# Sexual Attitudes, Age, Sex and Romantic Commitment as Factors in the Level of HIV Awareness of Selected College Students

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## ABSTRACT

As of January of 2023, over 110,000 documented HIV cases have been reported in the Philippines. According to the Department of Health, the rate of infection in 2023 is 22% higher than in 2022. In view of these reports, this study attempted to ascertain the level of HIV awareness of selected college students. It also explored their sexual attitudes, age, sex and presence of a romantic commitment as potential factors that could affect their level of HIV awareness. Fifty $2^{nd}$ year students from a college in the Province of Rizal, Philippines volunteered to be the respondents. To assess their sexual attitudes, the Brief Sexual Attitude Scale (BSAS), a 23 item 5-point Likert scale instrument, which measures the 4 domains of permissiveness, birth control, communion and instrumentality was used. To assess their HIV awareness, a 29-item true or false researcher-made instrument was crafted based on the HIV facts stated in the UNAIDS website. The results found that with regards to sexual attitudes, the respondents moderately disagree to permissiveness, strongly agree to birth control, moderately agree to communion and are neutral to instrumentality. No significant difference was found between the male and female respondents concerning the 4 BSAS domains. Furthermore, there was also no significant difference between the respondents with and without romantic commitment concerning the 4 BSAS domains. Based on the scores obtained from the researcher-made instrument measuring the respondents' level of HIV awareness, their level of awareness is only at 52.48%. A very statistically significant difference was found in the level of HIV awareness between the male and female respondents. In addition, it was established that the female respondents have a significantly higher HIV awareness than the male respondents. No significant difference was established between the level of HIV awareness of the respondents with or without romantic commitment. Furthermore, no significant relationship was found between the level of HIV awareness of the respondents and the 4 BSAS domains. However, a significant moderate inverse relationship between the respondents' age and their level of HIV awareness was established. This implies that as the respondent's age increases, his HIV awareness score moderately decreases and vice versa.

## INTRODUCTION

Human immunodeficiency virus (HIV) is a virus that assails the body's immune system. If HIV is left untreated, it can lead to acquired immunodeficiency syndrome (AIDS). There is at present no cure and once people acquire HIV, they have it for life[1]. HIV originated from a virus in chimpanzees referred to as the simian immunodeficiency virus (SIV). It is believed that the virus could have been transferred to humans when the chimpanzees were hunted for food and were subsequently exposed to the latter's infected blood[2]. HIV is a sexually transmitted infection (STI) but can also be spread through infected blood and from drug abuse through injection or sharing of needles. It can also be transmitted between the mother and child during pregnancy, child birth or breastfeeding[3]. In humans, it was first encountered as somewhat of a medical mystery in 1981 and would eventually be known as AIDS[4].

In 2020, 37.7 million people worldwide are estimated to be infected with HIV according the World Health Organization (WHO). The top 10 countries ranked with most HIV cases are South Africa (7.8 million), India (2.3 million), Mozambique (2.1 million), Tanzania (1.7 million), Nigeria (1.7 million) Zambia (1.5 million), Uganda (1.4 million), Kenya (1.4 million) Zimbabwe (1.3 million) and Russia (1 million)[5].

From 1984 to February of 2023, a total of 112,028 HIV cases have been recorded in the Philippines. The average of newly diagnosed cases per day have risen from nine in 2012 to 47 in 2023[6].

In one study, it was found that sex, sexual-risk score, self-awareness, faculty, income-per-month, GPA, and knowledge were significant independent predictors of HIV/AIDS preventive behaviors. These accounted for 36.9% of HIV preventive behaviors, and the strongest predictor was established to be self-awareness[7].

A study conducted in Nepal, Mongolia, Bangladesh and Lao found that 60% of the respondents were aware of the existence of HIV/AIDS, 63.2% had knowledge of HIV/AIDS transmission and 80.4% possessed misconceptions concerning HIV/AIDS. Furthermore, wealth index, education and access to information were found to have significant relationships with HIV/AIDS knowledge[8].

An African study found that adults aged 50 and older were still sexually active. It further found that people over 50 had less HIV-related knowledge and awareness than those aged 25-49[9].

A study claimed that call center agents in the Philippines have an increased risk of acquiring HIV. Due to their environment and peer pressure, call center agents tend to engage in risky sexual behaviors. More call center workers have early penetrative premarital sex and have had sexual involvement with the same sex. In addition, more call center workers have had casual sex experience and around 50% of the male call center workers and one out of nine female call center agents have experienced casual sex experience. Also, in a 12-month period, regardless of gender, nearly one-third of male of call center agents had casual sex[10].

In a study conducted in Uganda, it was found that the frequency of exposure to mass media such as print, radio and TV about HIV testing and HIV knowledge improves adolescents' chances of increasing their accurate HIV information and the likelihood of getting tested for HIV[11].

According to another study conducted in the western provinces of China, HIV awareness was found to be at 80.9% among over 9000 participants. Statistically significant differences in HIV awareness between participants grouped according to age, education, occupation and income were also established. Education and mass media were found to have the greatest influence on HIV awareness[12].

A study conducted in south western Nigeria on 368 college students revealed that only 22.3% believed that they were susceptible to HIV/AIDS, 58.2% had sexual experience, the mean age of their first sexual encounter was 16.7 years and 48.2% of the sexually active respondents had multiple sexual partners[13].

Based on the aforementioned studies, it would appear that the spread of HIV is influenced by the level of awareness of the same. But it would also seem that sexual attitudes, which in turn affect sexual behavior contribute to the rising infection rates across the world. In view of this, the present study sought to explore the relationship between sexual attitudes and HIV awareness as well as other factors that could influence both.

Specifically, this study sought to address the following research questions:

1. What are the sexual attitudes of the respondents in terms of
1.1 Permissiveness;
1.2 Birth Control;
1.3 Communion; and
1.4 Instrumentality?
2. Is there a difference in the sexual attitude domains of Permissiveness, Birth Control, Communion and Instrumentality when the respondents are grouped according to
2.1 Sex;
2.2 With or without romantic commitment?
3. What is the level of HIV awareness of the respondents?
4. Is there a significant difference in the level of HIV awareness of the respondents when they are grouped according to
4.1 Sex;
4.2 With or without romantic commitment?
5. Is there a significant relationship between the HIV awareness of the respondents and their
5.1 Age;
5.2 Permissiveness scores;
5.3 Birth Control scores;
5.4 Communion scores; and
5.5 Instrumentality scores?

## METHODOLOGY

For this study, fifty 2nd year students from a college in the Province of Rizal, Philippines volunteered to be the respondents. The students were residents of Antipolo City, Rodriguez, Quezon City, Marikina City and San Mateo. 15 were male and 35 were female. Their age range was 19 to 25 with a mean age of 21. Twenty-eight of them were romantically committed while twenty-two were not. To measure their sexual attitudes, the Brief Sexual Attitude Scale[14], a 23 item 5-point Likert scale instrument, which measures the 4 domains of permissiveness, birth control, communion and instrumentality was used. To measure their HIV awareness, a 29-item true-or-false researcher-made instrument, which underwent subsequent content validation was crafted based on the HIV facts stated in the UNAIDS website[15].
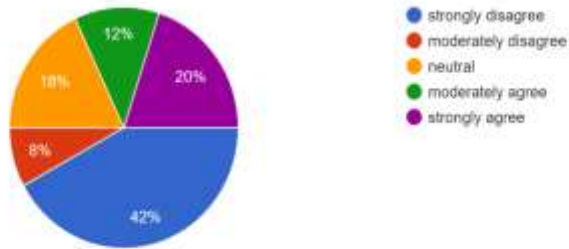
## RESULTS

The following are the figures, charts and tables that present the data collected which underwent statistical treatment.

**Figures 1-10: Percentage of responses to items on BSAS: Permissiveness**
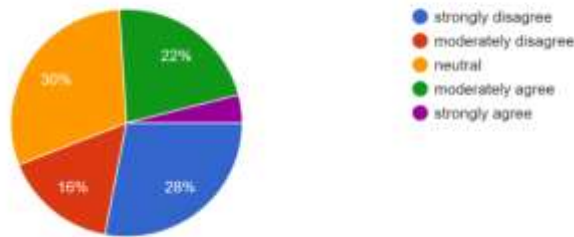
1. I do not need to be committed to a person to have sex with him/her.
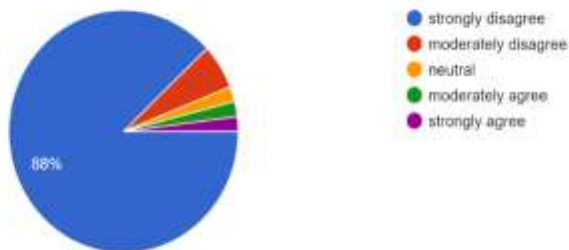50 responses



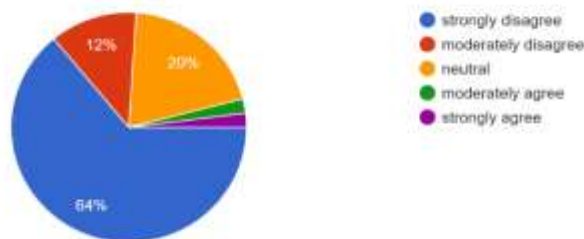2. Casual sex is acceptable.
50 responses



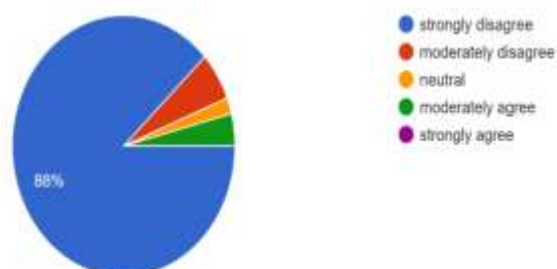3. I would like to have sex with many partners.
50 responses



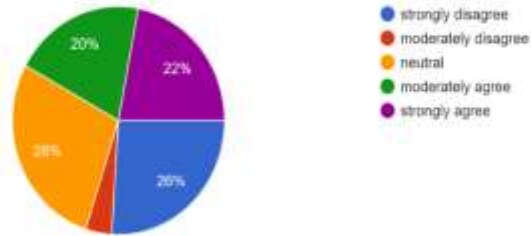4. One-night stands are sometimes very enjoyable.
50 responses



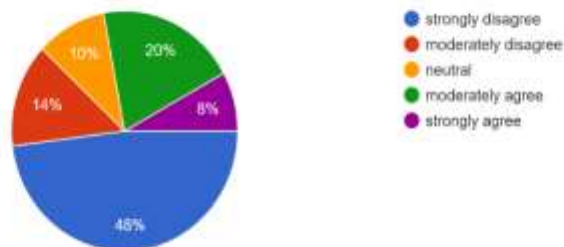5. It is okay to have ongoing sexual relationships with more than one person at a time.
50 responses

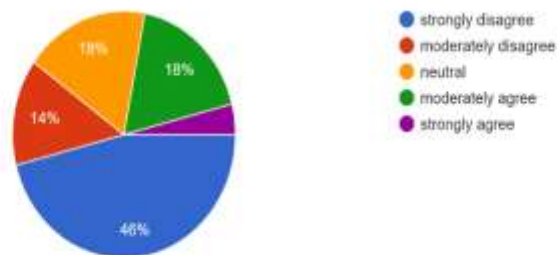6. Sex as a simple exchange of favors is okay if both people agree to it.
50 responses



- strongly disagree
- moderately disagree
- neutral
- moderately agree
- strongly agree

7. The best sex is with no strings attached.
50 responses



- strongly disagree
- moderately disagree
- neutral
- moderately agree
- strongly agree

8. Life would have fewer problems if people could have sex more freely.
50 responses



- strongly disagree
- moderately disagree
- neutral
- moderately agree
- strongly agree

9. It is possible to enjoy sex with a person and not like that person very much.
50 responses



- strongly disagree
- moderately disagree
- neutral
- moderately agree
- strongly agree
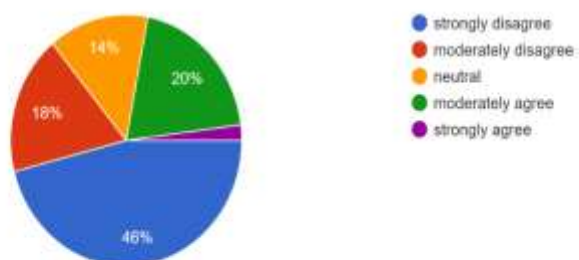
10. It is okay for sex to be just good physical release.
50 responses



- strongly disagree
- moderately disagree
- neutral
- moderately agree
- strongly agree
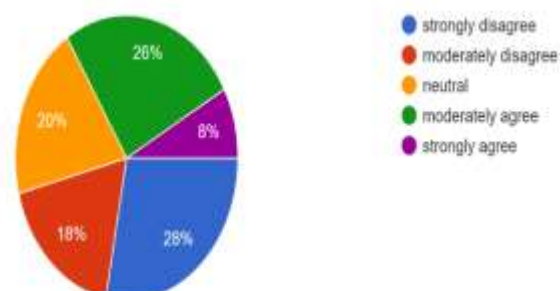
**Table 1: Scale of Interpretation for BSAS findings**

| Range | Verbal Interpretation |
|---|---|
| 1.000 – 1.800 | Strongly disagree |
| 1.801 – 2.600 | Moderately disagree |
| 2.601 – 3.400 | Neutral |
| 3.401 – 4.200 | Moderately agree |
| 4.201 – 5.000 | Strongly agree |

**Table 2: BSAS Permissiveness**

| Statement | Weighted Mean Male N=15 | Weighted Mean Female N=35 | Weighted Mean Overall N=50 | Verbal Interpretation of overall mean |
|---|---|---|---|---|
| 1. I do not need to be committed to a person to have sex with him/her. | 2.933 | 2.457 | 2.6 | Moderately disagree |
| 2. Casual sex is acceptable. | 2.733 | 2.514 | 2.58 | Moderately disagree |
| 3. I would like to have sex with many partners. | 1.067 | 1.314 | 1.24 | Strongly disagree |
| 4. One-night stands are sometimes very enjoyable. | 1.867 | 1.571 | 1.66 | Strongly disagree |
| 5. It is okay to have ongoing sexual relationships with more than one person at a time. | 1.267 | 1.200 | 1.22 | Strongly disagree |
| 6. Sex as a simple exchange of favors is okay if both people agree to it. | 3.000 | 3.114 | 3.08 | Neutral |
| 7. The best sex is with no strings attached. | 2.467 | 2.171 | 2.26 | Moderately disagree |
| 8. Life would have fewer problems if people could have sex more freely. | 1.933 | 2.314 | 2.2 | Moderately disagree |
| 9. It is possible to enjoy sex with a person and not like that person very much. | 2.333 | 2.057 | 2.14 | Moderately disagree |
| 10. It is okay for sex to be just good physical release. | 2.600 | 2.714 | 2.68 | Neutral |
| Total weighted mean | | | 2.166 | Moderately disagree |

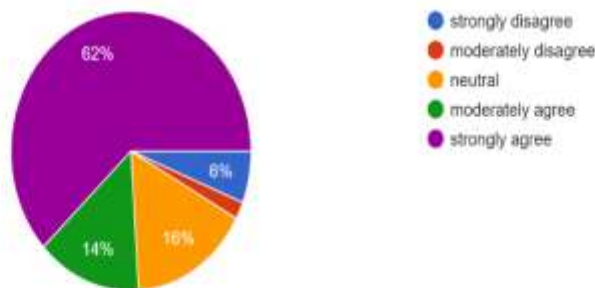**Figures 11-13: Percentage of responses to items on BSAS: Birth Control**

11. Birth control is part of responsible sexuality.
50 responses
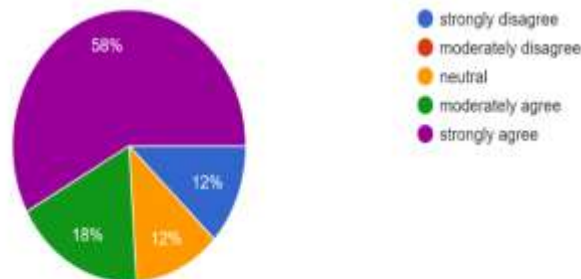


12. A woman should share responsibility for birth control.
50 responses



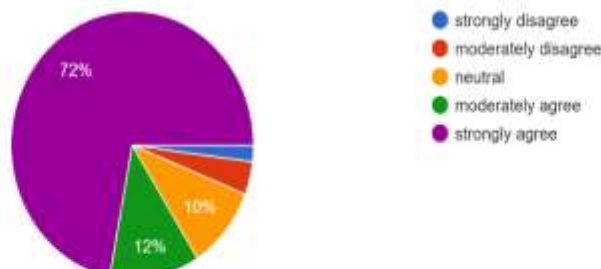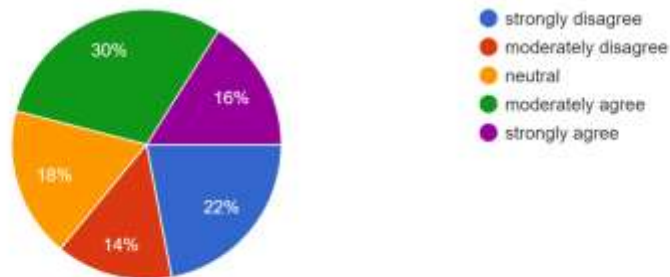13. A man should share responsibility for birth control.
50 responses

**Table 3: BSAS Birth Control**

| Statement | Weighted Mean Male *N=15* | Weighted Mean Female *N=35* | Weighted Mean Overall *N=50* | Verbal Interpretation of the overall weighted mean |
|---|---|---|---|---|
| 11. Birth control is part of responsible sexuality. | 3.533 | 4.343 | 4.1 | Moderately agree |
| 12. A woman should share responsibility for birth control. | 3.733 | 4.457 | 4.24 | Strongly agree |
| 13. A man should share responsibility for birth control. | 4.067 | 4.657 | 4.48 | Strongly agree |
| Total weighted mean | | | 4.273 | Strongly agree |

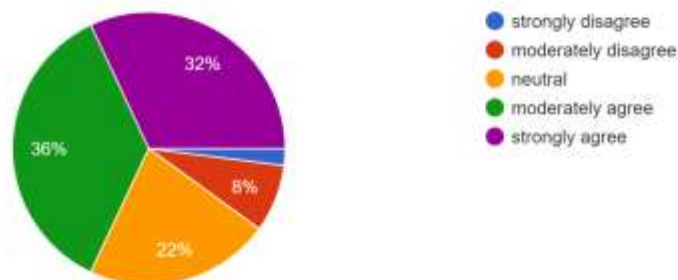**Figures 14-18: Percentage of responses to items on BSAS: Communion**

14. Sex is the closest form of communication between two people.
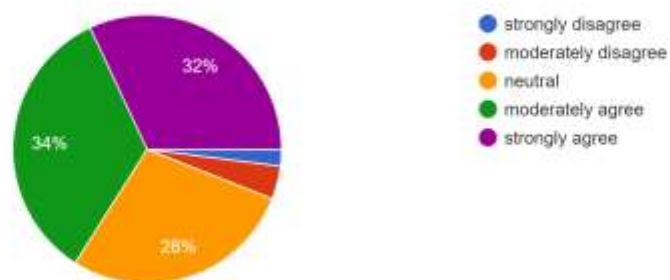50 responses



15. A sexual encounter between two people deeply in love is the ultimate human interaction.
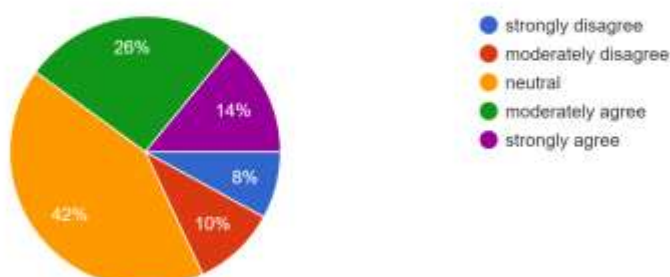50 responses



16. At its best, sex seems to be the merging of two souls.
50 responses



17. Sex is a very important part of life.
50 responses

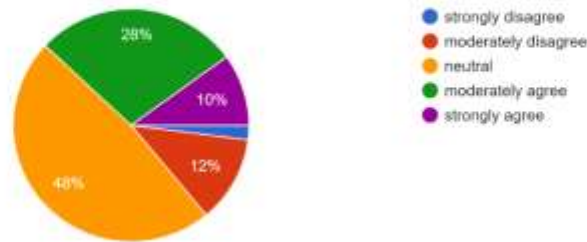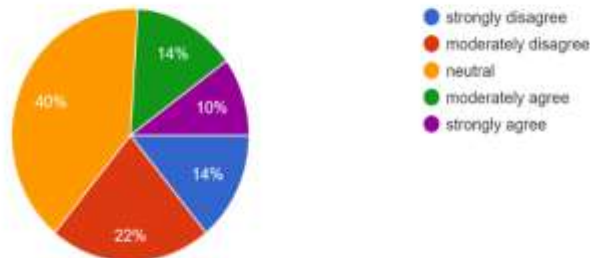18. Sex is usually an intensive, almost overwhelming experience.
50 responses



Legend:
- strongly disagree
- moderately disagree
- neutral
- moderately agree
- strongly agree

**Table 4: BSAS Communion**

| Statement | Weighted Mean Male *N=15* | Weighted Mean Female *N=35* | Weighted Mean Overall *N=50* | Verbal Interpretation |
|---|---|---|---|---|
| 14. Sex is the closest form of communication between two people. | 3.000 | 3.057 | 3.04 | Neutral |
| 15. A sexual encounter between two people deeply in love is the ultimate human interaction. | 3.667 | 3.971 | 3.88 | Moderately agree |
| 16. At its best, sex seems to be the merging of two souls. | 3.533 | 4.057 | 3.9 | Moderately agree |
| 17. Sex is a very important part of life. | 3.467 | 3.200 | 3.28 | Neutral |
| 18. Sex is usually an intensive, almost overwhelming experience. | 3.267 | 3.343 | 3.32 | Neutral |
| Total weighted mean | | | 3.484 | Moderately agree |

**Figures 19-23: Percentage of responses to items on BSAS: Instrumentality**
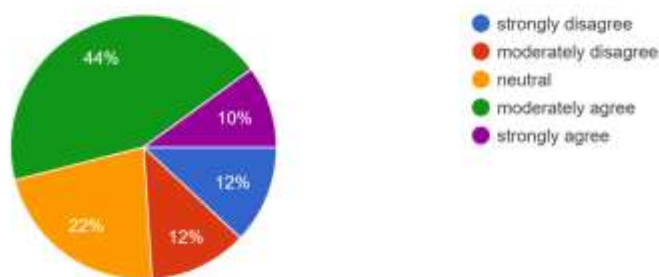
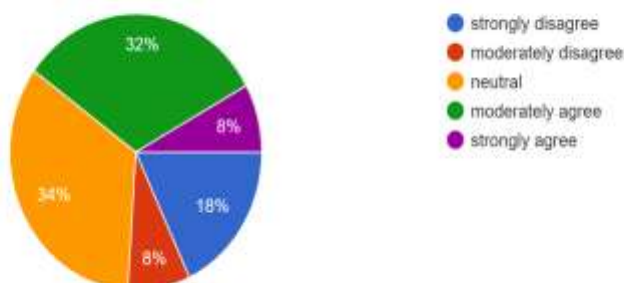19. Sex is best when you let yourself go and focus on your own pleasure.
50 responses



Legend:
- strongly disagree
- moderately disagree
- neutral
- moderately agree
- strongly agree

20. Sex is primarily the taking of pleasure from another person.
50 responses



Legend:
- strongly disagree
- moderately disagree
- neutral
- moderately agree
- strongly agree

21. The main purpose of sex is to enjoy oneself.
50 responses



Legend:
- strongly disagree
- moderately disagree
- neutral
- moderately agree
- strongly agree

22. Sex is primarily physical.
50 responses



- strongly disagree
- moderately disagree
- neutral
- moderately agree
- strongly agree
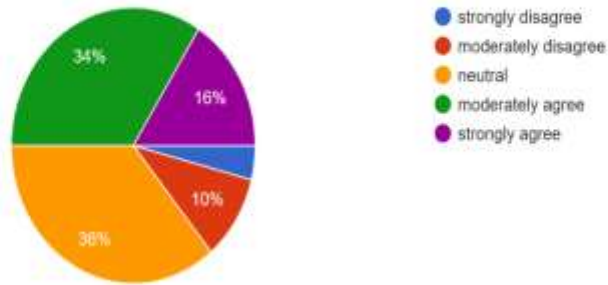
23. Sex is primarily a bodily function, like eating.
50 responses



- strongly disagree
- moderately disagree
- neutral
- moderately agree
- strongly agree

**Table 5: BSAS Instrumentality**

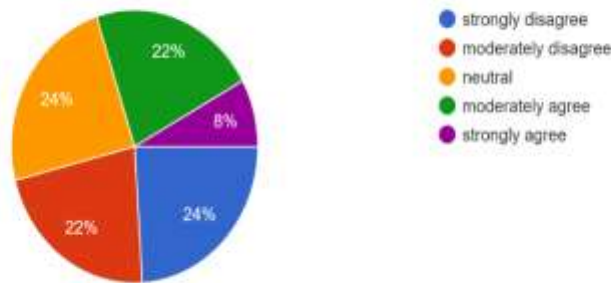| Statement | Weighted Mean Male *N=15* | Weighted Mean Female *N=35* | Weighted Mean Overall *N=50* | Verbal Interpretation |
|---|---|---|---|---|
| 19. Sex is best when you let yourself go and focus on your own pleasure. | 2.467 | 3.000 | 2.84 | Neutral |
| 20. Sex is primarily the taking of pleasure from another person. | 3.200 | 3.314 | 3.28 | Neutral |
| 21. The main purpose of sex is to enjoy oneself. | 2.800 | 3.143 | 3.04 | Neutral |
| 22. Sex is primarily physical. | 3.333 | 3.543 | 3.48 | Moderately agree |
| 23. Sex is primarily a bodily function, like eating. | 2.667 | 2.686 | 2.68 | Neutral |
| Total weighted mean | | | 3.064 | Neutral |

**Table 6: Comparison of BSAS: Permissiveness based on Respondents' Sex**

| Welch's t-test | | |
|---|---|---|
| Group | Male | Female |
| Mean | 2.220 | 2.143 |
| SD | 0.626 | 0.822 |
| SEM | 0.162 | 0.139 |
| N | 15 | 35 |
| The mean of Male minus Female equals 0.077 95% confidence interval of this difference: From -0.356 to 0.510 Intermediate values used in calculations: t = 0.3619 df = 34 standard error of difference = 0.213 | | |
| The two-tailed P value equals 0.7196 By conventional criteria, this difference is considered to be not statistically significant. | | |

**Table 7: Comparison of BSAS: Birth Control based on Respondents' Sex**

| Welch's t-test | | |
|---|---|---|
| Group | Male | Female |
| Mean | 3.77777777787 | 4.48571428577 |
| SD | 1.29508635898 | 0.80172549683 |
| SEM | 0.33438986001 | 0.13551634295 |
| N | 15 | 35 |
| The mean of Male minus Female equals -0.70793650790 95% confidence interval of this difference: From -1.46596302426 to 0.05009000845 Intermediate values used in calculations: t = 1.9621 df = 18 standard error of difference = 0.361 | | |
| The two-tailed P value equals 0.0654 By conventional criteria, this difference is considered to be not quite statistically significant. | | |

**Table 8: Comparison of BSAS: Communion based on Respondents' Sex**

| Welch's t-test | | |
|---|---|---|
| Group | Male | Female |
| Mean | 3.387 | 3.526 |
| SD | 0.780 | 0.846 |
| SEM | 0.201 | 0.143 |
| N | 15 | 35 |
| The mean of Male minus Female equals -0.139<br>95% confidence interval of this difference: From -0.645 to 0.367<br>Intermediate values used in calculations:<br>t = 0.5630<br>df = 28<br>standard error of difference = 0.247 | | |
| The two-tailed P value equals 0.5779<br>By conventional criteria, this difference is considered to be not statistically significant. | | |

**Table 9: Comparison of BSAS: Instrumentality based on Respondents' Sex**

| Welch's t-test | | |
|---|---|---|
| Group | Male | Female |
| Mean | 2.893 | 3.137 |
| SD | 0.721 | 0.794 |
| SEM | 0.186 | 0.134 |
| N | 15 | 35 |
| The mean of Male minus Female equals -0.244<br>95% confidence interval of this difference: From -0.713 to 0.225<br>Intermediate values used in calculations:<br>t = 1.0629<br>df = 29<br>standard error of difference = 0.229 | | |
| The two-tailed P value equals 0.2966<br>By conventional criteria, this difference is considered to be not statistically significant. | | |

**Table 10: Comparison of BSAS: Permissiveness based on Respondents' Romantic Commitment**

| Welch's t-test | | |
|---|---|---|
| Group | Without Romantic Commitment | With Romantic Commitment |
| Mean | 2.154 | 2.182 |
| SD | 0.644 | 0.908 |
| SEM | 0.122 | 0.194 |
| N | 28 | 22 |
| The mean of Without Romantic Commitment minus With Romantic Commitment equals -0.028<br>95% confidence interval of this difference: From -0.492 to 0.436<br>Intermediate values used in calculations:<br>t = 0.1235<br>df = 36<br>standard error of difference = 0.229 | | |
| The two-tailed P value equals 0.9024<br>By conventional criteria, this difference is considered to be not statistically significant. | | |

**Table 11: Comparison of BSAS: Birth Control based on Respondents' Romantic Commitment**

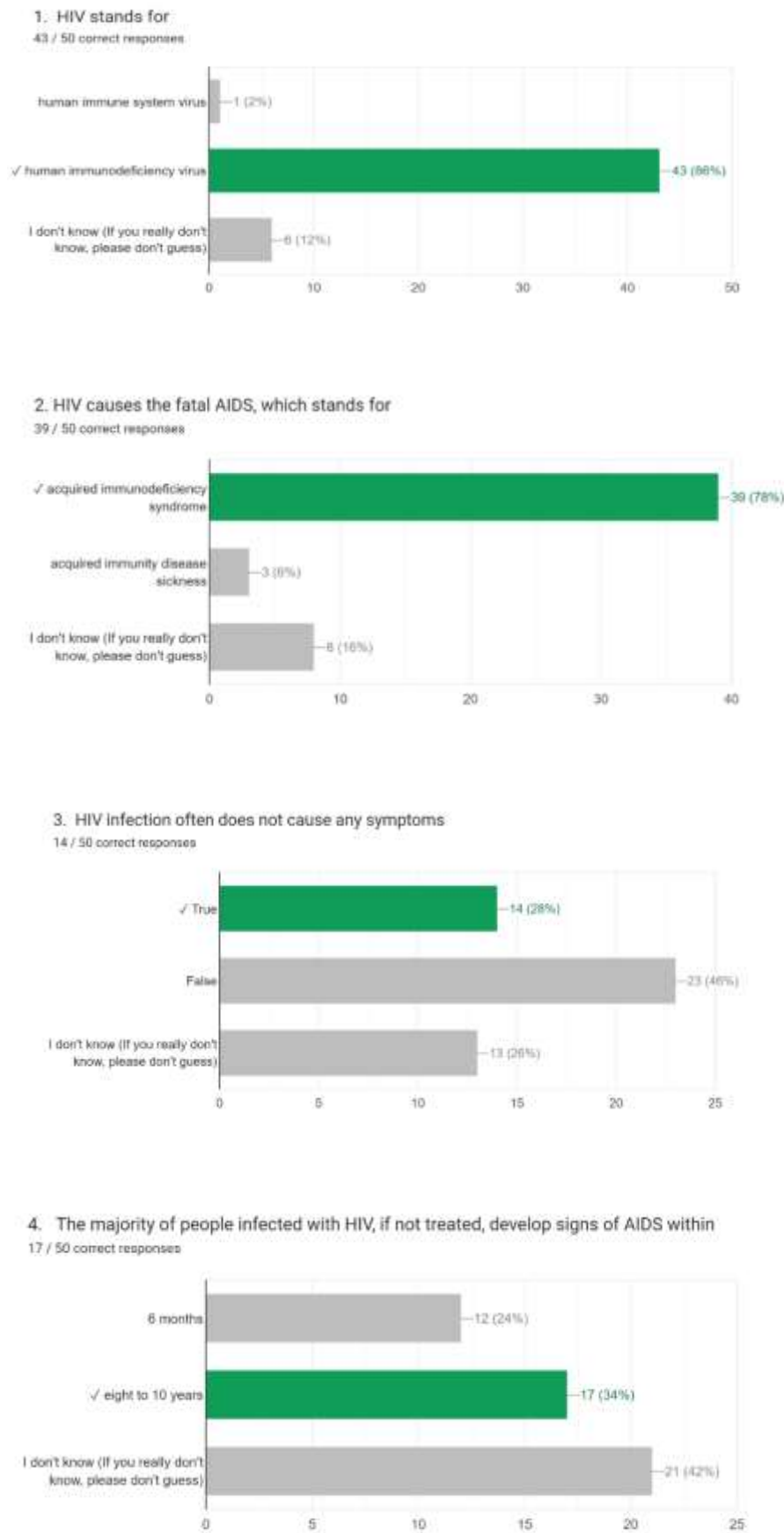| Welch's t-test | | |
|---|---|---|
| Group | Without Romantic Commitment | With Romantic Commitment |
| Mean | 4.19047619057 | 4.37878787882 |
| SD | 1.08649991688 | 0.93319417644 |
| SEM | 0.20532918425 | 0.19895766692 |
| N | 28 | 22 |
| The mean of Without Romantic Commitment minus With Romantic Commitment equals -0.18831168825<br>95% confidence interval of this difference: From -0.76348716586 to 0.38686378937<br>Intermediate values used in calculations:<br>t = 0.6586<br>df = 47<br>standard error of difference = 0.286 | | |
| The two-tailed P value equals 0.5133<br>By conventional criteria, this difference is considered to be not statistically significant. | | |

**Table 12: Comparison of BSAS: Communion based on Respondents' Romantic Commitment**

| Welch's t-test | | |
|---|---|---|
| Group | Without Romantic Commitment | With Romantic Commitment |
| Mean | 3.357 | 3.645 |
| SD | 0.763 | 0.881 |
| SEM | 0.144 | 0.188 |
| N | 28 | 22 |
| The mean of Without Romantic Commitment minus With Romantic Commitment equals -0.288<br>95% confidence interval of this difference: From -0.767 to 0.190<br>Intermediate values used in calculations:<br>t = 1.2173<br>df = 41<br>standard error of difference = 0.237 | | |
| The two-tailed P value equals 0.2304<br>By conventional criteria, this difference is considered to be not statistically significant. | | |

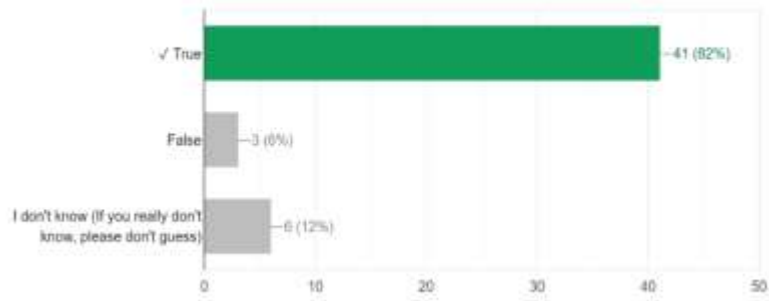**Table 13: Comparison of BSAS: Instrumentality based on Respondents' Romantic Commitment**

| Welch's t-test | | |
|---|---|---|
| **Group** | **Without Romantic Commitment** | **With Romantic Commitment** |
| Mean | 2.914 | 3.255 |
| SD | 0.674 | 0.862 |
| SEM | 0.127 | 0.184 |
| N | 28 | 22 |
| The mean of Without Romantic Commitment minus With Romantic Commitment equals -0.340 95% confidence interval of this difference: From -0.793 to 0.112 Intermediate values used in calculations: t = 1.5212 df = 39 standard error of difference = 0.224 | | |
| The two-tailed P value equals 0.1363 By conventional criteria, this difference is considered to be not statistically significant. | | |

**Graphs 1-27: Percentage of correct responses to items on HIV Awareness**



1. HIV stands for
43 / 50 correct responses



2. HIV causes the fatal AIDS, which stands for
39 / 50 correct responses



3. HIV infection often does not cause any symptoms
14 / 50 correct responses



4. The majority of people infected with HIV, if not treated, develop signs of AIDS within
17 / 50 correct responses

5. HIV can be transmitted through (anal or vaginal) sex
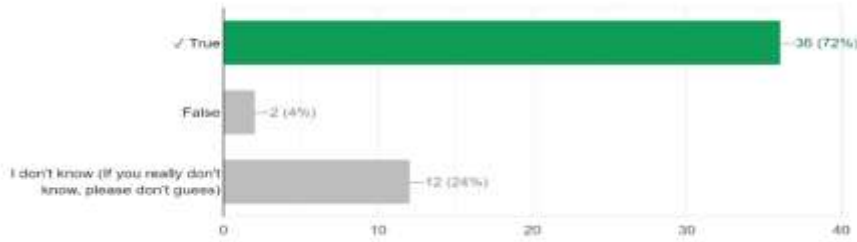41 / 50 correct responses



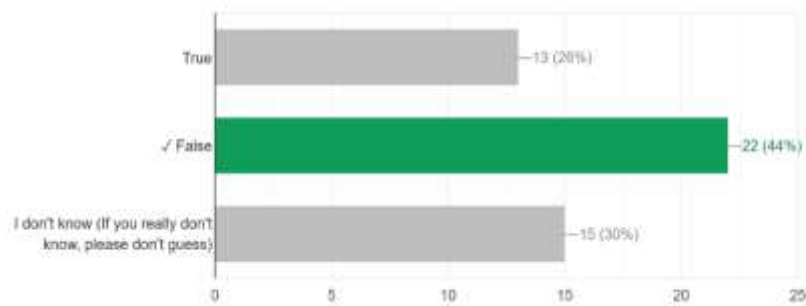6. Mosquito bites can spread HIV
23 / 50 correct responses
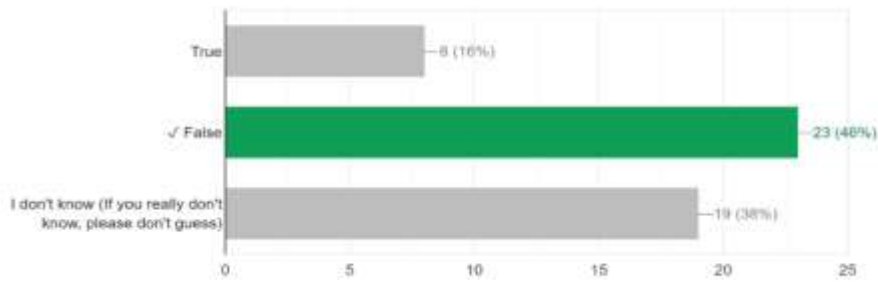


7. HIV can be transmitted through blood transfusion
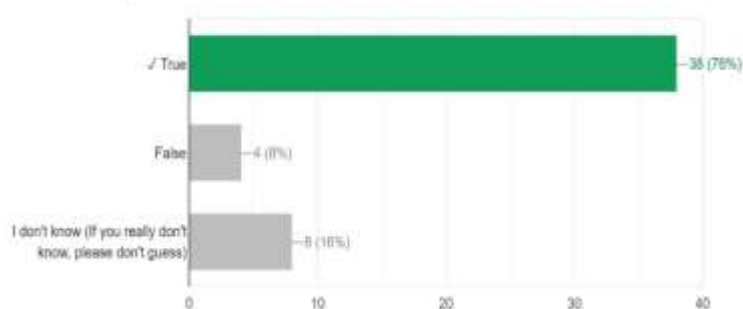36 / 50 correct responses



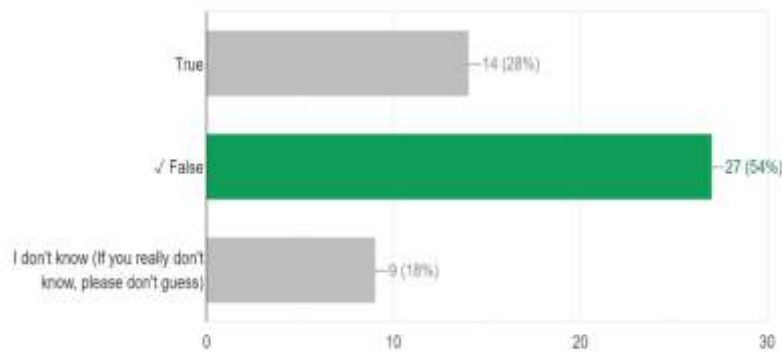8. HIV can be transmitted by using an unsanitary toilet
22 / 50 correct responses



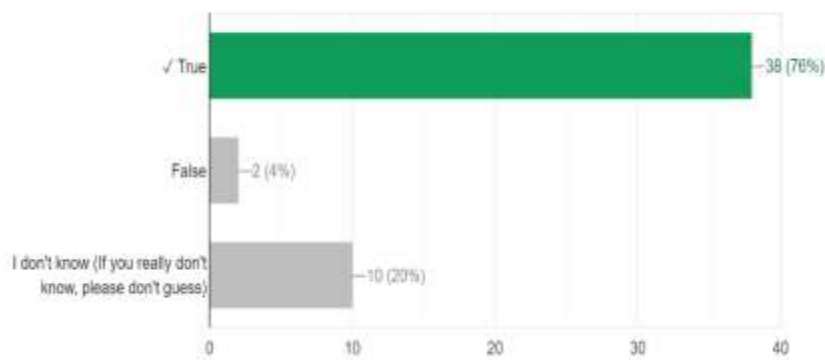9. HIV can be transmitted through sharing of contaminated needles
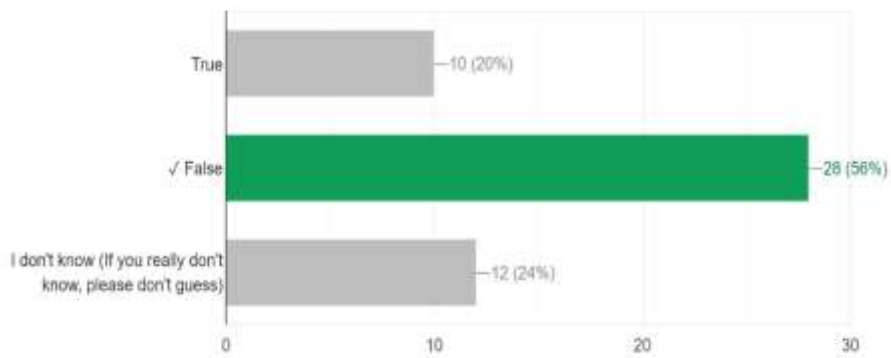38 / 50 correct responses

10. HIV can be transmitted by drinking from the same glass as someone who has HIV
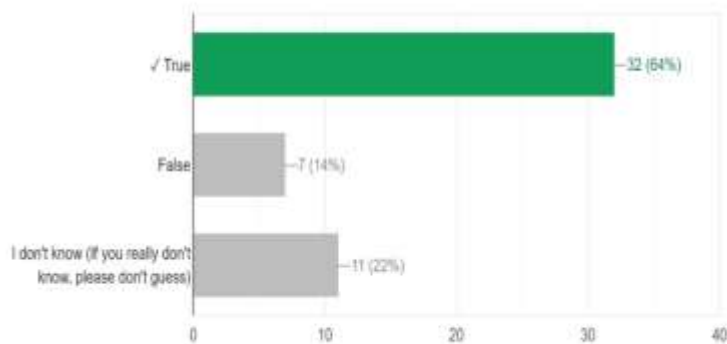27 / 50 correct responses



11. HIV can be transmitted between mother and infant during pregnancy
38 / 50 correct responses



12. HIV can be transmitted by an infected person who is sneezing or coughing
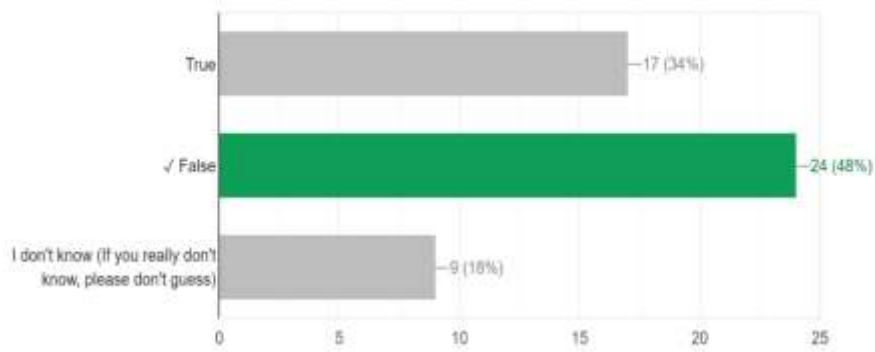28 / 50 correct responses



13. HIV can be transmitted between mother and infant during labor, delivery and breastfeeding
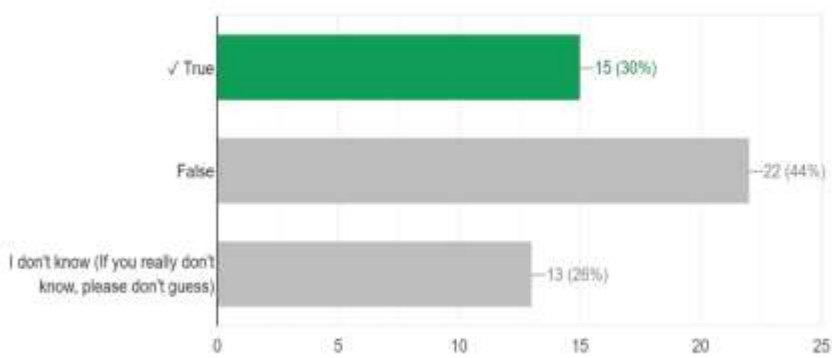32 / 50 correct responses

14. HIV can be transmitted through kissing on the mouth
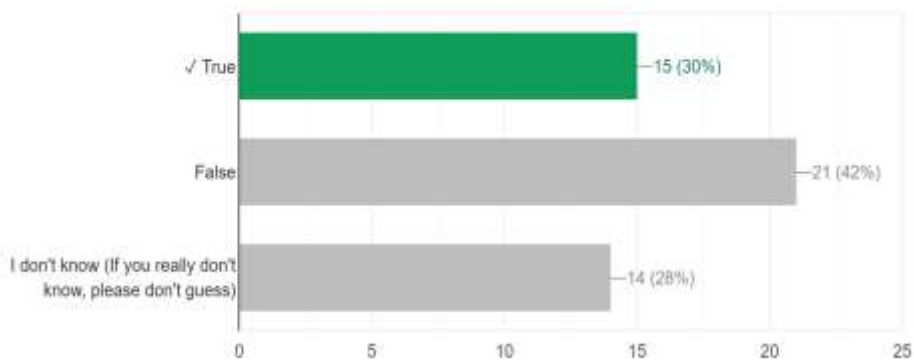24 / 50 correct responses



15. HIV can be transmitted through body piercing or tattooing
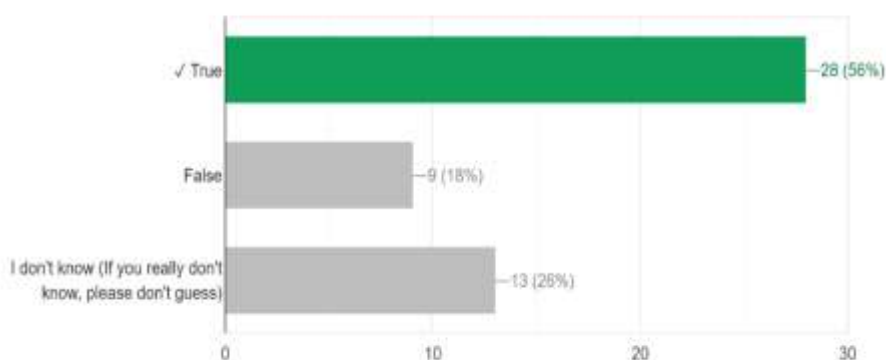15 / 50 correct responses



16. HIV can be transmitted through sharing razors (for shaving or used by barber) with an infected person
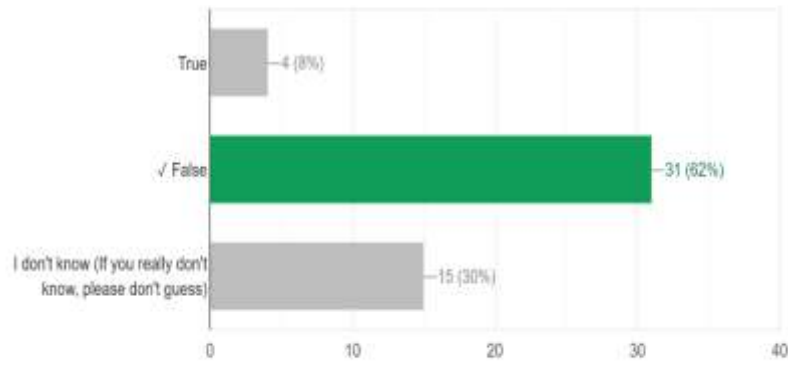15 / 50 correct responses



17. HIV can be avoided by having only 1 sex partner
28 / 50 correct responses

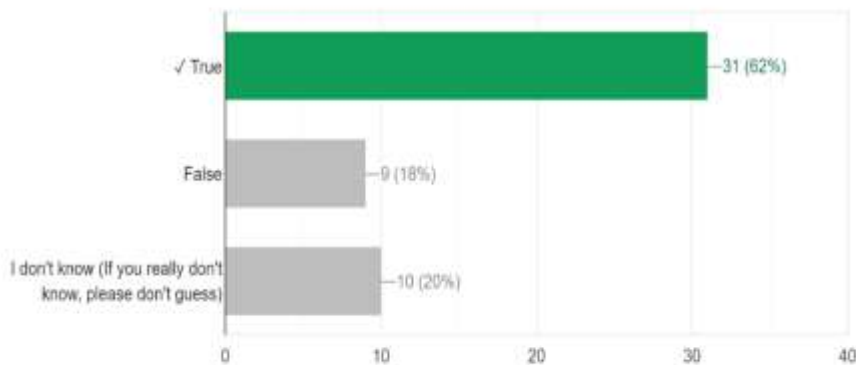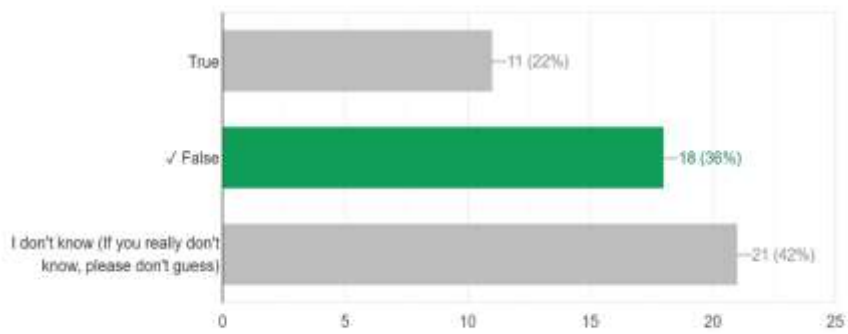18. You can tell that a person is infected with HIV by looking at the person's physical appearance.
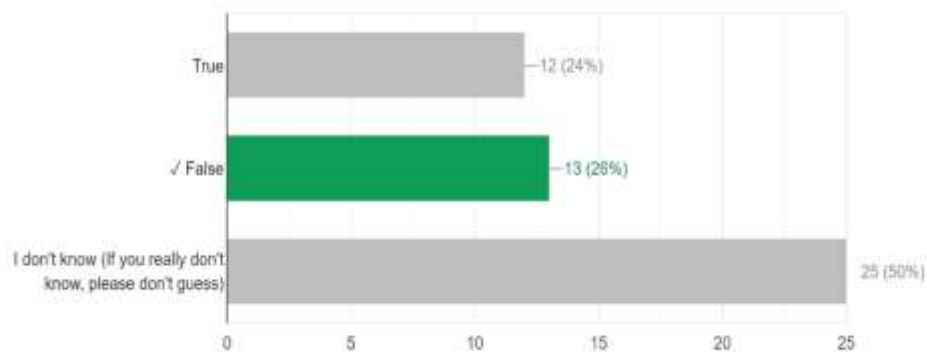31 / 50 correct responses



19. HIV can be avoided by properly and consistently using a condom
31 / 50 correct responses



20. The cure for HIV is available at the Department of Health
18 / 50 correct responses



21. Taking multivitamins can prevent being infected by HIV
13 / 50 correct responses

22. There is an effective treatment for HIV, which when regularly administered and with careful monitoring can delay the occurrence of fatal AIDS.

26 / 50 correct responses
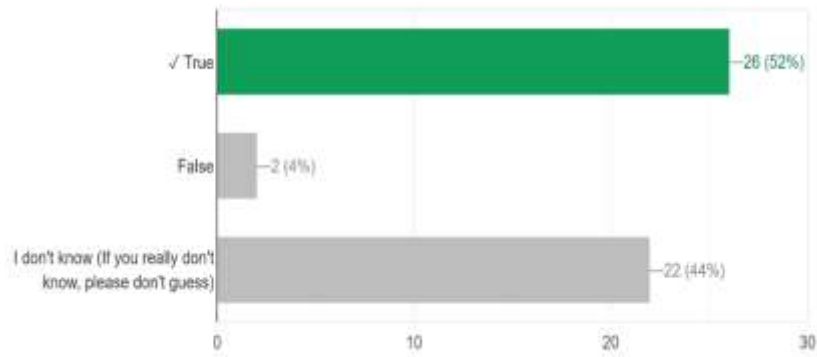


23. Exercise and a healthy diet can prevent being infected by HIV.

13 / 50 correct responses
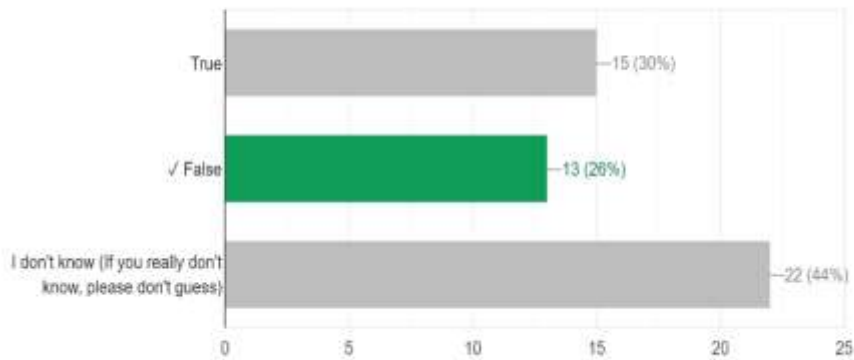


24. Taking antibiotics after sex can prevent being infected by HIV.

17 / 50 correct responses
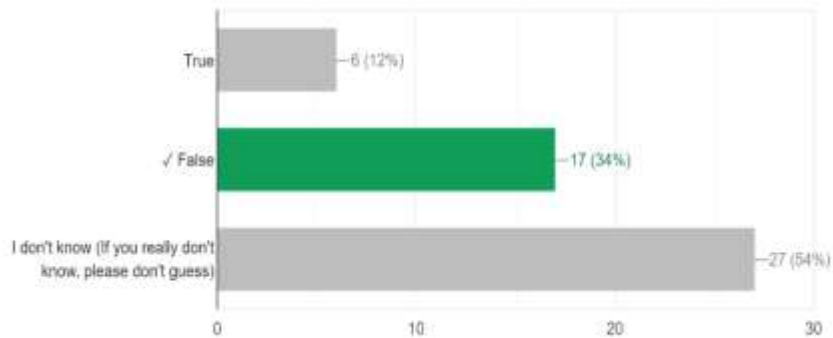


25. Antiretroviral medicines are used in the treatment of HIV infection. They work against HIV infection by blocking the reproduction of HIV.

16 / 50 correct responses
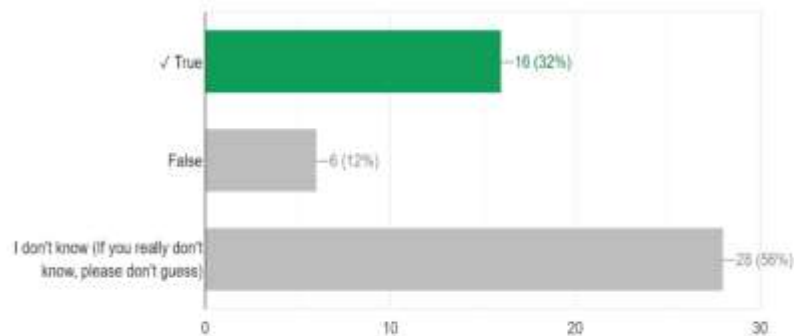
26. A person should get an HIV test so he/she can start treatment immediately and prolong his/her life.
42 / 50 correct responses
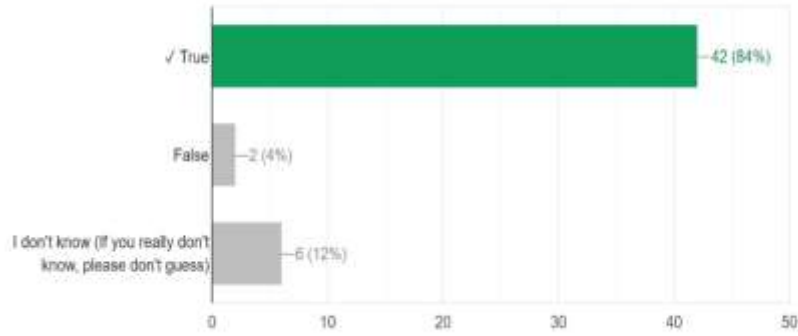


27. A person should get an HIV test and if found positive, he/she can take all the necessary precautions to prevent infecting others.
42 / 50 correct responses
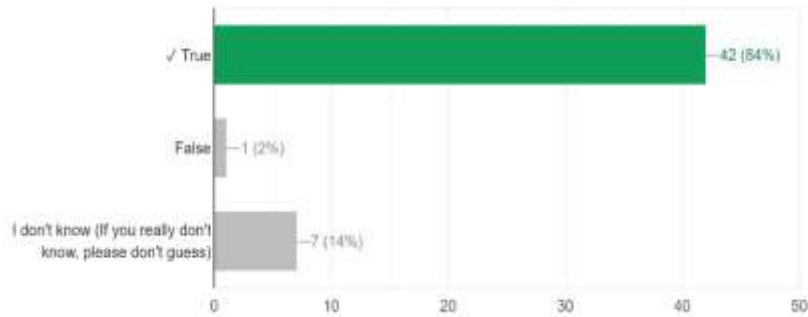


28. If a person already has an STI (sexually transmissible infection) like gonorrhea, chlamydia, herpes or syphilis, he/she cannot be infected by HIV.
21 / 50 correct responses



29. A person who just had unsafe sex with someone with HIV should have an HIV test within 1 week because HIV can already be detected during the first week.
11 / 50 correct responses

**Table 14: Summary of Percentages of Correct Responses to Items on HIV Awareness**

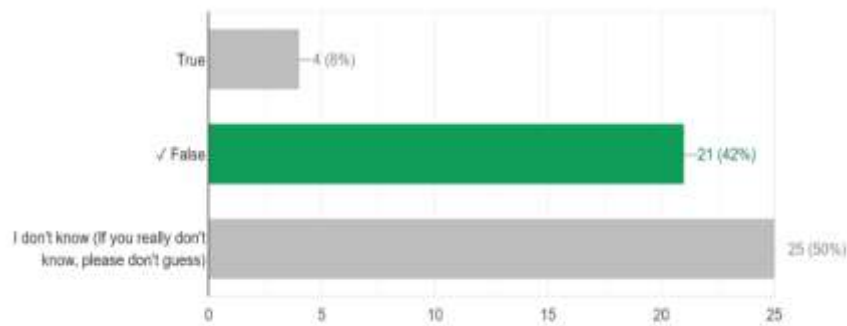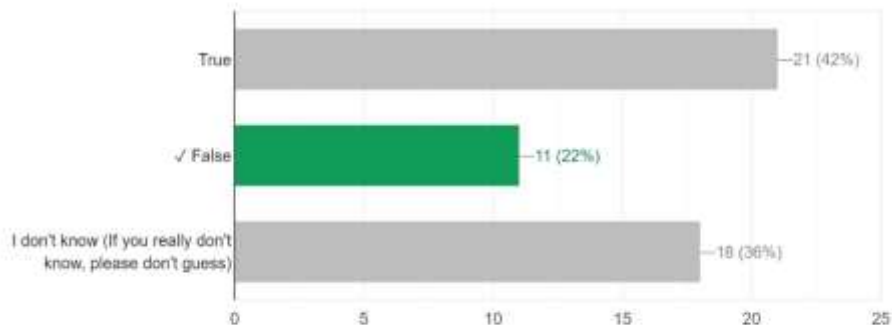| Item | Number of correct responses $N=50$ | Percentage of correct responses |
|---|---|---|
| 1. HIV stands for | 43 | 86 |
| 2. HIV causes the fatal AIDS, which stands for | 39 | 78 |
| 3. HIV infection often does not cause any symptoms | 14 | 28 |
| 4. The majority of people infected with HIV, if not treated, develop signs of AIDS within | 17 | 34 |
| 5. HIV can be transmitted through (anal or vaginal) sex | 41 | 82 |
| 6. Mosquito bites can spread HIV | 23 | 46 |
| 7. HIV can be transmitted through blood transfusion | 36 | 72 |
| 8. HIV can be transmitted by using an unsanitary toilet | 22 | 44 |
| 9. HIV can be transmitted through sharing of contaminated needles | 38 | 76 |
| 10. HIV can be transmitted by drinking from the same glass as someone who has HIV | 27 | 54 |
| 11. HIV can be transmitted between mother and infant during pregnancy | 38 | 76 |
| 12. HIV can be transmitted by an infected person who is sneezing or coughing | 28 | 56 |
| 13. HIV can be transmitted between mother and infant during labor, delivery and breastfeeding | 32 | 64 |
| 14. HIV can be transmitted through kissing on the mouth | 24 | 48 |
| 15. HIV can be transmitted through body piercing or tattooing | 15 | 30 |
| 16. HIV can be transmitted through sharing razors (for shaving or used by barber) with an infected person | 15 | 30 |
| 17. HIV can be avoided by having only 1 sex partner | 28 | 56 |
| 18. You can tell that a person is infected with HIV by looking at the person's physical appearance. | 31 | 62 |
| 19. HIV can be avoided by properly and consistently using a condom | 31 | 62 |
| 20. The cure for HIV is available at the Department of Health | 18 | 36 |
| 21. Taking multivitamins can prevent being infected by HIV | 13 | 26 |
| 22. There is an effective treatment for HIV, which when regularly administered and with careful monitoring can delay the occurrence of fatal AIDS. | 26 | 52 |
| 23. Exercise and a healthy diet can prevent being infected by HIV. | 13 | 26 |
| 24. Taking antibiotics after sex can prevent being infected by HIV. | 17 | 34 |
| 25. Antiretroviral medicines are used in the treatment of HIV infection. They work against HIV infection by blocking the reproduction of HIV. | 16 | 32 |
| 26. A person should get an HIV test so he/she can start treatment immediately and prolong his/her life. | 42 | 84 |
| 27. A person should get an HIV test and if found positive, he/she can take all the necessary precautions to prevent infecting others. | 42 | 84 |
| 28. If a person already has an STI (sexually transmissible infection) like gonorrhea, chlamydia, herpes or syphilis, he/she cannot be infected by HIV. | 21 | 42 |
| 29. A person who just had unsafe sex with someone with HIV should have an HIV test within 1 week because HIV can already be detected during the first week. | 11 | 22 |
| Total correct responses of 50 respondents to 29 items: | 761/1450 | 52.48% |

**Table 15: Comparison of HIV Awareness Scores based on Respondents' Sex**

| Welch's t-test | | |
|---|---|---|
| Group | Male | Female |
| Mean | 10.73 | 17.14 |
| SD | 6.98 | 5.53 |
| SEM | 1.80 | 0.93 |
| N | 15 | 35 |

The mean of Male minus Female equals -6.41
95% confidence interval of this difference: From -10.63 to -2.19
Intermediate values used in calculations:
t = 3.1554
df = 21
standard error of difference = 2.031

The two-tailed P value equals 0.0048
By conventional criteria, this difference is considered to be very statistically significant.
This implies that the HIV awareness scores of males and females differ significantly. And because the mean of the female respondents is higher, the female respondents have significantly higher HIV awareness scores.

**Table 16: Comparison of HIV Awareness Scores based on Respondents' Romantic Commitment**

| Welch's t-test | | |
|---|---|---|
| Group | Without Romantic Commitment | With Romantic Commitment |
| Mean | 14.07 | 16.68 |
| SD | 7.11 | 5.79 |
| SEM | 1.34 | 1.24 |
| N | 28 | 22 |

The mean of Without Romantic Commitment minus With Romantic Commitment equals -2.61
95% confidence interval of this difference: From -6.28 to 1.06
Intermediate values used in calculations:
t = 1.4300
df = 47
standard error of difference = 1.825

The two-tailed P value equals 0.1593
By conventional criteria, this difference is considered to be not statistically significant.

**Table 17: Relationship between BSAS: Permissiveness and Respondents' HIV Awareness Scores**

| Pearson r computation | |
|---|---|
| X Values | X and Y Combined |
| ∑ = 108.3 | N = 50 |
| Mean = 2.166 | ∑(X - Mx)(Y - My) = -0.926 |
| ∑(X - Mx)2 = SSx = 28.532 | R Calculation |
| Y Values | r = ∑((X - My)(Y - Mx) / √((SSx)(SSy)) |
| ∑ = 761 | r = -0.926 / √((28.532)(2154.58)) = -0.0037 |
| Mean = 15.22 | Meta Numerics (cross-check) |
| ∑(Y - My)2 = SSy = 2154.58 | r = -0.0037 |
| r = 0.1494 | |
| The P-Value is .300424. The result is not significant at p < .05. | |

**Table 18: Relationship between BSAS: Birth Control and Respondents' HIV Awareness Scores**

| Pearson r computation | |
|---|---|
| X Values | X and Y Combined |
| ∑ = 213.667 | N = 50 |
| Mean = 4.273 | ∑(X - Mx)(Y - My) = 49.327 |
| ∑(X - Mx)2 = SSx = 50.598 | R Calculation |
| Y Values | r = ∑((X - My)(Y - Mx)) / √((SSx)(SSy)) |
| ∑ = 761 | r = 49.327 / √((50.598)(2154.58)) = 0.1494 |
| Mean = 15.22 | Meta Numerics (cross-check) |
| ∑(Y - My)2 = SSy = 2154.58 | r = 0.1494 |
| r = 0.1494 | |
| The P-Value is .300424. The result is not significant at p < .05. | |

**Table 19: Relationship between BSAS: Communion and Respondents' HIV Awareness Scores**

| Pearson r computation | |
|---|---|
| X Values | X and Y Combined |
| ∑ = 174.2 | N = 50 |
| Mean = 3.484 | ∑(X - Mx)(Y - My) = -37.724 |
| ∑(X - Mx)2 = SSx = 33.047 | R Calculation |
| Y Values | r = ∑((X - My)(Y - Mx)) / √((SSx)(SSy)) |
| ∑ = 761 | r = -37.724 / √((33.047)(2154.58)) = -0.1414 |
| Mean = 15.22 | Meta Numerics (cross-check) |
| ∑(Y - My)2 = SSy = 2154.58 | r = -0.1414 |
| r = -0.1414 | |
| The P-Value is .328721. The result is not significant at p < .05. | |

**Table 20: Relationship between BSAS: Instrumentality and Respondents' HIV Awareness Scores**

| Pearson r computation | |
|---|---|
| X Values | X and Y Combined |
| ∑ = 153.2 | N = 50 |
| Mean = 3.064 | ∑(X - Mx)(Y - My) = 19.696 |
| ∑(X - Mx)2 = SSx = 29.315 | R Calculation |
| Y Values | r = ∑((X - My)(Y - Mx)) / √((SSx)(SSy)) |
| ∑ = 761 | r = 19.696 / √((29.315)(2154.58)) = 0.0784 |
| Mean = 15.22 | Meta Numerics (cross-check) |
| ∑(Y - My)2 = SSy = 2154.58 | r = 0.0784 |
| r = 0.0784 | |
| The P-Value is .588381. The result is not significant at p < .05. | |

**Table 21: Relationship between Respondents' Age and HIV Awareness Scores**

| Pearson r computation | |
|---|---|
| X Values | X and Y Combined |
| ∑ = 1050 | N = 50 |
| Mean = 21 | ∑(X - Mx)(Y - My) = -197 |
| ∑(X - Mx)2 = SSx = 128 | R Calculation |
| Y Values | r = ∑((X - My)(Y - Mx)) / √((SSx)(SSy)) |
| ∑ = 761 | r = -197 / √((128)(2154.58)) = -0.3751 |
| Mean = 15.22 | Meta Numerics (cross-check) |
| ∑(Y - My)2 = SSy = 2154.58 | r = -0.3751 |
| r = -0.3751 | |
| The P-Value is .00729. The result is significant at p < .05. | |
| This implies that there is a moderate inverse relationship between the respondent's age and his HIV awareness scores. As the respondent's age increases, his HIV awareness score moderately decreases and vice versa. | |

## DISCUSSION

Table 2 shows the BSAS items that measure the sexual attitude of permissiveness. It can be observed that in items 1, 2, 4, 5, 7 and 9 the male respondents obtained a higher weighted mean than the female respondents. The total weighted mean for males and females combined for all 10 items yielded a value with a verbal interpretation of *moderately disagree*. Table 3 presents the BSAS items that measure the sexual attitude of birth control. It can be seen that in all 3 items the female respondents obtained a higher weighted mean than the male respondents. The total weighted mean for males and females combined for all 3 items produced a value with a verbal interpretation of *strongly agree*.

Table 4 shows the BSAS items that measure the sexual attitude of communion. It can be observed in items 14, 15, 16 and 18 the female respondents obtained a higher weighted mean than the male respondents. The total weighted mean for males and females combined for all 5 items yielded a value with a verbal interpretation of *moderately agree*.

Table 5 shows the BSAS items that measure the sexual attitude of instrumentality. It can be seen that in all items the female respondents obtained a higher weighted mean than the male respondents. The total weighted mean for males and females combined for all 5 items produced a value with a verbal interpretation of *neutral*.

Tables 6, 7, 8 and 9 present the Welch's t-test computation comparing the BSAS permissiveness scores, birth control scores, communion scores and instrumentality scores of the male and female respondents. The formula yielded values indicating that there are no significant differences between the male and female scores with respect to the aforementioned domains of the BSAS.

Tables 10, 11, 12 and 13 present the Welch's t-test computation comparing the BSAS permissiveness scores, birth control scores, communion scores and instrumentality scores

between the respondents with and without romantic commitment. The formula yielded values indicating that there are no significant differences between the scores of the respondents with and without romantic commitment with respect to the aforementioned domains of the BSAS.

Table 14 presents the summary of the data shown in graphs 1-29. It can be observed that majority of the respondents identified the correct answer in items 1, 2, 5, 7, 9, 10, 11, 12, 13, 17, 18, 19, 22, 26 and 27. This indicates that among the 29 items, majority of the respondents got correct answers in 15 of them. The perfect score for all 29 items that can be obtained by 50 respondents is 1450. However, the actual total correct scores of all the respondents for the 29 items is 761, which is 52.48% of 1450.

Table 15 presents the Welch's t-test computation comparing the HIV awareness scores of the male and female respondents. The formula produced a value indicating that there is a very statistically significant difference between the HIV awareness scores of the male and female respondents. The mean of the female respondents is higher, which shows that female respondents have significantly higher HIV awareness scores than the male respondents.

Table 16 shows the Welch's t-test computation comparing the HIV awareness scores of the respondents with and without romantic commitment. The formula yielded a value indicating that there is no significant difference between the HIV awareness scores the respondents with and without romantic commitment.

Tables 17, 18, 19 and 20 present the Pearson r computation between the respondents' HIV awareness scores and their BSAS permissiveness, birth control, communion and instrumentality scores. In all 4 tables, no significant relationship was established.

Table 21 shows the Pearson r computation between the respondents' age and their HIV awareness scores. This yielded a value that indicates a significant moderate inverse relationship between the respondents' age and their HIV awareness scores. This implies that as the respondent's age increases, his HIV awareness score moderately decreases and vice versa.

## CONCLUSIONS

With respect to the BSAS domains, it was found that the respondents moderately disagree to permissiveness, strongly agree to birth control, moderately agree to communion and are neutral to instrumentality.

No significant difference was found between the male and female respondents concerning the 4 BSAS domains of permissiveness, birth control, communion and instrumentality. Furthermore, there was also no significant difference between the respondents with and without romantic commitment concerning the 4 BSAS domains.

Based on the scores obtained from the researcher-made instrument measuring the respondents' level of HIV awareness, their level of awareness is only at 52.48%.

A very statistically significant difference between the level of HIV awareness between the male and female respondents was found. In addition, it was established that the female respondents have a significantly higher HIV awareness than the male respondents. No significant difference was established between the level of HIV awareness of the respondents with or without romantic commitment.

Furthermore, no significant relationship was established between the level of HIV awareness of the respondents and their BSAS domains of permissiveness, birth control, communion and instrumentality.

However, a significant moderate inverse relationship between the respondents' age and their level of HIV awareness was established. This implies that as the respondent's age increases, his HIV awareness score moderately decreases and vice versa.

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