



Efforts to Improve Knowledge, Attitudes and Behaviors about Dental and Oral Health Through the Use of TikTok App for Pregnant Women

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ABSTRACT

Background: Pregnancy is one of the factors that can cause an increase in dental and oral health problems. This condition occurs due to increased levels of the hormones estrogen and progesterone during pregnancy, which is associated with an increase in the amount of plaque attached to the surface of the teeth and oral hygiene which tends to be neglected due to nausea and vomiting in the morning (morning sickness), especially in the early stages of pregnancy. Providing counseling by utilizing TikTok can be an effective way for pregnant women to increase knowledge, attitudes and behaviors about dental and oral health. **Research:** The purpose of this research is to create and develop dental health promotion by using the Tiktok App to increase knowledge, attitudes and behaviors about dental and oral health in pregnant women at the posyandu Village in the Mangkubumi Health Center area. **Research:** The type of research conducted was R&D research. **Research:** Tiktok App about dental and oral health can improve the knowledge, attitudes and behaviors of pregnant women. P value of knowledge 0.000, attitude 0.000 and behavior 0.000. **Conclusion:** Dental health promotion using the Tiktok App can increase knowledge, attitudes and behaviors about dental and oral health in pregnant women at the posyandu Village in the Mangkubumi Health Center area.

INTRODUCTION

Health is the most important part of human life, physically and spiritually healthy, including pregnant women. The maintenance of good and correct dental and oral health will support the realization of dental and oral health of pregnant women and their fetuses (Swali & Ayu, 2021). Pregnancy is one of the factors that can cause an increase in dental and oral health problems. This situation occurs due to an increase in the levels of the hormones estrogen and progesterone during pregnancy, which is associated with an increase in the amount of plaque attached to the surface of the teeth and oral hygiene which tends to be ignored due to nausea and vomiting in the morning (morning sickness), especially in the early stages of pregnancy (Alifah, 2021).

The existence of an imbalance in female sex hormones and local irritant factors can affect oral health, if problematic this can have a negative impact on pregnancy and fetal development (Pujianti, 2020). Dental and oral hygiene is a healthy parameter for every individual. Dental health behaviors include knowledge, attitudes and behaviors related to healthy concepts and toothache and prevention efforts (Badai & Nurasih, 2021). Dental and oral health knowledge is a process of providing information that arises on the basis of needs that aim to produce good dental and oral health and improve living standards. Dental and oral health promotion individuals gain experience or information through various dental and oral health promotion media. The media is one of the things that needs to be considered in promoting dental health (Putra et al., 2022).

The rapidly developing era makes advances in the field of technology and information more accessible. The presence of the internet expands communication for the benefit of work, education and product sales without face-to-face. Application developers are competing to offer new digital platforms, such as one of the many platforms that are more widely used is TikTok. TikTok is a short video platform that allows users to freely imagine their ideas and express them in the form of short videos. The video can then be shared with all TikTok users in different parts of the world. So far, the TikTok app has some interesting advanced and cool features. The tiktok platform is a Chinese-made platform. Tiktok offers various features such as videos, songs, stickers so that people can express their creativity (Yusup et al.,

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2022). Tiktok is loved by almost all ages, ranging from children, teenagers, and even adults who want entertainment without exception pregnant women.

METHOD

This research method uses the research and development method (Research and Development (RnD)) (Sugiyono, 2014). The steps are as follows: 1) Searching for potential and problems regarding the title of the research, 2) collecting data on the content and use of the application by conducting FGDs with experts and users, 3) Designing the TikTok App about dental and oral health based on the results of FGDs to experts and users and reviewing the literature, 4) validating the TikTok App about dental and oral health by experts, 5) revision of the design of the TikTok App about dental and oral health, 6) trial of the application in small groups, 7) revision of the application, 8) trial in large groups, 9) revision of the application, 10) final production of the application. For this study, it is only up to the stage of trial application in small groups and application revision.

The study population is all pregnant women totaling 120 people. The sampling method is calculated using the Slovin formula, namely:

$$n = \frac{N}{1 + N(e)^2}$$

Information :

n = Number of samples

N = Number of Population

e = Precision (set at 10%)

So that the sample collection can be calculated, as follows:

$$n = \frac{120}{1 + 120(0,1)^2}$$

$$n = \frac{120}{1 + 120(0,01)}$$

$$n = \frac{120}{2,2}$$

n = 54,54 (rounded to 55)

The technique used in sampling uses the purposive sampling technique. The purposive sampling technique is a sampling technique based on considerations and characteristics or criteria determined by the researcher, namely with inclusion and exclusion criteria (Arikunto, 2010). The data analysis used in this study to assess the knowledge, attitudes and behaviors of pregnant women about dental and oral health used statistical analysis tests.

RESULT

Table 1. Distribution of Knowledge Frequency of Pregnant Women

Knowledge	Pre test	Post test
Less	20	0
Enough	24	21
Good	11	34

Based on table 1, the number of poor knowledge of 20 pregnant women after being given Tiktok App became 0, sufficient knowledge amounted to 24 pregnant women after being given Tiktok App to 21, and good knowledge amounted to 11 pregnant women to 34.

Table 2. Frequency Distribution of Attitudes of Pregnant Women

Attitudes	Pre test	Post test
Less	23	3
Enough	13	20
Good	19	32

Based on table 2, the attitude of 23 pregnant women after being given the Tiktok App became 3, the attitude of sufficient amounted to 13 pregnant women after being given the Tiktok App to 20, and the good attitude amounted to 19 pregnant women to 32.

Table 3. Distribution of Frequency of Behavior of Pregnant Women

Behavior	Pre test	Post test
Less	33	7
Enough	22	18
Good	0	30

Based on table 3, the number of poor behaviors of 33 pregnant women after being given the Tiktok App became 7, the number of adequate behaviors amounted to 22 pregnant women after being given the Tiktok App became 18, and the number of good behaviors amounted to 0 pregnant women to 30.

Table 4. Statistical Analysis

Knowledge		Attitudes		Behavior	
Z	p value	z	p value	z	p value
-6.548 ^b	.000	-6.267 ^b	.000	-6.484 ^b	.000

Based on table 4, Tiktok App about dental and oral health can improve the knowledge, attitudes and behaviors of pregnant women. P value of knowledge 0.000, attitude 0.000 and behavior 0.000.

DISCUSSION

The results of this study show that the p-value of knowledge is 0.000 which means that Tiktok App can increase the knowledge of pregnant women and the p-value of attitude is 0.000 which means that Tiktok App can improve the attitude of pregnant women. This is in line with research Indahsari et al., (2023), shows that TikTok media is effectively used to increase the knowledge and attitudes of adolescent girls after providing health education interventions.

The behavioral p value is 0.000 which means that Tiktok App can improve the behavior of pregnant women. Menurut Fadjeri et al., (2023), Improving dental and oral health maintenance behavior can be done with interesting and appropriate media. This is in line with research Putra et al., (2022), shows that dental health education through audiovisual media with the TikTok application can have a significant influence on the knowledge and behavior of elementary school students in grades IV-VI, Tembalang District.

Maintaining dental and oral health by brushing your teeth properly and correctly as an effort to maintain the status of dental and oral hygiene can add modifications to digitization media (Puspitawati et al., 2022). Improving the degree of dental and oral health is not spared from the provision of interesting dental and oral health counseling, one of which is interactive media (Marludia et al., 2023).

Good learning media can stimulate a person's will, mind and abilities (Nurwanti et al., 2019). This process is carried out to gain learning, experience, and knowledge through various learning methods and media (Sulistiani et al., 2022). Providing counseling with the TikTok app on how to have dental and oral health is an effective way for pregnant women to increase their knowledge, attitudes, and behaviors about dental and oral health (Diana, 2010).

CONCLUSION

Dental health promotion using the Tiktok App can increase knowledge, attitudes and behaviors about dental and oral health in pregnant women at the posyandu Village in the Mangkubumi Health Center area.

REFERENCES

- Alifah, N. F. (2021). Pengaruh Penyuluhan Menggunakan Media Flichart untuk Meningkatkan Pengetahuan Kesehatan Gigi dan Mulut pada Ibu Hamil (di Puskesmas Kecamatan Palmerah Jakarta Barat). *Repository AKG Puskesmas Jakarta*.
- Arikunto. (2010). *Prosedur Penelitian Suatu Pendekatan Praktik*. Rineka Cipta.
- Badai, S., & Nurasiah. (2021). Perilaku Ibu Hamil terhadap Kebersihan Gigi dan Mulut (OHIS) selama Masa Kehamilan. *Jurnal Media Kesehatan Gigi*, 20(1).
- Diana. (2010). Pengetahuan, Sikap dan Perilaku Wanita Hamil terhadap Kesehatan Gigi dan Mulut selama Masa Kehamilan. *Dentika Dental Journal*, 15(2).
- Fadjeri, I., Purnama, T., Suharja, E. S., & Nurwanti, W. (2023). Storgi Media as an effort to Improve Dental Health Behavior in Orphanage Children. *Asian Journal of Dental and Health Sciences*, 3(3), 42–46. <https://doi.org/10.22270/ajdhs.v3i3.53>
- Indahsari, T. N., Wicaksono, D., & Adriana, N. P. (2023). Keefektifan Media Tik-Tok terhadap Peningkatan Pengetahuan dan Sikap Tentang Personal Hygiene (Menstruasi) pada Remaja Putri. *Jurnal Kesehatan Tambusai*, 4(3).
- Marludia, M. A., Fauziah, R., Putri, S., Dumonda Silitonga, V., Yunior, F. S., & Nurwanti, W. (2023). Animation-Based Interactive Media Education on Reducing Personal Hygiene Performance (PHP) Scores in Adolescents. *Journal CoE: Health Assistive Technology*, 1(1), 34–40. <https://doi.org/10.36082/jchat.v1i1.1010>
- Nurwanti, W., Santoso, B., & Fatmasari, D. (2019). Model Media Widi's Puzzle Modifikasi 3D Gosgi sebagai Upaya Peningkatan Keterampilan Menggosok Gigi Anak Tunagrahita. Poltekkes Kemenkes Semarang.
- Pujianti, M. (2020). Hubungan Kebersihan Rongga Mulut serta Status Gingival dengan usia Kehamilan pada Ibu Hamil di Wilayah Kerja Puskesmas Sumbersari Kabupaten Jember. *Digital Repository Universitas Jember*.
- Puspitawati, Y., Ulliana, U., Sulistiani, S., Fadliyah, N. K., & Nurwanti, W. (2022). Promosi Kesehatan Gigi Menggunakan Media Fliphchart terhadap Pengetahuan Siswa Sekolah Dasar. *JDHT Journal of Dental Hygiene and Therapy*, 3(1), 21–25. <https://doi.org/10.36082/jdht.v3i1.486>
- Putra, K., Prihatiningsih, T., & Wulandari, D. (2022). Efektifitas Pendidikan Kesehatan Gigi dan Mulut Melalui Audiovisual dengan Aplikasi Tiktok terhadap pengetahuan dan Perilaku Menyikat Gigi (Studi terhadap Siswa SD Kecamatan Tembalang). Universitas Diponegoro.
- Sugiyono. (2014). *Penelitian Pendidikan (Pendekatan Kuantatif, Kualitatif, dan R&D)*. Alfabeta.
- Sulistiani, S., Fauziah, R., Putri, S., Nurwanti, W., Sinta, M., Kesehatan, A. A., & Ditkesad, G. (2022). Dental Health Promotion as Student Knowledge Improvement Effort. *International Journal of Advanced Research in Science, Engineering and Technology*, 9(2). <https://doi.org/10.53350/pjmhs2115103103Nurwanti>
- Swali, & Ayu, N. K. (2021). *Gambaran Tingkat Pengetahuan Ibu Hamil tentang Cara Memelihara Kebersihan Gigi dan Mulut di Kabupaten Tabanan Tahun 2021*. Poltekkes kemenkes Semarang.
- Yusup, U., Miftah, F., Tiska, P., & Ahmad, J. (2022). Aplikasi Tiktok sebagai Media Promosi Kelompok Masyarakat Peduli Iklim Bumiku Satu. *Jurnal J-Abadi*, 2(5).