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**Research Paper**

# Unprotected sexual activity among criminology students: a mixed-methods analysis of knowledge, attitudes, and practices at southway college of technology

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**ABSTRACT**

**Background:** Unprotected sexual activity among college students is a significant public health concern, with limited understanding of KAP dynamics through the Health Belief Model.
**Objective:** To assess criminology students' KAP regarding unprotected sexual activities and examine how age, gender, and race influence sexual health behaviours.
**Methods:** A mixed-methods descriptive-correlational design was employed with 301 stratified randomly sampled students. A researcher-developed questionnaire and semi-structured interviews provided quantitative and qualitative data, analysed through descriptive statistics, Pearson correlation, chi-square, regression, and thematic analysis.
**Results:** Students demonstrated basic sexual health knowledge and moderately risky behaviours marked by inconsistent contraceptive use and poor partner communication. Knowledge correlated significantly with gender and residential area. Attitudes mediated the weak knowledge–behaviour relationship, showing moderate correlations with both knowledge and practices. Qualitative themes identified peer pressure, relationship trust, perceived barriers, and inadequate sexual health education as key behavioural determinants.
**Conclusions:** Knowledge alone is insufficient to drive safe sexual behaviour. Universities should implement comprehensive sexual health programs, strengthen counselling services, and cultivate environments promoting open communication, self-efficacy, and responsible decision-making.

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## 1. INTRODUCTION

### Background of the Study

The practice of unprotected sexual activity leads to three major consequences which include sexually transmitted diseases, unwanted pregnancies and socioeconomic impacts which create a worldwide public health emergency [1], [2]. Research indicates that many college students frequently engage in unprotected sexual activity. 9.8% of participants in a global poll of almost 70,000 students reported engaging in unprotected sexual activity in the year prior. The behaviour occurred in 3.2% to 16.0% of students who showed higher engagement in this behaviour according to the study results. A study conducted by researchers in 22 different countries found that 42% of sexually active students did not use contraception on a regular basis [3]. The data demonstrated that people across the world participate in hazardous sexual behaviour. The social and behavioural patterns of Southeast Asia link unprotected sexual activity to dangerous conduct which occurs because people consume excessive alcohol and reside in specific areas. [4]. People require training because their current understanding of safe execution methods is not adequate for them to perform their tasks safely. A Chilean study found that although more people used birth control methods, they did not understand how to use these methods correctly [5]. The research results demonstrate that human behaviour gets shaped by both cultural and personal beliefs together with the availability of health services [6]. National surveys from the Philippines show that young people between 15 and 24 years old practice significant premarital sexual activities [5], [7]. Intimacy views get shaped by peer pressure and cultural standards together with family values [8]. People now understand the dangers of pregnancy and AIDS, but they do not know how to use condoms properly [9]. The increasing number of HIV cases among young Filipinos demonstrates an urgent requirement to tackle unsafe sexual practices which has become a critical public health issue [10], [11].

As a transition age group, college students are prone to involving themselves in sexual acts that are high-risk. This may spring from human development themselves and the social environment they find themselves in. Rather than a little awareness of what sexually-transmitted diseases are and contraception can be contrary to the behaviour [12]. Criminology students represent a unique subgroup: as future law enforcers, they are expected to model discipline and responsibility yet remain susceptible to the same influences as their peers [7], [13]. There is limited information regarding the sexual health knowledge, attitudes, and practices of criminology students at Southway College of Technology in Agusan Del Sur. The Philippines currently conducts research which mainly focuses on health science students and the general public because researchers prefer to use quantitative surveys which fail to capture contextual details [14], [15]. The research studied criminal justice student attitudes toward sexual risk through surveys and interviews. The results will assist in developing personalized sexual health education programs which will improve police officer training outcomes and promote responsible officer behaviour.

## 2. RELATED WORK

Young adult sexual decision-making gets affected by peer pressure and social customs which show their most considerable effects. Research from multiple countries shows that students demonstrate lower condom use when their peer group does not accept protective behaviours as common practice [16]. Young adults frequently emulate their sexual behaviour based on peers [17], and discussions regarding condom utilization have been associated with safer practices [18]. Sudanese research demonstrates that peer norms and self-efficacy and HIV knowledge together predict consistent condom use according to cross-cultural research findings which show that these factors operate in similar ways across different cultures [19]. The

Philippine research studies show that peer support and social environments serve as major influences on their sexual health behaviour [20].

The research findings demonstrate that peer influence interacts with personal attitudes and self-efficacy which makes social norms essential for safer sex promotion programs. People make sexual decisions based on their relationship dynamics and their ability to trust others. International studies indicate that trust and the length of relationships and perceptions of exclusivity decrease condom usage because people frequently connect non-usage with intimacy [21]. The protective behaviour of relationship partners increases through relationship communication while their sexual confidence leads to their complete condom use [22]. The trust relationship between students and their peers creates a false sense security which leads students to underestimate actual STI dangers. The Philippines needs sexual health interventions that integrate relationship dynamics because research shows that trust interlinks with condom use decision-making.

People believe that obstacles to safe-sex practices create additional barriers to safe-sex implementation. Emotional discomfort together with fear of being judged and the inability to negotiate condom use create a worldwide problem that results in inconsistent protection [23], [24]. Studies conducted in the Philippines show that stigma together with inadequate sex education and cultural discomfort create major obstacles to successful implementation of sex education programs [25]. Research conducted in Mindanao found that people demonstrate moderate to high awareness of contraceptives yet they face challenges in maintaining regular usage because of existing social norms. National data show that stigma and a lack of education keep people from changing their risky behaviours. The Health Belief Model states that people perceive barriers to their goals as greater than their benefits. The combination of institutional support together with action cues creates safer sexual practices. Evidence from around the world shows that structured education and counseling help people feel more confident and use condoms more often. Students succeed at making educated decisions when they can access reproductive health services.

### 2.1 Statement of the Problem

The goal of this study was to assess knowledge, attitudes, and practices regarding unprotected sexual behaviour among Criminology students somewhere at the Southway College of Technology. Specifically, it seeks to answer the following questions

1. What is the demographic profile of the respondents in terms of age, gender, year level, civil status, religion, residence, and living arrangement?
2. What is the level of knowledge of Criminology students regarding unprotected sexual activity in terms of: risks of sexually transmitted infections, prevention of STIs and unintended pregnancy, and contraceptive methods and emergency contraception?
3. What are the respondents' attitudes toward unprotected sexual activity regarding trust and responsibility between partners, perceptions of risk and seriousness of STIs, comfort in discussing sexual health, and the influence of peers on sexual decision-making?
4. What are the sexual behaviours of the respondents regarding: participation in sexual activities, utilization of protection or contraception, discourse on sexual health, information-seeking tendencies, and receptiveness to guidance or counseling?
5. What factors motivate students' participation in unprotected sexual behaviour compared with no sexual activity, as evidenced in students' personal experiences?
6. What issues do students encounter when they attempt to practice safe sex, and what resources should schools and communities provide to assist students in making proper sexual choices?

### 2.2 Null Hypotheses

The following null hypotheses will be tested at the 0.05 level of significance:

**$H_{01}$:** No significant relationship exists between demographic profile and knowledge of unprotected sexual activity.

**$H_{02}$:** No significant relationship exists between knowledge and attitudes toward unprotected sexual activity.

**$H_{03}$:** No significant relationship exists between attitudes and sexual practices regarding unprotected sexual activity.
**$H_{04}$:** No significant relationship exists between knowledge and sexual practices regarding unprotected sexual activity.

### 2.3 Conceptual Framework

Figure 1 is the conceptual framework of this study which illustrates how multiple factors influence the sexual behaviours of Criminology students. A student's demographic profile, including age, gender, year level, civil status, religion, residence, and living arrangements, as a foundation that shapes their knowledge, attitudes, and practices (KAP) regarding sexual activity.

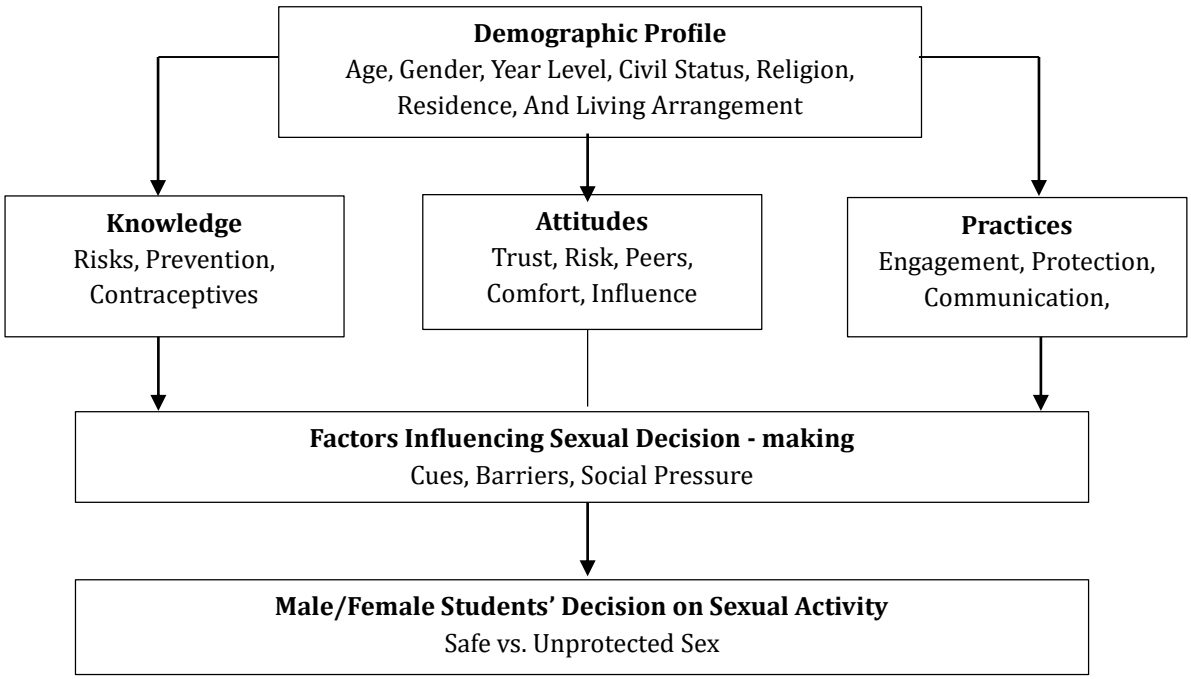



Figure 1. Conceptual Paradigm of the Study

Knowledge refers to students' understanding of the risks of unprotected sex, STI prevention, unintended pregnancy, and awareness of contraceptive methods. The sexual health attitudes of individuals prove to be based on their beliefs and their perceptions of their partner's trustworthiness and their likelihood of acquiring STIs and their ability to discuss sexual topics. People show their sexual health practices through their use of condoms and their ability to communicate with their partner and their search for sexual information and their decision to obtain counseling services. The KAP factors combine to determine student sexual decision-making processes which lead them to select between safe and hazardous activities.

### 2.4 Scope and Delimitation of the Study

A person's religious beliefs and their relationship confidence and their STI transmission risk and their sexual discussion comfort determine their sexual health perception. The sexual health practices of individuals are reflected through their condom usage and their ability to communicate with partners and their sexual information seeking and their counseling attendance. KAP variables help students determine which actions to take between dangerous and safe actions because these variables affect their decision-making process. The study covered students' understanding of STIs and their knowledge of contraceptive methods and preventive techniques and their sexual risk assessment and their social decision-making processes. The study did not include students from other programs or universities and used only survey research as its data collection method. The study results were affected because participants provided self-reported data which created response bias.

## 3. METHODOLOGY

### 3.1 Research Design

The researchers used a mixed-methods approach which combined descriptive-correlational quantitative research with qualitative inquiry to evaluate how criminology students understand and feel about unprotected sexual activity. The study utilized surveys and questionnaires to conduct a quantitative investigation which assessed how demographic factors, knowledge, attitudes, practices, and sexual behaviour patterns were interconnected. The study examined the data and verified the validity and reliability of the findings using statistical techniques.

The study used qualitative research to produce superior outcomes by examining how student's actual experiences affected their study motivations which were shaped by their social environments and their cultural practices and their study challenges and the factors that drove them to succeed. The combination of interviews with open-ended questions resulted in deeper insights which went beyond what quantitative data could show.

### 3.2 Research Respondents and Locale

There were 301 Criminology students from Southway College of Technology in Agusan Del Sur who took part in the study during the second semester of the 2025–2026 school year. Researchers used Lynch's formula to select respondents through stratified random sampling because they wanted to achieve balanced representation of different year levels and gender groups and various living conditions. The researchers chose the college on purpose because it is easy to get to, has a supportive atmosphere, and is dedicated to student health and welfare programs. The research locale is shown in Figure 2.

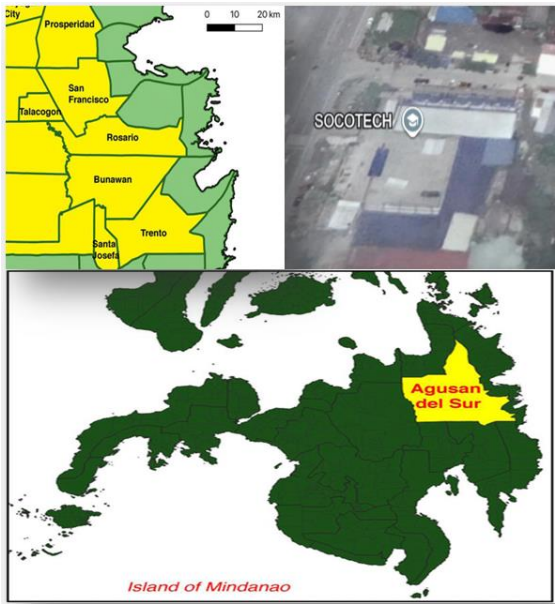



Figure 2. The Research Locale

### 3.3 Research Instrument

The researchers measured criminology students' knowledge, attitudes, and practices through two assessment tools which included a semi-structured interview guide and a structured questionnaire. The questionnaire required respondents to evaluate their health issue risk, their health issue understanding, their perception of health benefits and health risk, their opinion about health intervention triggers, and their self-assessed abilities through the Health Belief Model (HBM).

Three experts from criminology education, social science, and public health assessed the document and made changes to improve its clarity and usability. The instrument included four sections which contained a demographic profile, an assessment of participants' knowledge about STIs and

contraceptives, their sexual health attitudes and response to peer pressure, and their sexual health practices which included condom use and communication and counseling. The assessment of knowledge and behaviour used a scoring scale that ranged from "Outstanding" to "Very Poor." The researchers used a semi-structured interview guide to study how participants dealt with social pressure through their life experiences and their efforts to solve challenges. The research instruments established reliable study results which demonstrated both major patterns and slight changes in students' sexual health habits.

### 3.4 Data Gathering Procedures

The Research Ethics Review Committee granted approval for the study, which followed ethical guidelines and institutional research standards to protect participant confidentiality and informed consent. The adviser received a Notice to Commence after the college dean and criminology department head authorized instrument distribution to 301 students. The researchers required a pilot test to establish questionnaire validity before they started their primary research.

The researchers collected most of their data through structured surveys, which they administered to students after obtaining informed consent and conducting an orientation. Researchers documented student participation while they assessed different environmental factors throughout the testing process.

The research team used semi-structured interviews to study selected survey respondents' personal experiences and the challenges they faced and the social factors that influenced them. The researchers employed theme coding to analyze qualitative data while they used descriptive and inferential statistical methods to analyze quantitative data. The study used three reliability tests, which included Cronbach's alpha and inter-rater validation tests, to confirm its results. The study discovered important information about students' sexual health knowledge and their attitudes and behaviours through which data patterns could be measured.

### 3.5 Treatment of Data

The researchers began their analysis work after they completed their data table creation process which enabled them to study the research hypothesis together with the null hypothesis. The study employed descriptive statistics to present the demographic information of respondents together with their knowledge about unprotected sexual activities and their corresponding attitudes and actual behaviours. The researchers applied inferential statistics to establish connections between different study variables. Pearson's correlation evaluated how knowledge levels connected with demographic factors and how behaviour patterns related to attitude patterns.

The researchers used regression analysis to identify predictors of sexual behaviour which included unprotected sexual activity while chi-square analysis studied the connections between different categorical variables. The study applied a 0.05 significance level to evaluate results which included pattern analysis to identify key factors that affect students' sexual activity decisions and to create recommendations for sexual health programs.

### 3.6 Qualitative Data Treatment

The researchers transcribed open-ended survey responses which they subsequently analyzed and coded to identify repeating themes and patterns that described students' experiences and perceptions and difficulties they faced when engaging in unprotected sexual activity. The research team used thematic analysis to achieve two objectives by first obtaining deep understanding of their lived experiences and second using real life stories to explain statistical results.

### 3.7 Ethical Considerations

The research followed all institutional and ethical procedures by obtaining approval from both the Research Ethics Review Committee and the college administration. The research team obtained informed consent from all participants who received information about their right to participate and their right to leave any time while their personal information would remain confidential. The researchers used response coding to protect participant identities while presenting results in an overall summary. The research

followed non-maleficence and beneficence principles because it protected participants from harm while searching for methods to enhance sexual health program effectiveness. The study maintained fairness and justice by providing all students equal opportunities to participate. The study maintained fairness and justice because researchers explained their research objectives and study methods to participants. A debriefing session took place at the conclusion, which included sharing results with the administration. The researchers expressed their gratitude to participants for their assistance.

## 4. RESULTS AND DISCUSSION

### 4.1 Demographic Profile of the Respondents

Figure 3 the study examined demographic characteristics of 301 participants, displaying their results through bar graphs which showed that most respondents shared three common attributes and twelve geographic locations and three ethnic backgrounds and three marital statuses and three living arrangements. First to second-year students made up 55% of the sample, while Roman Catholicism was the most common religion (60%). The research results support previous studies which demonstrate that young people show vulnerability to peer norms which affect their sexual conduct [16], [17]. The research discovered that knowledge levels about sexual health information showed a strong connection to both gender and residential patterns of the participants [20], [21]. The research found that year level did not create any observable effects [18].

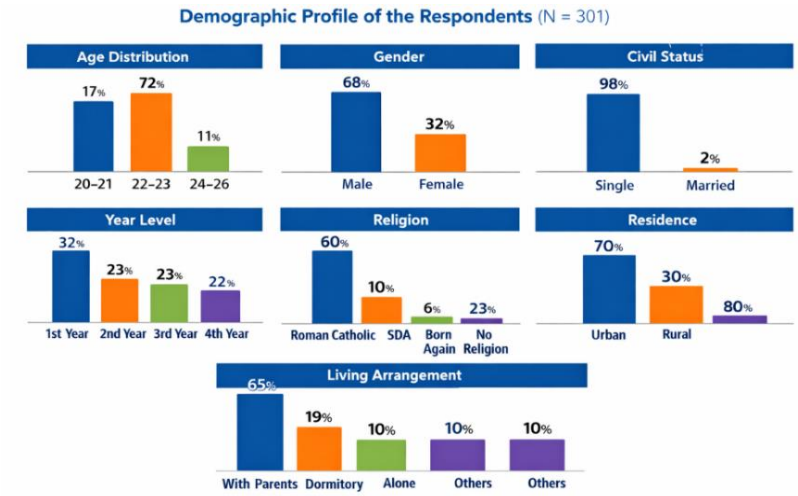



Figure 3. Demographic Profile of the Respondents in Bar Graphs

### 4.2 Level of Knowledge on Unprotected Sexual Activity

Table 1 shows that 49.17% of participants demonstrated low knowledge while 42.86% showed moderate knowledge and only 7.97% possessed extensive knowledge. The study findings show that people do not understand the methods of transmission for sexually transmitted infections and their prevention and the correct use of contraceptives. The study results show that teenagers lack understanding about sexual health matters [19], [20].

Table 1. Knowledge Level of Criminology Students on Unprotected Sexual Activity (N = 301)

| Knowledge Level | F | % |
|---|---|---|
| Low (0–3) | 148 | 49.17 |
| Moderate (4–5) | 129 | 42.86 |
| High (6–7) | 24 | 7.97 |
| Total | 301 | 100.00 |

### 4.3 Relationship between Demographic Profile and Level of Knowledge ($H_{01}$)

The chi-square analysis from Table 2 showed that knowledge had a strong relationship with both gender and place of residence but did not extend to year level. The $H_{01}$ hypothesis was tested and partially rejected because social exposure and gender differences control how people access sexual health information [20], [21].

Table 2. Chi-Square Test of Independence between Demographic Variables and Knowledge Level (N = 301)

| Demographic Variable | $X^2$ | Df | P | Decision On $H_{01}$ |
|---|---|---|---|---|
| Gender | 6.21 | 2 | < .05 | Reject $H_{01}$ |
| Year Level | 4.87 | 6 | > .05 | Fail to reject $H_{01}$ |
| Residence | 5.94 | 2 | < .05 | Reject $H_{01}$ |

### 4.4 People's Attitudes towards Sex without Protection

According to Table 3, the majority of respondents (58.47%) had moderate attitudes, followed by low attitudes (27.24%) and high attitudes (14.29%). The Health Belief Model together with prior research on peer norms and communication discomfort reveals that moderate attitudes produce dual feelings which prevent people from maintaining preventive behaviour.

Table 3. Level of Attitudes of Criminology Students toward Unprotected Sexual Activity (N = 301)

| Attitude Level | F | % | Interpretation |
|---|---|---|---|
| Low | 82 | 27.24 | Negative or permissive attitude toward sexual risk |
| Moderate | 176 | 58.47 | Mixed attitudes; partial awareness with existing barriers |
| High | 43 | 14.29 | Responsible and health-oriented attitude |
| Total | 301 | 100.00 | |

### 4.5 Sexual Practices of Respondents

The study found that 54.82% of participants exhibited intermediate habits because they failed to protect themselves and their communication with others as Table 4 shows. The available data shows that people who know about sexual matters tend to behave according to their existing attitudes rather than their actual knowledge of the subject [20], [22].

Table 4. Level of Sexual Practices of Criminology Students Regarding Unprotected Sexual Activity (N = 30)

| Practice Level | F | % | Interpretation |
|---|---|---|---|
| Low | 96 | 31.89 | Risky sexual practices with minimal protection |
| Moderate | 165 | 54.82 | Inconsistent protection and limited communication |
| High | 40 | 13.29 | Consistent and responsible sexual practices |
| Total | 301 | 100.00 | |

### 4.6 Test of Relationships among Knowledge, Attitudes, and Practices

Correlation analysis in Table 5 showed moderate positive relationships between knowledge and attitudes (r = .33) and attitudes and practices (r = .33), leading to rejection of $H_{02}$ and $H_{03}$. The study found a weak relationship between knowledge and practices which showed no significant connection according to the results which revealed an r value of [11]. The study demonstrates that possessing knowledge about safety practices does not ensure that people will engage in safer behaviours according to the evidence from reference [22].

Table 5. Correlation Analysis between Knowledge, Attitudes, and Practices (N = 301)

| Variables Compared | R | Interpretation | Decision |
|---|---|---|---|
| Knowledge and Attitudes | .33 | Moderate positive | Reject $H_{02}$ |
| Attitudes and Practices | .33 | Moderate positive | Reject $H_{03}$ |

| | | | |
|---|---|---|---|
| Knowledge and Practices | .11 | Weak | Fail to reject $H_{04}$ |

### 4.7 Qualitative Findings: Factors Influencing Sexual Decision-Making

Researchers used thematic analysis to identify four themes which impacted students' decisions about sexual activities, including peer pressure and relationship trust and their perception of obstacles and their ability to recognize upcoming tasks.

### 4.8 Peer Influence and Social Norms

Respondents identified peer expectations as a significant factor, which they used to establish a pattern of normalizing unprotected sexual activity. A lot of my friends don't use condoms, so sometimes you think its okay not to use one. (P12) "People assume bad things won't happen to them because their friends say something is safe and no dangers occur." (P27)

### 4.9 Trust and Relationship Dynamics

Many justified not using protection due to trust in partners. The speaker developed complete trust in their partner which led them to believe that protection was no longer needed. (P45) "Talking about condoms when you've been together for a long time makes it seem like you don't trust each other." (P83)

### 4.10 Perceived Barriers to Safe Sex

The situation became more difficult because people experienced embarrassment and stigma and their inability to access safe practices. "It's embarrassing to buy condoms, especially if people know you." (P109) "Sometimes you want to use protection, but it's not always there when you need it." (P64)

### 4.11 Cues to Action and Support Systems

Education and counseling increased confidence in safe sex. “After attending a seminar, I became more confident in talking to my partner about protection.” (P158) “Guidance counseling helped me understand that protecting myself is not something to be ashamed of.” (P201) These findings explain why knowledge alone does not ensure safe practices. People tend to follow their peer social norms which they trust will protect them from the obstacles they face. The Health Belief Model shows that institutional support together with confidence building measures help people reduce their dangerous activities.

## 5. CONCLUSION

The study findings show that Criminology students at Southway College of Technology struggle to understand and develop their attitudes and their ability to handle unprotected sexual situations. Students demonstrated low to medium knowledge about the topic because their living location and gender characteristics had a greater impact on their knowledge than their academic standing. Most people had moderate attitudes, which showed that they were aware of the risks but were held back by peer pressure, fear of being judged, and discomfort with talking about sexual health. People displayed average sexual behaviour which included they displayed average levels of sexual activity, which they maintained through irregular condom use and restricted their ability to communicate. People showed more positive attitudes toward other emotional aspects of life than they did toward their sexual knowledge. The qualitative research showed that people trust their partners while they follow peer norms and view obstacles as more important than their knowledge base, but seminars and counseling programs enable learners to develop authentic self-confidence to improve their safety practices. The Health Belief Model shows that organizations need to implement multiple strategies which eliminate obstacles while increasing self-efficacy and educational pathways that will lead to sexual behaviour protection.

### 5.1 Summary of Findings

The research showed that Southway College of Technology Criminology students who were between 21 to 23 years old and male and single and lived in urban areas demonstrated low to moderate

understanding of sexual health, which they studied. The study results demonstrated that participants showed moderate attitude levels because they understood the risks yet they refused to discuss sexual health when others were present. The study found that participants engaged in sexual activities at moderate levels while they showed inconsistent use of protection methods and limited ability to discuss sexual matters. The correlation analysis showed that attitudes acted as a stronger mediator for behaviour than knowledge because knowledge by itself did not ensure safer practices. The qualitative findings validated the results which showed peer norms and trust in partners and embarrassment and restricted contraceptive access as obstacles while the seminars and counseling sessions increased confidence and safer sexual behaviour which demonstrated how psychosocial factors and institutional support helped reduce risky practices.

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## Author Contributions Statement

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| Hannah Leah S. Calang | ✓ | | ✓ | | | | ✓ | | ✓ | | | ✓ | | ✓ |
| Jesebel C. Berdin | ✓ | | ✓ | | ✓ | ✓ | | ✓ | | ✓ | | ✓ | | ✓ |
| Kyla S. Cabanos | ✓ | ✓ | | ✓ | | | ✓ | | ✓ | | ✓ | | ✓ | |
| Angel S. Espiritu | ✓ | | | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | | ✓ | ✓ |

C: **C**onceptualization
M: **M**ethodology
So: **So**ftware
Va: **Va**lidation
Fo: **Fo**rmal analysis
I: **I**nvestigation
R: **R**esources
D: **D**ata Curation
O: Writing- **O**riginal Draft
E: Writing- Review& **E**diting
Vi: **Vi**sualization
Su: **Su**pervision
P: **P**roject administration
Fu: **Fu**nding acquisition

## Conflict of Interest Statement

The authors declare that there are no conflicts of interest regarding the publication of this research.

## Informed Consent

The research explanation was provided to all participants before they began the study. The study obtained permission from all participants who provided their personal information which remained confidential throughout the research process.

## Ethical Approval

The study followed ethical research standards in the collection, analysis, and reporting of data. Permission to conduct the research was obtained from the appropriate school authorities before the data gathering process began.

### Data Availability

The data used and analyzed in this study are available from the corresponding author upon reasonable request.

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