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Article

The role of knowledge, attitude, gender, and school grades in preventing drugs use: Findings on students' intentions to participate in peer education program

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Abstract

Background: Student groups are prone to drug abuse. The prevalence of drugs in the past year among high school students in Surabaya, Indonesia occupies the highest provincial capital (9.4%). The purpose of this study analyzed the relationship between knowledge about drugs, attitudes about peer education, gender, class, and students' intention to participate in peer education programs in HEY (Health Educator for Youth) activities.

Design and methods: A cross-sectional study was conducted with student participants (12-18 years) in six high schools in Surabaya, Indonesia (n=167). This study used an online survey to assess knowledge of drugs and students' attitudes about HEY peer education activities.

Results: More than half of the students have insufficient knowledge about drugs and have negative attitudes about peer education in HEY activities. This study also showed that students' intention to participate in peer education was not influenced by the level of knowledge, student attitudes, and gender. The results of statistical tests showed that there was a relationship between class and student participation in peer education activities. This showed that the student's factor regarding participation in peer education was a class category where the lower class is more motivated to participate.

Conclusion: Most students have less knowledge about drugs and a negative attitude about peer education. However, the intention to participate in peer education activities is more thus it is necessary to improve the quality of peer educators through activities that are performed regularly by various relevant stakeholders.

Introduction

Drug abuse (drugs, psychotropic, and addictive substances) is a global threat that causes adverse impacts on individuals and society, especially the younger generation. Drugs can be beneficial for healing due to their calming effects, but if used in excessive doses can cause addiction. This abuse is initially because the user wants to get a hallucinatory calm.¹ Approximately 275 mil-

lion people (5.6%) of the global population aged 15-64 years worldwide used drugs at least once.² The number of drug cases in Indonesia has continued to increase for seven years (July 2012-July 2018) from 54,705 cases, an increase of 49,501 cases to 104,206 cases in July 2018.³

The prevalence of ever using drugs in Indonesia in 2019 was 2.4% and a year using drugs was 1.8%. 240 out of 10,000 Indonesian population aged 15-64 years have been exposed to using drugs and 180 out of 100,000 population have used drugs during the past year. The top five types of drugs consumed in the last 1 year are marijuana (65.5%), shabu (38%), ecstasy (18.7%), pil koplo (14.6%), and dextro (6.4%). Meanwhile, the main reasons for using drugs for the first time were mostly trial and error (40.5%) and invitations or persuasion from friends (35.2%).⁴

Preliminary estimates suggest that globally in 2016 as many as 13.8 million adolescents (mostly students) aged 15-16 years (5.6%) had consumed marijuana.² Adolescents are one of the groups that are vulnerable to drug abuse because they are dynamic, energetic, always curious, also easily discouraged and easily influenced by drug dealers.⁵ Student groups, including adolescents, are a social group that is prone to drug abuse.⁶ The prevalence of drug users in Indonesia among students (15-22 years) in 2018 is 3.2% or equivalent to 2,297,492 people.⁷

The prevalence in Indonesia in 2018 of adolescents who consume drugs for one year who are high school students (6.4% and 3.6%) is greater than junior high school students (4.8% and 3.3%) and college students (6% and 2.8%). Male high school students used drugs more frequently in the past year (5%) than female (2.3%). The prevalence of drug users in the past year among high school students in Surabaya occupies the highest provincial capital in Indonesia (9.4%). The most types of drugs consumed by high school students in the past year were headache drugs that were drunk excessively by 19.7%, substances that were deliberately inhaled continuously (e.g., glue aibon, gasoline, markers, electric hits) by 12.7%, and marijuana by 11.3%.⁶

Based on student and student knowledge of various types of drugs, respondents knew the most about natural types of drugs, such as marijuana (*gele*, *cimeng*, marijuana, *getok*, *linda*); Synthetic drugs, such as *shabu*, *Yaba*, *SS*, *Tastus*, *Ubas*

Significance for public health

Drug abuse among high school students has reached an increasingly concerning number. This study aims to discover how well students' knowledge regarding to drugs and their attitudes towards peer education activities in order to prevent drug abuse. Findings of the research indicate that many students' knowledge remain lacking and students' attitudes about peer education remain negative. Good knowledge about drugs is very important so that students do not fall into drug abuse. One of the factors related to students' intention to participate in peer education is class; students at lower-level classes had more free time to take part in peer education. Students who have the intention to participate in more peer education so that peer educator quality improvement and support from schools and related stakeholders are needed to create conditions for peer education that can work optimally in order to prevent drug abuse.

(Methamphetamines); Semi- synthetic drugs, such as heroin; Psychotropic such as pil koplo, BK, mboat, mboti, *roda*; Additives such as aibon glue, gasoline, markers, electric hit; Hard drugs are headache drugs that are drunk excessively. The highest knowledge of high school students about types of drugs is hard drugs and addictive substances. The lowest knowledge is the natural type of drug. Knowledge of the health impacts of drug abuse among high school students is hallucinations. Other impacts are disrupting the concentration of learning, depression, causing dependence.⁶ According to attitudes towards drug abuse, the majority of high school students report to the school, if there are schoolmates who circulate drugs (39.2%), refusing to buy drugs (98.10%), offering for free (97.4%), distributing drugs to others (98%), selling drugs (98.3%), and report to the authorities if there are school friends who use drugs (37.7%).⁶

The importance of knowledge in students is very important so as not to fall into drug abuse. One of the efforts to prevent drug abuse from an early age is increasing knowledge through peer education contained in HEY (Health Educator for Youth) activities. HEY is a community service activity from the Faculty of Public Health, Universitas Airlangga in collaboration with Rumah Remaja to form high school students to become peer educators. High school students will later act as volunteers to convey the knowledge that has been obtained from peer educator training by using edutainment media (education and entertainment) to their friends at school. The purpose of this study analyzed the relationship between knowledge about drugs, student attitudes about peer education, HEY activities, gender, class, and students' intention to participate in peer education activities to prevent drug abuse from an early age in SMA Surabaya, Indonesia.

Design and Methods

Subjects

This study was an analytic observational study using a cross-sectional study design. The population in this study were high school students in the city of Surabaya, Indonesia who had peer educators. HEY (Health Educator for Youth) program trains six students in each school to become peer educators. The peer educators performed activities in each school to provide education with the edutainment method to their friends, accompanied by the teacher. Of the 10 schools that were the population in this study, six schools in Surabaya were selected because they have peer educators who were active in educating their friends about drugs (August-September 2019). The six schools were selected to represent the region from East Surabaya, South Surabaya, and North Surabaya. All students who participated in the peer educator activities became respondents in this study (n=167).

Tools for data collection

An online survey designed to measure students' knowledge and attitudes about Drugs (Drugs, Psychotropic, and Addictive Substances) was used as a tool for data collection. The online survey consisted of nine questions related to knowledge of various drugs, eight questions to test students' attitudes towards peer educators in HEY (Health Educator for Youth) activities to prevent drug abuse, in addition to questions about gender and class. Questions about student participation, namely their intention to participate in peer education activities. The dichotomous category was used in the knowledge question for the need assessment that indicate the information that need to be included in peer education

training materials. The selection of the good or poor category were used to justify the involvement of this material in the peer education training program among the various materials on adolescent health to help stakeholders focus on improving the material needed by students.

Statistical methods

Data is collected, encoded, and then fed to an IBM compatible computer using SPSS version 24 for Windows. 50% agreement of the question type is the boundary point for the distribution of questions into knowledge and attitudes. The online survey was conducted to test the validity with the R correlation showing 9 out of 10 questions about knowledge and 8 out of 10 questions about attitudes were declared valid, then a reliability test was carried out, the reliability test results showed the value of Cronbach's alpha knowledge was 0.268 and attitude was 0.874 which means it is quite reliable. The answers to the questions regarding knowledge were categorized as good and poor, so low reliability did not affect the results. Qualitative variables are expressed as numbers and percent.

This research used chi-square test to examine the relationship between nominal or ordinal data on the independent variables (knowledge and attitudes) and the dependent variable (student participation). The non-parametric statistical method test for nominal data used the Mann Whitney test and ordinal data used the Kruskal Wallis test. The p-test result <0.05 was considered statistically significant.

Results

This research was conducted in six high schools in the city of Surabaya, Indonesia with a total of 167 students. The median age of students is 15 years, the minimum age is 12 years and the maximum age of students is 18 years. Of the 167 students, 81 (48.5%) were male and 86 (51.5%) were female. First grade students are 152 (91%), second grade is 10 (6%), Last grade is 5 (3%). A1 was a private school, and the rest (A2 to A6) were public schools (Table 1). Based on the aspects of students' knowledge about drugs (drugs, psychotropics, and addictive substances) more than half of the students know well the types of drugs that work by triggering the workings of the central nervous system and suppressing the

Table 1. Characteristic of age, school, gender and grade.

Variable	n	%
Age (median; min-max)	(15; 12-18)	
School		
A1	19	11.4
A2	12	7.2
A3	32	19.2
A4	46	27.5
A5	31	18.6
A6	27	16.2
Gender		
Male	81	48.5
Female	86	51.5
Grade		
First	152	91
Second	10	6
Last	5	3
Total	167	100

central nervous system (61.1%) and drug-related regulations in the Law Number 22 of 1997 (69.5%). Meanwhile, more than half of the students did not know the examples of drugs that work by triggering the workings of the central nervous system, disrupting the central nervous system, and suppressing the central nervous system (66.5%). The majority of students did not know the effects of drugs from consuming heroin, abused cocaine and the psychological effects that arise (75.4%) (Table 2).

Based on the aspects of students' attitudes towards peer education in HEY activities to prevent drug abuse from an early age, 49.7% of students had the attitude strongly agreed that drug material was important. More than half of the students agreed that drug materials were interesting (52.1%), wanted to listen to information from peer educators (51.5%), believed in telling stories with peer educators (55.1%), believed that peer educators could listen to my problems well (54.5%), and believe that peer educators can provide advice on my problem (56.9%) (Table 3).

Meanwhile, students who disagreed the most about believing that peer educators could provide advice on the problem (5.4%) and the attitude strongly disagreed at most was only 3% about wanting to apply information from peer educators, believing that peer educators could listen to their problems by good, and believe that peer educators can help solve the problem (Table 3).

Students who had poor and good level of drug knowledge were almost in the same amount, 50.89% and 49.10% respectively. The number of students who had negative attitudes towards peer edu-

cation was more (57.4%) than students who had positive attitudes (42.5%). There were more students who had the intention to participate in peer education activities (65.3%) than students who had no intention of participating (34.7%). The results of the chi-square test showed that there was no correlation between knowledge (Sig = 0.660), attitude (Sig = 0.632) and gender (Sig = 0.778) on students' participation since the significance was >0.05. Meanwhile, there is correlation between class (Sig = 0.023) and student participation since the significance was <0.05 (Table 4).

Table 2. Students' knowledge about drugs.

Content of questions	n	%
Type of drugs		
Poor	65	38.9
Good	102	61.1
Example of drugs		
Poor	111	66.5
Good	56	33.5
Effect of drugs		
Poor	126	75.4
Good	41	24.6
Regulation about drugs		
Poor	51	30.5
Good	116	69.5
Total	167	100.0

Table 3. Students' attitude towards peer education.

Question	Strongly disagree n (%)	Disagree n (%)	Neither agree nor disagree n (%)	Agree n (%)	Strongly agree n (%)	Total n (%)
According to me, information about drugs is important	1 (0.6)	2 (1.2)	4 (2.4)	77 (46.1)	83 (49.7)	167 (100)
According to me, information about drugs is interesting	4 (2.4)	6 (3.6)	10 (6.5)	87 (52.1)	60 (35.9)	167 (100)
I want to hear information from peer educator	3 (1.8)	2 (1.2)	13 (7.8)	86 (51.5)	63 (37.7)	167 (100)
I want to apply information from peer educator	5 (3.0)	8 (4.8)	12 (7.2)	76 (45.5)	66 (39.5)	167 (100)
I believe in sharing with peer educator	4 (2.4)	4 (2.4)	22 (13.2)	92 (55.1)	45 (26.9)	167 (100)
I believe that peer educator can listen to my problem well	5 (3)	3 (1.8)	21 (12.6)	91 (54.5)	47 (28.1)	167 (100)
I believe that peer educator can give advise toward my problem	1 (0.6)	9 (5.4)	16 (9.6)	95 (56.9)	46 (27.5)	167 (100)
I believe that peer educator can help solve your problem	5 (3)	6 (3.6)	26 (15.6)	83 (49.7)	47 (28.1)	167 (100)

Table 4. Correlation among gender, class, knowledge, and attitude on students' participation (n=167).

Variables	Participation (behavior)				Significance
	No		Yes		
	n	%	n	%	
Knowledge					0.660
Poor	31	36.5	54	63.5	85 (100)
Good	27	32.9	55	67.1	82 (100)
Attitude	0.632				
Negative	32	33.3	64	66.7	96 (100)
Positive	26	36.6	45	63.4	71 (100)
Gender					0.778
Male	29	35.8	52	64.2	81 (100)
Female	29	33.7	57	66.3	86 (100)
Class					0.023*
First	48	31.6	104	68.4	152 (100)
Second	7	70	3	30	10 (100)
Last	3	60	2	40	5 (100)
Total	58	34.7	109	65.3	167 (100)

*p<0.05.

Discussion

Adolescents are the most vulnerable age to drug abuse. Some conditions such as lack of communication in the family, parents' indifference towards their children's future, and hanging out with people who have a bad influence are important to pay attention to in order to prevent teen drug abuse. The high risk of drug dependence in adolescents were caused by their environment that surrounded by addicts in the family or community, offers from peers and their belief that drugs can bring benefits.⁸ Few of the students cited reasons for drug abuse to feel more mature, yet most of them have tried to become more popular with their peers.⁹ For middle school students, friends are a source of information that is considered important so that it shows the influence of peer groups in adolescence.¹⁰ Peers are the most important component in the social environment of young people so that they can influence young people in positive or negative ways. Drug abuse has become one of the most important public health problems in recent years.¹¹

Senior high school students' knowledge of drugs in this research showed that more than half of students (50.8%) had insufficient knowledge. Similar condition was found in a research in Tantan City, Egypt, showing that the majority of high school students (98.03%) had poor knowledge about drug abuse. This suggests that students need more information and health education about drug abuse from both government and non-government organizations.¹⁰ Likewise, a research in Dhaka City showed a high school student overall knowledge score: the majority of students (84.2%) had poor knowledge, 15.8% of students had average knowledge, and none had good knowledge of the effects of drug abuse.¹² A study on high school students of ShahreKord, Iran, showed that students' knowledge of drug effects was quite low which merely 6.9% of students had high knowledge.¹³ It is the opposite of the study among *pahang* matriculation students in Malaysia, which shows that most students (82.03%) have good knowledge of drug abuse and few students (17.97%) have poor knowledge. This condition occurred since the awareness has been built through preventive education programs from a young age such as the Smart Anti-drug program, TUNAS Anti-drug program, Project SUCCESS (Schools Using Coordinated Community Efforts to Strengthen Students), Project Toward No Drug Abuse (TND).¹⁴

In this research, knowledge remains poor in examples of drugs that work by triggering the action of the central nervous system, disrupting the central nervous system, and suppressing the central nervous system; the effects of drugs from consuming heroin, abused cocaine and the psychological effects that arise. Lack of the knowledge level shows there are many students who do not know and not understand well about the examples and impacts of drug abuse. In the knowledge of students in the Dhaka City study about the types of drug abuse, most (72.5%) mentioned phensidyle, less than half mentioned smoking (48.3%), marijuana (30.8%), 12.2% pathedine, 7.2% morphine, 7.2% heroin. Students' knowledge about the impact of diseases due to drug abuse can be summed up as follows: 80% answered death, 62.5% answered hepatitis B, 34.2% answered stroke, 25% answered liver cirrhosis, 17.5% answered hypertension, 9.2% answered brain damage, and 3.3% answered lung cancer.¹² Most of the high school students (65%) in a study in Jordan considered substance abuse to be a problem among teenagers. Less than half of students are aware of the impact of alcoholism on family members' conflict (42.2%) and job loss (29%), the impact of drugs resulting in mental problems (27.8%), isolation (26.8%) and fines or imprisonment (33.8%). More than half of the students (70.5%) have heard of substance abuse and 49.5% know various forms of substance abuse such as

marijuana, cocaine, and psychotropic substances.¹⁵

Moreover, in this research, good knowledge refers to the availability of knowledge about the types of drugs that work by triggering the action of the central nervous system and suppressing the central nervous system as well as drug regulation. A research in Tantan City, Egypt showed that high school students' knowledge of the most common types of drugs found were Cannabis (58.13%), Steroids (20.69%), Ecstasy (15.27%).¹⁰ In the research regarding to knowledge of drug types in Malaysia showed that most students had heard of ecstasy (88%), cocaine (82.9%), and less than half of students (32.3%) had heard of marijuana. 35.9% of students said most young people are now trying heroin and morphine.¹⁴

In line with a research among public secondary school students in Lagos, it was found that almost three quarters of students knew the legal status of drug abuse.¹⁶ The majority of secondary high school students in Biratnagar, Nepal (87.9%) said drug addiction would be bad for health. The majority of students (80.3%) responded to the age group vulnerable to drug addiction is 16-20 years. The reason why adolescents experience drug addiction is that the majority of students (72.7%) answered because of teenagers' curiosity, 40.9% answered lack of knowledge about complications due to addiction, 37.9% answered psychological disorders, 33.3% answered seeking pleasure, 25.8% answered because of relationships with parents. This study showed half of the students had good knowledge of drug addiction.¹⁷ Knowledge is required as a psychic drive to stimulate individual action. One of the causes of low knowledge is due to the lack of information obtained and students' less caring attitude towards the material presented.¹⁸

The attitudes of high school students in this research showed that more than half of the students had negative attitudes towards HEY peer education activities which merely 45.5% of students agreed to apply information from peer educators. In contrast to research in Tanta City, Egypt, the majority of high school students (94.09%) have a positive attitude towards participation in a drug prevention program.¹⁰ Meanwhile, a research at a junior high school in Semarang, Indonesia, showed that more than half of the students (61.3%) had an attitude of not showing support the dangers of drugs and 48.4% of students had a poor attitude towards prevention efforts.¹⁹

More than half of the secondary school students in Surabaya, Indonesia (65.3%) in this study had the intention of participating in peer education activities. A research in Tanta City, Egypt showed that more than half of students (63.55%) had sufficient knowledge of participation in prevention programs. However, 64.53% of high school students did not participate in any program for drug addiction prevention. The majority of students (81.77%) answered that they wanted to participate in future prevention programs.¹⁰ The students indicated that support for a peer-to-peer program greatly boosted their involvement and confidence to participate.²⁰ Study showed 842 high school students indicated that 76.2% did not know that there was a youth health service program and 90% had never accessed the program. Therefore, the involvement of youth in program planning was only 8.4%. Whereas based on the national standard of health service implementation, youth need to be involved from planning to program evaluation.²¹ Another study showed that 87.5% of students had the intention to participate in peer education activities.²² The results of other studies also showed that the passive involvement of peer educator groups was because they were only involved in the program implementation stage. Peer educators need to be involved from program planning, some of the youth outside school setting had not even been exposed to the program. Youth health programs should involve youth from a variety

of settings and be tailored to the capacity needs of young people. Youth wished they were involved starting from the planning stage to program evaluation because they were the prime movers in the success of youth health programs.²³

Various stakeholder had programs that target youth (Health, Education, Social, Religion, National Narcotics Agency, National Population and Family Planning Agency). There were also private stakeholders and NGOs. All programs from various stakeholders had the same goal, namely the promotion of youth health. The Youth Health Promotion Program in Indonesia consists of *Youth Care Health Services* (PKPR), *School Health Enterprises* (UKS), *Generation Planning* (GENRE), *Youth Family Development* (BKR), *Saka Bakti Husada* (SBH), *Islamic Boarding School Health Post* (Poskestren). All of these programs had similar activities as developing Education Counseling media, training youth to become peer educators.²⁴ However, the results of the study show that these stakeholders had strong authority, a supportive attitude and are actively involved in the youth health service program and some even think that the existence of a health service program were important to youth.²⁵ The result of this research indicates that there is no correlation between knowledge, attitudes and gender and the intention to participate in student peer education in HEY (Health Educator for Youth) activities regarding to drug abuse prevention from an early age. A research in Semarang, Indonesia showed that there was no significant relationship between students' knowledge and attitudes about drugs and drug prevention efforts. The information obtained by students about drugs is still lacking, since respondents have not received drug education at school. Moreover, there are those who remain think that drugs can be used freely, and drug users are considered as cool and have no bad effects by inhaling glue¹⁹. The research at Iranian public high schools showed similar result between the groups of students who were given the peer education method and the groups of students who were not given peer education according to gender.²⁶ Meanwhile, research on high school students in Surabaya, Indonesia shows that gender has a significant relationship with intention to participate in peer education programs in efforts to prevent drug abuse, where women have higher intentions than men.²⁷

Moreover, the result of this research indicates that there is correlation between class and the intention to participate in peer education. This condition emerges since twelfth grade students do not have much time to take part in peer education activities due to their focus on studying for graduation exams, while tenth and eleventh graders have more time to take part in peer education activities. This is contrary to the research in Düzca regarding prevention of substance addiction that shows there is no significant difference between the experimental group and the peer education method and the control group according to class level.²⁸ The factor that influences students to participate in peer education activities is the class category where the lower class is more motivated to participate. This research shows that the role of knowledge, attitudes, and gender has no effect on students' intention to participate in peer education programs, while class level affects students' intention to participate in peer education programs. A research compared the peer education program methods in prevention of addiction as an experimental group and traditional methods as a control group. It was discovered that in the forty-five days after peer education, the scores on substance addiction information in the experimental group were significantly higher than the control group. The substance addiction information score in the experimental group increased after participating in peer education compared to their score before the program. This showed that peer education is superior to other methods in its ability to distribute information.²⁸ Training to prevent drug abuse found mean differences in higher

pre-training and post-training scores among students trained by their age group than in students trained by teachers.¹³ Peer education programs are considered an effective educational method to ensure positive changes in risk factors and adolescent behavior. This program also makes a positive contribution to self-confidence, motivation, and peer relationships.²⁸ Furthermore, peer education is a flexible approach that can be accepted by young people. The success of peer education is influenced by the selection of the right peer educator based on criteria and the provision of effective training. Therefore, regular monitoring and evaluation is needed to improve program quality.²⁹ To improve the quality of peer education, question and answer methods, role playing, games, group discussions, or film analysis can be applied.³⁰ Positive results that support the sustainability of the peer counselor program were behavioral beliefs and evaluation of the results of the peer counselor program. Students were interested and agree that meeting and regularly for sharing with peer counselors can help them prevent substance abuse.³¹

A school serves as an appropriate venue for drug prevention programs for three reasons. First, four out of five drug users start as adolescents or before adulthood. Second, schools offer the most systematic and efficient way to reach large numbers of young people each year. Third, schools are able to adopt and enforce a broad spectrum of education policies.³² Moreover, schools have an active role in increasing students' knowledge and understanding of drugs by participating in activities to prevent drug abuse. Schools must also involve peer educators with activities outside of school that were collaborated with stakeholders to provide training for peer educators. The activity can take the form of counseling from the National Narcotics Agency or the police regarding the prevention of drug abuse.³³

In this research, high school students were more likely to have less drug knowledge and negative attitudes towards peer education in HEY activities to prevent drug abuse from an early age, whereas more than half of the students had the intention to participate in peer education activities. According to the researcher's analysis, peer education activities that are joined by students have not been able to improve students' knowledge and attitudes, thus efforts are needed to improve the quality of peer educators, facilities for peer education activities, and support from schools and related stakeholders. Students from the schools selected in this study were heterogeneous from multiple ethnicity and religion as they were the resident of Surabaya. Surabaya is second big cities in Indonesia with various ethnicity, religion and culture. Thus, this study should be possible to be replicated in other regions in Indonesia. In addition, the language of instruction uses Bahasa Indonesia and the materials given in the program were free from elements of ethnicity, race, religion, and between groups.

There were several limitations associated with the study. Based on the methodology, it was difficult to see the behavior change on drug abuse prevention for some time after the training. Another limitation was the location of this study which was only conducted in the city of Surabaya. Although the participation of this study represents each region in Surabaya and Surabaya has high heterogeneity, it did not guarantee that the program can be directly implemented in other regions. Therefore, implementing a program like this in other areas still required FGD with related stakeholders to grasp the suitability of the program.

Conclusion

High school students in Surabaya, Indonesia in this research have insufficient knowledge about drugs (drugs, psychotropic substances, addictive substances), thus an effort to increase knowl-

edge about drugs in each school are needed, both through in-class and outside-class activities. In addition to knowledge, strengthening attitudes to communicate the benefits of peer educators also needs to be undertaken. Therefore, students have the intention to participate in peer educator activities in their schools. Moreover, students' grade level influences their participation, thus it is necessary to think about giving programs that are focused on the early grade level in each school to obtain the benefits last longer for the students. The peer education program requires support from schools and related stakeholders in order to provide benefits to students by increasing their knowledge and attitudes so that the intention to participate also increases.

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Conflict of interest: The authors declare no conflict of interest.

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Ethical approval: This study was approved by the Ethics Commission, Faculty of Nursing, Universitas Airlangga (ref: No: 31-KEPK). The entire online survey was explained to students to be filled in themselves by first filling out the informed consent. Approval was obtained from teacher representatives from each school and the Surabaya City Education Office. This research is voluntary and the information is collected anonymously.

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