

# The Correlation Health Education and Level Student's Knowledge of Drugs at The SMK Pembangunan

J Junios<sup>1</sup>, Arrahman Hidayat<sup>2</sup>, Evi Susanti<sup>3,\*</sup>

<sup>1,2,3</sup> Institut Kesehatan Prima Nusantara Bukittinggi, Jl.Kusuma Bhakti No. 99 Gulai Bancah Bukittinggi.

\*Corresponding author. email: [evzon80@yahoo.co.id](mailto:evzon80@yahoo.co.id)

## ABSTRACT

Health education is an effort to create public behavior that is conducive to health. This study aims to investigate the correlation between health education and the level of knowledge of students about drugs in the SMK Pembangunan. This research method uses an analytic method with a cross-sectional approach. This research started in July 2021. The population in this study was 237 people, and the sample in this study was 70 respondents with Simple Random Sampling. Data were analyzed using the chi-square test. The results of this study were from 38 respondents with health education, 15 respondents who have a low level of knowledge, and 23 respondents with a high level of knowledge. The results of the statistical test between health education and knowledge level of drugs with  $p\text{-value} = 0.28$  ( $p \leq 0.05$ ), there is a significant correlation between health education and the level of knowledge about drugs in the SMK Pembangunan in 2021. This study concludes a significant correlation between health education and the level of knowledge about drugs at the SMA Pembangunan in 2021.

**Keywords:** *Drugs, Health Education, level of knowledge, SMK Pembangunan.*

## 1. INTRODUCTION

Drugs are substances that are harmful to the body if abused. If the abuse persists, the brain will adjust to the presence of high dopamine. The user to try to keep dopaminergic function in a stable state or to try to increase the dose to reach a high level of dopamine, and the use is carried out continuously, causing addiction [1],[2].

Health education is an effort or activity to create healthy public behavior. Health education aims to raise awareness or know-how to maintain individual health. Avoid or prevent things that harm the health of individuals and others. Know where to seek treatment in the event of illness, etc. The above public awareness is referred to as the public health awareness/knowledge level or is referred to as "health literacy"[3], [4], [5].

Knowledge is the result of "know" and it happens after people have felt a certain object. The detection of an object is done by the five human senses, namely sight, hearing, smell, taste, and touch. At the moment of feeling to produce knowledge, it is strongly influenced by the intensity of the perception of the object. Most human knowledge is obtained through the eyes and ears [6],[7].

Research conducted by the National Narcotics Agency (BNN) periodically every three years, the prevalence of narcotics from 2011 to 2019 has significantly decreased. In 2011, the prevalence was 2.23%, in 2014 the prevalence was 2.18%, in 2017 it was 1.77% and in 2019 it was 1.80%. In addition, according to the 2019 national prevalence rate data for people who used narcotics to quit and stop taking them, there was a decrease of about 0.6%, from 4.53 million people (2.40%) to 3.41 million people (1.80%) so that nearly a million people in Indonesia have been saved from the influence of narcotics [8].

Drug use in West Sumatera in 2020 is ranked 10th out of 33 Indonesian provinces, out of a total population of 5.302.900 people, 65.352 people use drugs. Data obtained from Bukittinggi Narcotics Resort in 2019, 70 people used (Shabu, Marijuana, and Ecstasy) and in 2020, 40 people used (Shabu, Marijuana, and Ecstasy), all of whom were adults and not one consumed drug at the student level in the city of Bukittinggi (Resor Narkoba Polres Bukittinggi, 2021).

Substance dependence is the result of severe abuse of narcotics, psychotropic substances, and other addictive substances (Drugs), often considered a

disease. Substance abuse, such as the inability to control or stop substance use, causes severe physical harm if stopped, will be harmful and injurious to the family, and will have far-reaching social impacts. One of the factors that influence drug abuse is knowing, a condition, if someone knows that what they are about to do will have a bad effect on them, then that person is likely to do not do it.

The consequences of drug abuse are at risk for a variety of illnesses, including the risk of HIV transmission through unsterile needles, nerve/joint pain, hepatitis C and psychiatric disorders/depression, and lung disease. Drug addiction has a direct impact on the body and the mind. Each substance has a different effect on the body which can attack the organs of the body and can get infected with infectious diseases, in general addicts are usually 15-24 years old who are still in school [9].

Adolescence or adolescence is a dynamic phase of development in an individual's life. This period is a period of transition from childhood to adulthood which is marked by accelerated physical, mental, social development and takes place in the second decade of life (WHO, Depkes RI, 2015).

Adolescence is a period of transition from childhood to adulthood and a period of search for self-identity. The characteristics of adolescents who are in the process also often cause problems for adolescents. According to the World Health Organization, adolescents are individuals between the ages of 10 and 24, while Stanley's opinion indicates that adolescents are individuals between the ages of 10 and 19 [10].

At this time, adolescents are still associated with juvenile delinquency, which leads to drug addiction which at times adolescents do not understand the impact of the dangers of these negative behaviors which translate into harmful effects for themselves and others such as drug addiction. Students who are in the teenage age group have unstable emotions and therefore are very vulnerable to drug abuse. This can be due to several things, including great curiosity, joining friends, a strong sense of group solidarity with family factors that are not paying attention. Teens usually have a desire to find out something they don't know [11].

Health education is an effort or activity to create healthy public behavior. This means that health education seeks to make people aware or know how to maintain their health, how to avoid or prevent things that harm their health and that of others, where to seek treatment in the event of illness, etc.

Based on an initial survey conducted at the SMK Pembangunan Bukittinggi on June 23, 2021, using a drug knowledge questionnaire, out of 10

students, 9 students did not know and 1 student knew about drugs and types of drugs.

According to information obtained from the deputy director and the guidance council, the total number of students is 237 people, composed of 3 majors (mechanics, automotive, computer, and information technology), according to the school, many students violate school rules such as smoking, skipping class, fighting, having long fingernails and clothes sticking out during the class time. And the school has penalties for students who violate these regulations, but the school has never performed urine tests on students so the school cannot confirm whether students are involved in drinking drug. The UKS of the SMK Pembangunan is not active, the Health Office has never provided drug health education at the SMK Pembangunan Bukittinggi.

Based on the above context, the researcher wishes to research the correlation between health education and the level of students' knowledge of drugs in the SMK Pembangunan Bukittinggi.

## **2. CONCEPTS OF HEALTH EDUCATION AND KNOWLEDGE ABOUT DRUGS**

### **2.1. *Health Education***

The scope of health education can be seen in different dimensions, including the dimensions of the target of health education, the appropriate implementation of health education, and the level of health education services. health education. [9]. The target and place of implementation of health education is the main purpose of seeing whether or not someone is exposed to health education. There are many ways for a person to get this health education including print media such as brochures, leaflets, leaflets, flipcharts, rubrics, and posters. Electronic media such as television, radio, video, educational slides, and films. The public can also benefit from this health education through display panels installed in public places [4].

### **2.2. *Concept of Knowledge***

Knowledge of an object by a person contains two aspects, namely positive aspects and negative aspects. These two aspects will determine a person's attitude. The more the positive aspects and known objects are known, the more positive attitudes will appear.

Knowledge levels are grouped into knowledge, understanding, application, analysis, synthesis, and evaluation [12]. Knowledge measurement can be done through an interview or a questionnaire that asks questions about the content of the material to be measured with the research subject or respondent. The depth of knowledge that we want to know or measure

can be adjusted to high, medium, and low levels.

Factors affecting knowledge are level of education, information, culture, experience, and socio-economy [13]. Knowledge about drugs is influenced by the above factors.

**2.3. NAPZA**

NAPZA stands for Narcotics, Psychotropics, and other addictive substances. Drugs are substances or substances which can affect a person's mental/psychological conditions, thoughts, feelings, and behavior, and which can be physically and psychologically dependent. [14].

Bauer Raymond A.[15] classify 2 Drug Classification processes, based on law, and effect on the central nervous system. Based on the law, the classification of drugs includes group I, that is, narcotics that are not used for therapeutic purposes and which have a very high potential for addiction, such as heroin, marijuana, and cocaine.

Class II narcotics are narcotics that can be used therapeutically but have a high potential for addiction, such as morphine. Class III narcotics, namely narcotics used for therapeutic purposes and with low potential for dependence, such as cocaine.

**2.4. The impact of drug addiction**

Long-term drug use may affect: 1). Health, where the organs of the body are most affected are the central nervous system, namely the brain and spinal cord, and other organs such as the heart, lungs, liver, kidneys, and senses. 2) Education, where lazy habits, often truancy, are kicked out of school. 3). Work, where conflicts with colleagues do not enter the office, termination of employment. 4). Economy, where material losses lead to poverty. 5. Social and psychological, where addiction to drugs prevents people from thinking and behaving normally. Feelings, thoughts, and behavior are influenced by the substances they use [3].

Drug addiction rehabilitation is rehabilitation that includes physical, mental, and social development, skills training, and resocialization, as well as additional counseling for former addicts so that they can take an active role in social life.

**3. METHODOLOGY OF RESEARCH**

**3.1 Types of Research**

Type of research is a quantitative study with a cross-sectional design.

**3.2 Sample and Population**

The population is all students in classes X and XI at the SMK Pembangunan Bukittinggi in 2021, a total of 237 people. The sample for this

study was taken using statistical rules at a significance level of 0.10, so the number of samples was 70 respondents.

**3.3 Research Tools and Instruments**

The tool used in this research is a questionnaire. The research questionnaire contains questions on health education and students' knowledge of drugs.

**3.4 Data Collection and Processing**

Data collection begins with carrying out an initial survey on the relationship between health education and the level of knowledge of students at the SMK Pembangunan of Bukittinggi. Once the initial survey was found to comply with the research rules, the researchers continued to collect the research data. Once the data collection is complete, the data processing is carried out.

The steps in data processing are editing, encoding, data entry, data cleaning, and tabulation.

**3.5 Data Analysis**

The data were analyzed using two methods, namely univariate analysis aimed at clarifying or describing the characteristics of each research variable, and bivariate analysis in which the analysis was performed on two variables suspected of correlating.

Univariate analysis was performed using the following statistical formula:

$$P = \frac{f}{N} \times 100\%$$

The bivariate analysis was performed by chi-square test with a 95% degree of confidence (C1), i.e. 0.05, so if the value of  $p \leq \alpha$  (0.05) means that there is a significant correlation between the independent variable and the dependent variable if  $p > (0.05)$ , then there is no significant correlation between the independent variable and the dependent variable.

**4. RESULTS AND DISCUSSION**

Based on research conducted at the SMK Pembangunan of Bukittinggi data was obtained from responding students with the following general characteristics:

**Table 1** Frequency distribution of respondent characteristics by age in The SMK Pembangunan of Bukittinggi in 2021

NO	Age	f	%
1	15	2	2.9
2	16	39	55.7

3	17	26	37.1
4	18	3	4.3
	Total	70	100

According to Table 1, more than half 39 (55.7%) of the 70 respondents were 16 years old.

**Table 2** Frequency distribution of the characteristics of respondents by sex in the SMK Pembangunan of Bukittinggi in 2021

NO	Sex	f	%
1	Male	67	95.7
2	Female	3	4.3
	Total	70	100

Based on table 2, we were found that from 70 respondents, the dominant respondents were male, 67 (95.7%) respondents.

**Table 3** Frequency distribution of the characteristics of respondents by Class in the SMK Pembangunan of Bukittinggi in 2021

N O	Class	f	%
1	X	38	54.3
2	XI	32	45.7
	Total	70	100

Based on table 3, we were obtained from 70 respondents, more than half of respondents in class X were 38 (54.3%) respondents.

#### 4.1 Univariate analysis

Univariate analysis was performed to see the distribution of the frequency of health education and the level of student's knowledge about drugs in the SMK Pembangunan of Bukittinggi in 2021.

**Table 4** Distribution of the frequency of health education students in the SMK Pembangunan of Bukittinggi in 2021

Health education	f	%
No	32	45.7
yes	38	54.3
Total	70	100.0

Based on Table 4 above, it can be seen that out of the 70 respondents, more than half of the

respondents, i.e. 38 respondents (54.3%) had health education.

The results of this study are almost the same as the results of the research conducted by Setiaji Fuad et al (2017) regarding health education through video media on knowledge of the dangers of drugs among adolescents of class X at MAN Maguharjo Jogjakarta.

The capacity of health education depends on the physical and physiological components, the level of progress, the actual level of health, and the scientific perspective. Therefore, the purpose of education is an affirmation of the direction that will be sought with the preparation so that new changes in behavior are formed, both from an intellectual, emotional, and physical-motor point of view. There are similarities between the reality and the hypothesis that health education delivered appropriately and effectively will help to increase information for individuals, associations, and society. Health education can help speed up a person's access to new information. Following the objectives of health education itself, in particular the change of behavior of individuals or groups in the health sector, where this development is created by health education which is based on the information and full attention through a learning cycle that can continue for quite a long time in an individual, group or community.

**Table 5** Distribution of the frequency of the level of knowledge of the SMK Pembangunan students of Bukittinggi in 2021

Knowledge	f	%
Low	37	52.9
Hight	33	47.1
Total	70	100.0

Based on Table 5, it can be seen that out of 70 respondents, more than half of the results were obtained, i.e. 37 respondents (52.9%) who had low knowledge.

The results of this study are in line with the results of research conducted by Stanekzai et.al (2012), where 88.6% of respondents have good knowledge and are aware of drug problems. Only 11.4% of those questioned have little knowledge and are unaware of the drug problem. This shows that most of the people interviewed already know some information about drugs.

The main reason for drug abuse is knowledge. This knowledge implies a lot of things, not having knowledge of drugs or not recognizing drugs, not recognizing their forms, not knowing the physical, mental, moral, future, and after-life consequences, not understanding the consequences for them.

themselves, family, society, and the nation the lack of knowledge that drives them to abuse drugs.

**4.2 Bivariate Analysis**

The analysis was conducted to see the correlation between the independent and dependent variables. The analysis of this study used the chi-square test with a confidence level (CI) of 95%. If the P-Value is less than 0.05, there is a significant correlation.

**Table 6** Cross-tabulation of health education with the levels of knowledge of students on drugs at the SMK Pembangunan of Bukittinggi in 2021

Health education	Level of knowledge				Total	p-value	OR (CI 95%)
	Low		hight				
	N	%	N	%			
no	22	68.8	10	31.3	32	100	0,028
yes	15	20.1	23	17.9	38	100	
Total	37	52.9	33	47.1	70	100	

Based on Table 6, information is obtained that out of 70 respondents, 38 respondents are exposed to health education. Of this number, 17 (20.1%) have a high level of knowledge. The results of statistical tests between health education and the level of drug knowledge  $p_{value} = 0.028 \leq 0.05$ , which means that there is a significant correlation between health education and the level of knowledge of drugs in the SMK Pembangunan of Bukittinggi in 2021. Statistical calculations obtained the value of OR = 3.37, which means that students have 3.37 times the possibility of having low knowledge of drugs.

These findings are in line with research conducted by Hestria (2020) at SMA Berbudi Yogyakarta, which found that the correlation between health education and level of drug literacy shows that there is a significant relationship between health education and level of knowledge about drugs. Based on the results of the chi-square test, the value  $(0.000) \leq (0.05)$ .

Finding similar to the theory put forward by Notoatmodjo, 2012 in Zain (2017) that knowledge is the result of human perception or the result of someone knowing objects through their senses. In itself, at the time of detection, produces this knowledge and is strongly influenced by the intensity of attention and perception of the object. A person's knowledge can be obtained from experiences from various sources, such as mass media, electronic media, textbooks, health workers, posters, close relatives, etc. Factors that can affect knowledge are many cognitive, emotional, and social changes so that they think more complex. At this stage of development, adolescents have a very large mass of curious people so they will seek information and behave according to the information obtained.

**5. CONCLUSION**

This study has the following conclusions:

1. More than half of the 38 (54%) respondents received health education.
2. More than half of the 33 (47%) respondents have high knowledge.
3. There is a significant relationship between health education and drug literacy level at the SMK Pembangunan of Bukittinggi in 2021, where  $p = 0.028 (p \leq 0.05)$ .

**AUTHORS' CONTRIBUTIONS**

J. Junios, Arrahman Hidayat, and Evi Susanti equally contributed as the main contributors to this paper. All authors read and approved the final version of the paper.

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