

Evaluation of effectiveness of peer education on smoking behavior among high school students

To the Editor

High school students, or teenagers, live in a transitional period in which physical, emotional, and cognitive changes occur rapidly throughout. Smoking is known to be damaging to one's health during the growth process because the smoking affects not only the present but also the future life of the youth.¹ In Korea, smoking cessation programs, including increases in tobacco taxation, laws restricting youth access to tobacco, advertising bans, and information and education campaigns, are being promoted. Nevertheless, the prevalence of tobacco use among Korean youth is still higher than that of other Asian countries, such as China and Singapore.²

A recent study by Bilgic and Gunay³ reported that the smoking behaviors of high school students positively changed as a result of using the peer education method in the transtheoretical model. This study is very impressive because it provides an inspiration of establishing a new strategy for youth smoking cessation education programs in Korea. So far, Korean youth smoking cessation programs have been forced to change by external factors, but they have used the transtheoretical model that focuses on the youth themselves making changes in their choices, which is a good thing. It is difficult to motivate adolescents to quit smoking, because various symptoms and illnesses caused by smoking do not appear immediately.¹ It is appropriate to apply a model that allows for individuals to plan and execute smoking cessation themselves after being motivated to quit smoking. In Korea, a smoking cessation education program using the theoretical model was centered on college students and adults, and the research on youth was insufficient. Therefore, it is suggested that program development and research using this model should be more active. In addition, peers are an important source of socialization for adolescents, and they tend to form positive and negative health behaviors through their peers, and trust the information provided by their peers more than that provided by teachers and professionals.^{4,5} The results of empirical studies on the practical effects of using the characteristics of peer relationship behavior changes for smoking cessation at a school site led to a new strategy for youth smoking cessation education.

There are some comments and questions concerning the further application of the results of this study. First, it is the educational program for peer educators. We would like you to provide more details concerning the overall program structure, such as the peer education program development process, the training time (or frequency), the content and method of the education, and evaluation. This information can help develop, expand, and apply structured educational programs that can strengthen and standardize peer educator capabilities so that smoking students can recognize correct knowledge of smoking. Second, the most important consideration for programs using peer educators is the selection of peer educators and matching them with smoking students. However, in this study, the peer educator selected among the comparatively exemplary students through 2 questions, and they did not match with the smoking students; rather, they talked with the unspecified students and informed them concerning the harm of smoking. In this case, the peer educator would have been consistently active, but the smoking student might not have received their fair share of the peer education. It would be helpful to have a better understanding of the frequency a student has been informed by a peer educator, the frequency of the conversations between them, and the location of their meetings. If there is not a match between a peer educator and a smoking student, it may be that some smoking students respect peer educators, but others may not be satisfied with their peer educators. Therefore, it seems to be more effective to match the preferred peer educator with each smoking student. Third, the authors reported that 39.3% of the students changed to a non-smoking status. However, the number of students in the action and maintenance stages were the same before and after the peer education, as shown in Table 3. Additionally, the authors' statement "There were no significance stage behavioral changes after sixth months" was somewhat confusing. Moreover, it would be more understandable to suggest that the degree of nicotine dependence after peer education is significantly reduced ($p < 0.0001$). Fourth, considering that peer educators and smoking students may have different ways of interacting with knowledge of smoking or smoking cessation, it would have been helpful to understand if there was an evaluation of the smoking students' smoking-related knowledge before and after peer education. Finally, this research period was rather short as the authors pointed out. However, the study was conducted in 2011, and we wonder whether, since this is 7 years later, a follow-up study has been conducted for a longer period regarding smoking students' cessation process. If so, this would be

helpful in developing and expanding a more systemized and standardized peer education program for the smoking adolescent.

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Reply from the Author

During the Training of the Peer Volunteer Group; a training program for volunteer peers lasting 5 hours. Twenty voluntary students in each school have formed training groups. The level of knowledge of the students was determined with the Pre-Education Knowledge Level Assessment Form. Students with peer volunteers were introduced during the first lesson. They explained to the students the aims of this training program, how they would be implemented and what to expect from the volunteers at the end of the program. Students were asked about their expectations from this program and why they wanted to take part in this group. Education "Peer Education", "Why Not to Smoking" and "Why Smoking" were continued. As the last lesson "Group Study" was carried out. Trainings were applied using inductive training methods. The training started with warm-up and during the training the visual training material (slides, pictures, etc.) was used for brain storm flip-chart. g) In the group study, the groups were divided into 2 groups, the first group was "expectations from the group" and the second group was "what can you do in school". At the end of the training, with the Education Evaluation Form, the students were asked to evaluate the educator and the education (time, time, physical condition of the training environment, suitability of the training materials). The education of peer volunteers was conducted by the researcher. As a result of this research another similar high school was conducted and the results were found to be positive. At this school, the follow-up at the end of the 1-year follow-up was not possible because the study was terminated at the end of the permit period.

During the project, there were 7 meetings during the education period of the volunteer students. At the meetings, as a peer volunteer, they were asked what they could do about the issues that were set after the previous meeting. Why volunteers can not do what they planned

was discussed and the problems they experienced were shared. Information was exchanged on the proposal and implementation of solutions to these problems and these were recorded by the researcher for reassessment at the next meeting. Different subjects were told by different trainers at various times and their motivations were tried to be improved. Psychologists were involved in the trainings. In these trainings, they are trained on how to communicate with their volunteer peers and give messages about tobacco use. Voluntary youth meetings were held at the volunteers' request for healthy nutrition. Volunteer peers started conversations about the harms of tobacco with their friends in school halls, on the floor, in classrooms, in non-smoking areas outside the school. They also made banners for their class and school dashboard. On May 31, World No Tobacco Day, they participated in the events organized by the municipality. Various activities were planned at different times of the program to improve the well-being of students. In this context, volunteers went to the volleyball encounter with peer volunteers and other willing students. This encounter was made with the permission of the municipality by means of public transport and from the families. Match tickets were provided free of charge by the sports club.

During the Identification of Peer Volunteers, a survey of the initial situation was conducted by interviewing the administrators and guidance teachers of the 2 schools that were taken into operation first. "How often do you talk about tobacco use, harms and abandonment in your conversations with friends?", "Do you want to work actively with us in the activities we will do at school?" And "What friend do you recommend to contribute to the activities we will do at school? and the names of the volunteer students were determined. The choice of volunteerism in peer studies has led to such a preference in election.

The Peer Volunteer Group and the smokers were not matched. Because, in such a case, it is thought that the students will be stamped, the school administration will be able to understand their identity and give feedback to their families. This age group does not want school administrators and their families to be aware of the fact that they are smoking. Peer volunteers are provided with protection from passive smoking by providing their cigarette smokers with interviews at school and not at the places where they smoke.

Research permission was obtained from the Provincial National Education Directorate on 04.05.2011 dated and 28066 numbered. and since this

is a time-permitting period, no further interviews were held with the students.

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References

1. Heffler M, Liberato SC, Thomas DP. Incentives for preventing smoking in children and adolescents. *Cochrane Database Syst Rev* 2017; 6: CD008645.
2. Kim Y, Choi S, Chun C, Park S, Khang YH, Oh K. Data resource profile: The Korea Youth Risk Behavior Web-based Survey (KYRBS). *Int J Epidemiol* 2016; 45: 1076-1076e.
3. Bilgic N, Gunay T. Evaluation of effectiveness of peer education on smoking behavior among high school students. *Saudi Med J* 2018; 39: 74-80.
4. Waldrup A, Malcolm K, Jensen-Campbell L. With a little help from your friends: The importance of high-quality friendships on early adolescent adjustment. *Soc Dev* 2008; 17: 832-852.
5. Ramirez R, Hinman A, Sterling S, Weisner C, Campbell C. Peer influences on adolescent alcohol and other drug use outcomes. *J Nurs Scholarsh* 2012; 44: 36-44.