

Peer Educator as a Strategy to Prevent Youth Smoking in Pontianak

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Abstract—The peer educator program was formed in 2016 by the Pontianak Health Office and Faculty of Health Sciences Universitas Muhammadiyah Pontianak. This program aims to become agents of change that are readily accepted by the youth. This study aimed to describe knowledge and attitude, the role of peer educators, and the opinion of peer groups about the peer educators' role as the effort to prevent youth smoking in Pontianak. The study design was descriptive observational. This study was conducted in 10 junior high schools in Pontianak. The sample size in this study was 45 peer educators and peer groups. The data collection techniques were interview and questionnaire. The result shows that peer educators have good knowledge about the tobacco smoking hazards. About 100% of peer educators know that tobacco cigarettes cause cancer, cigarettes cause addiction (95.6%), cigarette sales target to teenagers (71.1%), and (97.8%) cigarette smoke is dangerous for others. Peer educators also carry out their roles well. They advised friends who smoked in school (93.3%), monitor cigarette advertisements and sales in schools (91%) and monitored non-student who was smoking in school (67%). Peer group opinion is also positive for the role of peer educators. Most of the peer groups understand the material delivered by peer educators (72%) and the counseling material is also acceptable (83%). Peer educators have a good and acceptable role in youth. The health office needs to do the peer educators' refreshment to improve their abilities and knowledge, such as jamboree of cadres.

Keywords: *public health, health promotion, peer educator, tobacco control*

I. INTRODUCTION

Tobacco smoking is the most significant preventable cause of death in the world [1]. Nearly six million people killed every year due to tobacco use [2]. Tobacco can kill eight million people a year worldwide if there is no preventive way [3][4]. China, United States, and Indonesia, are countries with the highest number of smokers in the world. Indonesia is also ranked the highest having the most number of youth smokers in the world [5]. There are 35.3% of men and 3.4% of females at 13-15 years old. Overall,

there is 47.2% of teenagers addicted to smoking [6]; [7]. Pontianak Youth Tobacco Survey in 2015 showed that the prevalence of youth smokers was 14.7% and 51% of youth smokers started the habit of smoking before junior high school [8].

The longtime gap between starting smoking and the emergence of tobacco-related disease causes low awareness among youths towards the dangerous effects of tobacco on health. Youth in Indonesia are vulnerable to get trapped in the tobacco industry. Generally, tobacco use in Indonesia, begins at an early age, and when the tobacco industry knows this fact, they exploit the situation. The tobacco industry targets youths and tries to trap them through the use of attractive advertisements on attractiveness, wealth, freedom, liberation, and being "cool" [9]; [3];[9]; [10]; [11].

About one-fourth of youth start to smoke tobacco around the age of 10 years old. Massive advertisements made by the tobacco industry, easy access to tobacco products, low pricing, and peer pressure are some of the factors that cause youth smoking. The massive advertisements affect the youths to try to enhance their image and look "masculine" among their friends [9]; [10]; [12]; [13].

Programs for developing knowledge and awareness should be designed to prevent youths from starting smoking. Some behavior interventions such as edutainment and storytelling related to health topics have been provided to the youth recently [14]. These programs should include educations on how to say no, to oppose insistence, cope with stress, manage anger, communicate and solve problems[13]. These programs may include ways to improve social capabilities, which use a social responsibility approach, or involve school-health promotion, such as peer education.

The influence of peers on youth is undoubtedly crucial. Almost 41% of youth have smoker peers [8]. A peer influencer is a friend whose behaviors and advice can persuade others and that he or she is aware of both the difficulties and meanings of being a fellow peer [15]; [16].

The peer education program aims at using a positive peer influence on other fellow peers [16]; [17].

Peer educators should be chosen from among highly respected youths who are capable of both communicating and listening. Also, they should show non-judgmental or unprejudiced attitudes towards their fellow peers [17]. However, the process of peer education may not succeed when the above is not taken into account [18].

Pontianak Health Office and Universitas Muhammadiyah Pontianak has trained peer educators since 2016. More than 50 peer educators have been trained, consisting of both female and male students. They are selected and sent by each Junior High School. This program aims to help youths to get out of the meshes of the tobacco industry and become agents of change who are readily accepted by teenagers. Therefore, this study aimed to describe knowledge and attitude, the role of peer educators, and the opinion of peer groups about the peer educators' role as the effort to prevent youth smoking in Pontianak.

II. METHOD

A. Research Design

The study design was descriptive observational, designed to evaluate the role and performance of peer educators. This study used a structured interview and questionnaires as the data collection strategies. Students were asked to answer the questionnaires which aimed to measure the respondents' knowledge and their role as a peer educator. The study also interviewed peer groups to measure their opinions about the role of peer educator quality. Besides, the researchers found out the information about teachers and schoolmates smoking status and school compliance to smoke-free law.

B. Sample Technique

The population of the research were students of Junior High School in Pontianak City. This study involved 50 samples of students chosen from 10 different junior high schools who were sent and had taken a part in the peer educator training by the Pontianak Health Office and Universitas Muhammadiyah Pontianak since 2016. The students who met the requirements of this research were chosen to be the sample of this research.

C. Ethics

The procedures of the study have been approved by the local ethics committee of the university.

D. Statistical analysis

Descriptive analysis was carried out to find out the characteristic, level of knowledge, the role of the peer educator, 's quality and schoolmate's opinions about the quality regarding the role of peer educators. T-test used to find out the relationship between knowledge and the role of peer educators' quality.

III. RESULTS AND DISCUSSION

The study collected information about the role of peer educator in schools, student opinions about the role of peer educators in schools, the knowledge and attitudes of peer

educators and students' opinion about the dangers of smoking. These are indicators of the success of the establishment of anti-smoking peer educators in schools.

A. Result

Figure 1 describes the peer educators' role in schools. The figure shows that overall peer educators performed their roles well in school. More than 90% of peer educators monitored cigarette sales, cigarette advertisements and smoking behavior of students in their schools. Almost all peer educators, around 93%, also advised students to stay away from tobacco cigarettes. However, they faced obstacles in monitoring the smoking behavior of individuals other than students at school.

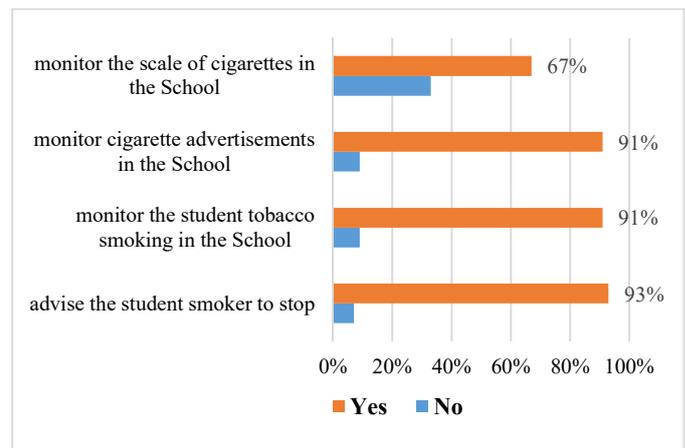


Fig. 1. The role of peer educators in school

Figure 2 describes the opinions of students regarding the role of peer educators as an anti-tobacco agent in schools. The result shows that almost all peer groups stated that peer educators played their roles well in school. All peer group acknowledged that peer educators had played their part in advising smoker students to stay away from smoking and advise other students not to smoke. Almost all peer group, at 83%, also stated that peer educators were able to convey exciting and quickly received information when educating or advising them. It means that the peer group accepted the role of peer educators well in schools as agents of anti-tobacco.

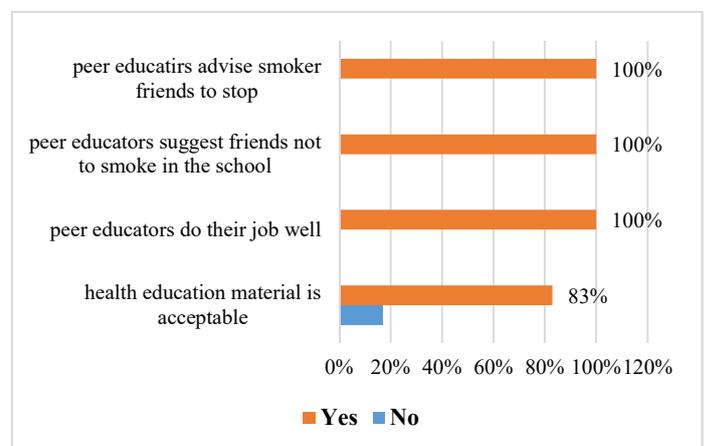


Fig. 2. Peer group opinion about peer educator's role in school

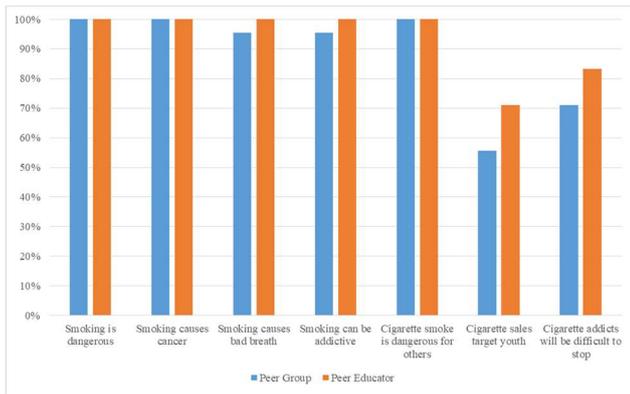


Fig. 3. Knowledge and attitude about the dangers of smoking

Figure 3 describes the knowledge of peer group and peer educators about the dangers of tobacco smoking. This indicator was a measure of the success of knowledge transfer that has been carried out by peer educators. The results showed that both, almost 100% of the peer groups and peer educators, believed that smoking tobacco was dangerous because smoking can cause cancer, bad breath, and addiction, and cigarette smoke was also harmful to the health of others. They also believed that cigarette sales were deliberately targeting teenagers, which is more than 50%. Moreover, they also believed, more than 70%, that if they became an addict, it will be difficult to stop, and they will need help getting out of addiction.

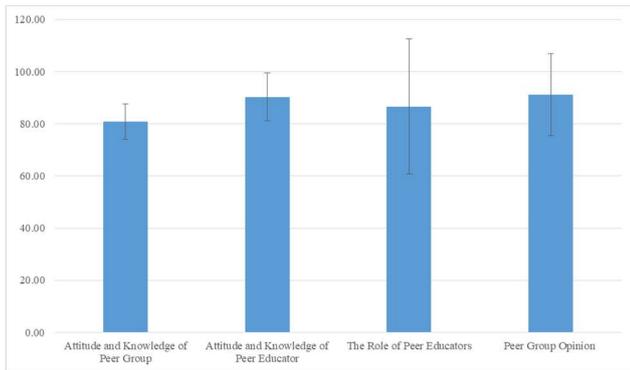


Fig. 4. The average score of attitude, knowledge, and role

Figure 4 summarizes the differences in the mean knowledge about the dangers of tobacco smoking and the average score of the role of peer educators, both peer educators, and peer groups. Both have good knowledge and attitude towards the dangers of smoking tobacco. The results showed that there was no difference in mean between peer group knowledge (mean 80.83; SD 6.85) and peer educator knowledge (mean 90.28; SD 9.15) regarding the dangers of tobacco smoking. The results also showed no meaningful difference between the assessment of the role of peer educators (mean 86.67; SD 25.94) and peer groups' opinion ratings regarding the role of peer educators (mean 91.11; SD 15.68). Based on the average score, both agreed that peer educators have performed their roles very well. It is a measure of the success of knowledge transfer that has been carried out by peer educators.

B. Discussion

This study assessed the effectiveness of peer education among students in 10 junior high schools in Pontianak, Indonesia. The effectiveness of peer education emphasizes that most participants feel more knowledgeable, which was observed from their better understanding of the dangers of smoking tobacco and supporting efforts to stop smoking. The peer education process is shown to increase student capacity and desire to stay away from all tobacco cigarette products. It is also defined as an effective training method that allows peer education to change the risk factors of adolescent tobacco smoking behavior positively.

According to the Indonesia Global Youth Tobacco Survey (GYTS) 2014, the smoking rate for junior high school students was 20.3%. According to the report, 64.5% of junior high school student did not yet know the effects of tobacco smoking addiction, and 31.4% got anti-tobacco messages among the students [19]. This research shows that knowledge is an essential domain for the formation of youth or students' behavior. If the adoption of new behaviors is based on definite knowledge and awareness, the new behavior will be lasting. However, if the behavior is not based on knowledge and awareness, then the behavior is temporary or will not last long. Besides, a readily accepted source of information is fellow student. According to this study, peer education is effective in increasing student knowledge. It is in line with the Blekinge Andersson project that peer education can be used effectively to eliminate cigarette addiction [20].

In the studies conducted in junior high school, most students reported that friends were their information sources. The influence of their peer group on the risky and safe behaviors of young people is observed because each individual is communicating with similar individuals, especially in terms of age and developmental periods [21] It was shown that in Indonesia smoking starts at an early age, of which friends play a role in influencing youth to start smoking. Therefore peer education programs applied to schools will affect students' smoking conditions [22]. The peer education model created for anti-smoking education should also be planned by taking into consideration the effect of the group of friends on the youth health-related attitudes and behaviors.

In this study, peers talked to each other about the dangers of smoking. The peer group stated that peer education has added knowledge and positive awareness to them. Peer education appears to have contributed significantly to students, as a trusted source of information for students themselves. These junior high school students can transfer the knowledge and attitudes they gained during peer education to reject tobacco products. Peer education is an alternative health program applied based on the principle of social learning, and may result a significant achievement [23]. Students, in their daily conversations with their friends, talk about tobacco use, its impact on health, and the importance of staying away from tobacco products, including efforts to stop the habit of smoking tobacco, at least once a week or a month. Besides, peer educators also

monitor the distribution of tobacco products in schools; in this case, they also invite peer groups to participate in monitoring. However, this distribution did not determine how much invitation to monitor the tobacco products in schools has influenced changes in their awareness. Peer educators also coordinate with schools, as the authorities who can take action on the findings of the distribution of tobacco products in schools. Indonesia and Pontianak City have strict regulations that limit the marketing, distribution, and smoking behavior in the school area. It means that the peer education efforts carried out are in line with existing tobacco control policies.

Health education delivered by the peer educators place more emphasis on providing information about the toxic ingredients in cigarettes, the dangers of smoking, and its prevention. Health education is a learning process. Health education will stimulate changes in a person's knowledge, attitudes, and actions [24]. It is also supported by the cognitive consistency theory, which suggests that there is consistency between the health education provided with the changes in knowledge and attitudes [25]. This theory also emphasizes on the provision of information and experience to produce changes in knowledge that are appropriate or consistent with attitudes and expected behavior. The World Health Organization says that peers can influence friends in school to prevent the dangers of smoking [26]. Peer as a reinforcing factor can influence predisposing the attitudes and beliefs of fellow peers in preventing smoking behavior [27]. This is evidenced by research on a peer leader who first received a health education training about the dangers of smoking, and the peer leader did education health in the peer. The results obtained were an increase in anti-smoking attitudes and decreased attention to smoking in the peer [28]; [29]. The educational approach carried out with one peer and discussion in the peer group consisting of two or three peer groups became the supporting factors for peer educators to achieve effective communication. The informal atmosphere encourages more peer to freely ask questions as well as the peer educator is more responsive to pay attention and understand the peer reaction to the incomprehension of the message conveyed. Any lack of understanding of the peer group on health education messages can be immediately explained by the peer educator so that the peer group immediately understands the message of health education to prevent the danger of smoking.

It can be concluded that the network of peers will determine the smoking behavior of junior high school students if peers smoke, then students tend to smoke, and if peers invite students to stay away from tobacco products, then they tend not to smoke. Besides, the active efforts of peer educators and teachers in schools in conducting the activities that lead to prevention, such as counseling and contests with anti-tobacco themes or integrating educational efforts in school activities will significantly support and strengthen the formation of smoking-free schools.

IV. CONCLUSION

Based on the result, we agree that peer educators have performed their roles very well. The result shows the

success of knowledge transfer that has been carried out by peer educators. Peer educators have a good and acceptable role in youth. The health office needs to do the peer educators' refreshment to improve their abilities and knowledge, such as jamboree or annual meeting.

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