

EFFORTS TO IMPROVE KNOWLEDGE ABOUT DENTAL CARIES AT UPT SD N 01 SOUTH YOGYAKARTA

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A B S T R A C T

Background & Objective: The problem of dental caries in school-age children is still a serious concern in Indonesia, especially in areas with limited health education such as SD N 01 South Yogyakarta. This community service activity aims to improve students' knowledge through interactive and applicable counseling. **Method:** The methods used include pre-tests, counseling with animated video media and demonstrations, and post-tests. **Result:** The results showed a significant increase in student knowledge, with 80% of respondents in the good knowledge category after the counseling, compared to only 15% before the activity. This success reflects the effectiveness of the educational approach based on behavior and visual communication. This activity produced outputs in the form of increased knowledge, activity documentation, and scientific articles ready for publication. Follow-up plans include the formation of UKGS cadres and periodic evaluations. **Conclusion:** This counseling is expected to be the first step towards a culture of dental health awareness in elementary school environments.

Introduction

The problem of dental caries in school-age children has become a global concern due to its high prevalence and impact on public health. The World Health Organization (WHO) noted that 60–90% of school-age children in the world experience dental caries, especially in developing countries that have limited access to dental health services and educational information (WHO, 2020 in Lumbanraja & Rahmi, 2022). This disease is a public health problem that requires an integrated promotive and preventive approach, especially in basic education institutions. In Indonesia, this condition is even more worrying. Based on the 2018 Basic Health Research (Riskesdas) report, the prevalence of dental caries in children aged 5–9 years reached 92.6%, making Indonesia one of the countries with the highest rates of childhood caries in the world (Ministry of Health of the Republic of Indonesia, 2018). The causes of this high prevalence include the habit of consuming foods high in sugar, low public awareness of the importance of maintaining dental health, and minimal education received by children from an early age (Andriyani et al., 2023). Regionally, Lampung Province also shows worrying conditions. Based on research conducted in Tulang Bawang Regency, it is known that 67% of elementary school-aged children experience dental and oral problems, with caries as the main problem (Suryani & Harahap, 2021). The lack of UKGS (School Dental Health Efforts) programs and the role of health workers in education are dominant factors in the high number. Dental caries itself is a chronic infectious disease that damages hard tooth tissue due to the activity of bacteria in dental plaque that produce acid from food carbohydrate residues. This process causes demineralization of tooth enamel and, if left untreated, will cause holes in the teeth that can develop into infections and abscesses (Fadillah & Wulandari, 2022). This disease is progressive and often does not cause symptoms until it reaches a certain level of severity. The impact of dental caries on children is very broad. In addition to causing pain that interferes with daily activities, caries can also cause eating disorders, difficulty speaking, sleep disorders, and contribute to malnutrition and decreased quality of life in children (Astuti & Dewi, 2019).

In addition, children with active caries tend to be absent from school more often than their peers, which ultimately affects academic achievement.

The results of interviews conducted in several elementary schools showed that children's knowledge about dental caries is still low. Many students do not understand the importance of brushing their teeth twice a day and avoiding excessive sweet foods. In addition, most parents are not aware of the importance of taking their children to the dentist regularly. This is exacerbated by the lack of involvement of schools and health centers in providing dental health education (Gultom & Sormin, 2017). Based on findings at schools, it is known that the lack of information on how to brush teeth properly, irregular dental check-ups, and the absence of an active UKGS program are the main challenges in preventing caries. For this reason, increasing knowledge about dental caries at UPT SD Negeri 01 Yogyakarta Selatan needs to be done through a comprehensive educational approach. Programs that can be implemented include training teachers and parents about children's dental health, routine education by health centers, integration of dental health materials into school lessons, periodic dental check-ups, and reactivation of UKGS. Collaboration between schools, health services, and the community is the main key in building a culture of dental health awareness from an early age (Maria & Hermawan, 2021).

Objective

Improved Health Knowledge: Students will have a better understanding of dental caries, so they can carry out appropriate prevention and treatment..

Method

The methods used include pre-tests, counseling with animated video media and demonstrations, and post-tests, sampel 40 students who became respondents,

Results

Kategori Pengetahuan	Rentang Skor	Jumlah siswa	Pre Test Presentase	Jumlah siswa	Post test presentase
Baik	8-10	6	15%	32	80%
Cukup	5-7	22	55%	7	17,5%
Kurang	0-4	12	30%	1	2,5%
Jumlah		40		40	

Before the counseling began, students were given a pre-test in the form of a questionnaire containing 10 yes/no questions to assess their initial knowledge about dental caries. The pre-test results showed that of the 40 students who responded, 55% had knowledge in the "sufficient" category (score 5–7), 30% in the "less" category (score 0–4), and only 15% were classified as "good" (score 8–10). This strengthens the background that students' understanding of the importance of maintaining dental health is still low.

Discussion

Reasons for Low Pre-test Results: Most elementary schools have not routinely provided dental health education to their students. The UKGS (School Dental Health Effort) program, which should be the mainstay of dental education, is often inactive or has not been implemented optimally. Then, many students are not used to brushing their teeth twice a day, especially

before going to bed. Even if they brush their teeth, the technique is often incorrect, so the results are not effective in preventing caries.

The implementation of this activity is based on the Health Belief Model (HBM) theory, which states that a person will change their health behavior if they feel at risk of a disease and believe that preventive measures can reduce that risk (Rosenstock in Lestari & Hadi, 2021). In this context, students who understand the risks of dental caries and the benefits of brushing their teeth regularly are more motivated to adopt healthy behaviors.

In addition, Skinner's Behavioral Learning Theory is also relevant, because counseling accompanied by a demonstration of brushing teeth can strengthen learning through direct practice. Stimulus in the form of animated videos and teaching aids provide positive reinforcement, so that students find it easier to remember and practice the correct way to brush their teeth (Anggraini & Sari, 2020).

The third theory underlying this activity is Green's Health Education Theory, which states that changes in health behavior are influenced by predisposing factors (knowledge), supporting factors (facilities), and reinforcing factors (social support). In this activity, these three elements are fulfilled through educational materials, poster media, and the involvement of teachers and parents (Maria & Hermawan, 2021).

From the results of field observations, students looked enthusiastic and actively participated in the activity. The question and answer activity was interactive, and almost all students followed the demonstration of brushing their teeth correctly. This activity also involved the active role of class teachers and village midwives as program partners who supported the ongoing implementation of the activity. This shows good synergy between students, educational institutions, and local health workers.

The benefits of the activity are not only seen from the increase in post-test scores, but also from changes in students' attitudes who are beginning to realize the importance of maintaining dental hygiene. Some students even said they would remind their parents to have their teeth checked by a doctor regularly. This positive response reflects the internalization of health values in students' daily behavior.

The success of this activity is an important basis for recommendations for implementing similar programs periodically. The involvement of teachers and the formation of UKGS cadres from students need to be developed so that dental health education is sustainable. In addition, schools can use the results of this activity as an evaluation of the UKGS program that was previously inactive, so that it can be revived with the support of the local health center.

With a structured and theory-based educational approach, this activity has proven effective in increasing students' knowledge and awareness of the importance of maintaining dental health. It is hoped that this activity will not only have a temporary impact, but will also become the foundation for forming healthy living habits from an early age.

Conclusion

Dental caries counseling activities conducted at UPT SD N 01 Yogyakarta Selatan have proven effective in increasing students' knowledge about the importance of maintaining dental and oral health. This is proven by the increase in students' post-test results compared to the pre-test, with an increase in the "good" knowledge category from 15% to 80%. This success cannot be separated from the use of interesting educational methods such as animation media, demonstrations of proper tooth brushing, and direct interaction with students. This counseling not only provides knowledge, but also forms early awareness of the importance of clean and healthy living behavior from an early age. It is hoped that this activity can be continued and

developed through a sustainable UKGS program and support from the school and local health workers.

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