

INTERACTIVE EDUTAINMENT PROGRAM TO PREVENT YOUTH FROM SMOKING: A PILOT STUDY

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Abstract

Despite the increasing prevalence of youth smoking in Indonesia, prevention programs specifically addressing this vulnerable population are still lacking. Prevention program that combines education with entertainment (i.e., edutainment) and encourage interaction among participants is suggested to be more suitable for youth than one with traditional one-way didactic approach. This study aims to test an interactive edutainment program to prevent youth from smoking. Students from middle and high schools were invited to attend this half-day program and participated in five thematic booths, covering smoking facts and myths, tobacco advertising and marketing targets, tobacco control laws across the globe, advocating for tobacco control, and creating anti-smoking messages. Analyses were conducted by comparing their pre- and post-survey on participants' knowledge of smoking risks, attitudes toward tobacco advertisements, and susceptibility toward smoking. No significant changes were found on participants' knowledge of smoking risks. However, participants' attitudes toward cigarette advertisements were found significantly less favorable, and their susceptibility to smoking was also significantly decreased after participated in the program. Interactive edutainment seems to be a promising approach to prevent youth from starting to smoke. More studies with broader population are still needed to assess the longer-term impacts.

Key Words: Health promotion, health education, edutainment, health communication, youth, smoking prevention

1. BACKGROUND

Indonesia is the fourth largest cigarette consuming countries after China, Russia, and the United States with total consumption increasing from 182 billion cigarettes in 2001 to more than 260 billion in 2009 [1]. In line with its increasing cigarette consumption, smoking prevalence among Indonesian youth has also been increasing from 12.6% in 2006 [2] to 20.3% in 2009 [3]. In June 2003, the

World Health Organization (WHO) introduced Framework Convention on Tobacco Control (FCTC), the first international public health treaty in response to the global tobacco epidemic [4]. To date, Indonesia is not among the 168 countries that have signed this treaty, which might explains the increasing prevalence of smoking among its youth.

Despite the increasing prevalence of youth smoking in Indonesia, prevention programs specifically addressing this vulnerable population are still lacking. Prevention program that combines education with entertainment (i.e., edutainment) and encourage interaction among participants is suggested to be more effective for youth than one with traditional one-way didactic orientation [5]. Therefore, research is needed to assess the potential effectiveness of interactive edutainment program in preventing youth from starting to smoke.

2. METHODS

2.1 Sample and the Intervention Program

To empower Indonesian youth against tobacco advertising and promotion, a group of tobacco control researchers, activists and organizations held an interactive edutainment program namely “Tobacco Truth & Dare! *Generasi Berani Sehat*” on August 28, 2014. In this half-day program, 150 students were invited from one junior high school and two high schools. They participated in five thematic booths, covering smoking facts and myths, tobacco advertising and marketing targets, tobacco control laws across the globe, advocating for tobacco control, and creating anti-smoking messages. Each booth provided interactive ways to deliver the content. After participated in all of the booths, participants were challenged as groups (i.e., to make short advocacy videos and uploaded them to YouTube) and as an individual (i.e., to answer quizzes).

2.2 Measures

Participants were asked to complete a paper-based survey before and after the event. The pre-event survey asked about demographics, smoking behaviors, exposure to and attitude toward tobacco advertising, knowledge of smoking risks, susceptibility of smoking and access to cigarettes nearby schools. The post-

event survey repeated the attitude, knowledge, and susceptibility questions with additional questions regarding the smoking prevention program in their schools and their opinion about the current program.

3. RESULTS

3.1 Demography

From 150 students invited, only 128 high school students who participated in the pre-event survey (54 males and 74 females). The average age of participants was 15.29 years with minimum age being 12 years and maximum age being 19 years. The follow up rate was 85.9% (i.e., respondents for the post-event survey slightly dropped to 110).

3.2 Smoking Behavior

Among our participants, 13.49% of them are considered active smokers. About 21% of our participants said that they have smoked over 100 cigarettes in their lifetime, while over 30% said have tried smoking a cigarette before (see Figure 1 below).

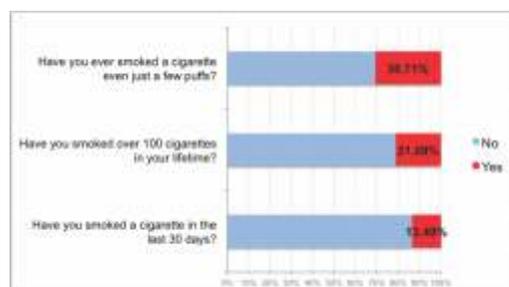


Figure 1 Smoking behavior among participants (n=128)

3.3 Exposure to Tobacco Advertisements

In the pre-event survey, participants were asked how much they have been exposed to cigarette advertising on billboards, on television, and when visiting a store in the past 30 days. Response options to each question were 1 (Never), 2 (Once), 3 (Sometimes), 4 (Often), and 5 (Very Often). Over 72% of our participants answered

“often” and “very often” seeing cigarette advertising when visiting a store. Over 90% of our participants answered that they “often” and “very often” see cigarette advertising on television, while over 62% of our participants answered “often” and “very often” see cigarette advertising on a billboard (see Figure 2).

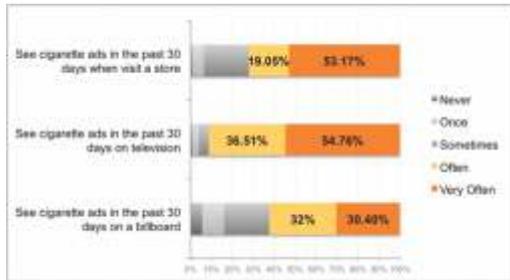


Figure 2 Exposure to cigarette ads (n=128)

3.4 Knowledge of smoking risks

Participants' knowledge of smoking risks was assessed through five items with true and false options. The highest score that participants could get was 100. The knowledge tests were conducted twice; before and after the event. There is no significant difference between the pre- and the post-event knowledge scores ($t=0.4183$, $p=0.671$). For the pre-event survey, participants' average score was 79.17, while for the post-event survey their average score was 78.70.

3.5 Attitude towards cigarette ads

Participants' attitude toward cigarette ads was assessed through three items with 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The lowest score (i.e., one) means that participant has negative attitude towards cigarette ads, while the highest score means the reverse. The attitude items were exposed twice; before and after the event. There is significant difference between the pre- and the post-event attitude scores ($t=2.06$, $p=0.040$). Before the event, participants' average attitude score was 1.87. While after the

program, their average attitude score was 1.65. This also means that participants' attitude toward cigarette ads has significantly become less favorable after the event.

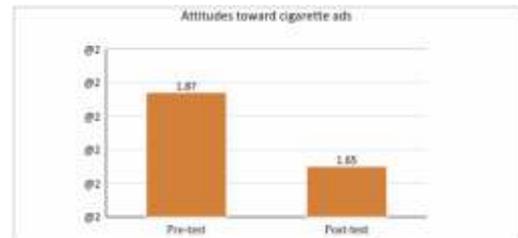


Figure 3. Attitudes toward cigarette advertisements before and after the program (n=110)

3.6 Susceptibility of Smoking

Participants' susceptibility of smoking was assessed through two items with four response options ranging from “definitely not” to “definitely yes.” The susceptibility tests were given twice; before and after the program. There is significant difference between the pre- and the post-event susceptibility scores ($t=2.1113$, $p=0.0358$). Before the event, participants' average susceptibility score was 1.665, and after the event their average score was 1.422. This also means that participants have become significantly less susceptible to smoking after the event.

3.7 Access to Cigarettes Nearby School

Over 82% of our participants answered that it is “fairly” to “very easy” when asked how easy it is to purchase a cigarette nearby their school (see Table 1 below).

Table 1. Access to cigarettes nearby schools

To get/buy a cigarette nearby my school is...		
	Freq.	Percent
Very easy	49	39%
Easy	22	18%
Fairly	31	25%
Difficult	5	4%
Very difficult	17	14%
Total	124	100%

3.8 Exposures to Other Smoking Prevention Programs in School

Over 90% of our participants said that they have been exposed to a smoking prevention program in their school at least once. They also indicated favorable attitudes toward the delivery methods in their schools' smoking prevention program ($M = 4.07, SD = 1.2$) and towards the information given ($M = 4.12, SD = 1.02$).

3.9 Opinions about the Current Program

Our participants indicated highly favorable attitudes toward the current program ($M = 4.56, SD = 1.13$) and the delivery methods in this event ($M = 4.53, SD = 1.16$). They also showed high agreement toward the new information given in this event ($M = 4.69, SD = 0.75$) and towards the importance of such information ($M = 4.69, SD = 0.89$).

4. CONCLUSION

Youth smoking prevention through an interactive edutainment program seems promising. This study found that such program could reduce youth favorable attitudes toward cigarette ads, and decrease their susceptibility to smoking. With regard to the knowledge of smoking risks, previous exposure to smoking prevention programs (e.g., from participants' schools) might have already provided participants with baseline knowledge about the health risks of smoking. In the future, such information should be discussed first with the schools to avoid redundancy. More studies with broader population (i.e., students from other schools) are still needed to assess the longer-term impacts.

5. ACKNOWLEDGEMENT

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