

# Youth and the Global HIV/Aids Crisis: Impact of Knowledge and Attitude Towards Sexual Behavior

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## Abstract

About 34 million people in the world are living with HIV. The Philippines is one of nine countries where HIV infections have increased by 25% per year from 2001-2011 (UNAIDS, 2012). According to the DOH, as of January 2013, 12,082 are living with HIV in the Philippines and the number of young persons have a significant contribution to the statistics. This study was conducted to determine the impact of knowledge and attitude on HIV/AIDS to the sexual behaviors of students in the Mindanao State University – Iligan Institute of Technology. The 400 respondents, ages 15-24, were assessed regarding their knowledge and attitude on HIV/AIDS and sexual behavior. The results showed that majority of the respondents had an average level of knowledge on HIV (48.5%). On attitude, majority (68.2%) were neutral towards HIV/AIDS. On sexual behavior, 69 students had engaged in sex. Results further indicated that the type of sexual relationship and the college was significant towards the level of knowledge on HIV/AIDS. The age, type of sexual relationship and year level had a significant relationship towards attitude on HIV/AIDS. There was also significant relationship on age, gender, relationship status, and type of sexual relationship, year level, income and the student's daily allowance that affected sexual relations.

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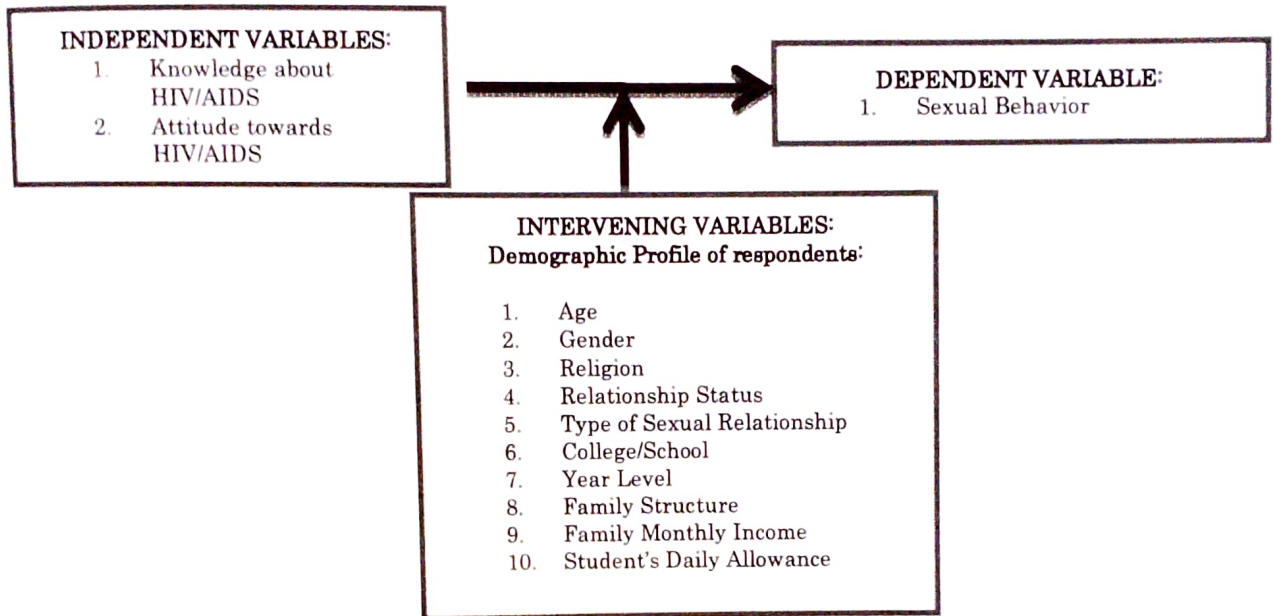
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However, knowledge and attitude had no bearing on the sexual behavior, therefore, based on the findings, it is highly recommended to incorporate and strengthen moral values in Sexual Education especially to males, homosexuals/bisexuals, ages 15-24, and senior college students with higher economic status to prevent increasing HIV/AIDS incidence in the Philippines.

*Keywords:* Acquired Immune Deficiency Syndrome (AIDS), Attitude Knowledge, Sexual Behavior, Type of Sexual Relationship

### Introduction

As of January 2013, there are 12,082 people living with HIV in the Philippines. Early in the year 2010 the Department of Health stated that the country was now on the brink of a "concentrated epidemic", due to a rise in prevalence. According to the National Epidemiology Center of the DOH there were 380 new HIV Ab sero-positive individuals confirmed by the STD/AIDS Cooperative Central Laboratory (SACCL) and reported to the HIV and AIDS Registry in January 2013, this was 79% higher compared to the same period last year. In 2010, there were 1,591 cases reported and 2,349 new cases reported the following year. As of 2012, 3,338 new cases of HIV have been reported that year. This means that more than half of all known cases of HIV in the Philippines have been reported only in the last three years. Due to the sudden increase of HIV/AIDS incidence rates in the Philippines these past few years and the fact that 90 per cent of the population of reproductive age believe they can contract HIV by sharing a meal with someone (USAID Philippines, 2008) suggests that knowledge of HIV/AIDS among Filipino youth have decreased over time. According to the Department of Health, National Epidemiology Center there were 2,665 new cases of HIV/AIDS from the age bracket of 15-24 years old in the month of October. Misconceptions on the citizens' knowledge or information as well as their attitudes about HIV can act as barriers for better sexual behavior in preventing the spread of the disease. With a steady rising incidence rate of HIV/AIDS in the Philippines, this study is conducted to determine the knowledge of students regarding HIV/AIDS along with their attitude towards it and how it can affect their sexual behavior.



*Figure 1. Conceptual Framework of the study*

Figure 1 shows the research paradigm that will serve as a guide in this study. These intervening and independent variables are considered as the predictors in determining the sexual behaviours of the respondents and serves as the dependent variable. Theories were incorporated in this investigation include the Health Belief Model (HBM) by Irwin M. Rosenstock and Theory of Reasoned Action (TRA) by Fishbein and Ajzen. According to the Health Belief Model, a person will be able to change his behavior depending upon his knowledge and attitudes. Whereas the Theory of Reasoned Action was based on the assumptions that human beings are usually quite rational and make systematic use of the information available to them. These two (2) theories highlight the linear decision making of behavior of the respondents based on their beliefs and knowledge on HIV/AIDS (Glanz et al, 2002).

### Objectives of the Study

The study intends to determine the impact of knowledge on as well as the attitude towards HIV/AIDS and how it can affect the sexual behavior of selected secondary and tertiary students from the different colleges/schools of the Mindanao State University – Iligan Institute of Technology. Specifically, this study attempts to:

1. Determine the profile of the respondent in terms of:
  - 1.1. Age
  - 1.2. Gender
  - 1.3. Religion
  - 1.4. Relationship Status
  - 1.5. Type of Sexual Relationship
  - 1.6. College/School
  - 1.7. Year Level
  - 1.8. Family structure
  - 1.9. Family monthly income
  - 1.10. Student's Daily Allowance
2. Establish the status of the respondents in terms of their:
  - 2.1. Knowledge on HIV/AIDS
  - 2.2. Attitude towards HIV/AIDS
3. Assess the sexual behavior of the respondents.
4. Investigate if there is a significant relationship between the respondent's demographic profile (age, gender, religion, relationship status, type of sexual relationship, college/school, year level, family structure, family monthly income and student's daily allowance) to their:
  - 4.1. Knowledge on HIV/AIDS
  - 4.2. Attitude towards HIV/AIDS
5. Find out if there is a significant relationship between the respondent's profile and their Sexual Behavior.
6. Determine the impact of Knowledge on and Attitude towards HIV/AIDS on the Sexual Behavior of the respondents.

#### **Null Hypotheses:**

The following hypotheses are tested at 0.05 level of significance:

- $H_{01}$ : There is no significant relationship between the respondent's profile and the knowledge on and attitude towards HIV/AIDS.
- $H_{02}$ : There is no significant relationship between the respondent's profile and their Sexual Behavior.

**H<sub>03</sub>:** There is no significant relationship with the respondent's Knowledge on and Attitude towards HIV/AIDS to their Sexual Behavior.

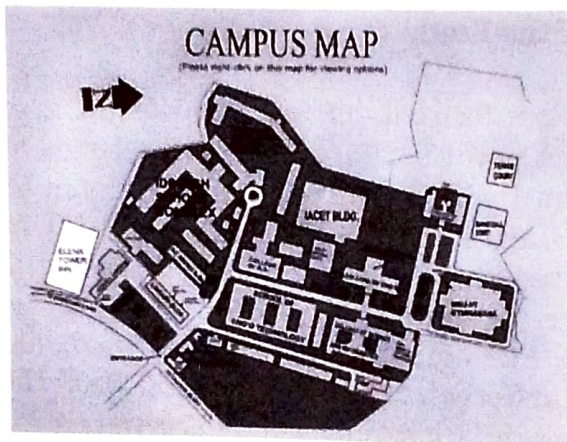
### **Scope and Limitation of the Study**

This investigation focused on the knowledge and attitude regarding HIV/AIDS and its impact to the sexual behavior of selected students in Mindanao State University – Iligan Institute of Technology in Iligan City. The respondents were secondary and tertiary students enrolled in MSU-IIT ranging from ages 15-24 years old, and limited only to 4<sup>th</sup> year high school students from IDS and college students from freshmen to senior/5th year in MSU-IIT taking undergraduate courses. Furthermore, this study was conducted over a period of one month within the different colleges/schools of MSU-IIT. Variables such as age, gender, religion, relationship status, type of sexual relationship, College/School, year level, family structure, family monthly income and student's daily allowance are discussed in this paper, whereas variables such as marital status, occupation, ethnicity, residential status and family size are not included in this investigation.

### **Research Methodology**

Descriptive correlational research design was used in this study. It determined the profile of the selected students in terms of their demographic profile. It utilized the correlation method in identifying the relationship between the demographic profile of the respondents and their knowledge on HIV/AIDS & their attitude towards HIV/AIDS. Moreover, it evaluated the relationship between the demographic profile of the respondents and their sexual behavior; lastly, correlation method also described the relationship between knowledge on HIV/AIDS and attitude towards HIV/AIDS and sexual behavior among the respondents. To ensure a good sample representation of the population, this study utilized a Stratified Random Sampling with proportional allocation wherein each school/college represents the stratum.

## Locale of the Study



*Figure 4. MSU-IIT Campus Map*

MSU-IIT is an external unit and is one of the ten campuses of the Mindanao State University System. The university is located in a 9-hectare site at Barangay Tibanga, Iligan City, Philippines. The total student population of MSU-IIT for the school year 2012-2013 during the second semester was 11,215 in which about 4,489 represented the male population while 6,724 represented the female population ([www.msuiit.edu.ph](http://www.msuiit.edu.ph), 2012).

## Respondents

The respondents of this study were MSU-IIT students enrolled during the second semester of the school year 2012-2013. Out of the total student population of 11,215 enrolled in the different schools/colleges in MSU-IIT namely: College of Arts and Social Sciences (CASS), College of Nursing (CON), School of Engineering Technology (SET), College of Engineering (COE), School of Education (CED), School of Computer Studies (SCS), College of Mathematics (CSM), College of Business Administration and Accountancy (CBAA), and Integrated Developmental School (IDS), 400 students were used as respondents with ages ranging from 15-24 years old. Using the stratified random sampling, the different colleges were divided into subgroups/strata in a total of 400 respondents.

## **Research Instrument**

A modified standardized questionnaire was used as the research instrument. It was based on several questionnaires which focused on the topic HIV/AIDS namely: ICRW Questionnaire by Laura Nyblade and Kerry MacQuarrie, QASA Baseline Survey Questionnaire by Dr. Philip Coetzer, and Semi-Longitudinal Individual Survey Questionnaire by the Research Alliance to Combat HIV and AIDS (2010).

## **Validation of the Instrument**

The modified standardized questionnaire was tried out to 20 respondents before it was distributed to the final target respondents of 400. Items which seemed ambiguous had been modified. Cronbach's alpha was used to test the validity of the questionnaire. The aim of the pilot study was to ascertain the validity of the data-gathering tool made by the researchers.

## Results and Discussion

*Table 1. Demographic Profile of Respondents*

	Frequency	Percentage
Age		
15-18 years old	187	46.75%
19-24 years old	213	53.25%
Gender		
Female	207	51.75%
Male	193	48.25%
Religion		
Catholic	277	69.25%
Non-Catholic	123	30.75%
Relationship Status		
Single	274	68.50%
In A Relationship	126	31.50%
Type of Sexual Relationship		
Heterosexual	113	28.25%
Homosexual	5	1.25%
Bisexual	8	2.00%
None	274	68.50%
College/School		
CASS	72	18.00%
CBAA	31	7.75%
CED	76	19.00%
COE	68	17.00%
CON	18	4.50%
CSM	36	9.00%
SCS	38	9.50%
SET	56	14.00%
IDS	5	1.25%
Year Level		
High School	5	1.25%
First Year	118	29.50%
Second Year	68	17.00%
Third Year	83	20.75%
Fourth Year	118	29.50%
Fifth Year	8	2.00%
Family Structure		
Nuclear	307	76.75%
Extended	61	15.25%
Skip Generation	28	7.00%
Single	4	1.00%
Family Monthly Income		
Below P 15,000	169	42.25%
P 15,000 and above	231	57.75%
Student's Daily Allowance		
P 100 and below	298	74.50%
Above P 100	102	25.50%
Total	400	100.00%



The table above shows that majority of the respondents are ages 15 to 18 years old. Among the 400 respondents, 51.75% are females, 69.25% are Catholic, and 68.50% are single. According to a study by Siegel K, et al (2008), they found out that among single men having sexual intercourse with both opposite and with the same genders, having unprotected sex was common in the last 3 months; they also reported to have risky sexual behavior with their steady partners than with casual male and female partners. Majority of the respondents have a daily allowance of P100 and below. In a study by J. Chen, et al (2003), it is said that the knowledge of use of condoms to prevent the spread of HIV/AIDS was found to be positively related to the level of economic development of the region where the respondent resided and higher monthly income was found to be associated with higher knowledge of HIV/AIDS, but higher monthly income was negatively associated with knowledge of preventive methods.

*Table 2. Knowledge and Attitude Status of the Respondents*

	Frequency	Percentage
Knowledge		
Poor (0 – 6)	83	20.8%
Average (7 – 13)	194	48.5%
High (14 – 19)	123	30.8%
Attitude	0	0.0%
Very Negative	26	6.5%
Negative	273	68.2%
Neutral	100	25.0%
Positive	1	0.2%
Total	400	100.0%

For the standard interpretation of data for attitude of the respondents towards HIV/AIDS, the following range of ratings was used:

Continuum Interpretation	Scale	Subjective Meaning	
1.00 – 1.79	1	Strongly Agree	Very Negative
1.8 – 2.59	2	Agree	Negative
2.6 – 3.39	3	Neutral	Neutral
3.4 – 4.19	4	Disagree	Positive
4.2 – 5.00	5	Strongly Disagree	Very Positive

This range of ratings was applicable to negative questions in Part III on the attitude towards HIV/AIDS in the questionnaire.

Continuum	Scale	Subjective Meaning	Interpretation
1.00 – 1.79	1	Strongly Disagree	Very Negative
1.8 – 2.59	2	Disagree	Negative
2.6 – 3.39	3	Neutral	Neutral
3.4 – 4.19	4	Agree	Positive
4.2 – 5.00	5	Strongly Agree	Very Positive

While this range of ratings was applicable for positive questions in Part III on the attitude towards HIV/AIDS in the questionnaire.

Interpretation Meanings:

- **Very Positive** – Expressing accepting attitudes towards HIV/AIDS and people living with it.
- **Positive** – Expressing open-mindedness towards HIV/AIDS and people living with it. Such as willing to interact and socialize with people living with HIV/AIDS
- **Neutral** – Expressing a fair, proportionate, and as far as possible without bias, view on HIV/AIDS and people living with it.
- **Negative** – Expressing cautiousness and does not have the willingness to interact and socialize with people living with HIV/AIDS.
- **Very Negative** – expressing discrimination, prejudice and apprehension towards HIV/AIDS and people living with it.

*Table 3. Sexual Behavior of the Respondents*

	Frequency	Percentage
What do you do to avoid getting infected with HIV/ AIDS?		
Advise spouse/ sexual partner to take care	285	71.25%
Prayer can protect	119	29.75%
Practice sexual abstinence	230	57.5%
<u>If using condoms, use it with</u>	203	50.75%
All other partners	207	51.75%
People you think might be infected		
<u>Avoid having sexual intercourse with:</u>	97	24.25%
Commercial sex workers/ prostitutes	276	69%
People of many sexual partners	215	53.75%
/prostitutes	210	52.5%
People you think might be infected		
People of the same sex	138	34.5%
Nothing can be done	12	3%
Others		
Not sure		

As shown in the table above, 71.25% answered advise spouse/ sexual partner to take on methods to take in order to avoid getting infected with HIV/AIDS, 51.75% of the respondents answered that condoms should be used with people they think might be infected with HIV/AIDS, and 69% of the respondents answered that having sexual intercourse with people having multiple sexual partners and/or prostitutes should be avoided.

*Table 3.1. Sexual Behavior of the Respondents who have had Sexual Intercourse*

	Frequency	Percentage
Have you ever had sexual intercourse (vaginal or anal sex)?		
Yes	69	17.2%
No	331	82.8%
Total	69	100.0%

<i>If YES,</i>	Frequency	Percentage
About how old were you when you first had sexual intercourse?		
12 years old	2	2.9%
14 years old	4	5.8%
15 years old	11	15.94%
16 years old	15	21.74%
17 years old	13	18.84%
18 years old	13	18.84%
19 years old	5	7.25%
20 years old	4	5.8%
21 years old	2	2.9%
Did that sexual intercourse happen with the same sex or opposite sex?		
Same Sex	15	21.74%
Opposite Sex	54	78.26%
What kind of sexual intercourse was it?		
Vaginal Sex	53	76.81%
Anal Sex	16	23.19%
Do you have a regular (consistent) sexual partner?		
Yes	27	39.13%
No	42	60.87%
Total	69	100.0%

As shown in the table above, majority of the respondents have not yet engaged in sexual intercourse. Out of the 69 respondents who have already engaged in sexual intercourse, majority of them had their first experience at age 16, and two (2) respondents had sexual intercourse at the age of 12 years old--an alarming development that should be addressed, in order to prevent an increased rate of early engagement of sexual intercourse, 78.26% had sex with the opposite sex, 76.81% engaged in vaginal sex and 60.87% do not have a regular sexual partner.

*Table 3.3. Sexual Behaviour of the Respondents who have had Sexual Intercourse*

	Frequency	Percentage
If No, how many different people have you had sexual intercourse with in the past...		
3 months (Number of people)		
1	5	7.25%
2	7	10.14%
3	3	4.35%
6 months (Number of people)		
1	2	2.9%
2	4	5.8%
3	2	2.9%
4	2	2.9%
5	2	2.9%
6	2	2.9%
12 months (Number of people)		
1	5	7.25%
2	4	5.8%
3	3	4.35%
4	1	1.45%
5	1	1.45%
6	4	5.8%
9	1	1.45%
10	1	1.45%
In the past, what gender did you prefer having sex with?	53	76.81%
Always the opposite sex	11	15.94%
Always the same sex	5	7.25%
Either of the sexes		

For the last 12 months, have you had sex with a commercial sex worker or a prostitute?		
Yes	64	92.75%
No	0	0%
Not sure		
<i>If yes, approximately how many times?</i>	0	0%
Only once	1	1.45%
2-5 times	2	2.9%
6 or more times	0	0%
Not sure		
<b>Total</b>	<b>69</b>	<b>100.0%</b>
	<b>Frequency</b>	<b>Percentage</b>
In the last 12 months, have you had sex with someone you have met in the internet (social networking site)?	12	17.39
Yes	57	82.61
No		
<i>If yes, approximately how many times?</i>	1	1.45
Only once	5	7.25
2-5 times	3	4.35
6 or more times	3	4.35
Not sure		
Did you or any of these partners use condom?	41	59.42
Yes	22	31.88
No	6	8.7
Not sure		
If yes, how often do you use condom?	24	34.78
Never or almost never	31	44.93
Usually but not always	14	20.29
Always		
<b>Total</b>	<b>400</b>	<b>100.0%</b>

The table above shows that 10.14% out of the 69 respondents confirmed that they had sex with 2 different people for the past 3 months, 5.8% confirmed that they had sex with 2 different people in the past 6 months and 7.25 % confirmed that they had sex with someone in the past 12 months. On the other hand, 76.81% confirmed that they always prefer having sex with the opposite sex. It also shows that out of 69 respondents, 17.39% had sex with someone they have met in the internet. Furthermore, 59.42% confirmed that they have used condoms.

*Table 4.1. Computed Correlation Coefficient for the Relationship between the Respondents' Demographic Profile and their Level of Knowledge on HIV/AIDS*

	Computed Correlation Coefficient	P-Value	Remark	Conclusion
Age	0.091	0.069	Not Significant	Not Rejected
Gender	-0.012	0.814	Not Significant	Not Rejected
Religion	0.267	0.059	Not Significant	Not Rejected
Relationship Status	0.096	0.056	Not Significant	Not Rejected
Type of Sexual Relationship	0.191	0.020	Significant	Rejected
College/School	0.340	0.000	Significant	Rejected
Year Level	0.041	0.413	Not Significant	Not Rejected
Family Structure	0.139	0.247	Not Significant	Not Rejected
Family Monthly Income	0.008	0.876	Not Significant	Not Rejected
Student's Daily Allowance	0.061	0.222	Not Significant	Not Rejected

**Legend:** If P-value is less than  $\alpha = 0.05$  (level of significance), then the test is significant (i.e., there is a significant relationship); otherwise, the test is not significant (i.e., there is no significant relationship).

There is a significant relationship between type of sexual relationship and the college the person is enrolled into the level of knowledge towards HIV. This implies that type of sexual relationship and the college a person belongs to affects his level of knowledge towards HIV.

*Table 4.1.1. Cross-tabulation between the Type of Sexual Relationship and the Level of Knowledge*

Type of Sexual Relationship	Knowledge			Total
	Poor	Average	High	
Heterosexual	18	47	48	113
Homosexual	3	2	0	5
Bisexual	2	4	2	8
None	60	141	73	274
Total	83	194	123	400

As shown in the table, respondents who have heterosexual and no sexual relationship tend to have high level of knowledge, while respondents who have homosexual relationship and bisexual relationship tended to have poor level of knowledge. This result is comparable to the findings of the study conducted by Shenyang Liu, et al (2010). It suggests that among men who have sex with men, most respondents had a fair level of knowledge on HIV/AIDS. Another study had the same results that lesbian respondents had mediocre knowledge on barrier methods which is used in preventing HIV/AIDS infection (Fishman SJ et al, 2010).

*Table 4.1.2 Cross-tabulation between the College and the Level of Knowledge*

College	Knowledge			Total
	Poor	Average	High	
CASS	18	30	24	72
CBAA	2	20	9	31
CED	16	43	17	76
COE	16	36	16	68
CON	1	0	17	18
CSM	4	18	14	36
IDS	1	3	1	5
SCS	10	21	7	38
SET	15	23	18	56
Total	83	194	123	400



As shown in the table above, looking at the proportion, majority of CON respondents have a high level of knowledge, followed by CSM students. Also talking of their proportion, SET and SCS respondents have high proportion of having poor level of knowledge in HIV. The same result is found in a study by Albrektsson, et al (2009), 84.5% of the Chinese medical students and 80.2% of the foreign medical students knew about HIV/AIDS compared to the 66.2% of the Chinese non-medical students. It is evident that most medical students tend to have higher knowledge on HIV/AIDS than non-medical students.

*Table 4.2. Computed Correlation Coefficient for the Relationship between the Respondents' Demographic Profile and their Attitude on HIV/AIDS*

	Computed Correlation Coefficient	P-Value	Remark	Conclusion
Age	-0.202	0.000	Significant	Rejected
Gender	-0.090	0.071	Not Significant	Not Rejected
Religion	0.271	0.387	Not Significant	Not Rejected
Relationship Status	-0.058	0.247	Not Significant	Not Rejected
Type of Sexual Relationship	0.225	0.011	Significant	Rejected
College/School	0.239	0.443	Not Significant	Not Rejected
Year Level	-0.142	0.004	Significant	Rejected
Family Structure	0.100	0.911	Not Significant	Not Rejected
Family Monthly Income	-0.097	0.052	Not Significant	Not Rejected
Student's Daily Allowance	0.042	0.402	Not Significant	Not Rejected

**Legend:** If P-value is less than  $\alpha = 0.05$  (level of significance), then the test is significant (i.e., there is a significant relationship); otherwise, the test is not significant (i.e., there is no significant relationship).

There is a significant negative relationship between age and the level of attitude towards HIV. Hence, as age increases the level of attitude towards HIV tended to become negative. It is also found that there is a significant relationship between type of sexual relationship to their level of attitude towards HIV. This implies that the type of sexual relationship affects the level of attitude towards HIV. There is also a significant negative relationship between year level and their level of attitude towards HIV. This implies that lower years tended to have a positive attitude towards HIV while the higher years tended to become negative.

*Table 4.2.1. Cross-tabulation between the Type of Sexual Relationship and their Level of Attitude on HIV/AIDS*

Type of Sexual Relationship	Level of Attitude					Total
	Very Negative	Negative	Neutral	Positive	Very Positive	
Heterosexual	0	11	72	30	0	113
Homosexual	0	1	4	0	0	5
Bisexual	0	3	3	2	0	8
None	0	11	194	68	1	274
Total	0	26	273	100	1	400

As shown in the table above, respondents who have heterosexual relationship tended to have a positive attitude. On the other hand, respondents who have a bisexual relationship tended to have a negative attitude.

*Table 5. Computed Correlation Coefficient for the Relationship between the Respondent's Demographic Profile and their Sexual Behaviour*

Have you ever had sexual intercourse (vaginal or anal sex)? (1 – Yes, 2 – No) versus	Computed Contingency Correlation Coefficient	P-Value	Remark
Age	0.219	0.000	Significant
Gender	0.288	0.000	Significant
Relationship Status	0.199	0.000	Significant
Year Level	0.193	0.009	Significant
Family Monthly Income	0.122	0.014	Significant
Student's Daily Allowance	0.127	0.011	Significant
Type of Sexual Relationship	0.262	0.000	Significant
Family Structure	0.064	0.652	Not Significant
College	0.103	0.829	Not Significant
Religion	0.135	0.680	Not Significant

**Legend:** If P-value is less than  $\alpha = 0.05$  (level of significance), then the test is significant (i.e., there is a significant relationship); otherwise, the test is not significant (i.e., there is no significant relationship).

There was a significant relationship between age, gender, relationship status, year level, family monthly income, student's daily allowance, and type of sexual relationship to their sexual behavior and implies that these variables affect their responses as to whether they had engaged in sexual intercourse or not.

*Table 5.1. Cross-tabulation of the Significant Relationship Between the Respondents' Demographic Profile and Their Sexual Behavior*

	Have you ever had sexual intercourse (vaginal or anal sex)?		Total
	Yes	No	
Age			
15-18 years old	19	168	187
19-24 years old	50	163	213
Gender			
Male	56	137	193
Female	13	194	207
Relationship Status			
Single	33	241	274
In a relationship	36	90	126
Type of Sexual Relationship			
Heterosexual	29	84	113
Homosexual	3	2	5
Bisexual	5	3	8
None	32	242	274
Year Level			
4 <sup>th</sup> Year High School	0	5	5
First Year	8	110	118
Second Year	16	52	68
Third Year	20	63	83
Fourth Year	23	95	118
Fifth Year	2	6	8
Family Monthly Income			
P 15,000 and below	20	149	169
Above P 15,000	49	182	231
Student's Daily Allowance			
P 100 and below	43	255	298
Above P 100	26	76	102
Total	69	331	400

As shown in the table above, older respondents are more likely to engage in sex. In accordance to the study of Lohmus et al (2003), the group aged 19-24 years old have had more sexual experiences compared to the group aged 15-18 years old. Male respondents tended to engage in sex. Based from the results, the

study conducted by Nwagwu et al (2011) had the same findings. Their study showed that 34% of the males and 25% of the females engaged in sexual activity and about 5.71% of males had initiated sexual intercourse before 12 years old than females (2.78%).

Respondents who are in a relationship are more likely to have sex than single respondents. In terms of the year level, lower year respondents are less likely to have sex than others in higher years. Homosexuals and bisexuals are more likely to have sex than those with single and heterosexual relationships. According to the study of Siegel K et al (2008), among non-gay men having sexual intercourse with both opposite and same genders having unprotected sex was common with both male and female partners in the last 3 months (35% anal sex with men; 50% vaginal sex). The respondents also had more male than female sexual partners, but had more frequent intercourse with females; they also reported to have risky sexual behavior with their steady partners than with casual male and female partners.

Respondents with higher family incomes tend to have sex more than those who have lower family income. According to the studies of Adler (2006) and Culhane et al (2001), they had contradicting results. Their study concluded that individuals who have low socioeconomic status has been linked to the practice of riskier health behaviors, these including earlier initiation of sexual activity and less frequent use of condoms compared to those who have a higher socioeconomic status.

Respondents who have higher daily allowances tended to engage in sex than those who have lower daily allowances. The study conducted by Refaat A. (2004) had similar findings; it is found that students who have higher allowances get into risky sexual behavior and pay no attention to danger than those who have lower allowances. Tan et al (2007) had opposing results; Chinese students that have lower allowances tend to engage more in sexual activity.

**Table 6.** *Computed Correlation Coefficient for the Relationship Between the Respondents' Sexual Behavior and Their Level of Knowledge and Attitude*

Have you ever had sexual intercourse (vaginal or anal sex)? (1 – Yes, 2 – No) versus	Computed Contingency Correlation Coefficient	P-Value	Remark
Knowledge	0.033	0.803	Not Significant
Attitude	0.069	0.586	Not Significant

There was no relationship between the level of knowledge and attitude towards HIV to their sexual behavior. This result is similar to a study by Torkko, et al (2009) in which its findings suggest that the knowledge on HIV alone does not translate into actual sexual behavior change among the youth. According to Opt S. K., et al (2004), although college students are knowledgeable about the risks and transmission modes, they are neither very concerned personally about becoming infected nor do they appropriate safe sex precautions, such as always using latex condoms.

### Conclusion

This study showed several findings which include College and Type of Sexual relationship that have a significant relationship to their knowledge on HIV/AIDS, age has a negative significant relationship to the respondent's attitude on HIV/AIDS hence, as the age increases, the respondent's attitude tended to become more negative on HIV/AIDS, year level has a negative significant relationship to the respondent's attitude on HIV/AIDS hence, lower year levels tended to have a positive attitude on HIV/AIDS while higher year levels tend to become negative and the type of Sexual Relationship has a significant relationship to the respondent's attitude on HIV/AIDS; hence, those respondents who have heterosexual relationships tended to have a positive attitude while bisexual relationship tended to have a negative attitude. Moreover, the respondent's profile played a significant role to their Sexual Behavior; there was significant relationship between age, gender, relationship status, year level, family monthly income, student's daily allowance, and type of sexual relationship to their responses as to whether they had engaged in sexual intercourse. Specifically, younger respondents are less likely to have sex than older respondents; female respondents are less likely to have sex than male respondents; Single respondents are less likely to have sex, than those who are in a relationship; Lower year respondents are less likely to have sex than respondents in higher years; Respondents whose family monthly income are below P15, 000.00 and have an allowance below P100 tended not to engage in sexual intercourse than respondents who have higher family incomes and higher allowances; Homosexual and bisexual respondents are more likely to engage in sexual intercourse, than respondents who are single and have heterosexual relationships. Lastly, this study found out that there is no significant relationship between the respondent's knowledge and attitude on HIV/AIDS to their Sexual Behavior. Hence, these factors alone are not enough to influence the respondent's sexual behavior.

### Recommendations

1. **Department of Education/Institution/Schools**
  - Strengthening morals and values education in Educational Institutions.
  - Integrate in all the subjects the importance of loving God and having a personal relationship with Him, it is only then that moral standards and conduct will be inculcated in the lives of the students.
2. **Parents**
  - Rejuvenate and intensify “family bonding”, thereby, parents can monitor their children’s whereabouts.
3. **Youth**
  - Participate in health education seminars and conferences that can provide additional information regarding HIV/AIDS particularly 4<sup>th</sup> year students. Also, utmost concern should be given to those who are males, homosexuals/bisexuals, ages 15-24 years old, and/or students with higher economic status to prevent increasing incidence of HIV/AIDS.
4. **Future Researchers**
  - Use a larger sample of respondents: Expand the scope of the respondents in terms of age to include 12 years old and above and in terms of the locale to include other colleges/schools in Iligan city.

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