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Research Article

TikTok Media as an Effort to Increase Dental Health Knowledge for High School Students

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Abstract

Background: The first step in an effort to increase knowledge and prevent dental and oral health problems is to provide counseling. The success of counseling in changing target behavior is influenced by the extension media used, one of the learning media that can be used on the internet is the TikTok application. **Objective:** To analyze the effectiveness of TikTok media as an effort to increase dental health knowledge among students of SMAN 1 Gunung Sindur in 2022. **Methods:** This study used a quasi-experimental method. This research was conducted on 32 people obtained by purposive sampling technique. The instrument used in this study was a questionnaire about oral health. Analysis of the data used is a paired sample test. **Results:** The results of this study showed that before being given education the average was 62.66, while after education, the average was 93.91. The results of the paired sample test obtained p value = 0.000, meaning that there is a difference in knowledge before and after dental health education with TikTok media. **Conclusion:** TikTok media is effective in increasing dental health knowledge in high school students.

Keywords: TikTok, Education, Dental Health

INTRODUCTION

Dental and oral health is part of body health that cannot be separated from one another because it will affect each other. One way to calculate or see dental and oral health is to use the level of individual dental and oral. Dental and oral hygiene can be seen by the presence or absence of organic deposits, such as pellicle, white matter, debris, tartar, and plaque. Poor oral and dental hygiene can cause many dental and oral health problems (Putri et al., 2010).¹⁻³

The results of the 2018 Basic Health Research explained that the criteria for age 15-24 years were around 75.3% in Indonesia had dental caries, 61.1% had residual roots, and 67.8% had periodontitis. This shows that the dental health condition of Indonesian adolescents tends to be not good. The high level of dental and oral health problems is not comparable to the low percentage of brushing teeth properly and correctly, only 3.3%.⁴

One of the dental and oral health problems is caused by behavioral factors or attitudes that ignore dental and oral health. This is based on a lack of knowledge about the importance of maintaining dental and oral health. The first step in an effort to increase knowledge and prevent dental and oral health problems is to provide dental and oral health education. Dental and oral health education is a learning process that arises because of the need for health or feelings of dissatisfaction in meeting needs. This results in good health, especially in terms of maintaining oral health.⁵⁻⁷

Adolescence is faced with threats as a result of changing environmental and social conditions. Activities to maintain good oral and dental health, especially brushing teeth, are very important to prevent dental caries and diseases of the supporting tissues of the teeth.^{8,9}

The formation of correct dental health behavior needs to be based on dental health knowledge in the form of promotive service efforts, namely counseling. Dental and oral health counseling is one of the efforts to increase knowledge about maintaining dental and oral health so that the degree of dental health increases. The emphasis on the concept of health education is more on efforts to improve or change the behavior of the target to behave in a healthy manner, especially the knowledge aspect, so that the knowledge of the target is in accordance with what is expected by the health instructor.¹⁰⁻¹²

The success of counseling in changing the behavior of the target is influenced by the extension media used. The media is needed to assist the process of dental and oral health counseling that is tailored to the target so that the delivery of material can be received effectively. Media in the group of schoolchildren using conventional media is felt to be lacking because the rapid development of the internet in recent years has had its own impact on conventional media.^{13,14}

Adolescence is the highest result in using the internet reaching 75.50%. One of the learning media that can be used on the internet is the TikTok application, which can be operated anytime and anywhere, so that learning activities do not stay in one place because they use mobile technology devices.^{15,16}

MATERIALS AND METHODS

This research is a descriptive study with a cross sectional design. The study was conducted in January – April 2021 in Mengwitani Village with a total sample of 66 respondents. The sampling method in this study was using purposive sampling with inclusion criteria: Elderly age with rheumatic pain in Mengwitani Village, elderly who are willing to be respondents and age limit 60 and over.

The research design used is quasi-experimental research, experimental research is research that is used to find the effect of certain treatments on others under controlled conditions.¹⁷ This research was conducted on students of SMAN 1 Gunung Sindur for 9 days starting from April 11 to 19, 2022. This research technique uses purposive sampling, with inclusion criteria: are students of SMAN 1 Gunung Sindur, students who have the TikTok application and are willing to be respondents.

The instrument used in data collection was a questionnaire about oral health with 20 questions, and the TikTok application with the account name @edukasi.kesgi. Analysis of the data used is a paired sample test.

RESULT

Table 1. Frequency distribution of respondent characteristics

Variable	Frequency	Percentage (%)
Age		
16 years	11	34.38
17 years	21	65.62
total	32	100
Gender		
Male	20	62.5
Female	12	37.5
total	32	100

Table 1 shows that the respondents are 32 people, the majority of respondents aged 17 years are 21 students (65.62%) and female sex is 20 students (62.5%).

Table 2. Frequency distribution of dental health knowledge before education using the TikTok application

Knowledge	Frequency	Percentage (%)
Good	3	9.4
Sufficient	19	59.4
Less	10	31.2
Total	32	100

Table 2 shows that the knowledge of respondents about dental health before dental and oral health education was carried out using the TikTok application which had good criteria was 3 people (9.4%), 19 people (59.4%) had sufficient criteria, while those who had knowledge with criteria less than 10 people (31.2%).

Table 3. Frequency distribution of dental health knowledge after education using the TikTok application

Attitude	Frequency	Percentage (%)
Good	30	93.8
Sufficient	2	6.2
Less	0	0.0
Total	32	100

Table 3 shows that respondents' knowledge about dental health after dental and oral health education using the TikTok application shows that those who have good criteria are 30 people (93.8%), sufficient criteria are 2 people (6.3%) while the criteria are less 0 people (0%).

Table 4. Different test of dental health knowledge before and after education using the TikTok application

Knowledge	Mean	p-value
Pre-test	62.66	0.000
Post-test	93.91	

Table 4 shows that the results of the paired sample test analysis obtained a p-value of 0.000, meaning that education using the TikTok application is effective in increasing dental health knowledge in high school students.

DISCUSSION

Technological developments have resulted in various digital learning media that are very influential in online learning as a means of connecting used to deliver material to the target. The use of social media can be used as a learning medium because it can broaden knowledge for communicators and targets with learning using social media.^{18,19}

One of the social media that can be used as learning media is TikTok. In the TikTok application, users can create videos with a duration of 60 seconds by providing unique and interesting special effects. In making videos, it also has a lot of music support and has songs that are adapted to the situation of the video, so users can perform in various styles. The videos produced can easily and quickly be shared by other social media users.²⁰

The results show that before being given education using the TikTok application, respondents had the highest percentage, namely the criteria for sufficient knowledge of 19 people, the percentage was 59.4%. According to Damayanti adolescence is the highest result in using the internet reaching 75.50% which can make it easier to access information, one of which is about dental and oral health. Information about dental and oral health can be conveyed through television, newspapers, and social media that can be easily accepted by the public.¹⁵

Interventions carried out by researchers to increase dental health knowledge in the form of education using the TikTok application to find out material about the causes of not maintaining dental and oral health, brushing teeth properly and correctly, food for dental health, and routine check-ups with the dentist. Because the TikTok application can be opened anywhere and anytime and attracts attention because videos can be added to customized music so that the respondent's dental and oral health knowledge can increase.

results of the paired sample test analysis obtained a p-value of 0.000, meaning that education using the TikTok application is effective in increasing dental health knowledge in high school students. This is due to the cooperative and attentive students using the whatsapp application, social media is quite effective because it can be used anywhere and anytime, and is posted in stages as many as one video per day to make it more effective for receiving material provided through TikTok. This study also shows that the average difference before and after dental and oral health education with videoscribe media can provide an increase in knowledge about dental and oral health seen from the average increase before education is 62.66 and after being given dental and oral health education there are an increase in the average knowledge of respondents to 93.91. This is reinforced by Kurniawan's research entitled The Effect of Tiktok Video on Knowledge About Balanced Nutrition in

Elementary School Students in Moyudan District with the results obtained before being given education through tiktok videos, namely the average knowledge of 9.03 and after being given tiktok video education of 11.78. In this study, the TikTok application can increase respondents' knowledge by 2.75.²¹

CONCLUSION

Based on the results of the study, it can be concluded that the TikTok media is effective in increasing dental health knowledge in high school students

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CONFLICT OF INTEREST

The author declared that don't have conflict of interest

REFERENCES

1. Kasihani NN, Purnama T, Ngatemi N. Independence of Brushing Teeth to Free-Plaque Score in Preschool Children: A Cross Sectional Study. *Indian J Forensic Med Toxicol.* 2021; 15(3):3722-7.
2. Bagaria A, Garg V, Kumar K. Oral Hygiene The Pulse of the Practice. DENTOMED PUBLICATION HOUSE; 2022.
3. Purnama T. How is the Dental Hygiene Status of Preschool Children During the Covid-19 Pandemic?-Tooth Brushing Skills and Characteristics of Parents. *Eur J Dent Oral Heal.* 2022; 3(1):1-4. <https://doi.org/10.24018/ejdent.2022.3.1.139>
4. Kemenkes RI. Hasil utama riskesdas 2018. Jakarta Kemenkes RI. 2018;
5. Ngatemi N, Purnama T. Counseling with Tooth Brushing Demonstration Method as an Effort to Improve Tooth Brushing Skills and the Status of Dental and Oral Hygiene in Early Childhood at School. *Med Leg Updat.* 2021; 21(1):684-7.
6. Krause M, Vainio L, Zwetchkenbaum S, Inglehart MR. Dental education about patients with special needs: a survey of US and Canadian dental schools. *J Dent Educ.* 2010; 74(11):1179-89. <https://doi.org/10.1002/j.0022-0337.2010.74.11.tb04991.x>
7. Pudentiana Rr RE, Subandini SL. Pendidikan Kesehatan Gigi. Jakarta: EGC; 2019.
8. Casey BJ. Beyond simple models of self-control to circuit-based accounts of adolescent behavior. *Annu Rev Psychol.* 2015; 66(1):295-319. <https://doi.org/10.1146/annurev-psych-010814-015156>
9. Purnama T, Ngatemi N, Sofian R, Kasihani NN, RE PR, Nurbayani S. Model 5 Days Gosgi sebagai upaya pembentukan kemandirian menggosok gigi anak usia dini di sekolah. *Qual J Kesehat.* 2020; 14(1):19-24. <https://doi.org/10.36082/qjk.v14i1.96>
10. Haque SE, Rahman M, Itsuko K, Mutahara M, Kayako S, Tsutsumi A, et al. Effect of a school-based oral health education in preventing untreated dental caries and increasing knowledge, attitude, and practices among adolescents in Bangladesh. *BMC Oral Health.* 2016; 16(1):1-10. <https://doi.org/10.1186/s12903-016-0202-3>
11. Ngatemi, Purnama T, Rahmadhani NM. Dental Health Education with Zoom Meeting Application During the COVID-19 Pandemic: Is it Effective? *Int J Multidiscip Res Anal.* 2021; 3:5. <https://doi.org/10.47191/ijmra/v4-i12-17>
12. Arrow P, Raheb J, Miller M. Brief oral health promotion intervention among parents of young children to reduce early childhood dental decay. *BMC Public Health.* 2013; 13(1):1-9. <https://doi.org/10.1186/1471-2458-13-245>
13. Kantohe ZR, Wowor VNS, Gunawan PN. Perbandingan efektivitas pendidikan kesehatan gigi menggunakan media video dan flip chart terhadap peningkatan pengetahuan kesehatan gigi dan mulut anak. *e-GiGi.* 2016; 4(2). <https://doi.org/10.35790/eg.4.2.2016.13490>
14. Notoatmodjo S. Promosi Kesehatan Teori dan Aplikasi, RinekaCipta. Jakarta; 2010.
15. Damayanti TE. Pemanfaatan Twitter Sebagai Media Information Sharing di Perpustakaan. *J Univ Airlangga.* 2014; 3(2).
16. Aji WN. Aplikasi Tik Tok Sebagai Media Pembelajaran Bahasa Dan Sastra Indonesia. In: *Prosiding Seminar Nasional Pertemuan Ilmiah Bahasa Dan Sastra Indonesia.* 2018. p. 431-40.
17. Sugiyono. Metode Penelitian Kuantitatif dan R&D. Alfabeta; 2019.
18. Atsani KHLGMZ. Transformasi media pembelajaran pada masa Pandemi COVID-19. *Al-Hikmah J Stud Islam.* 2020; 1(1):82-93. <https://doi.org/10.51672/alfikru.v14i1.33>
19. Gunawan IGD. Pemanfaatan Media Sosial Sebagai Media Pendidikan Agama Hindu. *Bawi Ayah J Pendidik Agama Dan Budaya Hindu.* 2017; 8(2):16-27. <https://doi.org/10.33363/ba.v8i2.293>
20. Susilowati S. Pemanfaatan aplikasi Tiktok sebagai personal branding di instagram (studi deskriptif kualitatif pada akun@ bowo_allpennliebe). *J Komun.* 2018; 9(2):176-85.
21. Kurniawan PND. Pengaruh video tiktok terhadap pengetahuan tentang gizi seimbang pada siswa SD di Kecamatan Moyudan. Poltekkes Kemenkes Yogyakarta; 2021