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Research Article

The Role of Health Literacy on Adolescent Smoking Behavior in Senior High School

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Conflict of interest statement: The researcher stated that this research was conducted free from any personal or organizational conflicts of interest and the research results were aimed at developing science and nursing.

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Abstract

Background: Smoking is a behaviour that's not foreign to the public, especially for teenagers. Smoking can hurt the health of all people, including adolescents. Health literacy is a cognitive and social skill for a person to improve their ability health.

Objectives: To determine the relationship between health literacy and smoking behavior in adolescents.

Methods: The research design used quantitative descriptive with a cross-sectional approach, the respondents were teenagers with a total Of 83 respondents who were willing to fill out the questionnaire. Data analysis using frequency distribution and Chi-Square test.

Results: The Result shows a most of the respondents were in the age category of 16 years (25,3%) and 16 years, The health literacy level of respondents was mostly in the able category is 83.1% and in the smoking behavior of respondents in the no category is 62.7%.Chi Square analysis result is p value is 0,000smaller then α there is health literacy relaed to smooking behavior in adolescents .

Conclusion: Health literacy can be used as a strategy to reduce smoking behaviour in adolescents.

Keywords: health literacy, adolescents, smoking behaviour

Introduction

Smoking is a habit that is very common among people, including teenagers.¹ Smoking behavior is very difficult to stop and although people are aware of the dangers of smoking, most people, especially teenagers, have the opinion that smoking is a necessity that must be met to support their appearance and as an encouragement in their activities.² Cigarette abuse has occurred a lot among young people such as students. According to ASEAN data, Indonesia ranks third in the world after China, which is 390 million smokers.³

The results of the 2018 Basic Health Research show the number of smokers aged 15 years is 33.8% and the percentage of male smokers is 62.9% and female smokers are 4.8% with an average of 18 bricks per day. Data from the health office in 2020 the number of teenage smokers in Makassar is 4,479 which ranks first while Tana Toraja occupies the second position as much as 3,924.⁴

It is known that mass media exposure has a greater influence on adolescents' desire to try smoking which can be seen almost anywhere in the form of films and advertising.⁵ This is reinforced by research conducted by Dwi Setiyanto, (2011) which states that factors that can affect adolescents are external factors such as the social environment, peers, and family environment.⁶ In general, teenagers are interested in smoking because of the curiosity of teenagers to try and the influence of peers to show their identity it is necessary to have an important strategy to prevent adolescents from becoming smokers, so we need to pay more attention to students who are still in high school because these students have never smoked and will start trying smoking and eventually become heavy smokers in the future. So it is necessary to form a strategic plan for school-based tobacco control which is very influential in media literacy.⁷

To prevent things that can be detrimental to health and can improve healthy behavior in students, it is necessary to develop Smoking Media Literacy (SML), so that SML is a person's ability to understand, describe, evaluate, and be able to critically produce a message in the media in various media. forms of use that can affect literacy.⁸ Develop a media literacy model which is one of the health literacy dimensions that is prioritized for adolescents.⁹ This has been supported by Tamimi's research (2018) which revealed that SML can prevent adolescents from smoking. After controlling for other variables such as gender, peers, school achievements, the nature of seeking sensation/fun, and the presence of people around them who smoke (parents and family), it is necessary to develop a strategy for controlling adolescents against smoking behavior, especially high school adolescents. Upper (SMA) but still have smoking behavior.¹⁰ The results of the preliminary study found that male teenagers in Senior High School Tana Toraja smoked quite a lot, the researchers then conducted interviews with 2 students who said that they smoked because they follow a lifestyle and are influenced by their environment. Based on this problem then researchers are interested in researching the relationship between health literacy and smoking behavior in Senior High Schools in Tana Toraja. The purpose of this study was to determine the relationship between health literacy and smoking behavior in adolescents.

Methods

This research is quantitative research with an observational analytical design using a cross-sectional study approach with a sampling method with probability sampling technique with a proportional stratified random sampling approach, namely taking samples from a stratified population.¹¹ The inclusion criteria of all students majoring in social studies and male gender and the exclusion criteria were students who were absent or sick at the time of the study so a total sample of 83 respondents came from Class X, XI, XII. This research was conducted in March 2021. The measuring instrument used to measure health literacy was the HLS-EU-16Q with validity and reliability values of 0.367 – 0.833. Smoking behavior in adolescents was measured using a questionnaire compiled by researchers consisting of 1 negative question with answer choices in the form of "yes" with a value of 1 and "no" with a value of 0. After the data was collected the researchers analyzed the data using univariate analysis to look at the distribution of frequency distribution of each variable studied and tested bivariate analysis to assess the relationship between health literacy and adolescent smoking behavior using the Chi-Square test using the SPSS Window version 23 application.

Results

Univariate Analysis

This analysis is to see the frequency distribution of each characteristic ranging from age, class, health literacy, and adolescent smoking behavior

Table 1. Distribution of Respondents' Characteristics in Senior High School Tana Toraja 2021

Characteristics	Frequency	Percentage	Total
Age			
15 years	14	16.9	83
16 years	21	25.3	
17 years	20	24.1	
18 years	28	33.7	
Class			
X	35	42.2	83
XI	20	24.1	
XII	28	33.7	
Health Literacy			
Capable	69	83.1	83
Not capable	14	16.9	
Smoking Behavior			
Not	52	62.7	83
Yes	31	37.3	

Based on table 1 above, the results of this univariate analysis are obtained most of the respondents were in the age category of 16 years, namely 25.3%. Most respondents came from class X, namely 42.2%. The health literacy level of respondents was mostly in the able category, namely 83.1%, and in the smoking behavior of respondents in the no category, namely 62.7%.

Bivariate Analysis

Bivariate analysis used the *Chi-Square test* to assess the relationship between adolescent health literacy and adolescent smoking behavior.

Table 2. Distribution of Respondents' Characteristics at Senior High School at Tana Toraja 2021

Health Literacy	Teen Smoking Behavior				Total		P-Value
	Not		Yes		n	%	
	f	%	f	%			
Capable	51	61.4	18	21.7	69	83.1	0.000
Not capable	1	1.2	13	15.7	14	16.9	

Based on table 2 above, the results of the Chi-Square test have obtained the p-value for the two related variables, namely health literacy on adolescent smoking behavior is 0.000 so that the H₀ hypothesis is rejected, indicating there is a significant relationship between the two variables described in table 2 below:

Discussion

Health literacy has a significant relationship with adolescent behavior in determining the desire to smoke or not. This is in line with suggestions and recommendations from the American Academy of Pediatrics, the Center for Disease Control and Prevention, and the National Drug Control Policy Unit State office which states that the use of media literacy can reduce health behaviors that can be detrimental due to the influence of the media, one of which is smoking.¹² What was done by Alfani & Wahyuni in 2020 is in line with the results of the research obtained, namely explaining that health literacy is a cognitive and social skill that can determine a person's motivation and ability to access, understand, and use information by seeking health promotion to maintain health better, so that they can make judgments and make decisions in everyday life regarding health care, disease prevention, and health promotion to maintain or improve quality of life.¹³

This is supported by research conducted by Hernawily and Amperaningsih (2017) that smoking is a detrimental behavior, both for oneself and others. Although people know the dangers posed by smoking itself, this habit has never disappeared among people. This phenomenon can be felt in everyday life, in the neighborhood, workplace environment, roads, and public transportation.¹⁴ Several factors can influence students or adolescents to smoke including internal factors and external factors, where we know internal factors where curiosity is high to try smoking, while external factors are influenced by the surrounding environment such as closest family, peers, and culture. the customs adopted.¹⁵

According to the assumptions of the Tana Toraja community researchers, cigarettes are mandatory items provided during traditional events for men who attend the event where most of them smoke, but there is no prohibition on the sale and advertising of cigarettes. Advertising as a promotional medium for cigarettes and various types of cigarettes has the potential to shape adolescent smoking behavior. This is in line with research conducted by who explained that behavior can be influenced by how a person's literacy skills are through listening, speaking, reading, and recording the sources of knowledge obtained, that the more often a teenager seeks health literacy, the more knowledge that can affect adolescent behavior. in maintaining health. Knowledge about cigarettes is obtained from cigarette advertisements such as the latest types of cigarettes and the consequences caused by smoking.¹⁶

Even today, smoking behavior is very normal for teenagers, especially boys. Finally, the term "unnatural" appears when adolescents do not smoke, and responses to smoking behavior appear from various perspectives.¹⁷ Smoking behavior mostly occurs in adolescents with smoking behavior currently considered not new in the community so it is not uncommon to find many a student who is still wearing school uniform, is smoking with his peers or alone, either smoking secretly or smoking with his peers. The prevalence of smoking increases because they want to be more confident so smoking can provide a sense of pleasure to someone who is smoking. Behavioral factors can also be influenced by the level of stress and personality faced by students when carrying out learning from home which can increase the adaptive response of adolescents because they get more supervision from parents.¹⁸ In addition, the importance of health literacy on adolescent behavior in implementing a healthy lifestyle to prevent smoking behavior by seeking health information through reading and writing to make the right decisions in maintaining a healthy lifestyle.¹⁹ The recommendation from this research about increasing the health literacy from various sources on students in Senior High Schools to reduce smoking behavior in adolescents

Conclusion

That most teenagers can carry out health literacy and have a behavior that does not smoke. The results of this study found a relationship between health literacy and adolescent smoking behavior in Senior High School Tana Toraja 2021. The limitation of this research is that the research was conducted during a pandemic which can affect many factors of adolescent behavior. Further research is expected to be able to conduct qualitative research to objectively assess adolescent perspectives on health literacy and smoking behavior in particular among adolescent smokers.

Conflict of Interest Declaration

The researcher stated that this research was conducted free from any personal or organizational conflicts of interest and the research results were aimed at developing science and nursing.

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