

EFFECTIVENESS OF HEALTH PROMOTION E-MODULE TO IMPROVE CLEAN AND HEALTHY BEHAVIOR IN SCHOOL-AGE CHILDREN

Pahrur Razi^{1*}, Surayah², Asta Tamaria Br. Surbakti¹

¹Health Promotion Departement of Politeknik Kesehatan Kementerian Kesehatan Jambi

²Dental and Oral Health Departement, Politeknik Kesehatan Kementerian Kesehatan Jambi

**Corresponding author: pahrur@poltekkesjambi.ac.id*

ABSTRACT

Poor environmental conditions and not yet good clean and healthy behavior in the community are suspected to be the cause of the high number of infectious diseases. The government has launched various efforts to promote and improve healthy behavior. Indonesia is currently facing the problem of high rates of infectious diseases and increasing cases of degenerative diseases such as heart disease, high blood pressure, cancer, stress, and other non-communicable diseases caused by unhealthy behavior, including eating patterns, lack of physical activity, and smoking. So, there is a need for innovation through health promotion e-modules. The aim is the effectiveness of health promotion e-modules to improve clean and healthy behavior among elementary children.

The research design is cross-sectional. We are collecting data by interviewing and observing PHBS. The data collection (May October 2020). The study results showed that the average clean and healthy behavior among school-age children was 4.75 before the health promotion e-module and 6.79 after using the e-module, with an average increase of 2.04. The results show that the ($p=0.001$). This health promotion e-module is more effective in increasing healthy behavior.

Keywords: e-module; healthy behavior; elementary school

BACKGROUNDS

Indonesia is currently facing the problem of high rates of infectious diseases and increasing cases of degenerative diseases. Conditions such as heart disease, high blood pressure, cancer, stress, and other non-communicable diseases are caused by unhealthy behavior, including improper eating patterns, lack of physical activity, smoking, and others. A study states that people who have bad lifestyle habits (habits before eating, drinking habits, urinating habits, defecation habits, and resting habits) have a 3.5 times greater risk of suffering from diarrhea than people

who have a clean lifestyle. And healthy. Poor environmental conditions and not yet good clean and healthy behavior (PHBS) in the community are suspected of causing this problem. This is supported by data from the 2018 National Health Research, which shows that 38.7% of households with good PHBS. Likewise, for respondents aged more than ten years, as many as 76.8% of respondents were not correct in handwashing behavior, and 28.9% were not accurate in defecation behavior. Other data shows that 23.7% of respondents had smoked, 48.2% lacked physical activity, and 93.6% consumed less fruit and vegetables. Research on the community

shows that education level and gender are related to behavior/actions regarding PHBS. The level of knowledge and attitude factors about PHBS is related to behavior, as well as experience of exposure to health information media in the form of leaflets, books, stickers, and television (Kementrian Kesehatan RI, 2018).

Health promotion aims to increase one's knowledge and ability to live a healthy life. The uniqueness of health promotion lies in basic concepts in increasing knowledge about healthy behavior through various strategic approaches. This is because health promotion is prioritized as the first effort to be made rather than treatment efforts (Riley et al., 2019).

Based on an analysis of references to research in the field of health promotion, it was recorded that 64% of research was documented in the domain of healthy lifestyle change, 21% in the community empowerment domain of healthy living, 15% in a healthy lifestyle, 12% public health culture, The high percentage of research conducted in the field of health promotion is inseparable from the phenomenon of the many problems that arise in health promotion low healthy behavior (Allegrante and Auld, 2019)

Health promotion strategies in changing healthy lifestyles are an active and constructive process of identifying and trying to monitor and control motivation and healthy behaviors (Evans et al., 2019). Research proves that health promotion strategies' ability to change healthy lifestyle behaviors is closely correlated with various aspects of health promotion, including achieving healthy lifestyle motivation and the use of health promotion strategies (DeSmet et al., 2014).

Health promotion strategies in changing healthy lifestyles are still an important issue that is hotly discussed in health efforts in Asian countries states. That although changes in nutritional behavior in various international tests show satisfactory results, the assessment or stereotype that

students are the next generation who are passive, emphasize health promotion efforts on healthy lifestyles for healthy lifestyle changes, and cannot choose effective health promotion strategies to remain attached to most students in Asia (Hekler et al., 2016).

Various efforts, especially efforts to promote PHBS, have been launched by the government to improve people's clean and healthy living behavior. PHBS is carrying out these efforts through electronic mass media, print media, websites, stickers, leaflets, brochures, screen printing of health messages on goods as souvenirs, and TV advertisements. However, efforts to promote PHBS through various media have not optimally changed people's behavior, especially elementary school students, to behave cleaner and healthier. Implementing the PHBS program launched by the government still encounters many obstacles in various regions. The success of the program, among others, is influenced by the existence of examples or role models for the community by utilizing the local culture. An example is the success of the PHBS program, thanks to the support of non-formal community role models such as traditional leaders (Junita et al., 2020).

The increasing potential of private health services and community-based health efforts must be appropriately utilized—meanwhile, the involvement of the health service in organizing. Public health efforts and their linkages with hospital services as a referral facility still need improvement. The community empowerment strategy is to increase public awareness about the importance of health, raise public awareness to utilize health service facilities that the government has provided, develop various ways to explore and use the resources owned by the community for the development of public health following the culture of the local community and build management of resources owned by the community openly and transparently (Stockwell et al., 2019).

In practice, obstacles arise, including

the limited reach of health workers to carry out promotive-preventive guidance in orphanages. Hence, orphanage children have the potential to carry out self-preservation skills development in the health sector in an integrated manner between technology and local culture. Therefore, we need a health promotion media that is appropriate and appropriate to be used to improve public health status (Hekler et al., 2016).

Media is all forms of intermediaries' humans use to convey or spread ideas, ideas, or opinions so that the thoughts, ideas, or arguments put forward reach the intended recipient. Health promotion media includes tools that are physically used to convey the contents of teaching materials consisting of video cameras, video recorders, films, slides, photos, pictures, graphics, television, and computers (Razi, P., & Rosmawati, 2018)

The development of technology as a medium of communication, information, education (IEC), and entertainment has grown rapidly. As a result, the world of education, entertainment, and technology is developing simultaneously. Unknowingly, people are enjoying information technology products such as applications on Android-based mobile phones today. Therefore, the authors are interested in developing an electronic module (E-Module) to improve Clean and Healthy Behavior.

RESEARCH METHODS

The research design is cross-sectional. We are collecting data by interviewing and observing PHBS. The data collection time is six months (May-October 2020). it is located at the Abul Hasan Orphanage Jambi. The research design is research and development (Research and Development), the method used for producing specific products and testing the effectiveness of these products with a quasi-experimental research design, where the type of research reveals a

causal relationship involving the intervention group and the control group. The intervention group was in the form of dental health education using interactive CTPS videos by the researchers, while the control group was not given any instruction from the researchers. This research will be conducted in May-October 2020 (working hours), with samples taken using the total sample technique. So the entire population is used as a sample, as many as 40 people—data analysis through bivariate analysis using Paired Dependent T-Test.

RESULTS AND DISCUSSION

The results of using the e-module obtained the following data:

Table 1. The Effectiveness of Health Promotion with E-modules in increasing Clean and Healthy Behavior regarding Hand Washing

Variable	Mean	<i>p</i>
E-modul	2,04	0.001
Poster	0,83	0.021

Table 1 shows that health promotion with E-Modules is more effective in improving handwashing skills with soap than using posters. The health promotion E-module product is appropriate and meets the criteria that can be used for the children of the Abul Hasan Jambi Orphanage. According to the content/material expert, the formulation of health promotion goals is precise and appropriate, and the contents of the material description are very suitable for health promotion goals. Good health promotion aims to fulfill the Audience, Behavior, Condition, and Degree aspects. According to the design expert, the cover image, writing, illustration, image sequence, print and material, font size, font, and color used in the E- module are very appropriate. The health promotion product in the form of a health promotion E-module was designed using the Borg and Gall design model, which then produced an E-module product. The selection of this

model is due to the steps that must be carried out in a planned procedure so that it can be followed. This model is also complete in its components, covering almost everything a health promotion plan needs. In this model, in the second step, health promotion analysis activities aim to identify the whole and the learning experience that students must take and also find subordinate skills.

Only 9 (nine) stages in producing E-module products, the Borg and Gall models used in this research are; (1) identify health promotion goals; (2) perform health promotion analysis; (3) analyze health promotion and its context; (4) formulate specific objectives; (5) develop assessment instruments; (6) developing health promotion strategies; (7) compiling health promotion materials; (8) designing formative evaluations; (9) revise health promotion (Firmansah et al., 2020).

Healthy, Clean Living Behavior (PHBS) aims to shape the behavior of people who care about health. One of the PHBS efforts is washing hands with soap (CTPS). The practice of washing hands with soap needs to be applied from an early age to prevent transmission of disease-based environments. One of the groups suitable for successfully conveying the CTPS message is school children, for example, by providing education through attractive educational videos. This study showed that most of the respondents had fewer skills in washing their hands, as many as 26 children (74.3%), while after being given treatment, most of the respondents ie, 29 children (82.9%) had good skills in washing their hands. Wilcoxon Signed Rank Test different test value obtained p-value (0.000) where the p-value <0.05 so it can be concluded that there is an influence of hand washing counseling using attractive video media on hand washing skills in students Madrasah Diniyah Awaliyah Belawang (Aulia, Sari & Banjarmasin, 2021). In addition, there is an audiovisual effect of watching cartoons on anxiety levels during injection procedures in

preschool children (Johan et al., 2018).

The lack of innovative learning media in the classroom makes students fixated and less open outlook. This makes students look less motivated, bored and pay less attention to teacher instructions. See conditions It can be ascertained that the enthusiasm for learning decreases. Decreasing one's enthusiasm for learning will affect learning outcomes (Wijanarko & Bachri, 2021). multimedia creation of interactive-based videos can increase student learning interest (Antari, Riandani & Siwi, 2020).

CONCLUSIONS AND RECOMMENDATIONS

E-Modules are more effective in improving handwashing skills with soap than using posters. Therefore, it is recommended that health promotion workers in carrying out health promotion efforts use e-modules.

REFERENCES

- Allegrante, J. P. and Auld, M. E. (2019) 'Advancing the Promise of Digital Technology and Social Media to Promote Population Health', *Health Education and Behavior*, 46(2_suppl), pp. 5–8. doi: 10.1177/1090198119875929.
- Antari, I., Riandani, S. D. and Siwi, I. N. (2020) 'Efektivitas Penggunaan Media Video Dan Leaflet Terhadap Perilaku Mencuci Tangan Dalam Pencegahan Diare The Effectiveness of Using Video and Leaflet on Hand Washing Behavior in Prevention of Diarrhea', 11(01), pp. 27–34.
- Aulia, F., Sari, B. P. and Banjarmasin, U. M. (2021) 'Video edukasi atraktif dalam meningkatkan keterampilan cuci tangan', 8(1), pp. 78–83.
- DeSmet, A. et al. (2014) 'A meta-analysis of serious digital games for healthy lifestyle promotion', *Preventive*

- Medicine*, 69, pp. 95–107. doi: 10.1016/J.YPMED.2014.08.026.
- Evans, W. D. *et al.* (2019) 'Digital Segmentation of Priority Populations in Public Health', *Health Education and Behavior*, 46(2_suppl), pp. 81–89. doi: 10.1177/1090198119871246.
- Hekler, E. B. *et al.* (2016) 'Advancing Models and Theories for Digital Behavior Change Interventions', *American Journal of Preventive Medicine*, 51(5), pp. 825–832. doi: 10.1016/j.amepre.2016.06.013.
- Johan, H. *et al.* (2018) 'Pengaruh Penyuluhan Media Audio Visual Video Terhadap Perilaku Cuci Tangan Pakai Sabun Pada Siswa Kelas Iii Di Sdn 027 Samarinda', *IV*(6), pp. 352–360.
- Junita, Rusmimpong, E. S. P. (2020) 'Pendampingan kader menggunakan kartu aksi gizi meningkatkan pola asuh ibu', *Jurnal Vokasi Kesehatan*, 6(1), pp. 6–12. doi: 10.30602/jvk.v6i1.434.
- Kementerian Kesehatan RI (2018) 'Riskesmas 2018', *Laporan Nasional Riskesdas 2018*, 44(8), pp. 181–222. Available at: [http://www.yankes.kemkes.go.id/assets/downloads/PMK No. 57 Tahun 2013 tentang PTRM.pdf](http://www.yankes.kemkes.go.id/assets/downloads/PMK_No._57_Tahun_2013_tentang_PTRM.pdf).
- Razi, P., & Rosmawati, R. (2018) 'Perbandingan Efektivitas Edukasi Kesehatan Gigi Dengan Metode Bermain , Video Dan Boneka Dalam Meningkatkan Keterampilan', *Jurnal Bahana Kesehatan Masyarakat*, 2(2), p. 101.
- Riley, W. T. *et al.* (2019) 'National Institutes of Health Support of Digital Health Behavior Research', *Health Education and Behavior*, 46(2_suppl), pp. 12–19. doi: 10.1177/1090198119866644/asset/images/large/10.1177_1090198119866644-fig1.jpeg.
- Stockwell, S. *et al.* (2019) 'Digital behavior change interventions to promote physical activity and/or reduce sedentary behavior in older adults: A systematic review and meta-analysis', *Experimental Gerontology*, 120, pp. 68–87. doi: 10.1016/j.exger.2019.02.020.
- Wijanarko, H. and Bachri, B. S. (2021) 'Pengaruh Media Video Terhadap Motivasi & Hasil Belajar Kognitif', 6(2), pp. 1–7. doi: 10.32832/educate.v6i2.4953.