

Level of Education and Knowledge about HIV/AIDS on High School and College Students for Premarital Sex in North Sumatera

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Keywords: Level of education, HIV/AIDS, premarital sex, North Sumatera

Abstract: The purpose of this study is to describe and understand the level of education and knowledge about HIV/AIDS on premarital sexual behavior among high school and college students in North Sumatera. The number of 8,272 HIV/AIDS sufferers in 2016, 41.3 percent were high school and college students. To explain this case, anomie theory from Durkheim was used. The study was run qualitatively with an observational descriptive approach. In addition to in-depth interviews, questionnaires with a *Likert Scale* were distributed to 50 informants in Medan, Deli Serdang, Pematangsiantar, Karo and Toba Samosir. The results of the study were that there was no relationship between the level of education and knowledge about HIV/AIDS on premarital sexual behavior among high school and college students in the province of North Sumatera.

1 INTRODUCTION

The HIV (Human Immunodeficiency Virus) and AIDS (Acquired Immune Deficiency Syndrome) not only occur in adulthood but also at a young age. In the province of North Sumatera, people with HIV/AIDS increase significantly each year. If at the end of 2008 there were still around 3,400 people, then in the period of January 2009-December 2017 the number reached 8,272 people (KPA North Sumatera, 2018).

The biggest sufferers of HIV/AIDS are in Medan, Pematangsiantar, Deli Serdang, Karo, and Toba Samosir. The first three areas are industrial estates while the last two are tourist destinations. Medan is a big city and has a very large population. The number reaches 2.9 million people. In 2018, there were 111,697 middle school students and 70,194 high school students. In addition, there are 272 active (college) campuses with approximately 39,600 students.

Pematangsiantar is the second largest city in North Sumatera. There are 82 junior high schools, 72 high schools, and 62 colleges. Deli Serdang is a district adjacent to Medan City. This area is an industrial base around the city of Medan. In addition, this area is a plantation area and a beach in the Malacca Strait. The population in these three regions is diverse. Furthermore, Karo and Toba Samosir are

tourist areas in North Sumatera. The area is directly adjacent to Lake Toba and is always crowded on weekends. In these two regions, there are approximately 50 hotels, ranging from five stars to those without stars. This study aims to look at cases of HIV/AIDS among students and students based on regional typologies, namely cities, industrial areas and tourist destinations in North Sumatera. According to the North Sumatera KPA data (2018), people with HIV/AIDS in adults and young people in 2005-2009 in each region are shown in the following table.

Table 1: Prevalence of HIV/AIDS in North Sumatera province, 2005-2009

Location	Years				
	2005	2006	2007	2008	2009
Medan	45	115	110	131	134
Deli Serdang	2	12	19	8	21
Pematang Siantar	4	7	12	4	9
Karo	-	3	8	9	6
Toba Samosir	4	5	11	8	10

The poverty factor in urban areas and the high needs of life causes many women to choose to work as commercial sex workers (*Pekerja Seks Komersil*). While in tourist areas, commercial sex seems inseparable from travel activities. It can be said that the prevalence of HIV/AIDS in cities and tourist destinations is higher than in rural areas. This disease

arises because of the intensive change of partners in sexual intercourse.

The source of the data taken from Infodatin (2014) mentions that the highest HIV/AIDS sufferers in Indonesia come from the productive age of 25-49 years. While the college age of 20-24 years is in the fourth position and the age of adolescents namely 15-19 years is in the fifth position. In North Sumatra, the profile of HIV/AIDS patients aged 10-29 years is shown in the table below.

Table 2: Prevalence of HIV/AIDS for high school and college students in North Sumatra, 2016

Age range	HIV	AIDS	Total amount
10-18 years	51	1.199	1.250
19-29 years	65	2.037	2.102
Amount	116	3.236	3.352

The data above shows that 37.8 percent of the 3,301 HIV/AIDS sufferers in 2017 are aged 10-18 years. Whereas 43.6 percent of HIV/AIDS sufferers aged 19-29 years. This data shows that 41.3 percent of HIV/AIDS sufferers in North Sumatra is between 10-29 years old. School age is an age group that is vulnerable to being infected with HIV/AIDS. According to Guindo et al (2014), the biggest infection of HIV/AIDS in the world comes from school age. According to him, economic factors and the influence of mass media influence attitudes and perceptions of premarital sexual relations. When looking at this social reality there is a tendency that young people up to 30 years are vulnerable to HIV/AIDS. The age of men with this disease tends to be above 25 years, while the age of women tends to be under 30 years. From the description above, this paper intends to examine the relationship between education level and knowledge about HIV/AIDS in high school and college students in the province of North Sumatra. As an assumption in this study is that the higher the level of education, the better the knowledge about HIV/AIDS. Furthermore, the better the knowledge about HIV/AIDS can be prevented from premarital sexual relations.

2 MATERIAL AND METHODS

This study was conducted in 5 regions, namely Medan, Deliserdang, Pematangsiantar, Toba Samosir, and Karo. The reasons for choosing this location are: 1) the highest area of HIV/AIDS infection from the age group 15-25 years, and 2) is an industrial and tourist area in North Sumatra.

The study design was carried out qualitatively with an observational descriptive approach. According to Denzin and Lincoln (2005), this method is carried out to describe an event objectively. Data collection is carried out qualitatively and quantitatively. The questionnaire contains 15 questions and 4 answer options are shared with informants. Each answer is scored according to the Likert Scale. Each research location consisted of 5 high school students and 5 students. Informant data in the form of addresses, places of residence, schools and sexual information are kept confidential. The study was conducted in May-June 2018 involving 50 informants from 5 research locations. Determination of informants was done randomly based on data from hospitals at the research location. Investigations in the form of in-depth interviews were conducted on 2 selected informants according to the highest and lowest answers from the questionnaire.

The problem in this study is: is it true that the level of education is related to knowledge of HIV/AIDS so that it prevents premarital sexual relations among high school and college students in North Sumatra? This problem is explained by the Anomie theory of Durkheim. The study aims to explore and describe the relationship between education level and knowledge about HIV/AIDS in high school and college students and does not conclude whether informants have HIV/AIDS.

3 RESULTS AND DISCUSSION

The profile of 50 research informants in five districts and cities in North Sumatra, namely Medan, Deli Serdang, Pematangsiantar, Toba Samosir, and Karo. The 50 informants were high school students aged 12-17 years and college-aged 18-23 years. They are not from broken home families. All of these informants were recorded as students at their respective schools and campuses in the area. The profile of the informant is shown in the table below:

Table 3: Profile of research informants

Area	Students		Sexs			
	High school	College	High school		College	
			M	F	M	F
Medan	5	5	2	3	3	2
Deli Serdang	5	5	2	3	3	2
Pematangsi antar	5	5	2	3	2	3
Karo	5	5	3	2	3	2
Toba Samosir	5	5	2	3	2	3
Amount	25	25	11	14	13	12

The data above shows that 50 informants were 10 people from each research location. From the aspect of education level, each of the 5 informants is a high school and college student. In terms of sex, 11 high school students were male and 14 female, while the college informants consisted of 13 males and 12 females. Informants of high school students are enrolled in schools and are actively studying at the research location. While from 25 college informants, 16 attended Medan, 4 at Brastagi and 5 in North Tapanuli. As many as 94 percents or 47 informants of high school and college students claimed to have had premarital sexual relations. Whereas 6 percent or 3 people did not give an answer. The description of premarital sexual relations based on the first time is as follows:

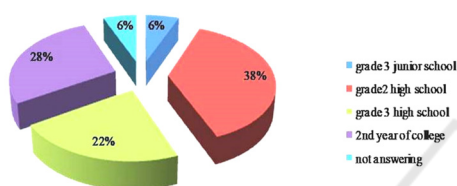


Figure 1: First sexual intercourse

The data in figure 1 above shows that as much as, 6 percent or 3 informants had sexual relations in grade 3 junior high school, 38 percent or 19 informants had had sexual relations since grade 2 high school, 22 percent or 11 people in grade 3 high school, and 28 percent or 14 informants had sexual relations in the second year during college. As many as 6 percents or 3 female student informants did not give answers. A total of 47 informants claimed to have had first sex with a boyfriend. From the 25 college informants, 36 percent or 9 people had the first sexual intercourse when they were high school students. While 64 percent or the remaining 16 people have sexual intercourse when they are students at male boarding houses. In fact, as many as 11 people or 44 percent of student informants claimed to have had premarital sexual relations more than five times. Sex is done with a boyfriend who changes between high school and college. While the remaining 56 percent or 14 informants claimed to have had sexual intercourse 2 or three times. Among high school student informants, 88 percent or 22 informants claimed to have had sexual intercourse 1 or 2 times, while the remaining 12 percent or 3 people did not give an answer.

This data is an indication that there is no relationship between the level of education and premarital sexual relations. Supposedly, the higher the education, the better the knowledge of HIV/AIDS.

Through this assumption, the informant should not have sex repeatedly and change partners. However, this research information shows another reality. The higher the education, the higher the intensity of premarital sex. This kind of reality happens because it is separated from parents, lifestyle, hedonism or the influence of internet progress.

Ironically, 3 college female informants worked part-time at the cafe and became 'call women' (*Wanita Panggilan*) in Medan. This work was chosen because of the reason left by the boyfriend who had taken her virginity. While 1 person works as a 'call woman' for reasons of high economic needs. This situation is different from high school student informants. Although most informants claimed to have had premarital sexual relations, they did not tend to be repeated. Sexual intercourse is done with fellow schoolmates. However, at the time of continuing the college girlfriend also took part. This girlfriend change often has implications for repetitive sexual relations continuously during college.

The first reason for having sex tends to be diverse. Most of the informants claimed that they were persuaded by boyfriends, influenced by friends, films, lifestyle, and the effects of the internet or the media. The 47 informants who had premarital sexual relations, 80.8 percent or 38 informants happened because of boyfriends' persuasion. While the rest tend to be influenced by friends, films, lifestyles or the internet or the media. So, dating relationships are the main factor causing premarital sexual relations. However, it should be emphasized that dating that is trapped in sexual relations does not originate from within but is influenced by external factors such as film, the internet, and the social environment.

Besides intrinsic factors as explained above, there are extrinsic factors. The high rates of premarital sex in Medan, Deli Serdang, and Pematangsiantar occur due to the effects of urban areas and industrial areas. Social relations in cities and industries that tend to be individualistic, loosening of values and norms, and high economic needs are the main factors driving premarital sex. This fact is different in Karo and Toba Samosir which tend to be influenced by tourist areas. As a tourist area, it is impossible that premarital sex does not occur among young and productive people. The tourist lifestyle greatly influences the behavior of students and students in these two regions. Most of the informants claimed that they did not get information about the relationship and the impact of premarital sex in the family. Talk about sex is still considered taboo or contrary to cultural values. Information about sex is obtained from fellow friends, girlfriends or reading the internet and the

media. Information and news consumed are not on the impact of premarital sexual relations, but rather sexual harassment, pornographic films or similar information. However, 47 sexual relations informants claimed to have never had a health check. Therefore, this study cannot conclude whether they are positive or negative with HIV/AIDS.

Based on the description above, this study shows that there is no relationship between the level of education and knowledge about HIV/AIDS on premarital sexual relations behavior. In a sense, the higher education and knowledge about HIV/AIDS is not a guarantee of stopping premarital sexual relations. In fact, the higher education and knowledge about HIV/AIDS is the more effective it is to prevent contracting HIV/AIDS such as condom use and others. Research results like this are in line with Wirahayu and Satyabakti (2014) that the knowledge, attitudes, and actions of Indonesian-Navy Military Army (*TNI-AL*) members are very good at preventing HIV/AIDS. The same reality is obtained from the research of Nuzzillah and Sukendra (2017) which states that there is a known relation to the risk of transmission but there is no relation to premarital sexual behavior. This fact is in line with the results of research by Rahayu, Rismawanti, and Jaelani (2017). Their research mentions a correlation between knowledge about HIV/AIDS and vulnerability to HIV/AIDS. It was stated that the lower the knowledge of HIV/AIDS had an impact on the high risk of contracting HIV/AIDS.

According to Nurachmah and Mustikasari (2009), young people infected with HIV/AIDS caused the loss of the productive era. This is due to risky behavior among school age and being vulnerable to contracting HIV/AIDS. Having HIV/AIDS occurs due to intrinsic and extrinsic factors. The level of knowledge, understanding, and attitude about HIV/AIDS comes from oneself, while the influence of friends, films, lifestyle, and environment comes from outside. Both of these factors are strongly influenced by industrialization which has an impact on fundamental changes in the system of social values and norms. Industrialization changes the function of the nuclear family, fosters anomie and hedonism and secularism. Anomie is the waning of old social and cultural norms while the new order has not been formed (Ritzer, 2011). This situation strengthens self-liberation from collectivity towards individualism in the form of individual cults that foster hedonism (Turner, 2012). In addition, loosening social norms and waning nuclear family functions have an impact on premarital sexual relations among students and students. Encouraged by curiosity and wanting to try,

it has implications for changing partners. This fact is vulnerable to an increase in the prevalence of HIV/AIDS at the age of 16-25 years.

The informant trapped in premarital sexual relations is an anomie situation or loss of social norms. Losing these norms becomes a factor in losing role models, guidelines or guidance. Therefore, the more public the anomie, the higher the vulnerability to premarital sexual intercourse. Therefore, the function of norms must be restored through the role of education and family. Emotional relations in the family that are implicated through speech and behavior play a major role in avoiding humans from anomie (Horton and Hunt, 1980).

The family functions strengthen spiritual and physical endurance in order to distance themselves from deviant behavior. The families that are not based on strong religious commitment have a risk of four times greater "broken home", including disloyalty, changing partners and various other forms of promiscuity. This fact has resulted in zero growth of norms within the family so that children's behavior becomes out of control.

During 2005-2016, cases of HIV/AIDS continued to increase. According to Kepmenkes data (2016), the highest HIV/AIDS sufferers were DKI Jakarta (38,464), East Java (24,104), Papua (20,147), West Java (17,075), and Central Java (12,267). Whereas North Sumatra is ranked 7th out of 34 provinces in Indonesia. The biggest HIV/AIDS sufferer in North Sumatra is the city of Medan, which is 5,360 people (Dinkes Medan, 2011). This number increased significantly from 2013 totaling 3,410 people (Antara, 2018). The data on people with HIV/AIDS in North Sumatra, 2014-2017 are as follows:

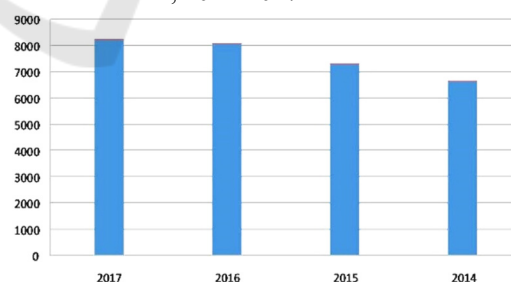


Figure 2: HIV/AIDS sufferers in North Sumatra, 2014-2017

The data in figure 2 above shows that as of December 2017 there were 8,272 positive people with HIV/AIDS (Berita Sumatera Utara, 2017). This number increased by 160 people from 8,112 people from 2016 (Pojoksatu Sumatera Utara, 2016). In 2014, there were only 6,689 people with HIV/AIDS (Tribunnews, 2015). HIV/AIDS prevalence in 2016

was 28.9 per 100,000 population. That is, as many as 29 people out of 100,000 people in North Sumatera are positive for HIV/AIDS (Metronews, 2016). A total of 3,301 people out of a total of 8,112 were HIV-infected. They are 2,474 men and 827 women. Whereas AIDS patients in the same year were 4,811 people. They were 3,756 men and 1,055 women.

The findings of this study strengthen the social reality in North Sumatera that 41.3 percent of young and productive age suffer from HIV/AIDS. The emergence of this disease because as much as 94 percent of the age of students and students have had premarital sex with multiple partners. Sex first occurred during school at the high school level and continued to repeat until college. Therefore, the study concluded that the absence of educational relations and knowledge about HIV/AIDS with premarital sex behavior among students in North Sumatera.

Based on the data described above, it is known that urban areas such as Medan and Siantar District tend to have high premarital sex. The same reality occurs in tourist areas such as Karo and Toba Samosir. The same phenomenon is found in industrial areas such as Deli Serdang.

This fact occurs for several reasons: first, the socio-economic conditions of families classified as relatively poor, secondly, the high cost of living as students and students, thirdly, the lifestyle in urban, industrial and tourism areas which is strongly influenced by others and fourth, low moral and ethical values for students and students.

The tendency of students and students to have premarital sex tends to be caused by: first, the free association between students and students through dating, secondly the influence of internet technology through news and porn films, and the three factors want to feel or try sex. Not all students and students who have premarital sex have HIV/AIDS. Although some of the research informants said that they had repeated premarital sex, they did not have the deadly disease. This fact occurs because of sufficient knowledge to anticipate the spread of the disease. However, some of them cannot avoid contracting HIV/AIDS. In general, those who contract HIV/AIDS are students and students caused by first, not having enough knowledge to anticipate HIV/AIDS, and secondly, having the shame of asking fellow friends how to anticipate this deadly disease.

The trap of students at premarital sex starts from dating. In other words, premarital sex for the first time is done with her boyfriend. Premarital sex is done repeatedly with his girlfriend. In fact, some informants said that they had done it since junior high school and repeated it during high school and also

when they were students. Student and student social life like this occurs in urban areas, industries, and tourist areas. In these areas, relationships and interactions with parents tend to be limited. Even among students and students do not live with their parents (living in dormitories or boarding houses).

The life of free dating, the desire for sex and a lifestyle among students makes them trapped in premarital sex done repeatedly. Ironically, sex with a boyfriend does not continue the marriage. A number of informants in this study mentioned that broken hearts with boyfriends made them sell themselves to every man. This fact has implications for the character of sex, namely: first, done with the first girlfriend boyfriend, second boyfriend, and third boyfriend and so on, second, done with another man. In the second character, this student uses pimps or through reflexology or night entertainment centers such as in the city of Medan.

Based on this study, several things were found: first, there was no relationship between the level of education and knowledge of HIV/AIDS on premarital sex. All informants in this study acknowledged the dangers of premarital sex to HIV/AIDS. In fact, they know this danger from various reports in newspapers, television, and information from their friends. However, the danger does not make them avoid premarital sex. Second, the level of education and knowledge of HIV/AIDS is not a major factor for the use of HIV/AIDS prevention tools. During premarital sex, HIV/AIDS prevention tools such as condoms are used to prevent pregnancy. So, the main thing that is concerned with premarital sex offenders is preventing pregnancy and not preventing contracting the deadly disease. The fact obtained from this study states that: the level of education and knowledge of HIV/AIDS does not dampen the desire not to have premarital sex. This is contrary to the fact that there should be higher levels of education and knowledge of HIV/AIDS so this fact has implications for the low level of premarital sex.

The level of education and knowledge about HIV/AIDS is one of the factors that should influence the low level of premarital sex. This fact is caused by the role of schools (education) to instill the danger of sex for students. That meant not only the potential for the outbreak of the deadly disease, but also for the dignity of a student. Educational factors should be able to instill social values, ethics, and norms in which students understand the dangers of premarital sex. In this case, the role of teachers and parents requires synergy to control students from their daily lifestyles.

Sometimes, technology 4.0 today has a negative impact on students. For example, it's easier to access pornographic movies through smartphones. However, the reliability of education and knowledge for students is sure to be able to use the smartphone in a better direction. The reliability of education and knowledge is also able to reduce the desire for premarital sex, namely the courage to do so before marriage. This goal should be achieved from education and knowledge which is able to form students who have skills, not only for themselves but also for others.

Education and knowledge are keywords for avoiding premarital sex. However, this study presents another fact that education and knowledge have no impact on preventing premarital sex. Therefore, another study needs to be done to find out the factors that cause premarital sex outside the factors of education and knowledge of HIV/AIDS. A study of other factors to reduce premarital sex is very important, given the high level of premarital sex in North Sumatra. Although they do not all suffer from this dangerous disease, the high percentage of premarital sex offenders needs attention. Education and knowledge must be able to shape students to have good moral ethics. Education and knowledge must be able to change students, namely understanding social ethics. If education and knowledge are unable to prevent premarital sex among students, it means that education fails to create ethical students.

4 CONCLUSION

Novelty research is the absence of a relationship between the level of education and knowledge about HIV/AIDS with premarital sex in high school and college students in North Sumatra. This finding is reinforced by research data that 94 percent of research informants had premarital sex during high school. This deviant behavior keeps repeating because of changing girlfriends during high school and college. The characteristics of the research location namely industrial and tourism areas have an impact on deviant behavior in the form of premarital sex. This fact strengthens the social reality of North Sumatra until December 2017 where young and productive age is 10-29 years with HIV/AIDS.

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