

RESEARCH ARTICLE

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The Effect of Educational Videos Depicting The Impact of Smoking on Young Adults Smokers: A Qualitative Study

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Abstract

Objective: The morbidity caused by smoking is increasing. Meanwhile, very few people access smoking cessation counseling in primary health care. Therefore, more massive and innovative efforts to increase motivation to quit smoking are needed. This research aims to explore smokers' perceptions of three types of videos that describe the impact of smoking. **Methods:** This study used a descriptive qualitative method with in-depth interviews using a semi-structured interview guide. Ethical clearance was obtained, and fourteen young adults who smoked were recruited by purposive sampling. Before the interview, participants watched five videos with the following categories: 1) the health impact of active smoking, 2) the health impact of passive smoking, and 3) the burden on the family of smokers getting smoking-related diseases. Data analysis was conducted using inductive content analysis. **Results:** Five themes describe smokers' perceptions of videos depicting the effects of smoking: a) The video is interesting and can help imagine real condition visualization of the impact of smoking; b) The video deeply resonates with smokers; c) The health impact of the passive smoker and family video is more impactful than the health impact of active smoking video; d) The health impact of active smoking videos make smokers aware of smoking on themselves; e) These videos can increase motivation to quit smoking. **Conclusion:** This research can be a recommendation in health education and smoking cessation counseling using videos that describe the health impact of smoking, especially with an approach that highlights the effects on passive smokers and families.

Keywords: Adult- educational- effect- smoking- video

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Introduction

Indonesia has a high rate of cigarette use, with approximately 34.5% of the population, or 70.2 million adults, being active smokers. Among men, the percentage of active smokers is 65.5%, while among women is 3.3%. This high rate of cigarette use results in 74.2% of the Indonesian population being exposed to cigarette smoke in public restaurants, 59.3% being exposed to tobacco smoke at home, and 44.8% being exposed to cigarette smoke in the workplace. This situation leads to a high number of both active and passive smokers in Indonesia [1].

The high number of smokers in Indonesia, if not treated seriously, can cause morbidity and even mortality among both active and passive smokers due to suffering from certain diseases related to smoking. Smoking-related

diseases are a significant threat to the health of smokers as they are a major contributor to disability-adjusted life-years (DALYs) worldwide [2]. In Indonesia, the Indonesian Family Life Survey (IFLS) revealed that the risk of death was found to be higher for smokers than non-smokers [3]. Approximately 90% of lung cancer deaths, or 9 out of 10, are related to smoking. Roughly eight out of ten deaths from chronic obstructive pulmonary disease (COPD) are linked to smoking. The risk of coronary heart disease is increased by two to four times by smoking and four or five times for stroke [4]. Based on basic health research data from the Indonesian Ministry of Health in 2013, it was found that the prevalence of COPD reached 3.7% or around 9.2 million people [5].

The death rate from tobacco reaches more than 8 million people every year, including around 1.3 million

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passive smokers [6]. There is no safe level of exposure to secondhand smoke because inhaling passive smoke produced by tobacco products for a short period still has an adverse impact on health [7]. Secondhand smoking causes serious cardiovascular and respiratory diseases, including coronary heart disease and lung cancer, and kills approximately 1.3 million people prematurely each year. Tobacco causes the death of half of its non-stop users [6]. Therefore, it is essential to increase efforts to stop smoking. Currently, there are already several smoking cessation clinics in Indonesian primary health care centers; however, the number of visits or participants is still minimal. Thus, massive and innovative efforts are needed to increase motivation to stop smoking.

Warnings about the dangers of smoking have been implemented in Indonesia. Everyone who produces and imports tobacco products into Indonesian territory is obliged to include health warnings. Each variant of tobacco product must include pictures and health warnings consisting of five different types, each covering 20% of the total number of each variant [8]. This figure is much smaller than in the 103 other countries that have implemented best practices for graphic health warnings, which includes, among other criteria, sizeable pictorial health warnings (50% or more of the main areas of the package) displayed in the local language [6].

Government efforts to reduce the number of smokers need to be enhanced, especially with the increasing number of child smokers. The existence of a pictorial health warning (PHW) has also not been effective in increasing motivation to quit smoking. A study conducted in Losari, Indonesia, found that 27.7% of respondents were motivated to quit smoking by PHWs [9]. Despite PHWs being provided in larger image sizes, the effectiveness of cigarette hazard warnings remains insignificant in the community [10]. Government efforts through PHW have kept the view of the risks of smoking among smokers [11].

Thus, the government, non-governmental organizations (NGOs), and educators (academies) need to increase educational and promotional efforts regarding the impacts of smoking to enhance motivation to stop smoking. Health workers are also responsible for this role, not only in governments but also in public organizations. Nurses, as health workers, have a significant opportunity to promote health and prevent cardiovascular diseases closely related to smoking [12]. This health promotion can be achieved through pictorial warnings and videos issued by the government and NGOs on the dangers of tobacco. However, these videos still need to be widely broadcast. Additionally, there has been no related research that evaluates the effectiveness or perceptions of smokers regarding videos that are effective in motivating them to stop smoking. Therefore, This study aimed to identify smokers' perceptions of tobacco warning videos.

Materials and Methods

Study Design

This study employed a descriptive qualitative research design to investigate in-depth interviews to explore smokers' perceptions of the video warning of the dangers

of smoking. The smoking danger warnings featured three distinct categories of videos: videos of sufferers of the impact of tobacco on passive smokers, videos of sufferers from the effects of smoking on active smokers, and videos of sufferers of the impact of tobacco on families.

Participant

Participants were determined by purposive sampling technique as many as fourteen young adults. The inclusion criteria were participants aged 18-22 years and males and females who consumed cigarettes. Participants were willing to participate in this study and could communicate well.

Data Collection

This research was conducted in Yogyakarta in February – March 2022. In-depth interviews carried out data collection. Prior to the interview, all participants watched five videos: two videos about the impact of smoking on passive smokers, two videos about the effects of smoking on active smokers, and one video highlighting the impact of smoking-related diseases on the families of smokers. The interview duration ranged from 30 minutes to 60 minutes. Researchers used an interview guide with several questions about smokers' perceptions of the video, took field notes, and recorded all detailed information.

Data Analysis

Data analysis used inductive content analysis with Coallizi's theory with the following seven data analysis steps: a. Recording the results of in-depth interviews into transcripts that described all the words spoken by participants; b. Identify the description of each participant and phrases or sentences directly related to the phenomenon under study; c. Describing the meaning of each meaningful sentence called the meaning formation process; d. Organizing the overall meaning, then arranging it into subcategories, categories, and topics with the researcher's sentences, e. Topics obtained from each participant that were closely related were then grouped and described in narrative form; f. Form a complete description of the phenomenon being studied with concise statements in narrative form to facilitate understanding; g. The final confirmation step was carried out by verifying the data obtained from participants through interviews [13]. Furthermore, the NVivo application was used in this data analysis.

Trustworthiness

We followed Lincoln and Guba's [14] guidelines for credibility, transferability, dependability, and confirmability to ensure the trustworthiness of this study. Efforts to increase credibility are to return transcripts from interviews to the participants to boost confidence in the study's findings. It was executed so that participants could see how well the transcript matched the participant intended. Explicit coding schemas that denoted the codes and patterns found during investigations were useful for documenting confirmability. To increase transferability, several authors independently reread the transcripts and held discussions to develop the thematic framework. To

increase dependability, researchers used data analysis steps according to Coallizi and N-Vivo software to ensure that researchers had a track record and that the data could be easier to understand and draw conclusions.

Results

Participant Demographic Data

Table 1 shows the characteristics of the informants of this study. The study included only male participants, the majority of whom were 22 years old. Most had a smoking history of 3 to 5 years and commonly used both traditional and electronic cigarettes.

The Main Findings

Based on the results of in-depth interviews with participants regarding the perception of smokers about videos of sufferers from smoking, the following five themes were obtained in Table 2.

Following are the results of in-depth interviews and discussion of each of these theme:

The Video is Interesting and Can Help Imagine Real Conditions about The Impact of Smoking.

In this theme, data were obtained from participants who warned about the dangers of smoking with videos that could help them imagine real conditions about the impact of smoking. Videos could make them feel the actual situation firsthand, and videos could better explain the story in a complete and focused way. Moreover, videos were not boring and catchy for smokers by seeing real stories firsthand of the smoking impact of smoking. It was as stated by the following participants:

“The video can better describe reality. On the video, the person is also talking, so it can be seen that there is a change in his condition, then what his voice sounds like and the background of the picture. Everything feels firsthand” (P1).

“...If the video is more focused, the story from a to z

will be clearer” (P2).

“For educational media using videos, in my opinion, it is good because the videos are real or told directly by the sufferers of the smoking effects, so it does not feel boring and hits you” (P12).

The Video Deeply Resonates with Smokers

In this category, data showed that the video impact of smoking touched the smokers' hearts, making them unselfish. There must be self-awareness and awareness of the environment and passive smoking. It is as conveyed by the following informant.

“If you watch the video, it can touch the heart.. starting from the first video, as one of the places where people's dreams can be lost...then from the second video, you have to be aware of the environment too... so for smokers, you have to be aware of yourself and the environment, it must exist and do not be selfish...” (P11).

“...has touched the hearts of people who smoke and might make us as smokers think that there are people who are exposed to cigarette smoke or passive, active smokers and exposed to diseases from the smoke we exhale” (P7)

The Health Impact of The Passive Smoker and Family Video is More Impactful than The Health Impact of Active Smoking Video

In this theme, it was found that the video on the impact of cigarettes on passive smokers was the most striking among other types of videos. Smokers realized that the effects of smoking is very broad, not only for themselves but also for others. Smokers regret that people who do not smoke (passive smokers) are also affected by cigarettes even though they do not consume cigarettes.

“The passive smoking mother, the impact of smoking is very broad... The problem is that it concerns other people too, not just yourself” (P5).

“In my opinion, the most impressive thing is the impact of cigarettes on passive smokers... the video is impressive because I am, as a smoker, also increasingly aware of the fact that the cigarettes that I smoke every time can actually harm other people” (P3).

“The most memorable video is this one, where the mothers are exposed to passive smoking. They are sick in the video because they inhale the smoke of an active

Table 1. Participant Demographic Data

Variable	frequency (n)	Percentage (%)
Gender		
Male	14	100
Female	0	0
Age		
20th	3	21,4
21st	4	28,6
22th	7	50,0
Length of smoking		
< 3 years	2	14,3
3- 5 years	7	50,0
6-10 years	4	28,6
> 10 years	1	7,1
Types of cigarettes		
Conventional	6	42,9
Electronic	0	0,0
Combination	8	57,1

Table 2. The Main Findings

	Theme
Smokers' Perceptions of Videos Depicting The Impact of Smoking	a) The video is interesting and can help imagine real conditions about the impact of smoking;
	b) The video deeply resonates with smokers;
	c) The health impact of the passive smoker and family video is more impactful than the health impact of the active smoking video;
	d) The health impact of active smoking videos make aware of the effects of smoking themselves;
	e) These videos can increase motivation to quit smoking

smoker. Now, it is very unfortunate, right, they do not consume cigarettes, but they are also affected by it" (P7)

"The last one with a child is an Indian family..., the effect is not telling themselves. Yes, they experience it but feel guilty about their closest family. Like a mother feels guilty for her child. Then, her husband feels guilty for his wife.

That is what makes them all like that. So the effect on other people who actually still need us" (P11).

"The video is about the impact on the family because maybe if it hits us, it will become a problem for us. As active smokers, I believe in what we saw; we reap. So, if we want to smoke, we must know the risks that we get. However, the families do not know that they actually will be affected although they do not smoke. Maybe it is not the impact of smoking, but more of the financial impact, and other impacts" (P12).

"The family video is so good and made in such a way that it can remind us of our loved family" (P14).

The Health Impact of Active Smoking Videos Make Aware The Smokers about The Effects of Smoking Themselves

In this theme, the data obtained from the video of patients with the impact of smoking can make smokers aware of the effects suffered by smokers and how violent cigarettes can harm their bodies. It can be seen from the following participant statements:

"If the steps such as videos are steps to make smokers aware of the same thing that cigarette sufferers have suffered because of the impact of cigarettes... it is like a step given for counseling that cigarettes are dangerous for health. It's already good" (P2).

".. from the video and it is presented and I have watched it, it can indeed be a reminder for us of how vicious cigarettes are from the video" (P14).

These Videos Can Increase Motivation to Quit Smoking

On this theme, participants said that watching videos could foster and increase motivation to stop smoking. It can be seen based on what the participants conveyed below.

"... The video became a desire to stop smoking because the impact was already visible, especially since the video had been shown in real life or with someone who had been affected by smoking" (P12).

Other participants also said that the video warned of the dangers of smoking. This is effective in increasing motivation to stop smoking. Apart from that, the impact of smoking can also increase the burden on the family. This is as stated by the following participant

"Videos warning about the dangers of smoking like this are effective in increasing my motivation as a smoker or other smokers to stop smoking because the impact of, for example, smoking near the family and ultimately the family becoming passive smokers and ultimately getting sick will add to the negative impact. "It also adds to the family's burden when it causes other impacts like that" (P13).

This video about the dangers of smoking also makes participants aware of the need to stop smoking because smoking is not only dangerous for the health of smokers

but also for other people who inhale cigarette smoke.

"What I am thinking about in the future is going to try again to quit smoking... because after seeing the video, I think, of course, smoking is not good for your health, and then maybe there are many things that are not good for my environment, for example, there will be many people who suffer from secondhand smoke because of me (P7)."

Discussion

Warnings about the dangers of smoking conveyed through social media videos and the official platform of the Health Ministry of Indonesia play an essential role in supporting active smokers' efforts to quit smoking. The Danger of Smoking video is a health education intervention and awareness media that can interactively influence the audience's mindset. Health education via educational videos can affect changes in health behavior, such as routine BSE checks, medication adherence, and self-care intensity [15]. Smokers can be statistically motivated to quit smoking if they receive health education through audio-visual media [16].

Smokers who watch smoking prevention videos believe that the videos are more effective than smoking prevention images. Video is considered effective as it can move, is more focused and comprehensive, and shows the real picture of the impact of smoking. A study on nicotine addiction in the Philippines found that the high level of effectiveness of audio-visual health promotion may be because educational videos can reduce cognitive effort and improve information-processing ability [17]. In Indonesia, audio-visual smoking-related health education is more effective in improving attitudes and knowledge towards the risks of smoking-related harm [18]. Meanwhile, other studies in Indonesia also showed a significant change in attitudes towards cigarette advertisements after respondents were given education through audio-visuals [19].

Warnings about the dangers of smoking through pictures are often boring, uninteresting, and monotonous, making attempts to change perceptions and behaviors much more difficult. Meanwhile, compared to general health education, education that describes activities through audio-visual videos is more effective in increasing motivation to quit smoking [16]. Watching videos can also stimulate analytical thinking skills. Warnings about the dangers of smoking with video media are impressive, encouraging and influencing the audience's mindset with concrete evidence, direct sources, and stories that have a synopsis. Educational programs or videos will be more vulnerable in conveying cigarettes, smoking, and the danger of smoking through these audio-visuals [17]. In addition to its targeted impact, tobacco education, and smoking cessation promotion using audio-visual media is full of communication effects and have a higher appeal than interactive dialogue [20].

Furthermore, this study discovered that watching videos of cigarette effects on people touched the smokers' hearts, making them realize that they should not be selfish and should not harm others by smoking. Video activities that integrate sound, moving images, and atmosphere can

result in a better understanding of concepts, increased ability to capture new information, and emotional feelings [21]. This emotional behavior is manifested by the audience feeling touched and the emergence of self-awareness regarding the actions taken to cause harm to the environment and their loved ones. A Chinese study that used video-based smoking cessation advice yielded positive results among expectant fathers. It reported that an educational intervention on the consequences of smoking, particularly for the health of pregnant women and kids, is effective in promoting smoking cessation through video because video messages were more touching than text-only information delivery [22]. Furthermore, behavioral interventions are effective using various media [23], so it stands to reason that one would be through audio-visual video media utilization.

Smokers believe that the video warning of the dangers and effects of smoking awakens them to the fact that smoking can endanger the health of their families and other passive smokers. The intervention of watching videos about the dangers of smoking raises awareness of the harmful effects of smoking among active smokers. This self-conscious behavior is a type of information and knowledge absorption. According to an Australian study of smokers, there was an increase in knowledge scores about smoking cessation for participants who smoked after watching the video. It directly contributes to new evidence and understanding of the effectiveness and acceptability of video-based health education for smoking cessation promotion. This method can inform the content that aims to increase people's knowledge about smoking cessation [24].

Cigarette warning content with educational videos is also effective if it depicts real victims of smoking's dangers. According to them, education based on true stories served as a reminder of how dangerous smoking is for its users. It explains why smokers believe that education through warning videos can influence their perceptions and beliefs about the harmful effects of smoking. The government has also used video education in public service advertisements on television to convey the essence of social messages through images and text. A study titled 'Loss of Vocal Cords Due to Smoke' examined television commercials and featured a woman who suffered from loss of vocal cords as a result of being a passive smoker who was frequently exposed to cigarettes. The presence of this audio-visual display contributed to the audience's perception of smoking as a harmful activity that is extremely dangerous and unsafe for active smokers and their surroundings [25].

This study recognizes the opportunity of audio-visual media as an effective way to reduce smoking among smokers, making it essential to provide videos with persuasive information elements. A previous study analyzed smoking cessation promotional videos on an e-commerce platform in Tiongkok and found that young smokers tended to watch smoking cessation videos with high appeal [26]. Videos that reflected good appeal were reported to have cigarette threat appeals, humor appeals, and psychological benefits that were considered to change consumers' perceptions of the product [26].

Based on this study, it can be concluded that showing the impact of cigarettes through videos can teach smokers about the dangers of smoking, especially to other people. Hence, videos of patients with the effects of cigarettes on passive smokers and their families are more impactful than themselves (active smokers). Video media is also considered to be more fun and less boring and can make smokers directly feel the impact that will occur when they continue to smoke.

These results lead to nursing implications, namely nurses as promoters or as educators in choosing educational media and educational content. When nurses provide education about the dangers of smoking, especially for teenagers, video media can be used as an educational medium to remind the impact of smoking on other people and families to raise awareness of smokers, it is hoped that the methods and educational content carried out by nurses can be more relevant so that it help smokers to be able to stop smoking or prevent smoking.

Author Contribution Statement

RYS: Writing – original draft; Conceptualization; Data curation; Formal analysis; Funding acquisition; Investigation; Methodology; Software; Supervision; Validation; Visualization; Writing – review & editing. BHS: Writing – original draft; Data collection Conceptualization; Methodology; Writing – review & editing. S: Writing – original draft; Conceptualization; Data curation; Formal analysis; Funding acquisition; Methodology; Writing – review & editing. DS: Writing – original draft; Conceptualization; Data curation; Formal analysis; Funding acquisition; Methodology; Writing – review & editing. IC: Conceptualization; Writing – review & editing. EA: Conceptualization; Writing – review & editing. TSSJ: Conceptualization; Writing – review & editing. BTW: Writing – original draft; Conceptualization; Visualization; Writing – review & editing

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Ethical Declaration

Ethical approval for this study was obtained from the Ethics Committee of Universitas Muhammadiyah Yogyakarta, Number 014/EC-KEPK FKIK UMY/I/2022. The researchers obtained written informed consent from all the participants as well.

Conflict of Interest

None.

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