapat peningkatan pengetahuan anak mengenai kesehatan gigi dan mulut di Panti Asuhan Baitus Syukur setelah dilakukan penyuluhan.

Kata kunci: Kesehatan gigi, kesehatan mulut, pengetahuan, penyuluhan

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Correspondence: Yuniarti, drg., M.Kes. Department of Anatomy, Faculty of Medicine, Universitas Islam Bandung. Jln. Tamansari No. 22, Bandung 40116, West Java, Indonesia. E-mail: candytone26@gmail.com

Introduction

Indonesia and countries worldwide are still struggling to control the coronavirus 2019 (COVID-19) pandemic caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The strategies taken by the Indonesian government include implementing large-scale social restrictions (*pembatasan sosial berskala besar*, PSBB). It also imposes regional quarantine or lockdown in several areas, conducting distance learning activities for students, limiting religious activities that gather large numbers of people. It requires all people to wear masks outside their homes, socializing the habit of washing hands using soap under running water or using hand sanitizers as often as possible. Application of physical distancing when someone is in a public place, socializing the importance of avoiding crowds when in public places and reducing mobility to prevent the spread of COVID-19. The task force for handling the spread of COVID-19 provides data that the number of COVID-19 sufferers is increasing every day in Indonesia, especially in the city of Bandung, West Java province.^{1,2}

As of January 28, 2021, COVID-19 cases have reached 1,037,993. West Java ranks second as the province with the highest COVID-19 cases, with a case fatality rate of 1.2%.³ The case fatality rate is the percentage of the number of deaths from the total number of confirmed and reported positive cases of COVID-19.⁴

The COVID-19 pandemic condition causes restrictions on visits to the dentist except for emergency dental and oral health cases. It causes the examination and treatment of dental and oral diseases to be hampered. In the future is feared to harm a person's overall health condition. To prevent this, each individual is expected to maintain optimal dental and oral health.⁵

Efforts to maintain dental and oral health, especially for school-age children, need special attention because, at this age, children are undergoing a process of growth and development. One of the processes of growth and development is influenced by the fulfillment of nutritional needs that require healthy teeth in the process of digesting food. The habit of children in taking care of their dental health from an early age will become a habit that will be carried over into adulthood, which will have an impact on the development of dental health in adulthood.⁶

The orphanage is one of the child protection

institutions that protect children's rights (Guidelines for Child Protection 1999). According to the Association of Legislations on Child Protection 2002, it mandated that every child has the right to receive welfare, care, care, and guidance based on affection both within his family and in special care to grow and develop. According to Law no. 35 of 2014 concerning child protection Article 1 paragraph (1), a child is someone who is not yet 18 (eighteen) years old, including children who are still in the womb.⁷

The care and guidance carried out by the Child Welfare Institutions (*Lembaga Kesejahteraan Sosial Anak*, LKSA)/Baitus Syukur orphanage facilitate formal (elementary school, junior high school, vocational/high school, and college) and non-formal (skills training) education. It also guides worship (rituals) and social programs designed so that children welcome their future better. The children are expected to be better, qualified, independent, physically and mentally strong, strong in knowledge, grow into healthy people, knowledgeable, prosperous, and intelligent in science, faith, and charity. It hopes that the children will grow up to become individuals who are beneficial to many people in the pleasure, mercy, and *maghfirah* of Allah SWT in the future. Until now, based on the results of interviews with the head of the Baitus Syukur orphanage, it was stated that the level of awareness of foster children on the importance of maintaining dental and oral health was low, and they did not yet have a special examination program related to dental and oral health. To increase this knowledge can be done with health education or counseling. In terms of the age at which children are susceptible to disease, counseling is mainly aimed at groups who are prone to dental and oral health problems, namely elementary school-aged children.⁸

Health education can indirectly change the pattern of knowledge, attitudes, and actions in maintaining health. The knowledge that exists in a person is received through the senses. According to research by sensory experts, the one that transmits the most command into the brain is the sense of sight. Approximately 75% to 87% of human knowledge is transmitted through the sense of sight, 13% through the sense of hearing, and another 12% through the other senses.⁹

This study aims to analyze whether there is an increase in children's knowledge in the Baitus Syukur orphanage after counseling on oral health.

Methods

The design of this research is a quasi-experiment with pre and post method. The data taken is primary data in the form of questions related to counseling materials about dental and oral health knowledge.

Socialization and giving informed consent were done before the research was conducted. This study took the total children (24 children) from the Baitus Syukur orphanage located on Jl. Mars Selatan No. 27 RT 04 RW 07, Manjahlega village, Rancasari district, Bandung city, West Java. The inclusion criteria of this study were children living in the Baitus Syukur orphanage who could read and write, as the exclusion criteria were the sick children of the Baitus Syukur orphanage. Each child was accompanied while filling out the questionnaire.

The independent variable of this research is knowledge about dental and oral health. The dependent variable in this study is counseling about oral health. The primary data obtained were then processed and analyzed. Data analysis used Wilcoxon test analysis at a 95% confidence level.

This study was approved by the Health Research Ethics Committee, Faculty of Medicine, Universitas Islam Bandung, with approval number 115/KEPK-Unisba/XII/2021.

Results

The research was conducted at the Baitus Syukur orphanage located in Bandung city, West Java, and held from March to April 2021. The description of the values before and after counseling to respondents is shown in Table 1.

Table 1 shows the average value before giving counseling was 49.58 with a standard deviation of 14.51, and after giving counseling

Table 1 Overview of Values before and after Giving Counseling to Respondents

Values	Before	After
Average	49.58	63.75
Standard deviation	14.51	15.55
Median	47.5	65.0
Minimum	20.0	30.0
Maximum	75.0	85.0

Table 2 Differences in Values before and after Giving Counseling to Respondents

Variable	p Value
Test scores before counseling >< test scores after counseling	0.003

materials, the average value becomes 63.75 with a standard deviation of 15.55. The median value before providing counseling was 47.5, and after counseling was 65.0. The minimum value before giving counseling was 20.0, and after that, it became 30.0, while the maximum value before counseling was 75.0 and after counseling was 85.0.

The difference in values before and after giving counseling to participants is shown in Table 2. Based on Table 2, it can be seen that the results of the Wilcoxon Test analysis with a 95% confidence degree indicate that statistically, there is a significant difference between the values before and after giving the counseling to the respondents with a p value=0.003.

Discussion

In this study, researchers conducted counseling on dental and oral health to change the behavior towards the expected direction through the active role of the counseling target. Health counseling is instilling confidence so that people are not only aware, know, and understand, but are also willing and able to carry out a recommendation that is related to health.¹⁰ Dental and oral health counseling is an effort to change the behavior of a person or community so that they have the ability and habits of behaving in a healthy life. One of the benefits of oral health counseling is increasing knowledge and power through techniques learned or instructions to change or influence human behavior in individuals, groups, and communities. It aims to raise awareness of the value of healthy teeth and mouth to change its behavior into healthy behavior consciously. Counseling is expected to provide sustainable benefits to change the concept of health in the aspects of knowledge, attitudes, and behavior of individuals and communities.^{11,12} Dental health education in children is essential because at that age is a critical time for both the growth of molars also for the development of his soul as the need approaches to generate knowledge, attitudes,

and behavior of healthy teeth and oral health in particular.¹³

Based on the data presented in Table 1 and Table 2, the level of knowledge of Baitus Syukur orphanage children has increased after attending counseling than before. An increase in the number of correct answers in general and a reduction in the number of incorrect answers shows the effectiveness of the counseling that has been made in improving knowledge. The results of this study are consistent with Sumirat's¹⁴ research which states that of the 30 respondents studied before the counseling, the children's knowledge level was 60% within the sufficient criteria. Still, after the counseling, the results obtained 70% of the children's knowledge were in good standards.

The research of Dwi and Susilarti¹⁵ are also in line with this study, which states that counseling increases the knowledge and attitudes of dental and oral health students at SDNI and II Mergodadi Seyegan Sleman Yogyakarta. Likewise, Husain's⁶ research states the same thing as this study there is an increase in children's knowledge about dental and oral health after counseling.

Success in delivering information cannot be separated from the role of the informant and the respondent who is given the data. This opinion is in line with the theory raised by J. Guilbert on factors influencing health education. Among other materials or things learned, the physical and social environments need to be considered, an instrument consisting of hardware (hardware) and software (software) condition individual.¹⁶ Delivery media following the stage of cognitive development will be more readily accepted by children so that dental and oral health knowledge can be improved and the use of the senses can be maximally helpful. It is necessary to provide dental and oral health counseling with assistive devices or media to attract children's interest.¹⁷

Media as a tool are essential when used for counseling because educators use tools in delivering educational or teaching materials.¹⁸ The respondents well received the selection of audiovisual as a media for health education. This media offers counseling that is more interesting and not monotonous. This counseling uses audiovisual, which displays motion, images, and sound. When the research was conducted, counseling with this media posed a great curiosity about the contents of the material and seriously watched the video on the media zoom meeting until it was finished.¹⁹ Audio visual is a visual and hearing aid to stimulate the eye

and hearing senses while delivering teaching materials. Audiovisual media are simultaneously used to stimulate the two senses, namely the eyes and ears, so respondents are more focused on the material provided.²⁰

The selection of methods also determines the success of counseling. The commonly used extension methods are the didactic method (one-way method) and the Socratic method (two-way method). In the didactic approach, educators tend to be active while students as the target of educators are not allowed to express opinions. In addition, lectures are one of the best didactic methods used in dental and oral health education for elementary school children. The Socratic method is carried out by two-way communication between students and educators. Students are allowed to express their opinions, and two or more people with different backgrounds work together to provide information and participate in communicating ideas.²¹

This study uses the lecture method, interactive video, and discussion method to increase the children's knowledge. The lecture method is one of how health education explains something verbally.²² The lecture method was chosen due to several considerations. One of them is because the lecture method has been considered a suitable method and can be well received by the target. This method is ideal for both high and low educated marks. In addition, the lecture method is a method that has often been used, and this method can be done with a large number of participants.²³

Knowledge is the result of knowing after sensing particular objects. Cognitive knowledge is an essential factor for the formation of one's actions. Knowledge-based on the correct understanding will lead to the expected new behavior. Knowledge and health are two things that are related to each other. One of the factors that affect the health of the body is dental and oral health. One of the causes for dental and oral health problems is behavioral factors due to a lack of knowledge about maintaining dental and oral health, increasing the incidence of dental and oral diseases at an early age.²⁴

Conclusions

There was an increase in children's knowledge about dental and oral health at the Baitus Syukur orphanage after counseling.

Conflict of Interest

There is no conflict of interest in this research.

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