



Formation of School Health Cadres and Stress Management Interventions to Reduce Adolescent Smoking Behavior in School

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ABSTRACT

Indonesia is one of 12 countries that account for 40% of the total smokers in the world, and is ranked as the third largest number of smokers in the world after China and India. In Indonesia, the average number of cigarettes per person reaches 12.3 cigarettes per day. In West Java, the population who smokes is around 27.1%. Smoking behavior has become a habit for people including teenagers. The proportion of sometimes smokers in this province the age of 15-19 years, which is as much as 7.1% and every day smokers reach 11.2%. The average number of cigarettes consumed is 10.7 cigarettes per day. In West Bogor, students who smoke every day is about 18.70%, and those who smoke sometimes reach 32.90%. One of the causes of smoking behavior is stress related to self confidence, changes in body structure and poor adaptation. About 27% of teenagers smoke because of stress. The study which is also a community service activity was carried out on YKTB 1 Vocational School and YZA 4 Vocational School students in Bogor City. The activity was held for 10 months starting from March to December 2017. The purpose of this activity was to gradually establish school health cadres to improve adolescent behavior, especially in reducing smoking habits. The expected output of this activity is the formation of school health cadres, the formation of UKS implementation teams and the changing behavior of smoking teenagers. The results of this activity were the training of 70 health cadres, the formation of 2 school implementing teams at YZA 4 and YKTB I. There was a decrease in the average smoking rate at YZA 4 Vocational School from 2.53 to 1.42 cigarettes per day, and even five person stopped smoking. At YKTB I, smoking behavior decreased from an average of 2.11 cigarettes to 1.32 cigarettes per day, and there were 9 teenagers stopped smoking. For this reason, cadre training activities and stress management interventions can be applied by the Public Health Center (Puskesmas) in the School Health Business program.

Keywords: Adolescent, stress management, smoking.

Introduction

Indonesia is one of 12 countries that contribute 40 percent of the total number of smokers in the world. WHO in Prawitasari (2011) stated that Indonesia is the third largest number of smokers in the world after China and India. The results of the 2010 and 2013 Riskesdas showed that the population who smoked every day at the age of 10 years and above nationally increased from as much as 28.2 percent in 2010 to 24.3 percent in 2013. For West Java provinces, the population who smoked every day was 30 , 9 percent in 2010 to 27.1 percent in 2013. Meanwhile, those who smoked sometimes in

2010 amounted to 6.8 percent to 5.6 percent in 2013. Based on sex characteristics, men who smoke every day were 47.5 percent and women 1.1 percent.

Smoking behavior has become a habit for people including teenagers. Data from the Global Youth Tobacco Survey shows that Indonesian active youth smokers increased from 12.6 percent in 2006 to 20.3 percent in 2009. The results of the 2013 Riskesdas showed that the proportion of is sometimes smokers at most 15-19 years (adolescents) as much as 7.1% and smoking every day in adolescents reaches 11.2%. The average number of cigarettes smoked per day per

person in Indonesia in 2013 was 12.3 sticks (equivalent to one pack) and in West Java 10.7 sticks.

Stress that is often experienced in adolescents is related to problems of self-confidence, changes in body structure, poor self-adaptation, relationships with peers, and schoolwork factors. Stress in adolescents if long lasting can lead to various health problems and behavioral disorders. One of them is smoking behavior. The results of the study of Septi (2012) in YKTB 1 Vocational School (SMK) in West Bogor sub-district area of 100 respondents showed that 27% of adolescents smoke because of stress.

The results of the situation analysis on the two partners obtained data that in West Bogor Sub-district, the average smoker was 13 years old with the lowest age of 8 years, and the sensation of the desire of teenagers to smoke as much as 33% due to stress. The results of Ariani (2016) study, on 410 respondents in West Bogor Vocational High School, showed that teenagers who smoked every day as much as 18.70%, and smoked sometimes as much as 32.90%, with age starting to smoke 10 years 2.90% and 13 years 20.20%. Smoking in adolescents is coping with self-defense mechanisms or comfort blankets from stress (McDonald, 2005 ;Komalasari and Helmi, 2000). The research sample above shows that adolescents with mild stress conditions as many as 58 people, and moderate stress as many as 13 people.

Cigarettes cause a lot of negative effects, because cigarettes contain 4000 chemicals such as nicotine, tar and so on, with 200 types of which are carcinogenic or can cause cancer. The toxins caused contain carbon monoxide, benzodiazopirene, and ammonia. Susenas (2011) in IDAI (2012) found that substances contained in cigarettes can cause several pulmonary diseases (70% in men) and 56-86% cause chronic airway diseases (chronic bronchitis and pneumonia). 22% of cardiovascular diseases, and 56% of impotence in men.

The impact of smoking on female smokers can interfere with their reproductive health. According to that cervical cells that are poisoned by nicotine contained in the blood also have a tendency to affect the cervical mucous membranes which makes them vulnerable to cancer cells, due to changes in

cervical epithelial cells and causing oral cancer uterus. According to Boyke, the risk of smokers getting cervical cancer is 4-13 times greater than women who are not smokers.

To reduce cigarette consumption and the adverse effects of adolescent smoking behavior, it needs intensive and affective treatment. However, until now the efforts to tackle the behavior of adolescent smoking have not been carried out systematically, continuously, with a comprehensive approach to interested parties in accordance with what has become a partner in implementing the IbM program. Preventive and curative efforts not only use cognitive approaches about the dangers of smoking, but more on emotional approaches and affective touches. Efforts that can be made to stop smoking are through counseling, intervention videos, giving brochures, health education, nicotine replacement therapy, peer education, computerized self report, and group therapy (Beinstein, Boudreaux, Cydulca, 2006).

School is a strategic place, well organized and very appropriate to help government programs in adolescent health, especially in preventing or reducing smoking behavior. Some of the time the child is in school, so it is very good to do health promotion and various programs to overcome the behavior problems of smoking youth. Health promotion carried out in schools has an impact on the health of the family and the surrounding community (Nies and McEwen, 2007). In addition, this effort is in line with the vision of the Bogor Nursing Study Program, which is a leader in the field of psychosocial nursing. Smoking behavior is a psychosocial problem that exists in the community, especially in schools.

By paying attention to the above phenomenon, then in this IbM an intervention program was launched to change the behavior of adolescent smoking through a systematic, continuous and comprehensive approach. These activities include: assessment of smoking behavior and levels of adolescent stress, establishment and education of school health cadres, providing technical guidance, conducting interventions, mentoring cadres in conducting socialization, evaluation and follow-up activities, involving the UKS Program in schools.

The YKTB 1 Vocational School (SMK) and YZA 4 Vocational School are 2 of the 6

Vocational Schools in the West Bogor sub-district, which until now have never received a health program as an effort to stop smoking. Based on the results of preliminary studies conducted in 2016A, the description of the situation in the two partners was as follows: In YKTB 1 Vocational School, out of 80 people screened as many as 57 people (71.25%) were smoking, and of those who smoked as much as 40 people (70.18%) because of stress. The high smoking behavior of students in YKTB is because the students who were scrutinized were almost entirely male from the Department of Machinery, computers, machinery, and multimedia. While the description of the situation in Bogor YZA 4, of the 120 people who screened 31 people (25.83%) who smoked, and of those who smoked as many as 23 people (74.19%) because of stress. For students who are discrediting at YZA 4 Vocational School, the number of men and women is almost the same. In Indonesia, the percentage of male smokers is higher than women.

One effort that can be done to overcome this problem is to intervene through peer education in the form of groups through a stress management approach. Stress management is a way to prevent and overcome stress so as not to get to the most severe stage (Hidayat & Alimul, 2004). After getting a stress management intervention it is expected that teenagers reduce the number of cigarettes smoked until they are finally able to stop smoking.

Expected Outputs

The expected output from these activities of the science and technology program for the community (IbM) was the formation of school health cadres. The formation of the UKS implementation team, and the occurrence of changes in smoking behavior in two partners, namely YKTB I and YZA 4 SMK Bogor

Methods

The study which is also a community service activity was carried out on YKTB 1 Vocational School and YZA 4 Vocational School students in Bogor City. The activity was held for 10 months starting from March to December 2017. The criteria for students participating in this activity are adolescents aged 14-21 years, smoking at the stage of becoming (Mak 5 stems). Male and female gender and willing to be respondents.

The activities were including the establishment of school health cadres, giving stress management, guidance, internalization/micro teaching for two activities, cadres who have been formed conduct information about cigarettes and stress management in their respective classes, and do an evaluation and follow-up plan.

The first activity was the establishment of school health cadres. In this activity the material provided in the training was: (1) adolescent growth and development, (2) youth health cadres, (3) School Health Business (UKS). Second, giving stress management. Material to cadres where activities were conducted once a week. Stress management material includes: (1) Basic concepts of stress, (2) smoking behavior and danger to the body, (3) stress management, (4) adaptive coping, (5) relaxation techniques. The third, guidance was internalization/micro teaching for two activities. The fourth, cadres who have been formed conduct information about cigarettes and stress management in their respective classes. Fifth, do an evaluation and follow-up plan.

Results and Discussion

There was a decrease in the average smoking rate at YZA 4 Vocational School from 2.53 to 1.42 cigarettes per day, and five person stopped smoking. At YKTB I, smoking behavior from an average of 2.11 cigarettes to 1.32 cigarettes per day, and there were 9 teenagers stopped smoking. There were 70 school health caders, consisted of 35 caders in YZA 4 Bogor, and 35 caders in SMK YKTB 1 Bogor. In addition, there was also UKS Team in YZA 4 Bogor and in SMK YKTB 1 Bogor.

Giving stress management has a significant effect in reducing the number of cigarettes smoked in one day. Stress in adolescents if not well anticipated, it will begin to depend on cigarettes. The number of cigarettes will increase and smoking to get pleasure and smoking is used as coping with self defense mechanisms or comfort blankets from stress (Donald, 2005). Smoking in the long term can cause changes in autonomic function, decreased vagal tone, and changes in stress response. Smokers are no longer able to adapt to stress. Improving vagal tone is predicted to have the ability to reject smoking in early smokers, and stop smoking (Mc Kee, at all, 2012)

Erblich, Boubjerg and Diaz (2012) in their study suggested that the desire to smoke is

triggered by stress, and as the same genetic predictor. For that adolescents need to be given the ability to manage stress. Vargogli and Darwin (2011) suggested that stress management techniques are evident as a basis for procedures to reduce stress and improve health status.

In this study, although there was a decrease in the number of cigarettes for intervention group, it still found not to stop smoking. The number of cigarettes smoked partially on of 2 sticks. This research was supported by Elisabeth, Victoria, Martha, Piece (2009), a survey conducted in California on a national basis that only 24% stopped smoking, 45% smoking decreased, and 68% thought to quit smoking. This condition is in accordance with WHO findings which reveal that 70-80% of smokers want to stop smoking, one third of them have tried as hard as possible, only 1/3 of them have succeeded.

The stress management program can provide a School Health Business program by providing education about the dangers of smoking, screening and health services to teenagers who are sick from smoking, as well as a healthy school environment without cigarette smoke.

Conclusion

The results of community service activities (IbM) at YZA 4 and YKTB I Vocational Schools formed 70 school health cadres and the UKS Implementation Team. Giving stress management can reduce the number of cigarettes smoked by teenagers and stop smoking.

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