

# The Effectiveness of Android-Based Education Media to Improve Marriage Candidate's Knowledge Concerning the Reproductive and Sexual Health

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## **The Effectiveness of Android-Based Education Media to Improve Marriage Candidate's Knowledge Concerning the Reproductive and Sexual Health**

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### **Abstract**

**Background:** Reproductive health is a condition that shows a person's physical, mental, and social health conditions related to their reproductive functions and processes. It includes not having diseases or disorders that can affect reproductive activities and sexuality. They all are a necessity for all people, both young and old, regardless of Gender. Reproductive and sexual health is essential to be given at the premarital period to the bride and groom candidates. **Aims:** This study aims to determine the effectiveness of android-based educational media in the prospective bride and groom's knowledge improvement about sexual and reproductive health. The E-KCP application is an educational media about reproductive and sexual health designed in Android-based application to understand the material by utilizing the internet media efficiently. **Methods:** The Quasi Experiment method was used with a Non-equivalent control group design with pre-test and post-test. This study's sample was 60 marriage candidates using the purposive sampling technique registered at the Office of Religious Affairs (KUA) Somba Opu, Gowa Regency. This study used primary data with Wilcoxon and Mann-Whitney test as statistical analysis. **Results:** The study showed the result before and after the treatment group intervention (E-KCP application) and the control group (a pocket-book). The Wilcoxon test results in the treatment group obtained  $p = 0.000$ , and in the control group got  $p = 0.043$ . It means that the educational media given to the treatment and control groups could increase the prospective bride and groom's knowledge. The Mann-Whitney test was then carried out to determine the difference in knowledge level between the two groups. The pre-

test results in the treatment and control groups obtained p-value = 0.229 ( $p > 0.05$ ), which means no differences in knowledge between the treatment and control groups. The post-test results in the treatment group and control obtained p-value = 0.000 ( $p < 0.05$ ). There was a difference in the prospective bride and groom's knowledge about sexual and reproductive health after the intervention. **Conclusion:** Android-based educational media (E-KCP application) could improve the marriage candidates' knowledge concerning sexual and reproductive health.

Keywords: Reproductive and Sexual Health, E-KCP Android Application, Knowledge, Marriage candidates

### Background

Reproductive health is a condition that shows a person's physical, mental, and social health conditions related to their reproductive functions and processes. Those are including not having diseases or disorders that affect reproductive activities (Kemenkes RI, 2018). Currently, reproductive health is the 3rd and 5th goal of the SDGs (Mishra & Lohiya, 2016). In developing countries, there are still problems related to reproductive health, so it is crucial to protect them to create public welfare (Lewis, 2016).

Reproductive and sexual issues before marriage need to be understood. Therefore it is essential to give it to the prospective bride and groom (Rokicki et al., 2017). Sexuality is an important part of reproductive health, both young and old, regardless of Gender or a need for everyone (Agarwal et al., 2016).

Before marriage, several prospective marriage couples lack knowledge and information about reproductive health in the family. So, that pregnancies are often not appropriately planned and supported by poor health status after marriage.

Based on the existing problems, the Indonesian government is holding a marriage candidates course program. Its goal is that the prospective bride and groom have sufficient knowledge to prepare for reproductive health and prepare for pregnancy to form a healthy family to produce a quality generation (Kemenkes RI, 2018).

Efforts to improve nutrition, prepare family health, prevent and control infectious and non-communicable diseases need to be provided. Therefore, the bride and groom are targeted in offering reproductive health information to safe sexual relations for potential partners (Mahmoodi, 2016).

Doing healthy pregnancy planning must be done before pregnancy. It may take physical and mental preparation from each mother so that the pregnancy process can be appropriately planned, including the mother's physical and psychological adaptation for the better (Evrianasari & Dwijayanti, 2016).

Pre-nuptial counseling intervention is essential preparation for prospective brides. It affects and increases knowledge and attitudes. It will improve the quality of information transfer (transfer of knowledge). To improve maternal health status, it needs to monitor public health status so that there is a decrease in MMR and IMR achievement family planning (Nugraheni et al., 2018).

Inadequate understanding of reproductive health is the cause of risky sexual behavior. It is necessary to increase information and knowledge on reproductive health. In the current millennial era, people prefer to use android media to access all information, including reproductive health information. Therefore it is necessary to develop an android-based reproductive health education media to increase public knowledge and awareness and prevent risky behavior among the community (Gonsalves et al., 2015).

There is a need for a more comprehensive reproductive health education by providing new programs proven to be effective and accurate as a medium of information. One of which is the emergence of technology-based interventions. This program is centered on computers and androids to increase knowledge about reproductive health issues (Brayboy et al., 2018).

Indonesia is one of the countries with the fastest-growing internet user growth, where 85% of the users access the internet via mobile phones (Perdana et al., 2017). Android or website is one of the technology-based health education media that can be applied in Indonesia. Ownership of cellphones has increased according to technological developments to encourage android-based educational media in health. Providing health education through applications can be used as an effective intervention in improving public health, reproductive and sexual health outcomes, awareness of risky sexual behavior comprehensively, up to date via smartphones (Lim et al., 2014).

The purpose of this study was to determine the effectiveness of android-based educational media to increase knowledge of the prospective bride and groom about reproductive and sexual health.

## Methods

This research was conducted at the Office of Religious Affairs (KUA) Somba Opu, Gowa Regency, South Sulawesi, in January 2021. The research design used a Quasi-experiment (quasi-experimental) with a non-equivalent control group design with pre-test and

post-test. The sample was calculated using the Lemeshow formula and obtained a selection of 60 people divided into two groups, treatment groups (30 persons) and control groups (30 persons). The treatment group received the Android-based education media (E-KCP application). At the same time, the pocket-book was given to the control group as education media. Both media education contained reproductive and sexual health information.

Sampling in this study used purposive sampling with inclusion and exclusion criteria. The inclusion criteria were including the bride and groom candidate who were registered <15 days before the wedding, had never been married, had never been pregnant and gave birth before, both were in productive age, had an android (smartphone), can operate Android, also willing to follow and complete the ongoing research process. The exclusion criteria include not being able to read, having been married before, stopping during the research process, being absent while the research process is in progress. Data collection techniques for the treatment and control groups in providing reproductive and sexual health education were carried out once every two days, twice a day for two weeks.

The data analysis used a non-parametric test because the data were not normally distributed. The Wilcoxon Signed Rank Test was carried out to calculate the mean difference between the pre-test and post-test scores. The Mann-Whitney test was used to see the difference in knowledge between the two groups. The p-value <0.05 means a difference.

## Result

### 1. Respondent Characteristics

Characteristics of respondents obtained at the Office of Religious Affairs (KUA) Somba Opu, Gowa Regency are seen in the graph below:

#### a. Age

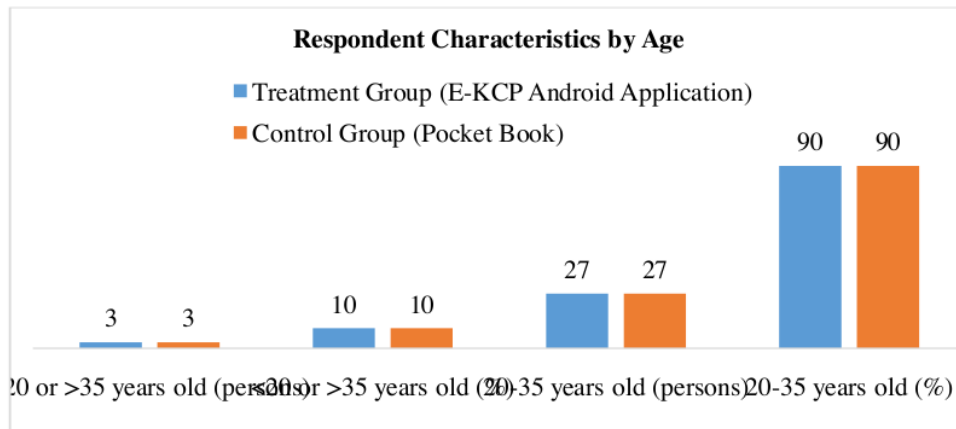


Figure 1. Respondent Characteristics by Age

Figure 1 shows the age of the most respondents in the treatment and control groups, was the ages of 20 - 35 years as many as 27 persons (90%).

b. Gender

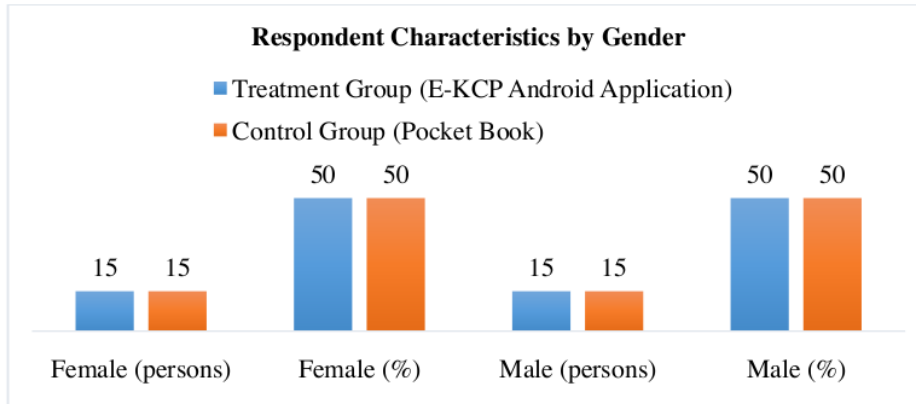


Figure 2. Characteristics of Respondents based on Gender

Figure 2 shows that female and male respondents in the treatment and control groups were 15 (50%).

c. Education

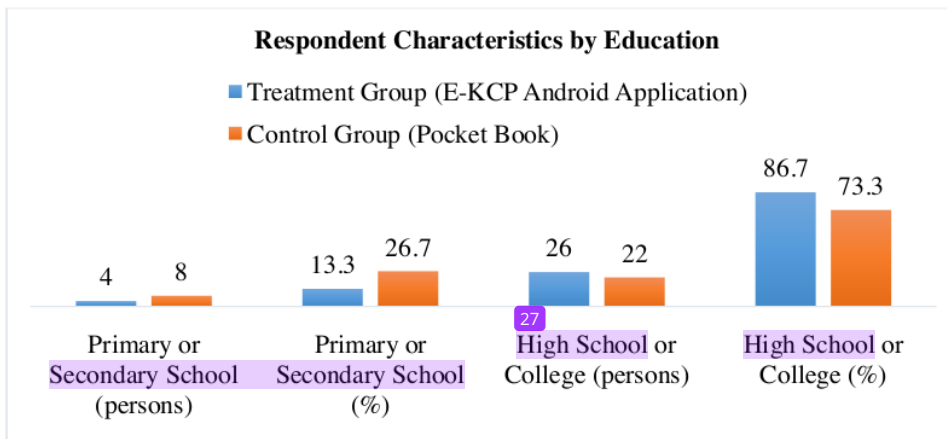


Figure 3. Respondent Characteristics based on Education

Based on Figure, the most recent respondents in both groups were High School or College, with about 26 persons (86.7%) in the treatment group and 22 persons (73.3%) in the control group.

d. Occupation

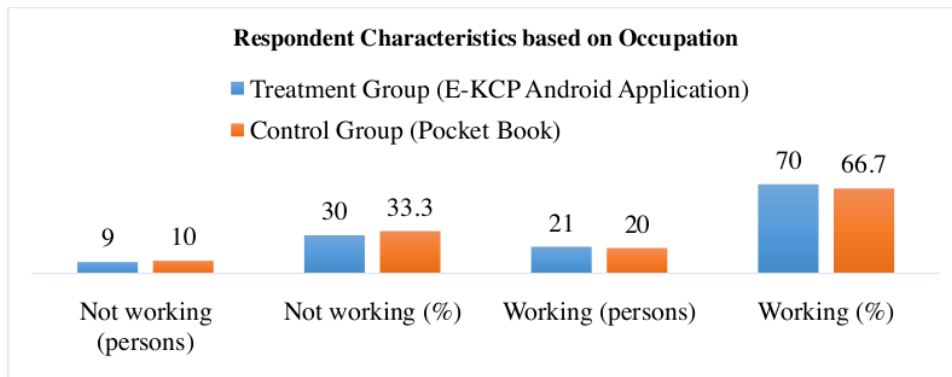


Figure 4. Respondents Characteristics based on Occupation

Based on Figure 4, the working respondent was dominated in the treatment and control groups, as many as 21 persons (70%) and 20 persons (66.7%), respectively.

e. Exposure to Sexual and Reproductive Health Information

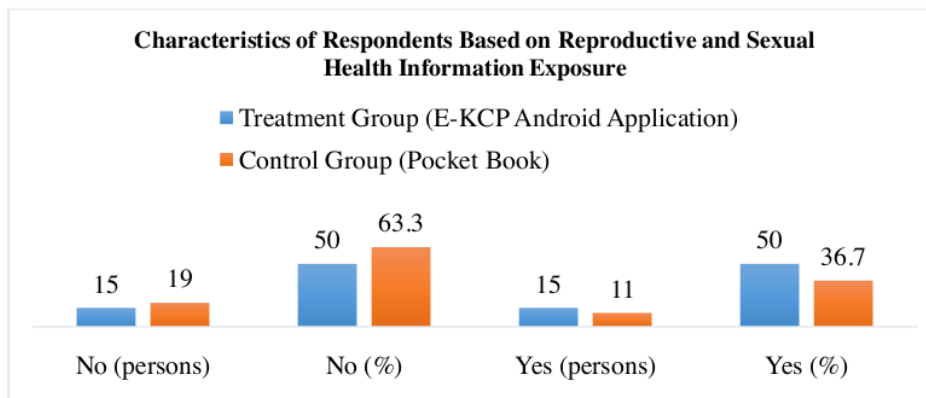


Figure 5. Characteristics of Respondents Based on Exposure to Reproductive and Sexual Health Information

Based on Figure 5, 3 respondents in the treatment group who had never and ever been exposed to information on sexual and reproductive health were 15 persons (50%) for each. Most respondents have never been exposed to information on sexual and reproductive health in the control group, about 19 persons (63.3%).

2. Knowledge Level of Reproductive and Sexual Health

a. Wilcoxon Test

Table 1. The Knowledge Analysis of the Treatment Group (Android-based Media)

Treatment Group	Median	Minimum - Maximum	P-value
Pretest (n = 30)	70	55 - 80	0.000

Posttest (n = 30) 95 75 – 100  
 Source: Primary data, 2021

Based on Table 1, The pre-test value was 70%, so the prospective bride and groom's knowledge was categorized as sufficient. After an intervention, the post-test value using the E-KCP application was valued at 95% and categorized as good knowledge. Thus, it can be stated that the knowledge of the prospective bride and groom already increased by 25% after the E-KCP application intervention. The Wilcoxon test obtained a p-value = 0.000 (p <0.05). There was a difference in knowledge between before and after the intervention.

Table 2: Results of the Knowledge Analysis for the Control Group (Pocket-Book Media)

Control Group	Median	Minimum - Maximum	P-value
Pretest (n = 30)	75	45 - 90	
Posttest (n = 30)	75	50 - 90	0.043

Source: Primary data, 2021

Table 2 shows before and after being given educational media using a pocket-book. The pre-test and post-test scores were 75% for each. The knowledge of the prospective bride and groom could be categorized as sufficient. The Wilcoxon test results obtained p-value = 0.043 (p <0.05). It means that there was a difference in knowledge before and after the intervention.

#### b. Mann Whitney Test

Table 3. Analysis of Differences in Knowledge between Treatment and Control Groups in

Pre-test	Pretest			P-value
	Good n (%)	Sufficient n (%)	Lack n (%)	
Treatment Group	5 (16.7)	18 (60)	7 (23.3)	0.229
Control Group	11 (36.7)	9 (30)	10 (33.3)	

Source: Primary data, 2021

Based on Table 3, it was found that the pre-test knowledge in the treatment group majority was sufficient, 18 people (60%). In the control group, the knowledge was majority good, 11 persons (36.7%). The results of the Mann Whitney test obtained p-value = 0.229 (p > 0.05). There was no difference in knowledge between the treatment and control groups before the intervention.

10  
 Table 4. The Analysis of Differences in Knowledge between Treatment and Control Groups  
 in Posttest

Posttest	Good	Sufficient	Lack	P-value
	n (%)	n (%)	n (%)	
Treatment Group	28 (93.3)	2 (6.7)	0 (0)	0.000
Control Group	13 (43.3)	16 (53.4)	1 (3.3)	

Source: Primary data, 2021

7  
 Table 4 shows the post-test knowledge in the treatment group. The percentage of good knowledge was majorized, about 28 persons (93.3%) than lack category. The control group's knowledge was dominant by sufficient category, 16 persons (53.4%) than lack category. The Mann-Whitney test results showed that the p-value of = 0.000 ( $p < 0.05$ ). It means a difference in knowledge between the treatment and control groups after the intervention.

### Discussion

The study results on 60 respondents before the intervention showed that the marriage candidates' average knowledge in the treatment and control groups could not answer questions about reproductive and sexual health. These questions included the definition of reproductive health, reproductive and sexual rights, reproductive organs, nutritional preparation, maintaining reproductive health, signs of the fertile period, danger signs of pregnancy, and pregnant women's emotional condition. Then, it can be an input for health workers to more comprehensively provide knowledge about reproductive health, including in preparation for pregnancy.

Knowing the marriage candidate's condition and the prospective children to be born is necessary to determine the bride and groom's readiness. Thus, to assist the couple in making decisions and realizing reproductive rights responsibly. They include genetic issues, chronic diseases, sexually transmitted infections, and others. Many people think that reproductive Education for future brides before marriage is not important (Januarti et al., 2020).

23  
 Based on the pre-test and post-test knowledge analysis in the treatment and control groups using the Wilcoxon test, there was a difference in knowledge between before and after the intervention. The treatment group obtained a value of  $p = 0.000$  ( $p < 0.05$ ), and in the control group, the value was obtained.  $p = 0.043$  ( $p < 0.05$ ). The change occurred because the control group was also given reproductive health education through a course for the bride and groom with a lecture method using powerpoints and a pocket-book. However, the control group's improvement was lower than in the treatment group. It means that providing

reproductive and sexual health education through bride and groom courses can also increase knowledge.

For differences in knowledge before intervention in the treatment and control groups, the analysis using the Mann Whitney test showed that the value of  $p = 0.229$  ( $p > 0.05$ ). There was no difference in knowledge about sexual and reproductive health between the treatment and control groups before the intervention. As for the difference in knowledge after the intervention in the treatment and control groups, the analysis results using the Mann Whitney test showed that the value of  $p = 0.000$  ( $p < 0.05$ ). It means a difference in knowledge about sexual and reproductive health between the treatment and control groups.

The knowledge of the marriage candidate at the Office of Religious Affairs (KUA) Somba Opu, Gowa Regency about reproductive and sexual health showed an increase in reproductive and sexual health knowledge after intervention using android-based education media (E-KCP Application). This study showed that the knowledge of android-based reproductive and sexual health given to the prospective bride and groom could increase sexual and reproductive health knowledge.

Based on this research, the knowledge of the marriage candidates about sexual and reproductive health can be affected by being exposed to reproductive and sexual health information. Since in the control group, most respondents have never been exposed to reproductive and sexual health information, which is one of the influencing factors. People exposed to various health media will have a better knowledge level than people who have never been exposed to information media (Fitryya, 2012) (Achmad H et al, 2020).

The findings in line with Mayasari et al. (2020), which found that cellular-based health education affects the increase in prospective brides and grooms' knowledge on reproductive health. Their study revealed an increase in respondents' knowledge in the treatment group by 5.67% after intervention via cellular, compared to 2.2% in the group not given reproductive health education via cellular.

Also, it is in line with research conducted by Torkian et al. (2020). They showed that after the intervention, knowledge increases, meaning that the application of mobile-based Education and counseling increases the knowledge of marriage candidates in premarital Education. In this study, there was an increase in respondents' knowledge in the treatment group by 12.64% after interventions using mobile applications on premarital health. Besides, the improvement in the control group was only 3.71%. Therefore, it is suggested that this type of Education (mobile app) be used to promote premarital education classes.

## Conclusion

Android-based educational media (E-KCP application) improved <sup>2</sup> the prospective bride and groom's knowledge about reproductive and sexual health. In this study, an increase in the treatment group's knowledge was obtained by 25% after intervention using the E-KCP application.

## References

1. Agarwal, S., Lefevre, A. E., Lee, J., L'engle, K., Mehl, G., Sinha, C., Labrique, A., Vasudevan, L., Tamrat, T., Kallander, K., Mitchell, M., Aziz, M. A., Froen, F., Ormel, H., Muniz, M., & Asangansi, I. (2016). Guidelines for reporting of health interventions using mobile phones: Mobile health (mHealth) Evidence reporting and assessment (mERA) checklist. *BMJ (Online)*, 352, 1–10. <https://doi.org/10.1136/bmj.i1174>
2. Achmad H, Djais AJ, Petrenko EG, Larisa V, Putra AP. (2020). 3-d printing as a tool for applying biotechnologies in modern medicine. *International Journal of Pharmaceutical Research*. 12(4), pp. 3454-3463.
3. Achmad H, Djais AI, Jannah M, Huldani, Putra AP. (2020). Antibacterial chitosan of milkfish scales (*Chanoschanos*) on bacteria *porphyromonasgingivalis* and *agregatibacteractinomycetescommitans*. *Systematic Reviewa In Pharmacy*. 11(6), pp. 836-841.
4. Achmad H, Djais AI, Syahrir S, Fitri A, Ramadhany YF.(2020). A literature us regarding the use of herbal medicines in pediatric dentistry. *International Journal of Pharmaceutical Research*. 2020. 12,PP. 881-897.
5. Achmad H, Djais AI, Syahrir S, Fitri A, Ramadhany YF. (2020). Impact Covid-19 in pediatric dentistry: A literature review. *International Journal of Pharmaceutical Research*, 2020. 12,p.830-840.
6. Brayboy, L. M., McCoy, K., Thamotharan, S., Zhu, E., Gil, G., & Houck, C. (2018). The use of technology in the sexual health education especially among minority adolescent girls in the United States. *Physiology & Behavior*, 176(12), 139–148. <https://doi.org/10.1097/GCO.0000000000000485>.The
7. Evrianasari, N., & Dwijayanti, J. (2016). Influenced of Book Health of Reproductionand Sexual in Tanjung Karang on 2017. *Journal Health*.Vol 3(4), 157–168.
8. Fitryya, M. (2012). *Influenced of health educationabout initiation early breast feeding to improve knowledge and attitude of pregnant mother in RB An-Nissa Surakarta*.
9. Gonsalves, L., L'Engle, K. L., Tamrat, T., Plourde, K. F., Mangone, E. R., Agarwal, S., Say, L., & Hindin, M. J. (2015). Adolescent/Youth Reproductive Mobile Access and Delivery Initiative for Love and Life Outcomes (ARMADILLO) Study: formative protocol for mHealth platform development and piloting. *Reproductive Health*, 12(1), 1–10. <https://doi.org/10.1186/s12978-015-0059-y>
10. Januarti, A., Qurniasih, N., Kristianingsih, A., & Kusumawardani, P. (2020).

*PENGARUH PENYULUHAN KESEHATAN REPRODUKSI TERHADAP TINGKAT PENGETAHUAN CALON PENGANTIN. 1(3).*

11. Kementerian Kesehatan RI. (2018). *Buku Saku Kespro* (pp. 21–22).
12. Lewis, D. I. (2016). Educating the next generation of integrative reproductive health researchers. *Journal of Reproductive Health and Medicine*, 2(1), 43–45. <https://doi.org/10.1016/j.jrh.2015.11.001>
13. Lim, M. S., Vella, A., Sacks-Davis, R., & Hellard, M. E. (2014). Young people's comfort receiving sexual health information via social media and other sources. *International Journal of STD and AIDS*, 25(14), 1003–1008. <https://doi.org/10.1177/0956462414527264>
14. Mahmoodi, G. (2016). The effect of marriage counseling on the knowledge of the married couples. *Int J Med Res Health Sci.*, 5(7S), 354–35.
15. Mayasari, A. T., Hakimi, M., EN, U. H., & Setyonugroho, W. (2020). Effectivity of Education HealthReproductionBased onCellulerto Candidate Brideto IncreasedKnowledge Health. *JournalHealth ofReproduction*, 7(1), 18–25. <https://doi.org/10.22146/jkr.47128>
16. Mishra, P. K., & Lohiya, N. K. (2016). Prioritizing reproductive health: Can it be the real game changer for India? *Journal of Reproductive Health and Medicine*, 2(1), 1–3. <https://doi.org/10.1016/j.jrh.2015.08.001>
17. Perdana, F., Madanijah, S., & Ekayanti, I. (2017). Development of education of nutrition media based on android and website andthir influencedto attitudeabout nutritionbalance in student of elementary school. *Journal Nutrition*, 12(3), 169–178. <https://doi.org/10.25182/jgp.2017.12.3.169-178>
18. Rokicki, S., Cohen, J., Salomon, J. A., & Fink, G. (2017). Impact of a text-messaging programon adolescent reproductive health: A cluster-randomized trial in Ghana. *American Journal of Public Health*, 107(2), 298–305. <https://doi.org/10.2105/AJPH.2016.303562>
19. Torkian, S., Mostafav, F., & Pirzadeh, A. (2020). *Effect of a mobile application intervention on knowledge, attitude and practice related to healthy marriage among youth in Iran.* 1–6. <https://doi.org/10.4103/jehp.jehp>

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