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IMPROVING STUDENTS' ORAL HEALTH KNOWLEDGE THROUGH TIKTOK AT SMPN 1 KERTAK HANYAR

PENINGKATAN PENGETAHUAN KESEHATAN GIGI DAN MULUT SISWA SMPN 1 KERTAK HANYAR MELALUI TIKTOK

Scope:
Health

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ABSTRACT

Background: Oral health education plays a vital role in increasing public awareness and promoting healthy behaviors. TikTok, as an audiovisual platform, is considered effective because it is engaging, easy to use and share, stimulates creativity, increases participation, and enhances students' digital skills. This approach is particularly relevant at SMPN 1 Kertak Hanyar, where most students have not yet developed proper oral hygiene habits or knowledge of correct toothbrushing practices, and the school has never conducted digital-based oral health education. **Objective:** This community service activity aimed to improve the oral health knowledge of students at SMPN 1 Kertak Hanyar. **Method:** The program was conducted in several stages, including coordination with the school, interactive oral health education sessions, the use of TikTok content as an educational medium, and mentoring activities. Evaluation was carried out through pre-tests and post-tests to measure students' knowledge improvement. **Results:** The findings showed an increase in knowledge across all assessed indicators, with the highest improvement observed in the item regarding the appropriate amount of toothpaste to use (27.76%). The Wilcoxon test yielded a p-value of 0.000 ($p < 0.05$), indicating a significant difference in knowledge before and after the intervention. **Conclusion:** Health education through TikTok effectively improved students' oral health knowledge. Therefore, social media, particularly TikTok, is recommended as a sustainable medium for oral health promotion.

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ABSTRAK

Latar belakang: Pendidikan kesehatan gigi dan mulut berperan penting dalam meningkatkan kesadaran masyarakat dan perilaku sehat; TikTok, sebagai media audiovisual, dianggap efektif karena menarik, mudah digunakan dan dibagikan, merangsang kreativitas, meningkatkan partisipasi, serta mengembangkan keterampilan digital siswa. Hal ini penting diterapkan di SMPN 1 Kertak Hanyar, mengingat mayoritas siswa belum memiliki kebiasaan menjaga kebersihan gigi dan mulut serta pengetahuan menyikat gigi yang baik, sementara sekolah belum pernah melaksanakan edukasi kesehatan gigi berbasis digital. **Tujuan:** Kegiatan pengabdian ini bertujuan untuk meningkatkan pengetahuan kesehatan gigi dan mulut siswa SMPN 1 Kertak Hanyar. **Metode:** Program pengabdian dilaksanakan melalui beberapa tahap, meliputi sosialisasi kepada pihak sekolah, penyuluhan interaktif tentang kesehatan gigi dan mulut, penerapan media edukasi melalui konten TikTok, serta pendampingan dan evaluasi dengan pre-test dan post-test guna menilai peningkatan pengetahuan siswa. **Hasil:** Terdapat peningkatan pengetahuan pada semua item indikator yang dinilai. Peningkatan terbesar terdapat pada item jumlah pasta gigi yang baik untuk digunakan, dengan peningkatan sebesar 27,76%. Hasil uji wilcoxon menunjukkan nilai p value sebesar 0,000 ($p < 0,05$), artinya terdapat perbedaan pengetahuan yang signifikan sebelum dan sesudah penyuluhan. **Kesimpulan:** Penyuluhan melalui TikTok efektif meningkatkan pengetahuan siswa, sehingga disarankan media sosial terutama TikTok dimanfaatkan sebagai sarana promosi kesehatan gigi dan mulut berkelanjutan.

Kata kunci:

Promosi Kesehatan Gigi;
Edukasi Kesehatan Gigi dan
Mulut; Siswa; TikTok

BACKGROUND

An estimated 3.5 billion individuals worldwide suffer from oral health problems, making them a significant public health concern (World Health Organization, 2022). Poor oral hygiene is one of the main causes of oral health issues such as periodontal disease and dental caries (Ibiyemi et al., 2022). Among these, dental caries is the most prevalent oral health problem globally. Untreated dental caries, particularly when developed during childhood or adolescence, may lead to long-term health consequences (World Health Organization, 2022).

In Indonesia, the prevalence of dental caries is 82.8%, with the highest incidence occurring among 15-year-olds (68.5%) (Kementerian Kesehatan RI, 2023). Poor dental hygiene habits are the main contributors to the high incidence of caries among adolescents. Preventive measures such as reducing sugar intake, brushing teeth twice daily with fluoride toothpaste, and maintaining good oral hygiene can help prevent cavities in teenagers (Kanagaratnam and Schluter, 2021; Wu et al., 2022). Adolescence is a critical stage characterized by rapid biological, emotional, and social changes. Health promotion during this period is essential to establish lifelong healthy habits, as decisions made during adolescence—across its early, middle, and late phases—affect future oral health behaviors and access to diagnostic, preventive, and restorative care (Shomuyiwa and Bridge, 2023).

Health promotion is one of the most important strategies for long-term disease prevention, aiming to encourage healthy lifestyles and positive behavioral changes. Key components include personal responsibility for health, regular physical activity, a balanced diet, social support, stress management, and maintaining a positive outlook on life. Such behaviors can improve quality of life, reduce healthcare costs, and increase life expectancy (Tabrizi et al., 2024). However, adolescents often face difficulties in adopting healthy habits due to limited knowledge, financial constraints, physical barriers, medication issues, and insufficient social and emotional support. Moreover, teenagers may underestimate their vulnerability to long-term health consequences or lack access to resources that promote healthy practices (Chu-Ko et al., 2021; Tabrizi et al., 2024).

Providing adolescents with adequate knowledge is an effective way to encourage a healthy lifestyle, particularly regarding oral and dental care (Saputri et al., 2022). Social media-based education is a suitable strategy for today's generation, who are highly familiar with technology and have grown up with internet access (Rahmana et al., 2022).

Preliminary observations and teacher interviews at SMPN 1 Kertak Hanyar revealed that most students lacked understanding of oral hygiene—particularly regarding the correct times for brushing—and did not practice proper oral hygiene habits. Furthermore, the school had never implemented any digital or engaging oral health education initiatives. This situation highlights the need for an educational approach that aligns with the characteristics and interests of today's students.

TikTok is one of the most popular social media platforms among teenagers and is also among the most downloaded applications in Indonesia, with 157.7 million downloads as of January 2025. Originating from China and launched in September 2016, TikTok allows users to create and share short music or video clips (Rahmana et al., 2022).

Audiovisual media such as TikTok can enhance students' interest in learning. This platform is considered highly effective because it is user-friendly, engaging, innovative, easy to share, promotes participation, stimulates creativity, broadens access, and improves digital literacy skills. Learning methods that incorporate audiovisual technology offer an attractive and efficient way to deliver educational content through visualizations that capture students' attention. Using TikTok as an audiovisual medium can make learning more interactive and foster two-way communication between educators and students (Damayanti et al., 2024). Therefore, this community service activity was designed to improve the oral and dental health knowledge of students at SMPN 1 Kertak Hanyar through the use of TikTok-based health education.

METHOD

This community service program was implemented on August 7, 2025, and designed through several interconnected stages to address the identified problems at SMPN 1 Kertak Hanyar—namely, students' lack of understanding of dental and oral hygiene and the absence of prior outreach activities. The stages of implementation included the following:

1. Socialization

The initial stage involved disseminating information about the program to the principal, teachers, homeroom teachers, and student representatives of SMPN 1 Kertak Hanyar. This activity aimed to provide essential information regarding the program's background, objectives, implementation methods, and expected outcomes.

2. Dental and Oral Health Education

The next stage consisted of training sessions

designed to improve students' understanding of dental and oral hygiene. These sessions were conducted interactively, utilizing engaging audiovisual media suited to adolescents. The materials covered various topics, including the frequency and timing of tooth brushing, the importance of visiting the dentist, proper toothbrushing techniques, foods beneficial and harmful to oral health, the importance of regularly replacing toothbrushes, the use of dental floss, and common myths and facts about oral health.

3. Implementation of Technology Through the TikTok Platform

The community service team produced informative video content on dental and oral health, presented in an engaging and concise manner following the typical TikTok style. Each video ranged from 15 to 60 seconds, using a relaxed yet informative delivery. The videos were uploaded regularly to the official TikTok account, pdwa.fkgulm. This stage included designing educational materials, producing videos by the community service team, presenting the videos to students at SMPN 1 Kertak Hanyar, and sharing the video links with students and teachers through WhatsApp groups and other digital platforms to ensure accessibility.

4. Mentoring and Evaluation

Ongoing mentoring and systematic evaluation were essential to ensure the program's effectiveness and sustainability. Mentorship was provided at each stage of content development and dissemination to ensure that the information presented was accurate, engaging, and suitable for the target audience. The evaluation process involved administering pre-tests and post-tests to measure students' improvement in oral and dental health knowledge. Through this structured approach, the community service program not only aimed to produce immediate improvements in students' oral health knowledge but also to enhance adolescents' long-term health literacy.

RESULT AND DISCUSSION

This community service activity utilized TikTok as an educational tool to enhance students' knowledge of dental and oral health at SMPN 1 Kertak Hanyar. The program involved 150 students, consisting of seventh to ninth graders aged 12–15 years, who actively participated in the educational sessions and digital content dissemination. Seven TikTok videos were created, each with a maximum duration of 60 seconds, focusing on oral health education.

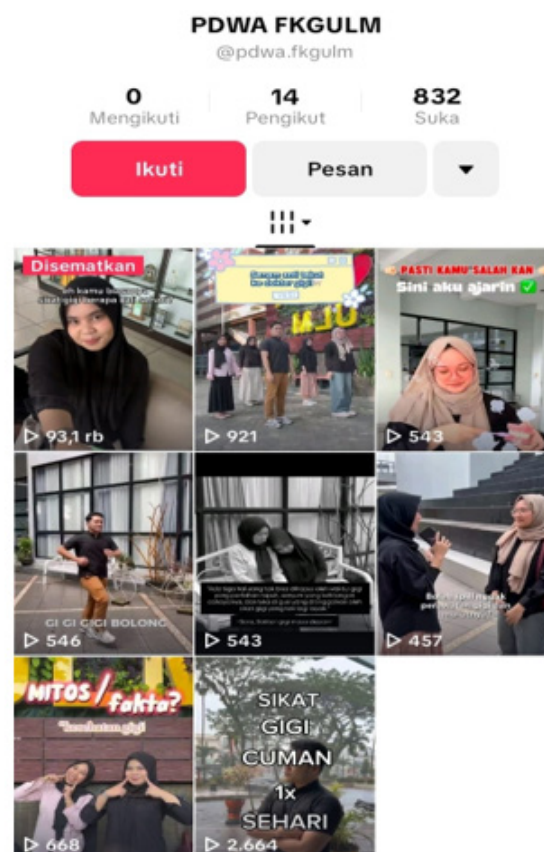


Figure 1. Tiktok Media for Oral and Dental Health Education

The TikTok-based media developed for this activity contained information on the frequency and timing of tooth brushing, the importance of dental visits, proper toothbrushing techniques, foods that are beneficial or harmful to oral health, the necessity of regularly replacing toothbrushes, the role of dental floss in maintaining oral hygiene, and common myths and facts related to oral and dental health.



Figure 2. Students Practice The Correct Way to Brush Their Teeth



Figure 3. Photo Session

The TikTok videos were shown to students to support their learning about dental and oral hygiene. Before the educational session, students completed a pre-test to assess their

baseline knowledge of oral health. During the session, they received counseling through the instructional TikTok videos. Afterward, a post-test was administered to measure knowledge improvement following the intervention.

All assessed indicators showed an improvement in knowledge after the intervention. The greatest increase (27.76%) occurred in the item regarding the correct amount of toothpaste to use, while the smallest increase (0.04%) was seen in the function of dental floss—likely because students already had a strong understanding of this concept. These findings align with the study by Damayanti et al. (2024), which also found an increase in oral health knowledge following TikTok-based education. Social media, particularly TikTok, has proven effective in delivering health messages in an accessible, engaging, and easy-to-understand manner (Sholihah et al., 2025).

Table 1. Knowledge Scores Before and After Intervention

No.	Question Item	Pre-test	Post-test
1.	Toothbrushing Frequency	66.44%	82.00%
2.	Brushing Time	71.14%	53.33%
3.	Function of Dental Floss	93.96%	94.00%
4.	Benefits of Drinking Water After Meals and Before Bed for Dental Hygiene	78.52%	85.33%
5.	Best Time to Replace Your Toothbrush	63.76%	74.00%
6.	Good and Bad Foods for Dental Health	94.63%	97.33%
7.	When to Visit the Dentist	59.73%	80.54%
8.	Correct Way to Brush Teeth	76.67%	79.19%
9.	Frequency of Mouthwash After Brushing	88.59%	93.33%
10.	Right Amount of Toothpaste to Use	36.91%	64.67%

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an increase in oral health knowledge following TikTok-based education. Social media, particularly TikTok, has proven effective in delivering health messages in an accessible, engaging, and easy-to-understand manner (Sholihah et al., 2025). To determine whether the difference in knowledge before and after counseling was statistically significant, the data were analyzed using the Wilcoxon test.

Table 2. Results of The Wilcoxon Analysis Test

Dental and Oral Health Knowledge	Mean	SD	p-value
Before	7,26	1,79	0,000
After	8,02	1,62	

The results revealed a significant difference in knowledge before and after counseling, with a p-value of 0.000 ($p < 0.05$). This finding is consistent with the study by Fratiwi et al. (2024), which reported a significant increase in students' oral health knowledge following TikTok-based counseling. Health promotion remains a key strategy for encouraging healthy lifestyles. The dissemination of health information via social media platforms has gained popularity, with TikTok emerging as a particularly effective medium due to its high user engagement—especially among teenagers (Gustinanda et al., 2024). TikTok's short, visual, and trend-driven format makes health messages more appealing and easier to understand. Through simple, entertaining, and informative videos, health education can reach not only individuals already interested in health but also those who were previously less engaged (Gustinanda et al., 2024).

One limitation of this community service activity was that it focused only on short-term knowledge improvement and did not include a long-term evaluation of behavioral changes in oral hygiene practices. Additionally, using TikTok as the primary educational medium may not fully reach students with limited internet access or low social media engagement. Future community service programs are encouraged to adopt hybrid approaches that combine online and offline strategies, such as direct demonstrations, peer-led discussions, and classroom-based activities, to ensure broader participation and sustained behavioral impact.

Previous community service initiatives published in Darmabakti Cendekia demonstrated that traditional educational interventions and direct practice could effectively improve oral health outcomes. For instance, fluoride application programs significantly enhanced students' oral hygiene status (Jumriani et al., 2024), while disinfection socialization among dental artisans increased awareness of cross-infection prevention (Kusdarjanti et al., 2021). However, both programs primarily relied on face-to-face interactions. Therefore, further research is recommended to evaluate the long-term effectiveness of digital-based oral health education—such as TikTok—in fostering behavioral change and reducing dental caries incidence among adolescents.

CONCLUSION AND SUGGESTION

TikTok-based oral health education successfully improved students' knowledge of dental and oral hygiene at SMPN 1 Kertak

Hanyar. Therefore, as part of continuous oral health promotion, it is recommended that future educational programs targeting adolescents utilize social media platforms—particularly TikTok—to enhance engagement and learning outcomes.

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