

The Effect of Knowledge about Drugs and HIV/AIDS on Teenagers' Premarital Sexual Behaviors in Yogyakarta

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Abstract. This study aims at describing: (1) the effect of knowledge about drugs on tenth grade students' premarital sexual behaviors, (2) the effect of knowledge about HIV/AIDS on tenth grade students' premarital sexual behaviors, and (3) the simultaneous effect of knowledge about drugs and HIV/AIDS on tenth grade students' premarital sexual behaviors (students of public high schools in Yogyakarta). This study used quantitative approach. This study's population was all the tenth grade students of public high schools in Yogyakarta which were 2.240 students in total. The samples were 226 students from 9 high schools. This study result showed: (1) there is a negative influence of knowledge about drugs (X1) on premarital sexual behaviors (Y), (2) there is a negative influence of knowledge about HIV/AIDS (X2) on premarital sexual behaviors, and (3) there is a negative influence of knowledge about drugs (X1) and HIV/AIDS (X2) on premarital sexual behaviors (Y). This negative influence indicates that premarital sexual behaviors can be suppressed by increasing students' knowledge on the danger of NAPZA and HIV/AIDS.

INTRODUCTION

Adolescences as a nation's successors are valuable assets in need of care and protection. They are the future human resource of a nation in the long term, replacing its present leaders. WHO (*World Health Organization*) has stated that one is considered young if one falls in the age range of 10-24 years old. Meanwhile, one is considered an adolescence if one falls in the age range of 10-19 years old¹.

According to *Undang-Undang No. 40 Tahun 2009* on youth, the definition of youth is those in the age range of 18-35². Adolescent is a time of both biological and psychological development. Besides, adolescences are constantly aspiring different things from those of the general population. In positive terms, this aspiration can be called the spirit reformation, which is creative and innovative.

However, in reality, adolescences experience identity crisis, rebelliousness, and intense urge to explore. Currently, adolescences has experience "culture shock"³ and has leaned towards applying modern culture without discrimination, whereas the mental and knowledge had by them cannot yet filter those modern culture. This leads to behavior deviations in adolescences.

Three social problems threatening young generation, namely drugs, HIV/AIDS (*Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome*), and premarital sexual behavior are still Indonesian's people biggest enemy. Creating disciplined and problem-free generation of successors is a mutual responsibility which must be carried out by parents (internal), school teachers (external), as well as the government.

The said social problems are indeed very dangerous for Indonesian people's resilience including the adolescence's resilience in Yogyakarta. Drugs, HIV/AIDS, and premarital sexual behavior are serious problems. The number of drugs abuse in Yogyakarta sits at the top of the list in Indonesian context, many of which are adolescence and college students⁴. Meanwhile, drug dealers are former convict who are still serving in jails.

Next, data from Yogyakarta AIDS Comission⁵⁻⁸ has shown that there are 3.334 cases of HIV and 1.314 cases of AIDS. No less shocking is the data from *PKBI (Perkumpulan Keluarga Berencana Indonesia)* of Yogyakarta Special Region which has shown that in 2015 there are 1.078 cases of teenage girls giving birth. To give a picture, among teenagers who are still students, 72,5% of the male and 27.9% of the female want have sex because they will finally get married. Meanwhile, those who agree to have sex because of mutual love consist of 72,5% male and 27,5% female. Meanwhile, those who agree to have sex because of mutual agreement consist of 71,5% male and 28,5% female⁹.

Based on these data, it is justifiable to state that Yogyakarta, which is famous as the student city, is in an emergency state in regard to those three aforementioned problems, namely drugs abuse, HIV/AIDS and premarital sexual behaviors. In accordance with the effect of drug abuse issued by the National Anti-Narcotics Agency, drug abusers are known for high-risk sexual behavior; they are willing to have sex to get drugs. In addition to this, drug abusers also use syringes together which increases the numbers of HIV/AIDS transmission¹⁰.

In the present research, the writer feels that the lack of knowledge on drugs, HIV/AIDS, and premarital sexual behaviors is the cause of the spreading of those social problems. This is in line with Prasetyo¹¹ opinion which has stated that knowledge is everything that is in our head. We are able to know something based on our experience. Aside from experience, we know also because we are being told by someone else. Knowledge is also gained from tradition. Knowledge is a result of “know” and this happens after people sense a certain object. Sensing happen through the five senses. Much of human knowledge comes from sight and hearing senses¹².

According to Hidayat¹³, knowledge is a process which uses the senses on a certain object which can gives knowledge or skill. Someone’s knowledge is usually gained through experiences from posters, relatives, mass media, electronic media, manuals, health officers, and others. Knowledge can form a certain belief, so that a person can act in accordance to that belief.

Knowledge is the key to an awareness to do good things and avoid evils which can ruin oneself. The writer assumed that the tenth grade students who are 15 years old in average do not yet have the adequate knowledge on drugs, HIV/AIDS and premarital sexual behaviors. This is in line with Haryanto’s research which has concluded that adolescences and young adult ranging in age from 21 to 30 years old mostly have access to drugs in senior high school¹⁴. When seen through age average, the main cause of a person using drugs is the influence of a same-age friend.

In line with the above fact, people with HIV/AIDS in Indonesia are mostly come from productive age of 25 – 49 years old, whereas adolescences ranging from 15-19 years old sit on the fifth place¹⁵⁻¹⁷. Adolescent is a very fragile age for people to get HIV. More than half of the recent infection of HIV happened to adolescent of 15-19 years old. The majority of this case come about from sexual activities⁶. In recent years, the economic development and mass media has also shape and influence the attitude and view of adolescences to premarital sex.

The present research is a badly needed one because of the lack of a similar research. This research is expected to give contribution to the advancement of adolescence in Yogyakarta City and fend off from drugs, HIV/AIDS, and premarital sexual behaviors as early as possible. It is also expected that this research becomes an empirical source for the next researchers to study the effect of knowledge on drugs, HIV/AIDS, and premarital sexual behaviors as well as make recommendation for schools to give students education so that they will not be ensnared by those problems. In the present research, there are three questions which will be answered, namely: 1) how is the effect of knowledge about drugs on tenth grade students’ premarital sexual behaviors? (2) how is the effect of knowledge about HIV/AIDS on tenth grades students’ premarital sexual behaviors? and (3) how is the simultaneous effect of knowledge about drugs and HIV/AIDS on tenth grade students’ premarital sexual behaviors (students of public high schools in Yogyakarta)?

METHOD

The present research was a survey research. The data were collected using questionnaire and test questions. According to Jogiyanto¹⁸, a survey research is conducted to gain facts from existing symptoms and seek explanations factually without inquiring the reasons why those symptoms exist. Based on its statistical technique, this research is categorized as associative research, that is a research which seek the cause and effect relationship between the free variables (X) to the bound variable (Y)¹⁹. Knowledge on drugs (X1) and knowledge HIV/AIDS (X2) to bound variable premarital sexual behaviors (Y).

The population used in this research was the entire students of tenth grade public high school in Yogyakarta 2017/2018 academic year. The number of the population, consisting of tenth grade students of public high school

1, 2, 4, 5, 7, 8, 9, 10 dan 11 in Yogyakarta was 2.240. Based on Isaac and Michael's table, the closest number to 2.240 is 2.200. Meanwhile, the researcher chose 10% margin error with time, effort, and financial limitation as the considerations. Deriving from these, the number of the samples was 243 students. 21

RESULTS AND DISCUSSION

Descriptive Analysis of the Research Variables

According to Ghozali²⁰, descriptive analysis is an analysis which describe data by looking at the standard deviation mean, maximum variant, and minimum.

This research is an update of the previous researches, taking the title "The Effect of Knowledge about Drugs and HIV/AIDS on Adolescents' Premarital Sexual Behaviors in Yogyakarta". Someone considered to have knowledge about drugs is someone who has knowledge in his/her head about the definition of drugs, the kinds of drugs, and the effect of abusing drugs to human. Meanwhile, someone considered to have knowledge about HIV/AIDS is someone who has knowledge in his/her head about the definition of HIV/AIDS, the method of transmission of HIV/AIDS, and the prevention and effect of HIV/AIDS.

Premarital sexual behaviors are behaviors propelled by a strong sexual desire, both for the same or different sex to gain pleasure done by someone who is not yet married. This present research is very important to be carried out because data from the National Anti-Narcotics Agency¹⁰ has shown that drug users in Yogyakarta number as many as 62.181 people, people with HIV/AIDS number as many as 1.314 (AIDS) and 3.334 (HIV), and adolescent girls in Yogyakarta who give birth number as many as 1.078. It is expected that this research will bring a good impact both to the advancement of adolescences in Yogyakarta as well as to the effort of fending off the danger of on drugs, HIV/AIDS, and premarital sexual behaviors as early as possible. Meanwhile, the result of this research on each variables are presented in the following table.

TABLE 1. Research Data Description

	Drugs	HIV	SEX
Total	16776,47	15550	10772,86
Avarage	63,07	58,46	40,5
Max	100	94,44	57,14
Min	29,41	16,67	24,29
Variant	279,58	282,07	46,05
S.D	16,72	16,79	6,79

Based on the above data, it is seen that the average understanding of the students in public senior high schools in Yogyakarta about drugs is 63,07, categorized as enough. The maximum score for knowledge about drugs is 100 and the minimum score is 29,41, whereas the variant value of knowledge about drugs is 279,58. The average understanding of the students in public senior high schools in Yogyakarta about HIV/AIDS is 58,46, categorized as not enough. The maximum score for knowledge about HIV/AIDS is 94,44 and the minimum score is 16,67, whereas the variant value of knowledge about HIV/AIDS is 282,07. The average score of premarital sexual behavior of adolescences in public senior high school in Yogyakarta is 40,5, while the maximum score is 57,14 and the minimum score is 24,29.

Data Result Analysis

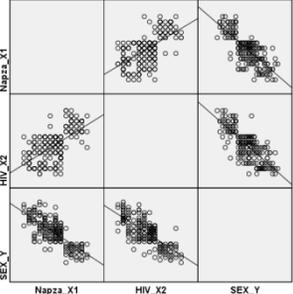
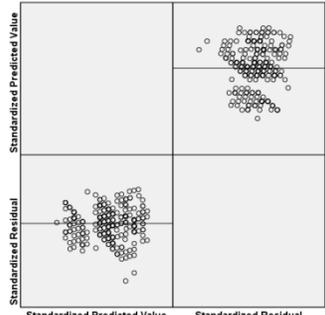
a. Validity Test

The validity test was carried out to know whether the regression model can be used to predict the data. The classical assumption tests used were normality test, heterokedasticity test, multicollinearity test, and linearity test²¹. Normality test was used to know whether or not the distribution of the score was normal or not. The normality test carried out using *Kolmogorof Smirnov* test. In this test, the data is considered distributed normally if the significant value is more than 0,005. Meanwhile the *Kolmogorof Smirnov* was carried out SPSS 16. The linearity test was

carried out on each free and bound variable by seeing the figure plot, if the graphic forms linear graph, then the requirement has been met.

The multicollinearity test between independent variables used the criteria of variance inflation factor and tolerance value. If the value of variance inflation factor (VIF) < 10 and the tolerance value > 0,1 then the model is said to be free of multicollinearity. Meanwhile, heterokedasticity states that the variance from the residual is constant. Simple plot between ordinary residual versus fitted value is very beneficial in detecting whether or not the model has fitted the assumption or there is deviation from the assumption. The ideal residual plot is a one that figures in spreading spots surrounding nol with not so much a deviation and also not showing a leaning to a certain pattern.

TABLE 2. Regression Assumption Test's Result

No	Assumption Test	Note	Conclusion
1	Normality Test	p-value (0,090) > (0,05)	Normality Assumption Fulfilled
2	Linearty Test		Linearity Assumption Fulfilled
3	Multicollinearity Test	<p>The Value of TOL (Tolerance) was 0,628 ; 0,628 with all of its value > 0,1. Meanwhile, the value of VIF (Variance Inflation Factor) was 1,593 ; 1,593 with all of its value < 10.</p>	Multicollinearity Assumption Fulfilled
4	Heterokedasticity Test		Heterokedasticity Assumption Fulfilled

b. Hypothesis Test

The model of analysis used is double linear regression model. This model was used to know the effect of the independent variables to the dependent variable. In the present research, there are one dependent variable, which is premarital sexual behaviors. On the other hand, there are two dependent variables, namely knowledge of drugs and knowledge of HIV/AIDS. The statistical equation used is as follows:

$$Y = c + \beta_1 * X_1 + \beta_2 * X_2 + \epsilon$$

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TABLE 3. Regression Coefficient Test Result.

No	Model	Unstandardized Coefficients (B)	Sig.
1	(Constant)	45.588	.000
2	Napza_X1	-.825	.000
3	HIV_X2	-.796	.000

From the coefficient table, it is known : $B_0 = 45,588$; $B_1 = -0.825$; $B_2 = -0.796$; Thus, the model gained is ;
 $Y = 45,588 - 0.825 X_1 - 0.796 X_2$

The result of the regression will have either positive or negative effect depending on the beta coefficient (β). If the beta coefficient has minus sign (-), it means that the effect is negative. On the contrary, if the beta coefficient does not have minus sign, then the effect is positive. Based on the above table, it is seen that the beta value is negative, so that it can be concluded that the influence of variable X to Y is a negative influence.

There are three hypothesis in this research, namely (1) there is an effect of knowledge about drugs on premarital sexual behaviors, (2) there is an effect of knowledge about HIV/AIDS on premarital sexual behaviors, and (3) there is an effect of knowledge about drugs and HIV/AIDS on premarital sexual behaviors. To know whether or not the independent variable has an effect to the dependent variable can be seen through the degree of significance with 0,05 significance level. If the degree of significance is more than 0,05, then H_0 can be accepted. On the contrary, if the hypothesis test is under 0,05, then H_0 is rejected.

Based on the above data, it can be seen that the value of significance for (X1) is under 0,05 so that it can be concluded that there is an effect between knowledge of drugs on premarital sexual behaviors. Meanwhile the significance value of (X2) is under 0,05 so that it can be concluded that there is influence of knowledge of HIV/AIDS on premarital sexual behaviors. As for the third hypothesis, the decision can be seen in the following table.

TABLE 4. Regression Model Goodness of Fit Test

Model	F	Sig.
Regression	318.161	.000 ^a
Residual		
Total		

Based on the data analysis, it is seen that the significance value is under 0,05 so that it can be concluded that there is an effect of knowledge of drugs and of HIV/AIDS on premarital sexual behaviors. The model used has meet the requirement of goodness of fit.

Meanwhile, the determinant delta coefficient (ΔR^2) measures how far the model's ability to explain the dependent variables. The use of determinant delta coefficient resulted in a relatively small value compared with the value using determinant coefficient (R^2). This smaller value is caused by a bigger error variance. The bigger the value of determinant delta coefficient, the abler the independent variable (ΔR^2) to predict the variation of the dependent variable. Based on the analysis, it is gained that the $R = 0,841$, which shows a relatively tight degree of linear relationship between the response variable Y and predictor variable X. Adjusted R Square (ΔR^2) = 0,705, means 70,5% variance in dependent variable (Y) can be explained by independent variable (X), whereas the rest is caused by another factor that cannot be explained.

The purpose of this research is to know the effect of knowledge about drugs (X1) and HIV/AIDS (X2) on students premarital sexual behaviors (Y), including the effect of each independent variables on the dependent variable. Based on the data analysis, the result gained is that 70,5% variance in the dependent variable, that is on students premarital sexual behaviors (Y) can be explained by independent variables knowledge of drugs (X1) and knowledge of HIV/AIDS (X2). In details, the effect is elaborated as follows:

The effect of knowledge about drugs (X1) on students' premarital sexual behaviors (Y) based on the data analysis shows significance value below 0,05. This result shows that there is an effect of knowledge about drugs (X1) on premarital sexual behavior (Y). An individual who has knowledge in his/her head about the definition of drugs, the kinds of drugs, and the effect of drug abuse on human can minimize premarital sexual behaviors. This can be seen the value of beta which is negative so that it can be concluded that the effect of knowledge about drugs (X1) on premarital sexual behavior is negative. This means that when the value of knowledge about drugs increases premarital sexual behavior will decrease. In other words, the better the knowledge of a student about drugs the more

possible it is for them to have less premarital sexual behaviors. This is in line with the research by Widyastuti²² which has found that there is an effect of personal and social factors in the burgeoning cases of premarital sexual behaviors, including drinking habit and drug abuse.

The effect of knowledge about HIV/AIDS (X2) on students' premarital sexual behaviors (Y) based on the data analysis shows significance value below 0,05. This result shows that there is an effect of knowledge about HIV/AIDS (X2) on premarital sexual behavior (Y). This means that when the value of knowledge about drugs increases premarital sexual behavior will decrease. In other words, the better the knowledge of a student about HIV/AIDS the more possible it is for them to have less premarital sexual behaviors. AIDS as one of sexually contagious deceases which is caused by the not yet curable HIV (*human immunodeficiency virus*) which destroys the immune system. Therefore, an individual who knowledge in his/her knowledge about the definition, the methods of transmission, and the effect of HIV/AIDS will think twice to do risky sexual behaviors. The result of this research is in line with the finding of Arietonang²³ which has concluded that there is significant relationship between knowledge and attitude to reproduction with premarital sexual behaviors in adolescence.

Based on the result of the analysis, the simultaneous of knowledge about drugs (X1) and knowledge about HIV/AIDS (X2) on premarital sexual behaviors (Y), shows that the significance value is below 0,05 so that it can be concluded that there is an effect knowledge about drugs (X1) and knowledge about HIV/AIDS (X2) on premarital sexual behaviors (Y). Sexual behaviors consist of many kinds of behaviors and the determined by an interaction of complex factors. According to Soetjningsih²⁴ the highest factors which influence premarital sexual behaviors in adolescence are the relationship between parents and the adolescences followed by same-age peers pressure, religiosity and pornographic media exposure. Mustofa²⁵ has added that 11,9% of students have had risky premarital sexual behaviors, in which there is a significant relationship among age, sex, religion, and sexual permissiveness attitude, self efficacy, access to pornography, and parents control on premarital sexual behaviors.

Directly that statement does not state about knowledge about drugs and HIV/AIDS, but we can see the indirect relation between knowledge about drugs and HIV/AIDS with factors influencing premarital sexual behaviors such as relationship between parents and the adolescences, same-age peers pressure, and religiosity. The implication of this research the other researches in the future is that there is a need for a research to be conducted in more details, incorporating more independent variables so that finding others independent variables which can explain better the dependent variable namely premarital sexual behaviors.

CONCLUSION

Based on the results of the analysis presented before there are three conclusions of this present research. Those conclusions are (1) there is a negative influence of knowledge about drugs on premarital sexual behaviors, (2) there is a negative influence of knowledge about HIV/AIDS on premarital sexual behaviors, and (3) there is a negative influence of knowledge about drugs and HIV/AIDS on premarital sexual behaviors.

ACKNOWLEDGEMENT

The authors thank to Department of Social Science Education, Graduate School, Yogyakarta State University.

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