

The Smoking Prevention by Boarding School Model for Early Teens in Makassar

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Abstract: *This research aims to describe the efficiency of smoking prevention learning models for early teens. The learning model has designed and tested by experts and implemented through activities of the boarding school. The learning achievement is student knowledge about cigarette and smoking, and their attitude to tobacco prevention. The type of research is the Research and Development which include; preliminary investigation phase, design phase, realization/construction area phase, phase test, evaluation, revision, and Implementation phase. This quantitative descriptive method described learning achievement with Wilcoxon test and N. Gain. The research results of this learning model implemented in 60 teenagers, previously done pre-test knowledge and attitudes of adolescents. The Wilcoxon tests resulted that there were very significant differences between knowledge and belief of teens prior learning the process and after the process of learning. The N-Gain test resulted that the learning model was adequate for increasing awareness and student attitude.*

Keywords: Learning Model, Prevention, and Knowledge

1. Introduction

Nowadays, the considerable concern about human health in Indonesia is the increasing number of smokers. The facts indicate that over than 60% of men and approximately of women are smokers. Furthermore, nearly 70% of Indonesian smokers started smoking before they are 19 years old. Smokers assumed that the risk of tobacco only affects the smoker. They did not realize that it is also reaching the passive smoker [1], [2]. Global Youth Tobacco Survey 2014 data showed that In Indonesia, there were 20.3% of all students aged 13-15 have used tobacco in all forms.

The number of smokers in Indonesia is closely related to the development of the tobacco industry as well as the practice of hereditary or customary support. In some areas, cigarettes or tobacco is one of the tools in the ritual or custom ceremony. The communities who live on the southern coast of Java use cigarettes as offerings to dedicated to NyaiLoroKidul, Queen of the South Sea. Unlike the Minang community in West Sumatra. Tobacco is a part of culture or kinship. Cigarettes considered to be complementary or presented at negotiations or deliberations.

The fact about increasing number of smokers, the anti-smoking campaign that has done by the government is less effective. The government requires cigarette danger warnings on packaging as well as the issuance of anti-smoking area regulations that prohibit people from smoking in public places. The attention of the government to reduce the number of smokers is still low. Anti-drug addict activity is more intense than anti-smoking campaigns. It is not as same as the government's concern for drug addicts. The government's attention should also reduce the number of young smokers. Various efforts related to the policy such as knowledge increasing of teens about dangers of smoking, the school as a non-smoking area and student motivation to prevent tobacco use.

The prevention effort of smoking for adolescents, the researcher developed a learning model with many subjects

that includes the dangers of smoking, the risk of passive smoking, and the continuing impact of tobacco on habits. Media gave to the youth participants by small boarding school method for secondary high school. The duration is a short duration study program (3 - 5 days) with boarding system so that lesson material given more and student activity can monitor including smoking habit.

Short boarding school is an extracurricular program in the junior high school to assimilate the religious values and healthy lifestyle habits and conducted during the school holidays. [3]. The goal of learning model was to develop student knowledge. It related to cognitive and the value of human that drawn up with supporting of affecting the interaction between student and teacher.

The steps of developing learning model divided into for phase that:

Phase 1: Preliminary Investigation.

This phase is a study of the causes of teenage smoking habits as well as appropriate methods of approach to provide awareness of the dangers of smoking. This stage describes the fact about the smoking habit of teenagers. The point indicated that most of the smoking students started at 13 years.

Phase 2: Design:

Designing learning models with identification requirements, planning, execution and to assess the results of the learning activities. This stage also includes learning syntax planning that is appropriate to the allocation of time and ability of learners.

Phase-3: Realization/Construction:

These activities include: (1) realization the syntax learning, (2) establish a social system, (3) devised the principle of reaction. (4) determine the support system, and (5) compiled the impact of learning.

Phase 4: Test, Evaluation & Revision:

Validation the learning model and its tools by an expert. Researchers made a revision and the evaluation of learning outcomes.

Phase 5: Implementation.

A good model can implement in any class conditions. Implementation of learning is the process in the classroom for three days with a model involving small boarding school with 60 students. Furthermore, in regards to the goal of knowledge. Researchers set of learning outcomes that increase students know about the dangers of smoking as well as a change in students' attitudes to smoking prevention. The realization phase was the implementation of boarding school model in class.

After the model is valid and practical by experts, the researcher implemented learning model to measure the effectiveness of the model. Based on the preliminary research, this article describes the result of the evaluation phase.

2. Method

This study used the quantitative descriptive approach as an advanced research learning model development. There were two kinds of data collection methods used in this research as pre-test and post-test. The instrument test for knowledge variable and questionnaires used to evaluate student attitude. The researcher estimates learning achievement with Wilcoxon test and N. Gain.

Wilcoxon test aims to look at accountability against the difference between the value of pretest and posttest. Wilcoxon test results can make the difference between knowledge and attitude of 60 students before and after the application of the learning process.

The N-gain analysis is using formula [4]:

$$N - Gain = \frac{S_{post} - S_{pre}}{S_{maks} - S_{pre}} \quad (1)$$

N-Gain = Effectivity model

S_{post} = Post-test score

S_{pre} = Pretest score

S_{maks} = Maximum Score

There are three categories of achievement gain, N gain more than 0,7 indicates high type, 0,3 < G ≤ 0,7 indicates middle kinds while G ≥ 0,7 indicates the low class.

3. Result and Discussion

3.1 Learning Model Characteristic

A learning model is mostly a form of learning and image about all activities from beginning to end. The learning model serves as a guideline for teachers in planning and implementing teaching and learning activities in the classroom. The action of smoking prevention learning divided into five meetings with total duration 300 minutes for five days. The learning materials consist of five titles are

the harm of cigarettes, the health risk of smoking, passive smokers, how to prevent tobacco use and healthy lifestyle. Furthermore, the implementation of learning is using five syntaxes: Motivation-Affection-Strategic-Innovation-Development-Achievement.

Motivation means that teacher should affect the student mindset from individual setting to the classroom setting. This phase encouraged students to have the opportunity to correct their mistakes [5]. In this model, teacher built the class environment that friendly and encouraged students to understand their mistakes in the past. Affection means the teaching strategy to improve the student awareness and to create a real friendship between all partner in learning activities. Strategic contains meaning that learning model of smoking prevention starts from the planning stages that involving targets and learning condition. Innovation requires the teacher's ability to find new ideas related to the achievement of learning objectives. Development syntax describes the efforts in learning activity as increasing of student capacity to understand habits of healthy living. Furthermore, performance means that this learning model requires the outcomes will obtained after the implementation of learning.

3.2 The result of Wilcoxon test

The Wilcoxon test as evaluation pre-test and post-test for both variables resulted in sig value = 0,000. (Table 1.)

Table 1: The result of Wilcoxon Test

Wilcoxon Test	Knowledge Post Test - Knowledge Pre-Test	Attitude Post Test - Attitude Pre-Test
Z	-4.000	-5.477
Asymp. Sig.	.000	.000

On table 1, it found that there were significant differences between student knowledge and attitudes before and after the process. The result in-dictated that the learning model used to increase student knowledge about the harm of cigarette and others material. As an expected result, the student attitude to avoid smoking behavior increased and they promised not continue the smoking habit.

3.3 Result of N-Gain

The result of pre and post knowledge analysis by N-Gain indicated that there were 53,33% of student gain medium increasing category and high score as many as 28 people (46,66%) seen in Table 2.

Table 2: The Result of N-Gain Knowledge

N-Gain Knowledge	Frequency	Percent (%)
High	14.00	44.66
Medium	16.00	53.33
Low	0.00	0.00

Table 2 shows that learning model effective increasing the student knowledge. It based on the result that most of the student gain medium category or mean achievement. The result indicated that student had known the harm of cigarette and their health risks by smoking habit.

3.4 Discussion

The cigarette prevention learning model refers to the modeling requirements outlined [6]. The condition is that the learning model should contain Syntax, Reaction Principle, Social System, and Support System, and Learning Objectives and Companion Objectives.

The syntax is the stage or phase of the model activities. The language contains some events that students must go through during the learning process. Furthermore, the principle of the reaction describes the relationships that must establish between teachers and students. This relationship is the exact reaction that the teacher gives to the activities undertaken by the student and the various norms that must embraced and developed for the interest of the learning model.

The social system includes an explanation of the role of teachers and students as well as the authorities of teachers and students at the time of learning. The supporting system is the element that must conditioned appropriate and appropriate to support the implementation of the teaching model. Support systems are skills / or skills, and engineering facilities, derived from the specific role of teacher and student demands,

An increasing of teen smoking is an insightful attitude of willingness or tendency of a person to behave after receiving stimuli. Attitudes about tobacco use and smoking teens are the positive attitude demonstrated toward the prevention of teen smoking. In this study, a positive attitude towards the smoking prevention implemented in the form of readiness or teen's willingness to act no smoking anywhere, both at home and outside the home.

These attitudes reflected in three aspects or components of mentality that is an element of cognitive, affective, and conative which are related to each other. Based on the results of the analysis, the teenage attitudes about smoking and smoking before treatment are in the category of less. Attitudes about smoking and smoking teen in the class of less, and suitable for groups as well as individual types. Attitudes about smoking and smoking adolescents after treatment showed different results though not significant. However, regarding classification, attitudes about smoking and smoking adolescents after surgery the better in the ranking.

Test results N-Gain in teenagers contradicts some of the theories revealed that attitude and motivation. The belief that found significantly increased until 100% of participants had high scores after a given learning process compared to the value of knowledge. The ability can occur because adolescents have yet to fully understand the contents of the substance of a cigarette, the occurrence of diseases caused by smoking, and smoking is the beginning of drug users.

Many reasons behind the behavior of adolescent smoking. In general, smoking behavior is a function of the environment and the individual. That is, smoking behavior other than caused by factors from within also due to environmental factors [7]. Factors in adolescence can see from the study of the development of adolescents who started smoking related

to the psychosocial aspects of crisis experienced during the event when they are looking for identity [8]. In adolescence, it often described as a period of storms and typhoons due to incompatibility between psychic and social development. Efforts to find the identity, not all can go according to community expectations. Some teens engage in smoking behavior as a compensatory way. Smoking behavior is a learned behavior. That means there are those who have significant influence in the process of socialization [9]. The smoking behavior usually begins in adolescence even though the process of becoming a smoker has already started since childhood [10]. Youth is also an essential period of risk for the development of long-term smoking behavior. Also, the smoking behavior is the entrance to other negative behaviors such as drug abuse and drinking.

The results of other studies of the commercial advertisement for commercial cigarette products are significantly related to smoking behavior compared to other brands. The study underscores the specificity of the relationship between tobacco marketing and adolescent smoking behavior as well as cigarette advertisement exposure associated with smoking behavior and intent to smoke [11]. Attention to price and attitudes on tobacco advertising is significantly related to smoking. The 'hedonistic' factor is positively related to smoking status and ad variables [12]. Pro- and anti-tobacco media may have a significant indirect effect on adolescent smokers through their influence on the norms present in a peer group. The positive effect on the pro-cigarette advertisement is greater than the negative effect of the anti-cigarette advertisement [13]. For boys, smoking and cigarette advertisements posit positive connotations, such as 'life is stable', 'fun', 'good taste', 'feeling so rich', 'impressive', 'good looks', and 'interesting' [14].

4. Conclusion

The smoking prevention by boarding school model for early teens in Makassar was sufficient to implement in Junior High school. Learning strategy with five syntaxes (Motivation-Affection-Strategic-Innovation-Development-Achievement) has proved that there are an increasing teens knowledge and attitude to prevent smoking. The analysis by Wilcoxon test and N-Gain indicated the similar result.

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