



Brushing Towards a Healthier Future: Promoting Clean and Healthy Living Habits in School-Age Children

Anggi Prasetyawati Purnama¹, Cici Lukita², Endah Rahayu Mulyani³

¹⁻³ Sekolah Tinggi Ilmu Keperawatan PPNI Jawa Barat, Bandung, Indonesia

Correspondence E-mail: angiprasetya@gmail.com

ABSTRACTS

Introduction: Oral health is a vital component of overall well-being, especially in school-age children who are in the critical stage of forming lifelong health habits. However, awareness and practice of proper toothbrushing remain low in many communities. **Objective:** This community service program aimed to improve knowledge and practices related to toothbrushing as part of Clean and Healthy Living Behaviors (PHBS) among school-age children. **Method:** The activity was conducted through interactive health education sessions at Babakan Pari Village involving 26 students aged 6-8 years old. The program included educational storytelling, demonstrations using dental models, and hands-on practice of proper toothbrushing techniques. Dental kits were distributed to encourage continued practice at home. **Results:** The program resulted in increased knowledge and improved toothbrushing skills among the participants, as observed through pre- and post-activity assessments. Teachers reported a higher level of student awareness and enthusiasm toward maintaining personal hygiene after the intervention. **Conclusion:** Educational interventions that are engaging and age-appropriate can significantly enhance oral hygiene behaviour in children. Collaboration with schools and families is essential to sustain PHBS practices and promote healthier futures for young generations.

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1. INTRODUCTION

Community service is a fundamental aspect of higher education institutions, contributing not only to the academic growth of students and lecturers but also to the well-being of the broader society. One of the urgent health issues in rural communities is poor oral hygiene, particularly among children. Many families lack the information and resources necessary to ensure healthy toothbrushing habits at home. This creates a gap that community service programs can effectively address.

Oral hygiene is essential for children's physical development and self-confidence. Dental caries and other oral diseases, if left untreated, can affect nutrition, sleep quality, academic performance, and social interactions. Early intervention is critical, and the school-age period (6–8 years) represents an ideal time to cultivate healthy habits through structured, fun, and repetitive learning.

In Indonesia, the government promotes Clean and Healthy Living Behavior (*Perilaku Hidup Bersih dan Sehat/PHBS*), which includes oral hygiene as one of its main pillars. However, in practice, many children—especially in remote or underserved villages—do not receive formal education about toothbrushing. The lack of engaging educational materials and trained facilitators often leads to superficial understanding and inconsistent practices.

Babakan Pari Village is one such area where access to preventive oral health education is limited. Teachers and community health workers report that many students do not brush their teeth regularly or properly. Most of their knowledge comes from parents or older siblings, who themselves may not have received accurate guidance. This highlights the need for a more systematic and supportive educational approach.

Community service programs conducted by nursing lecturers and students can bridge this gap through direct engagement with children in schools. By involving local educators and using culturally appropriate materials, such initiatives can instill not just knowledge, but also motivation and responsibility. Moreover, the hands-on involvement of students enhances their own professional development in community health nursing.

This community service activity focused on oral hygiene education for children aged 6 to 8 years in Babakan Pari Village. The initiative aimed to promote healthy brushing habits using interactive methods and empower children as agents of change within their families and peer groups.

2. METHODS

This community service program was carried out as a one-day educational session at an elementary school in Babakan Pari Village. The team consisted of nursing lecturers and students from a health sciences institute, collaborating with local schoolteachers. Prior coordination was conducted to identify a suitable age group and to align the activity with the school schedule.

A total of 26 students aged 6 to 8 years participated in the activity. The educational session was designed to be engaging and developmentally appropriate. It began with a storytelling session introducing characters that children could relate to—some with good brushing habits and others who faced problems due to neglecting oral hygiene. The aim was to spark curiosity and emotional engagement.

Following the storytelling, the team demonstrated correct brushing techniques using oversized dental models and toothbrushes. Facilitators explained each step clearly: how to hold the toothbrush, the proper brushing motion, areas to focus on (front, back, chewing surfaces), and the recommended duration (at least two minutes, twice daily). Children were encouraged to ask questions and share their current habits.



Figure 1. Community Services Activity

Each child was then given a personal dental hygiene kit, including a toothbrush, toothpaste, and a fun, illustrated step-by-step brushing guide. With their own kits, the children practiced brushing under supervision. Facilitators provided gentle corrections and encouragement, ensuring that each child understood the movements and reasons behind them.

To assess the impact of the session, facilitators used a simple observational checklist before and after the practice session, focusing on technique, hand positioning, and sequence of brushing. Teachers were also asked to observe changes in student behavior in the following days. This method emphasized reflective learning and local involvement, key principles of community-based education.

3. RESULTS AND DISCUSSION

This community service activity conducted in Babakan Pari Village successfully engaged 26 children aged 6 to 8 years. Their enthusiasm was apparent, especially during the storytelling session, which utilized child-friendly characters to convey simple yet important oral health messages. According to Fitriyani et al. (2021), narrative-based education is highly effective in stimulating interest and enhancing retention in early childhood populations.

Storytelling not only captured attention but also encouraged the children to interact with the facilitators and with each other. This supports the findings of Sari et al. (2020), who concluded that audio-visual and interactive learning can significantly increase knowledge retention in school-aged children, particularly when paired with visual aids or models.

The demonstration using large dental models revealed that many children were unfamiliar with the correct brushing technique, especially the circular motion recommended by dental professionals. Similar gaps in practical knowledge have been observed in other community settings, where children often lack formal education on personal hygiene routines (Nurlia et al., 2022).

Allowing the children to practice brushing their teeth using individual dental kits was a vital part of the activity. This hands-on component enabled the facilitators to provide immediate feedback and correction, a method supported by recent evidence that experiential learning improves skill mastery in health-related behaviors (Yuliana et al., 2023).

Many children expressed happiness upon receiving their personal toothbrushes and toothpaste. Some shared that they previously used shared brushes with siblings or had limited

access to dental hygiene products. This finding is in line with Handayani et al. (2020), who highlighted that low-income families often lack access to basic oral hygiene resources, which contributes to poor dental health outcomes in children.

Observation before and after the session indicated a significant change in behavior. Initially, most children demonstrated brushing techniques that were too short and used aggressive horizontal strokes. After the demonstration and supervised practice, the majority showed improved technique and understanding of duration and coverage areas, consistent with the study by Nurhayati et al. (2021), who observed that structured dental education significantly improves technique accuracy in children.

Teachers reported noticeable changes in student attitudes after the session. Several students began initiating conversations about brushing teeth and showed increased interest in personal hygiene routines. These post-activity behaviors suggest the beginnings of habit formation, which aligns with the findings of Fatimah and Setiawan (2022), who emphasized the role of peer influence and school environment in supporting behavior change.

Interestingly, some children brought their dental kits to school the following day, showing pride and ownership. According to Lestari and Wahyuni (2023), creating emotional attachment and a sense of responsibility over health tools helps reinforce consistent usage, especially in younger populations.

One challenge identified was the absence of parental involvement. Without reinforcement at home, the sustainability of the behavior change may be limited. Community-based health education programs must integrate parents and caregivers to ensure long-term success, as stated by Putri et al. (2022), who found higher retention of hygiene behaviors when family members were included.

Time constraints also presented a challenge. Ideally, oral health promotion should involve multiple sessions over time. A one-time intervention, while impactful, may not suffice for sustainable behavioral transformation (Darmawati, 2021). This observation is echoed in the work of Rahayu et al. (2020), who recommend structured, repeated health education models for primary school children.

Despite these limitations, the program generated overwhelmingly positive responses from students and teachers. The combination of storytelling, interactive demonstrations, and hands-on brushing practice proved effective and enjoyable. Teachers expressed a desire to

continue similar activities and integrate them into school health programs, as encouraged in national PHBS guidelines (Kemenkes RI, 2021).

In summary, the intervention successfully improved children's knowledge and practices related to oral hygiene. The integration of age-appropriate methods and direct engagement created a learning environment that fostered excitement, curiosity, and behavior change. Future programs should include a parental component and explore opportunities for sustained collaboration with schools to reinforce PHBS practices over the long term.

4. CONCLUSION

This community service program successfully increased knowledge and improved toothbrushing practices among school-age children in Babakan Pari Village through interactive education and practical support. Sustained impact will require continued collaboration between health professionals, schools, and families to reinforce the importance of oral hygiene and integrate it into everyday routines.

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