

Effectiveness of Poster and Video Health Promotion Media on Smoking Awareness in Secondary Schools in Depok City, West Java

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Background: Smoking is hazardous for the health of individuals and those around them. This study aims to identify effective health promotion media to increase awareness of the dangers of smoking in high schools as an effort to enhance understanding of the danger of smoking.

Methods: Cross sectional study was conducted on 69 grade X students in 2 high schools in Depok City selected by total sampling. Research variables in the form of health promotion media posters and videos on awareness of the dangers of smoking. Primary data were collected directly using a standardised questionnaire that had been tested for validity and reliability. Data were tested using the Wilcoxon test.

Results: There was a significant difference between health promotion posters decreased by 9 people and increased by 12 people. This difference was not significant ($p > 0.05$) with a p -value of 0.972. Poster-based health prevention measures have no effect on smoking knowledge. Health promotion video media has a p -value of 0.000 ($p < 0.05$) with a decrease of 2 people and an increase of 24 people.

Conclusion: The use of video health promotion media and poster media improved adolescents' understanding of the dangers of smoking. Video media is more effective than posters in providing information to high school students in Depok, West Java. A suggestion for the government is to use health promotion videos as an innovative strategy to prevent adolescent smoking. Health promotion media should be shared on popular social media platforms such as YouTube, Instagram, and TikTok, which are frequently used by students.

Keywords: Health promotion, Media, Poster, Smoking, Video

Efektivitas Media Promosi Kesehatan Poster dan Video terhadap Kesadaran Bahaya Merokok di Sekolah Menengah Atas di Kota Depok, Jawa Barat

Latar belakang: Perilaku merokok sangat berbahaya bagi kesehatan individu yang merokok dan orang-orang sekitar. Penelitian ini bertujuan untuk mengetahui media promosi kesehatan yang efektif untuk meningkatkan akan bahaya merokok pada sekolah menengah atas dalam upaya peningkatan kesadaran bahaya merokok.

Metode: Studi Cross sectional dilakukan pada siswa 69 kelas X di 2 SMA Wilayah Kota Depok yang dipilih secara total sampling. Variabel penelitian berupa media promosi kesehatan, poster dan video terhadap kesadaran bahaya merokok. Data primer diambil secara langsung menggunakan kuesioner baku yang telah diuji validitas dan reliabilitasnya. Data diuji menggunakan uji Wilcoxon.

Hasil: Didapatkan perbedaan yang signifikan antara poster promosi kesehatan penurunan sebanyak 9 orang dan peningkatan sebanyak 12 orang. Perbedaan ini tidak signifikan ($p > 0,05$) dengan nilai p 0,972. Tindakan pencegahan kesehatan berbasis poster tidak berpengaruh terhadap pengetahuan merokok. Media video promosi kesehatan memiliki p -value 0,000 ($p < 0,05$) dengan penurunan sebanyak 2 orang dan peningkatan sebanyak 24 orang.

Kesimpulan: Penggunaan media promosi kesehatan video dan media poster meningkatkan pemahaman remaja tentang bahaya merokok. Media video lebih efektif daripada poster dalam memberikan informasi kepada siswa SMA di Depok. Saran untuk pemerintah adalah menggunakan video promosi kesehatan sebagai strategi inovatif untuk mencegah remaja merokok. Media promosi kesehatan harus dibagikan di platform media sosial populer yang sering digunakan oleh para siswa seperti YouTube, Instagram, dan TikTok.

Kata Kunci: Media, Merokok, Poster, Promosi Kesehatan, Video

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INTRODUCTION

The highest prevalence of tobacco use among male adolescents (24.76%) and females (19.4%) is found in high-income countries.¹ Based on the data obtained from several provinces in Indonesia, West Java province ranks among the top 10 in terms of the proportion of the population that consumes cigarettes with a daily smoking duration of 27.1%.² Avianty states that in Depok City, 59.8% of teenagers have indicated that they have smoked before. Based on the data, it is found that among the respondents who have ever smoked, 7.8% reported that they first started smoking during their childhood, namely before the age of 10. Additionally, 34.4% started smoking between the ages of 10 and 15, 53.1% started between the ages of 16 and 20, and 4.7% started smoking after the age of 20. Of the respondents who reported ever smoking, 59.8% stated that 81.3% of them still smoke. According to the 2018 Basic Health Research (Riskesdas) data, the prevalence of smoking among adolescents aged 10-18 years is 9.1%, an increase from 7.2% in 2013 (2.4). According to the 2020 data from the Central Statistics Agency (BPS), the percentage of Indonesian youth (aged 16-30) who smoke is 25.7%.³

The percentage of male youth who smoke is significantly higher than that of female youth, with a rate of 50% compared to 0.63%.⁴ According to data obtained by TSCS (Tobacco Control Support Center) in 2014, Indonesia ranked fifth as a global tobacco producer, accounting for 1.9% of the total global tobacco production, equivalent to 135,678 tons.⁵ Efforts to prevent and reduce smoking behaviour in society require effective and sustainable health promotion. Effective and long-lasting health promotion initiatives are required to stop and lessen smoking in public places.⁶ Education is a significant determinant of an individual's knowledge level. Education, occupation, age, interest, experience, and culture are all factors that influence knowledge.

The number 7 health promotion is the first level of preventive actions, based on the dimensions of the level of health education.⁸ Health promotion involves not only highlighting the significance of educational approaches, often known as the community empowerment movement but also requires advocacy activities and the cultivation of a

supportive social environment. Posters and films are effective health promotion medium. Posters are a form of visual communication that effectively communicates critical messages regarding the hazards of smoking concisely and engagingly. A video is a form of audiovisual medium that can visually depict the tangible effects of smoking on both the human body and the environment, as well as provide strategies for preventing or quitting smoking.

Multiple studies have been undertaken to evaluate the efficacy of poster and video media in enhancing individuals' understanding and attitudes regarding the hazards associated with smoking. An empirical investigation conducted by Syukaisih et al., in Kulim Village showed the efficacy of utilizing leaflets and video media for health promotion in enhancing the knowledge and attitudes of economically disadvantaged individuals around smoking.⁹ A study conducted by Andi Asrina et al., at SMK Negeri 1 Bantaeng found that video media had an impact on the knowledge and attitudes of adolescents towards smoking behaviour.¹⁰ A separate investigation carried out by Feriyanti et al., at SMK Negeri 2 Bantaeng demonstrated a correlation between the utilization of video media and the enhancement of teenagers' awareness regarding the hazards associated with smoking.¹¹

Based on this background, the author perceives that teenagers have an interest in receiving education about the dangers of smoking through videos. The author intends to conduct research on the Effectiveness of Health Promotion Media, namely Posters and Videos, in increasing knowledge about the dangers of smoking among students in the Senior High Schools of Depok City, West Java.

METHOD

Participants and Study Design

This study employed an analytical design utilizing a cross-sectional method. The population for this study consisted of 69 grade X students from two high schools in Depok City, West Java. In this study, 69 respondents received an intervention in the form of providing education about the dangers of smoking. With thirty-two people using video health promotion media and 37 people using

posters. The study employed a complete sampling technique.

Measurements and Procedures

The research utilized a validated and reliable standardized questionnaire, which was administered both before and after counselling sessions on the hazards of smoking. The questionnaire includes inquiries regarding smoking and its associated hazards to assess student knowledge. This study employs a questionnaire from prior research titled "Level of Knowledge About the Dangers of Smoking in Class V Students of Pucung Lor 02 State Elementary School, Kroya District, Cilacap Regency in the 2014/2015 Academic Year" by Ali Ma'ruf, 2015

The questionnaire has undergone validation and reliability testing. In the validity test investigation, if the calculated r exceeds the table r ($\alpha = 0.05$), the measurement is deemed valid. If the r count is less than the r table at a significance level of 0.05, then the measurement is deemed invalid. All questions and sentences employed in the study exhibit no negative association and possess a computed r value exceeding the r table value. The validity testing method was analyzed using Pearson Product Moment correlation algorithm. In the reliability test investigation, Ali Ma'ruf employed a significance level of 95%. If the r count exceeds the r table ($\alpha = 0.05$), the questionnaire is deemed credible. If the r count is less than the r table ($\alpha = 0.05$), the questionnaire is deemed untrustworthy. The Spearman-Brown method were performed with computer software. The validated questionnaire was subsequently assessed for dependability. The resulting result yielded a value of $\alpha = 0.7107$, indicating that the questionnaire is credible. Ali Ma'ruf's research instrument has undergone validity testing utilizing the Product Moment Correlation, and reliability assessment based on the split-half method from Spearman-Brown. The reliability value, or Spearman-Brown coefficient, of 0.984 exceeds 0.7. The questionnaire has a grid designed to assess students' knowledge.

Statistical Analysis and Ethical Clearance

Data analysis was employed to evaluate the extent of knowledge among students. The statistical analysis employed a significance threshold of 0.05. The ethical approval for this research is from the Ethics Committee of UPN

Veterans Jakarta. Ethical clearance number 428/XI/2024/KEP.

RESULT

The sample in this study consisted of 69 students who had the characteristics of the respondents described in table 1. About 40 persons, or 58% of the total, identified as female. The bulk of age features indicate that 50.7% of respondents with late teenage age were late adolescents, with as many as 35 individuals falling into this category. Where the late adolescence range is 15-18 years old while early adolescence is 12-16 years old and late adolescence is 17-25 years old. As many as 37 students (53.6%) and 32 students (46.4%) used video, while the remaining students (37%) used poster health promotion media. Gender and age are two characteristics of study participants (Table 1).

Table 1. Characteristics of Research Participants

Respondent Participants	N	%
Gender		
Female	40	58
Male	29	42
Ages		
Early Adolescence	34	49,3
Late Adolescence	35	50,7
Health Promotion Media		
Poster	37	53.6
Video	32	46.4

The data were not normally distributed, as indicated by the Kolmogorov-Smirnov Test results. Table 2 shows that the median smoking awareness utilizing poster health promotion medium has not grown by 83.33 between before and after. This explains why there is no discernible difference between the smoking knowledge levels before and after health promotion using poster media. There was a substantial difference in the degree of smoking knowledge before and after receiving health promotion, as indicated by the change of 10.00 in the median before and after 80.00 offered education via video medium (Table 2).

Table 2. Overview of Pre-Test and Post-Test Results

Media	Median Pre-Test	Median Post-Test
Poster Media	83,33	83,33
Video Media	70,00	80,00

Table 3. Difference in Pre-Test and Post-Test Score with Poster and Video Media

Media	Negative Ranks	Positive Rank	Total	P-value
Poster	9	12	37	0,972
Video	2	24	32	0,000

According to Table 3 Wilcoxon Test results, there is a difference between negative ranks 9 and positive ranks 12 on posters promoting health, with a p-value of 0.972 ($p > 0.05$). This demonstrates that the amount of information about smoking before and after receiving poster health promotion media is not significantly different. The results of positive ranks 24 and negative ranks 2 on video health promotion media, with p-value = 0.000 ($p < 0.05$). This demonstrates a notable shift in the way that employing video health promotion media to educate adolescents about smoking has an impact.

DISCUSSION

According to Notoatmojo in the book Development of Health Promotion media explains that health promotion media are all means or efforts to display messages or information that the communicator wants to convey, both through print media, electronics (in the form of radio, TV, computers and so on) and outdoor media, so that the target can increase its knowledge which is then expected to be a change in behaviour in a positive direction in the health sector.¹² Based on Table 3 Wilcoxon test findings, demonstrate that, with a p-value of 0.972 ($p > 0.05$), there is a difference between the negative ranks 9 and the positive ranks 12 on posters for health promotion. This demonstrates that the amount of information about smoking before and after receiving poster health promotion media was not significantly different. In accordance with Anita's research, the absence of respondents' willingness to learn more cannot explain any real change in knowledge about smoking.¹³ Mubarak states that age, education, occupation, interest, experience, and culture are among the factors that affect knowledge.⁷ The degree of respondents' knowledge about smoking may be impacted if they show little desire to learn more.

Video health promotion media shows that the results of negative ranks 2 and positive ranks 24 ($p = 0.000$). This shows that there is a

significant change in there is effect of providing education about smoking using video health promotion media on adolescents. The results of negative ranks which are much smaller than positive ranks indicate that there is a significant increase in the level of smoking knowledge after providing video health promotion media. In Sindy Listiana's, it was found that there was an effect of education through video.¹⁴ This is in line with research conducted by Fatia Zulfa which explains that health promotion media using video is easy to understand and not boring.¹⁵ According to the elements that drive knowledge, video health promotion media can stimulate adolescents' interest in learning more about smoking.⁷ Video has a big influence on health promotion counselling because it uses respondents' hearing and vision among other human organs. Its engaging delivery also makes teenagers more interested in the messages being delivered, which can increase interest in the counselling process by 20% before and after receiving health promotion media.¹⁶ Adolescents who watch movies on smoking hazards are exposed to visual images of those risks as well as information about them through their sense of hearing.¹⁴ Because audiovisual delivery increases participant focus on information delivery, it is more successful. This is consistent with Sadiman's theory, which explains how videos can stimulate hearing (audio) and sight (visual) by containing psychomotor, behavioristic, and cognitive principles. This allows respondents to absorb information at an optimal level by using their ears and eyes to receive it.¹⁷

The findings of this study suggest that video media is more beneficial in enhancing the understanding of adolescents. According to a study conducted by Indah, video media has a more significant impact on behaviour improvement compared to poster media, in addition to knowledge.¹⁸ The study concludes that health promotion media utilizing movies on smoking are more effective than posters in enhancing students' understanding at high schools in the Depok area of West Java. Multiple things might cause this, including, videos that can present information in a captivating and comprehensible manner. They offer a greater number of authentic visual illustrations. Videos can offer a more individualized and relatable storyline for teenagers.

CONCLUSION

Utilizing video health promotion media and poster media can substantially enhance adolescents' understanding of the hazards associated with smoking. The impact of video health promotion media in enhancing information about the harms of smoking among high school students in the Depok-West Java area is greater than that of poster media. One suggestion to assist the government in reducing smoking rates among adolescents is to utilize video health promotion as an innovative strategy to prevent and regulate adolescent smoking. The media development conducted is skillfully executed, meticulously planned, and of exceptional quality in terms of time, structure, and the instructional content delivered. Health promotion media should be disseminated through popular social media platforms like YouTube, Instagram, and TikTok, which are extensively utilized by students.

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