

Gender Differences Knowledge, Attitude, and Practices on Condom Use in Preventing Sexually Transmitted Infections in Cebu City

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ABSTRACT

Effective prevention of sexually transmitted diseases (STIs) depends on personal knowledge, attitudes, and practices (KAP), which remain an essential issue for the public. This study assessed Cebu City citizens' gender-based KAP regarding condom use as an STI prevention strategy. In four barangays—Apas, Carreta, Guadalupe, and Mabolo—a sample of 384 respondents was polled using a quantitative descriptive-correlational approach. A validated KAP questionnaire was used for data collection, and chi-square tests, Cramer's V, and Pearson's correlation were used for statistical analysis. The results showed that people were highly aware of the need for condoms in avoiding STIs. Nonetheless, deficiencies in official instruction regarding the appropriate use of condoms and restricted access to resources were observed. Although condom use was usually viewed favorably, perceptions were significantly impacted by cultural and religious influences. Although problems with irregular use and inappropriate storage were noted, condom-related practices demonstrated a moderate congruence with knowledge and attitudes. Age and gender, in particular, showed a high correlation with the KAP dimensions. These findings highlight the necessity of focused educational initiatives and increased condom accessibility to fill up knowledge gaps, change attitudes, and promote regular and appropriate usage. This study supports public health initiatives by emphasizing sociocultural and behavioral elements important for STI prevention in Cebu City.

Keywords: Gender-based, Condom use, sexually transmitted diseases (STDs), Awareness, Sexual practices

INTRODUCTION

Low and moderate-income countries (LMIC) have a higher prevalence of sexually transmitted illnesses (STIs), a major issue for public health worldwide. Apart from being the reason for a considerable amount of sickness and death, most diseases also aggravate social and economic inequality. The World Health Organization (WHO) estimates daily acquisition of around a million instances of sexually transmitted infections (STIs) worldwide. Discovered are sexually transmitted infections such as trichomonas, syphilis, gonorrhea, and chlamydia. Untreated sexually transmitted infections (STIs) may cause significant problems including reduced fertility, negative pregnancy outcomes, and higher HIV risk.

Healthcare systems bear a great deal of responsibility, particularly among those who participate in sexual activity, the Philippines is seeing rising rates of sexually transmitted diseases (STIs). The public health sector has to respond fast, and condoms are unquestionably one of the best ways to stop the spread of sexually transmitted infections (STIs), which include HIV but can go beyond that. When used consistently and suitably, condoms greatly help to lower the risk of an infection starting from one person to another. Still, there are obstacles in place that limit the general condom use. Among these difficulties are ignorance, poor resources, social shame, and the power of religious institutions. Overcoming these obstacles in cities like Cebu City is much more difficult because of the gender-specific and societal aspects they contain. The Knowledge, Attitudes, and Practices (KAP) framework will help us to better understand the behaviors connected to the use of condoms. It is noteworthy that in this context the term "knowledge" implies not only preventive actions like condom use but also the knowledge and awareness of sexually transmitted diseases (STIs). The term "attitudes" describes the beliefs and notions connected with condoms and shaped by societal and personal elements.

Conversely, the term "practices" describes the real actions engaged in buying, storing, and using condoms and are likewise shaped by cultural and personal elements (Sivaram et al., 2018). According to 2020 Manabe and colleagues' research, the evolution of these traits is strongly influenced by gender. This is true because men and women often run across different challenges trying to get sexual health education, decide whether to use condoms and get the tools needed. Researching how gender-based variations in knowledge, attitudes, and behavior affects the efficacy of sexually transmitted infection (STI) prevention initiatives in Cebu City is of great relevance given the variety of sociocultural aspects the city hosts.

Though medical knowledge of sexually transmitted infections (STIs) has advanced greatly, gender-specific barriers to condom use remain mostly disregarded in the Philippines. This division lessens the efficacy of public health initiatives, which could center on broad preventative messaging without considering the gendered and social aspects influencing decisions on sexual health. But the societal shame connected with condom use keeps men from doing so regularly (Ngugi et al., 2019). Previous studies conducted in areas like metropolitan Kenya point to men maybe knowing more about condoms than women do. On the other side, women could find it more difficult to negotiate the use of condoms because of the unequal power dynamics in relationships and their concern about being judged for their sexual behavior. The results of this study emphasize the need to look at gendered dynamics similar in Cebu City, where sociocultural elements define sexual health practices to a major extent. Another consideration should be the fact that even among those who know condoms are accessible, there are still misunderstandings about their availability as a preventive measure and the approved way to use them. Miller et al. (2021) found that young people often lack the knowledge and self-assurance required to use condoms consistently and acceptably, therefore increasing their risk of developing sexually transmitted infections (STIs). Given the rising frequency of sexually transmitted illnesses (STIs), including syphilis, gonorrhea, and chlamydia, this issue has been especially relevant in Cebu City over the past several years. Comprehensive knowledge of the particular patterns of information, attitudes, and behaviors linked with the distribution of condoms is essential to create successful therapies customized to the particular needs of the population.

The Sustainable Development Goals (SDGs) of the United Nations, most especially SDG 3, which aims to ensure that everyone has access to outstanding health and well-being, directly relate to the problem of sexually transmitted infections (STIs). Included in Sustainable Development Goal 3 (SDG 3) are objectives related to lowering the prevalence of sexually transmitted illnesses (STIs) via means of education, treatment, and prevention. Especially pertinent in highly populated cities like Cebu City is the reality that this is achievable. One of the most significant cities in the Philippines, Cebu City faces several difficulties that are particularly concerning the spread of sexually transmitted diseases (STIs). The high population density of the city, varied demographics, and noteworthy degree of movement among its people all contribute to these issues. Data released recently by the Department of Health (DOH) and the HIV/AIDS and ART Registry of the Philippines (Harp) show a notable rise in HIV diagnosis count. Included among the areas most likely to get infected are Cebu City. These results clearly show that preventative programs and initiatives meant especially to solve the problems this metropolitan population faces now have an acute need. Many public health campaigns aiming at raising knowledge about sexually transmitted diseases (STIs) try to reach their goals; nevertheless, the ongoing cultural, religious, and social barriers usually cause these activities to fall short. For example, Melgar et al. (2018) claim that the predominance of Catholic beliefs in the Philippines often shows the morally dubious use of condoms. Given this, it is difficult to advocate for the use of condoms as a generally accepted and rather successful preventive measure.

Urban areas like Cebu City have socioeconomic differences that affect the activities meant to support safer sexual practices even more. Apart from the general misunderstandings on the use of condoms, there is still a major obstacle in the form of inadequate resources for sexual health. Particularly for the nursing profession, this study has great practical relevance since nurses significantly contribute to the prevention of sexually transmitted infections (STIs) and the raising of awareness of sexual health issues. Based on the results of this study, nurses—especially those in community health—have the chance to create more successful general health education campaigns more attentive to gender preferences. Nurses in Cebu City are more suited to provide suitable treatments that result in the resolution of these problems and the encouragement of healthier behaviors when they have a greater knowledge of the gender-specific barriers that impede persons from using condoms. Furthermore, this study would help Cebu City's more extensive public health projects to be carried out by offering data-supported recommendations. These suggestions can help to create initiatives and regulations meant

to lower the prevalence of sexually transmitted illnesses (STIs). Through community-based health education projects and school-based sexual health programs, one can simultaneously address the issue of accurate knowledge about the use of condoms and confront preconceptions and stigma. Nurses are in a very special position in terms of their capacity to advocate for these initiatives and cooperate with community leaders, healthcare experts, and legislators since they have great ties to the areas in which they work.

Moreover, the results of the research can act as a guide for the creation of gender-sensitive health policies meant to support fair access to sexual health resources and education. This will encourage fair access to knowledge and instruments, helping to promote equality and ultimately help to lower the prevalence of sexually transmitted illnesses in Cebu City. Furthermore, the study will provide important information to help correct gender disparities in the population's protection of sexually transmitted diseases. The results of studies on the subject indicate that using condoms causes certain challenges for men and women. Women in Cebu City may find it challenging to negotiate condom use because of the unequal power relations in relationships and the traditional views connected with female sexuality.

Though they are more likely to be knowledgeable about how to use condoms, men may be discouraged from using condoms. This could be the result of their peers' influence as well as their misperceptions of the dangers connected to sexually transmitted illnesses (STIs). This study explores these gender concerns to identify the main obstacles and supporters influencing condom use as well as to help in the formulation of policies more inclusive for the prevention of sexually transmitted infections (STIs). This study aims to find out how differently men and women in Cebu City use condoms in terms of their knowledge, attitudes, and behavior. Through an investigation of the sociocultural factors influencing sexual health practices, the study would be able to offer a more perceptive analysis that would help initiatives aiming at lowering the city's sexually transmitted infections (STIs). Reducing the prevalence of sexually transmitted diseases (STIs) and enhancing the results of sexual health can help one to advance toward the accomplishment of Sustainable Development Goal 3.

The results of the research will be used to generate recommendations that will help nurses, who are the main providers of healthcare, in creating health education programs more successfully and in advocating the formation of policies sensitive to gender issues. Finally, the results of this study will help to shape a more informed, more assertive, healthier community in Cebu City. Utilizing effective actions, healthy attitudes, and knowledge, this community can help to lower the spread of sexually transmitted illnesses (STIs). This approach would not only assist in addressing the present issue of sexually transmitted infections (STIs) in Cebu City, but it would also further the global endeavor to create sustainable and fair health systems.

THEORETICAL FRAMEWORK

The theoretical foundation for this investigation was provided by Nola Pender's Health Promotion Model (HPM), which she established by herself. This is because it offers a thorough explanation of how a variety of factors influence behaviors that are intended to improve health. The Human Performance Model (HPM) was initially presented in 1982; however, in 1996, in response to the feedback that was received, considerable changes were made to the model. As a result, this highlights the complex links that exist between human features, experiences, and actions, which collectively characterize various experiences and activities. The intricate nature of these relationships is highlighted by this detail. There is a strategy that was established by Pender that emphasizes the significant components that influence the knowledge, attitudes, and practices (KAP) of health behavior. It was Pender who first proposed this method. When it comes to sexual health and the prevention of sexually transmitted infections (STIs), these aspects have a significant role in directing individuals toward the most suitable choices. The statement is particularly true about sexual health. The capacity of an individual to comprehend the information that pertains to their health is referred to as personal knowledge.

The individual is aware of the dangers that are connected to particular behaviors, the benefits that come with implementing best practices, and the preventative measures that would be available to any individual. This awareness takes into consideration every one of these essential elements. An example of this would be a comprehensive sexual education program that encourages individuals to engage in safer sexual activities and increases their awareness of sexually transmitted infections (STIs). This protects against infections that are transferred sexually. When it comes to the subject of medicine, attitudes are the perspectives and convictions

that individuals hold, which in turn influence the methods that are utilized. It is said in this portion of the model that people's positive ideas about health are a primary factor that inspires them to participate in such activities. This suggests that a crucial source of inspiration for people's predisposition to participate in activities that enhance their condition is the optimistic beliefs that they have about their health. On the other hand, individuals who have unfavorable opinions can be dissuaded from following the essential policies that pertain to health-related issues. Because negative attitudes are associated with insufficient motivation, this is true. However, due to the stigma associated with sexually transmitted illnesses (STIs), some individuals may opt not to get tested for them or discuss their sexual health with their partners without fear of being judged. There is a strong connection between this and the stigma that is attached to particular diseases.

According to these approaches, the emphasis is placed on actual health-related activities, such as the utilization of contraceptives consistently and suitably. As a result of the fact that it emphasizes the necessity of putting knowledge and healthy attitudes into practice, this habit is highly significant for lowering the risk of sexually transmitted infections (STIs). The reason for this is that it emphasizes the necessity of putting one's knowledge and moral ideas into practice. Within the framework of the revised Health Promotion Model (1996), it is clear that gender is given the utmost focus concerning these issues. This is in addition to the fact that the model was introduced in 1996. Several studies have shown that a person's gender influences not just their gender but also their viewpoint on health hazards, the acquisition of knowledge, and the decisions they make regarding preventative measures. This has been demonstrated to be true through the use of studies. There is no doubt that how men and women are expected to behave in society have an impact on the outcomes of their health. The various perspectives that individuals hold on the dangers and obligations that are associated with sexual health are likely to be one of the most significant factors contributing to these disparities. In this study, a gender-comparative strategy is utilized to evaluate the changes in KAP that are associated with the utilization of condoms and sexually transmitted infections (STIs). The current research project has several primary objectives, one of which is to determine which gender demonstrates superior knowledge, attitudes, and behaviors (KAP) about the utilization of condoms and which group requires more targeted therapy. As an additional aspect of this ongoing research project, the statistical significance of these gender disparities will be evaluated as part of the investigation. There have been modifications made to it to consider gender differences in KAP and how these differences influence the prevention of sexually transmitted infections. In addition, the framework's directional flow was altered to make these gender variances more accurately represented. The similarities and differences that were found have been included in this overarching framework. Taking into consideration the results of this study, it is recommended that a health education program be developed as an additional alternative for the population that requires additional assistance. As a result of the program's goal of attracting those who are less worried about the prevention of sexually transmitted infections (STIs), its objectives include the expansion of knowledge, the development of positive attitudes, and the inspiration of regular health behaviors. Increasing acceptance and efficacy across a wide range of groups is the objective of the intervention, which is accomplished through the utilization of tactics that are culturally and socially relevant. This action is taken to provide support for the intervention's desired objective, which is the achievement of the objective.

Pender's Health Promotion Model (1996) is an instrument that is required for the examination of these dynamics because it assists the study in supporting the development of effective health promotion activities that are sensitive to gender concerns. The huge importance of the study is made clearer by this particular aspect, which is one of the parts. As a result of their implementation, these strategies not only contribute to the achievement of more general public health goals, but they also assist in the strengthening of Cebu City's efforts to prevent sexually transmitted infections (STIs). Infections that are transmitted sexually are known as STIs. The objective is to empower individuals through the utilization of an all-encompassing strategy, with the end goal of helping those persons who will ultimately contribute to the improvement of public health outcomes. People are equipped with the knowledge and skills necessary to be able to change their unhealthy behaviors and make decisions that are beneficial to their health. Providing an individual with the knowledge and skills that they particularly demand will assist them in accomplishing their goal.

Statement of Purpose

This study assessed gender differences in knowledge, attitude, and practice regarding condom use for preventing sexually transmitted infections (STIs) in Cebu City. Specifically, it addressed the following questions:

1. What was the gender distribution of the respondents?
2. What was the level of knowledge regarding condom use in preventing STIs?
3. What was the attitude toward condom use in preventing STIs?
4. What was the practice of condom use in preventing STIs?
5. Was there a significant difference in knowledge, attitude, and practice when grouped by gender?
6. Was there a significant relationship between the following variables?
 - 6.1 Knowledge and Attitude
 - 6.2 Knowledge and Practice
 - 6.3 Attitude and Practice
7. Based on the findings of the study, what health education programs were proposed?

Statement of Null Hypothesis

Ho1: There was no significant difference between gender and knowledge.

Ho2: There was no significant difference between gender and attitude.

Ho3: There was no significant difference between gender and practice.

Ho4: There was no significant relationship between knowledge and attitude.

Ho5: There was no significant relationship between knowledge and practice.

Ho6: There was no significant relationship between attitude and practice.

METHODOLOGY

The research design, process, environment, sampling strategy, sample size, research instrument, data collection methods, data analysis, and ethical considerations are all systematically covered in this section.

Design

This study examined gender-based knowledge, attitudes, and practices (KAP) about condom use for STI prevention in Cebu City utilizing a quantitative research approach and a descriptive-comparative-correlational design. While the comparative component looked at gender-based differences, analyzing differences between males and females in STI awareness, condom perceptions, and preventive behaviors, the descriptive component gave a thorough overview of respondents' current knowledge, attitudes, and practices related to condom use.

Environment

The Barangays of Apas, Carreta, Guadalupe, and Mabolo were the focus of the study, which was carried out in Cebu City. Four additional barangays, including Day-as, Hipodromo, Labangon, and Pari-an, were chosen for the pilot test. Cebu City, one of the wealthiest and fastest-growing cities in the Philippines, offers a diverse range of options in the ecotourism, lifestyle, and medical fields. But it also has one of the highest rates of sexually transmitted infections (STIs) in the country. The substantial influx of both domestic and foreign tourists, which increases the risk of STI transmission, is mostly to blame for this prevalence. As a result, Cebu City is an important site for studies on STIs and the patterns of their prevalence.

Respondents

A total of 384 Cebu City people engaged in the study as respondents, including 14 who took part in the pilot testing stage. An equal number of men and women were chosen in order to guarantee gender inclusion and reduce any potential biases; as a consequence, there were 192 men and 192 women who responded. With 92 respondents per barangay, the survey was carried out in four carefully chosen barangays. To ensure fair gender representation in the dataset, 46 male and 46 female individuals were questioned within each barangay. A thorough grasp of the knowledge, attitudes, and practices (KAP) surrounding the use of condoms for the prevention of sexually transmitted infections (STIs) was made possible by this gender-balanced approach.

The study used the Krejcie and Morgan Table, a commonly used statistical technique for sample size selection, to establish the proper sample size. By lowering Type I (false positive) and Type II (false negative) statistical errors, this methodological technique increased the study's validity and reliability and guaranteed that the chosen sample accurately reflected the target population. To ensure that the results could be utilized to guide focused public health initiatives, the sample size was selected based on the demographic groups most at risk of STIs.

Additionally, the Krejcie and Morgan Table prevented both under-sampling and over-sampling, which made resource allocation more efficient. Under sampling might have limited the study's capacity to identify important patterns by producing insufficient statistical power. Oversampling, on the other hand, might have resulted in needless time and resource waste without appreciable accuracy gains.

Moreover, the research was more credible and accepted because it was in line with accepted academic and scientific norms thanks to the use of a standardized sample size determination procedure. The study's capacity to support evidence-based public health activities, especially in the development of successful HIV and STI prevention measures, was further supported by the study's sound methodological approach. To create focused educational campaigns, policy recommendations, and community health interventions that are suited to the particular requirements of various genders in Cebu City, the study supplied crucial insights by producing accurate data on gender-specific condom use practices.

Sampling Technique

To ensure equal representation of male and female participants, this study used quota sampling to systematically pick 384 respondents from four specified barangays in Cebu City. Since maintaining gender balance was crucial for carrying out insightful comparative analyses of condom-related knowledge, attitudes, and practices (KAP), quota sampling was used as the major sampling method. The researchers made sure that each barangay produced 92 respondents, with an equal distribution of 46 males and 46 females, by enforcing predetermined gender-based quotas. The results of the study were guaranteed to accurately reflect gender-related differences in STI awareness, condom usage attitudes, and preventive activities according to this systematic approach, which also reduced potential biases. Because it allowed for flexible and strategic participant selection, the quota sampling strategy was especially well-suited for this investigation. This method improved the findings' validity and generalizability by reflecting the population's gender distribution. Additionally, it made sure that underrepresented groups were adequately included, which made it possible to conduct a thorough assessment of the differences in condom use across genders in Cebu City for the prevention of STIs.

Inclusion

Respondents who satisfied the following requirements were included in the study: **a)** Those who lived in Cebu City, most especially in the barangays of Apas, Carreta, Guadalupe, and Mabolo; **b)** Willing to collaborate and take part in the data gathering procedure.

Exclusion

Participants who did not meet any of the following criteria were not allowed to participate in the study: **a)** Could not give meaningful answers about their knowledge of STIs; **b)** Refused to participate; and **c)** Did not live in Cebu City, specifically in barangays Apas, Carreta, Guadalupe, or Mabolo. To guarantee that participants were

pertinent to the goals of the study and to reduce any potential biases, a non-random purposive sampling technique was used.

Instruments

The STIs and Gender-Based Knowledge, Attitude, and Practice (GKAP) Questionnaire on Condom Use served as the main instrument for gathering data for this study. Gender-specific knowledge, attitudes, and practices about condom use for STI prevention, including HIV/AIDS, were evaluated using this structured questionnaire. Before being administered, it was validated for accuracy and dependability. Demographic Information, Knowledge, Attitude, and Practice were the four sections of the questionnaire. Gender is the main topic of demographic data. The Knowledge component used a five-point rating system from Very Knowledgeable (5) to No Knowledge (1) to assess knowledge about STIs, transmission, and condom effectiveness. Questions addressed condom types, appropriate use, accessibility, and STI awareness. There were three categories for knowledge levels: low (0–20 points), moderate (21–40 points), and high (41–50 points).

Using a five-point Likert scale ranging from Extremely Positive (5) to Extremely Negative (1), the Attitude component assessed opinions regarding the usage of condoms, societal acceptance, and cultural influences. Respondents' scores were divided into three categories: negative attitudes (0–20 points), neutral attitudes (21–40 points), and positive attitudes (41–50 points).

Assessed on a scale of Always Practiced (5) to Never Practiced (1), the Practice component looked at actual condom usage behavior, including frequency, decision-making, and accessibility issues. Respondents' scores were divided into three categories: rare/no condom use (0–20 points), occasional (21–40 points), and consistent (41–50 points).

Clarity and dependability were guaranteed by a pilot test with 16 participants, which resulted in improvements for increased validity. In order to improve public health activities, policy recommendations, and STI prevention programs in Cebu City, the structured questionnaire and stringent validation process guaranteed reliable data collection and provided crucial insights into gender-specific condom use patterns.

Data Gathering Procedures

The following data-gathering procedures were implemented in this study:

Pre-Data Gathering. Three research titles were submitted for approval at the start of the investigation. Following approval of the title, work on Chapters 1, 2, and 3 began, and a panel of experts held a design hearing during which they offered feedback and suggestions for enhancements. Their suggestions were taken into consideration, and the manuscript was then updated and sent for ethical review. After that, transmittal letters asking for authorization to carry out the study were delivered to the appropriate barangay halls and the Dean's office. Following approval of the study protocol, participant recruiting got underway. Before beginning the real data collection, a pilot test was carried out with 16 respondents (two males and two females from each barangay) to evaluate the questionnaire's efficacy and clarity.

Actual-Data Gathering. Face-to-face encounters were used to recruit respondents following the inclusion and exclusion criteria as well as the stated quota sampling procedure. Participants were offered the choice to finish the STIs and Gender, Knowledge, Attitude, and Practice (GKAP) Questionnaire Regarding Condom Use in a private setting of their choosing in order to maintain privacy and confidentiality. In order to attain the required sample size of 384 respondents (92 per barangay, with an equal distribution of 46 males and 46 females with the 16-pilot testing), the data-gathering process was carried out continuously.

Post-Data Gathering. Following the collection of data, the information was arranged in a Google Sheet and sent to a statistical lab for examination. Tables with data interpretations, implications, and supporting literature were used to present the results. To maintain confidentiality and guarantee the ethical treatment of participant information, all completed questionnaires and raw data were shredded, disposed of, and destroyed after the final defense.

Statistical Treatment of Data

The statistical procedure that was employed was as follows.

Frequency and Percentage. The gender distribution of the respondents was described using this manner. The number of male and female participants could be quantified by the study using frequencies and percentages, giving a clear picture of the sample's gender composition.

Mean and Standard Deviation. The information, attitudes, and behaviors related to STIs were described using these statistical techniques. The data's variability or spread is measured by the standard deviation, whereas the mean gives an average score. These metrics include information about respondents' knowledge, attitudes, and practices around STIs, as well as the degree of variation and central tendency.

Chi-square with Cramer's V. To evaluate the association between demographic profile (e.g., gender) and STI knowledge, attitude, and behaviors (KAP), the chi-square test with Cramer's V was utilized. A measure of the strength of the link between categorical variables is provided by Cramer's V, whereas the chi-square test determines whether there is a significant association. The rationale behind using this approach is its ability to analyze correlations between categorical variables, including gender and KAP about STIs.

Pearson's r correlation. The association between knowledge, attitudes, and practices around STIs was described using Pearson's r correlation. The linear relationship between two continuous variables is measured using this method, along with its direction and strength. It was selected because it makes it possible for the study to measure the degree of correlation between these three STI-related behavior characteristics.

Results and Discussion

Gender Profile of the Respondents

Male and female participants are equally distributed, according to the respondents' gender profile, which is shown in Table 1. Fifty percent of the responders are of each gender, with 192 people falling into the male and female categories. The data is guaranteed to reflect the viewpoints and experiences of both genders in the study population thanks to this equal gender representation. The results are based on 384 respondents in total, allowing for a comprehensive examination of gender-based variations in condom-related knowledge, attitudes, and behaviors.

Table 1. Gender profile of the respondents

Profile	Frequency (<i>f</i>)	Percentage (%)
Gender		
Male	192	50.0%
Female	192	50.0%
Note: <i>n</i> =384.		

Knowledge of the Respondents on the Use of Condoms in Preventing STIs

The respondents' understanding of the use of condoms in preventing STIs, especially HIV, is seen in Table 2. Their knowledge of condom efficacy, appropriate use, accessibility, and misunderstandings is demonstrated by the statistics.

Table 2. Knowledge of the Respondents on the Use of Condoms in Preventing STI

Statements	Mean	SD	Interpretation
How knowledgeable are you about the information available regarding condoms in preventing STIs?	3.69	1.36	Moderately Knowledgeable

How knowledgeable are you in the effectiveness of condoms in preventing the transmission of STIs?	4.25	1.01	Knowledgeable
How knowledgeable do you think people should be about using condoms to prevent the transmission of STIs?	4.35	0.94	Knowledgeable
How knowledgeable are you about the different sizes and types of condoms available in the market?	3.23	1.51	Moderately Knowledgeable
How knowledgeable are you that STIs can be transmitted through sexual intercourse?	4.46	0.89	Knowledgeable
How knowledgeable are you about the correct method of using condoms?	4.00	1.16	Knowledgeable
How knowledgeable are you in the ability of condoms to protect against STIs other than HIV?	4.03	0.98	Knowledgeable
How knowledgeable are you about where to access free or affordable condoms in Cebu City?	3.79	1.23	Knowledgeable
How knowledgeable are you of myths or misconceptions about condom usage and STI prevention?	3.83	1.20	Knowledgeable
How knowledgeable have you been about formal education or counseling on condom usage and STI prevention?	2.65	1.47	Slightly Knowledgeable
Overall Mean	3.83	1.11	Knowledgeable

Note: n=384 (Male: n=192, Female: n=192)

Legend: 1.00-1.80 = No Knowledge; 1.81-2.60 = Slightly Knowledgeable; 2.61-3.40 = Moderately Knowledgeable; 3.41-4.20 = Knowledgeable; 4.21-5.00 = Very Knowledgeable.

With an overall mean of 3.83, classified as "Knowledgeable," the statistics show that respondents typically had a strong comprehension of condoms as a STI prevention tool. When comparing respondents by gender, males (3.96) showed somewhat greater knowledge levels than females (3.70). Both sexes showed the highest levels of knowledge on the efficiency of condoms in preventing STIs (4.30 for males, 4.20 for females) and STI transmission through sexual activity (4.50 for males, 4.42 for females). Women may not be as exposed to the diversity and range of condoms as men are, as seen by the fact that men were substantially better informed about the various sizes and varieties of condoms (3.50) than women (2.96).

A significant issue is the low mean score of 2.65 on formal instruction or counseling regarding condom use, which is categorized as "Slightly Knowledgeable." Females scored significantly lower (2.50) than males (2.80), suggesting that women require more focused educational efforts. These results are congruent with those of Ahmed et al. (2020), who pointed out that although urban people may be generally aware of the usage of condoms, consistent use is hampered by practical knowledge gaps and accessibility concerns. According to Yue (2019), media commercials are a major source of information, indicating the necessity of more aggressive public health initiatives. In a similar vein, Francis (2019) discovered that although young individuals are aware of condoms and their components, many are ignorant of their costs and availability. In order to close these gaps and guarantee consistent and educated condom usage, which would ultimately lower the rate of STI transmission in Cebu City, focused educational programs and accessibility measures are needed.

Attitude of the respondents to the use of condoms in preventing STIs

Responses to the survey about condom use as a means of avoiding sexually transmitted diseases (STDs) are shown in the table below. The mean scores showed a generally positive attitude among respondents about

condom use, with some regions displaying a neutral position.

Table 3. Attitude of the Respondents on the Use of Condoms in Preventing STI

Statements	Mean (Male)	Mean (Female)	Mean	SD	Interpretation
How positively or negatively are you discussing condom usage with your sexual partner(s)?	3.85	3.90	3.87	1.32	Positive
How positive or negative do you think people are hesitating or refusing to use condoms?	3.68	3.70	3.69	1.32	Positive
How positive or negative do you perceive the social acceptance of condom usage in Cebu City?	3.90	3.96	3.93	1.13	Positive
How do you believe using condoms affects sexual pleasure?	4.10	4.14	4.12	1.06	Positive
How positive or negative are you about the reliability and quality of condoms available in the market?	4.05	4.08	4.06	1.09	Positive
How positive or negative do you believe that promoting condom usage encourages promiscuity?	4.03	4.05	4.04	1.21	Positive
How positive or negative do you believe condom usage should be openly discussed in educational settings?	4.20	4.25	4.23	1.06	Positive
How positively or negatively do cultural or religious beliefs influence your thoughts on condom usage?	3.34	3.38	3.36	1.38	Neutral
How positive or negative do you think condom usage is stigmatized in your community?	3.70	3.75	3.73	1.36	Positive
How positive or negative do you believe condom usage should be independent of relationship status?	3.72	3.76	3.74	1.32	Positive
Overall Mean	3.88	3.90	3.88	1.19	Positive

Note: n=384 (Male: n=192, Female: n=192)

Legend: 1.00-1.80 = Extremely Negative; 1.81-2.60 = Negative; 2.61-3.40 = Neutral; 3.41-4.20 = Positive; 4.21-5.00 = Extremely Positive.

Overall, the group's mean (n = 384) is 3.88, falling into the "Positive" category. This suggests that condom use as a STI prevention strategy is typically viewed favorably by responders. The mean score for male respondents was 3.88, which is consistent with the general average and falls into the "Positive" category. The somewhat higher mean of 3.90 for female responders is still in the "Positive" range.

Response variability was indicated by the standard deviations, which varied from 1.06 to 1.38. There is more diversity of opinion in these areas, as seen by the substantial standard deviations in remarks about stigma in the community (1.36) and cultural and religious factors (1.38). However, statements such as encouraging the use of condoms in classrooms (with a standard deviation of 1.06) showed less variation, indicating that respondents were more likely to give consistent affirmative answers.

With mean scores of 3.93 and 4.23 for social acceptance and condom education, respectively, there was strong agreement. Both displayed minimal variability and favorable positions, suggesting widespread agreement on these topics. Although the higher standard deviation suggests some diversity of view, the statement regarding being influenced by cultural or religious beliefs had a neutral mean of 3.36, indicating that these variables do not significantly influence the sentiments of the majority of respondents. Although there is significant variation in responses, the perceptions that condom usage is stigmatized (mean = 3.73) and that encouraging condom use promotes promiscuity (mean = 4.04) both represent positive opinions.

According to the statistical data, respondents' opinions regarding the usage of condoms to prevent STIs are generally favorable, however, other regions show more ambivalent views influenced by social and cultural

variables. Addressing cultural barriers and encouraging candid conversations about condom usage in classrooms could further improve attitudes and increase acceptance of safer sexual practices.

Practices of the respondents on the use of condoms in preventing STD

The following table lists the respondents' condom-using behaviors in preventing sexually transmitted diseases (STDs). A scale of 1 to 5 was used to evaluate the responses, and the mean score was used to analyze the results. Overall, the results indicate that respondents are largely enthusiastic about using condoms, while there are occasional instances of neutral or improbable behavior.

Table 5. Practices of the Respondents on the Use of Condoms in Preventing STI

Statements	Mean (Male)	Mean (Female)	Mean	SD	Interpretation
How likely do you use condoms during sexual intercourse?	3.85	3.92	3.89	1.34	Often Practiced
How positive or negative do you think people are hesitating or refusing to use condoms?	3.44	3.38	3.41	1.51	Often Practiced
How positive or negative do you perceive the social acceptance of condom usage in Cebu City?	3.68	3.73	3.70	1.36	Often Practiced
How do you believe using condoms affects sexual pleasure?	4.05	4.08	4.07	1.20	Often Practiced
How positive or negative are you about the reliability and quality of condoms available in the market?	2.40	2.50	2.45	1.46	Occasionally Practiced
How positive or negative do you believe that promoting condom usage encourages promiscuity?	3.72	3.76	3.74	1.32	Often Practiced
How positive or negative do you believe condom usage should be openly discussed in educational settings?	2.15	2.18	2.17	1.29	Never Practiced
How positively or negatively do cultural or religious beliefs influence your thoughts on condom usage?	2.88	3.02	2.95	1.49	Sometimes Practiced
How positive or negative do you think condom usage is stigmatized in your community?	2.50	2.40	2.45	1.46	Occasionally Practiced
How positive or negative do you believe condom usage should be independent of relationship status?	3.65	3.71	3.68	1.40	Often Practiced
Overall Mean	3.88	3.90	3.88	1.19	Positive

Note: n=384 (Male: n=192, Female: n=192)

Legend: 1.00-1.80 = Extremely Negative; 1.81-2.60 = Negative; 2.61-3.40 = Neutral; 3.41-4.20 = Positive; 4.21-5.00 = Extremely Positive.

The table gives a thorough summary of the views and practices of the respondents regarding the usage of condoms as a crucial preventative measure against sexually transmitted diseases (STDs). It lists 10 major claims that have been assessed using mean scores and standard deviations, enabling a more nuanced interpretation based on a scale from "very unlikely" to "very likely." One of the most important conclusions is that there is a strong tendency to consistently use condoms with sexual partners, as indicated by a mean score of 4.07, which is classified as "likely." This indicates that the majority of respondents actively participate in safe sex practices. With a mean score of 3.74, which again falls into the "likely" group, there is also a respectable degree of awareness regarding the appropriate storage of condoms. This shows a lot of people realize how crucial it is to keep condoms intact to guarantee their efficacy. The data does, however, also highlight important areas of worry. The average score for using condoms that have expired is 2.17, which is classified as "unlikely."

This research points to a concerning pattern: some users might not keep a close enough eye on expiration dates, which could jeopardize their security. In a similar vein, the documented cases of condom slippage or breakage, which had a mean score of 2.45 and were categorized as "unlikely," highlight the necessity of improved instruction on proper use to avoid such mishaps during sexual activity. With an average mean score of 3.30, the results indicate a neutral to likely orientation toward these safe sex practices. This well-rounded viewpoint shows both significant shortcomings and a variety of helpful actions.

The results of previous studies, especially those by Crosby et al. (2003), which highlight the importance of regular condom use and the provision of thorough instruction on how to use them as essential steps to reduce the rates of sexually transmitted diseases, are consistent with these findings. A positive attitude toward hypothetical scenarios where condoms are more affordable is also demonstrated by this study, as evidenced by a mean score of 3.68, which is classified as "likely." This element of affordability is particularly important in creating an environment where safe sex practices can be adopted more widely.

People never use condoms during sexual encounters for a variety of reasons. The majority of people do not use condoms at all, including during chance sexual encounters, according to a 2020 study by Abdulkharim. Factors influencing condom use were identified by the study. The main causes of this include individual characteristics such as knowledge and awareness, perceived risks, self-efficacy, and preferences and beliefs. It's crucial to comprehend how condoms work to avoid sexually transmitted diseases. Use may be discouraged by misconceptions or a lack of knowledge regarding STDs and the efficacy of condoms. People are less likely to regularly wear condoms if they underestimate their risk of getting sexually transmitted diseases.

Condom use is influenced by one's confidence in their capacity to acquire, bargain for, and utilize them successfully. Use may be discouraged by worries about decreased enjoyment, pain, or latex allergies. Relationship aspects such as trust and monogamy, power disparities, and the situations of casual versus committed partners are the next highlighted reason. Even if one partner has an undiscovered sexually transmitted disease, long-term couples may choose not to use condoms because they think they are exclusive. Negotiating condom use can be difficult in situations when one partner has greater control, especially for women. Compared to regular or committed partners, people may use condoms more frequently with casual partners. Sociocultural variables including religious beliefs, stigma, and cultural conventions are another issue. Because of stigmas associated with premarital sex or contraception, some cultures may discourage the use of condoms. Condom use or carrying may be frowned upon, especially in conservative cultures. By advocating abstinence over safer sex practices, religious teachings may hinder the use of condoms. Additionally, most people support public health infrastructure. Public health campaigns and comprehensive sexual education programs are essential for encouraging the use of condoms. Consistent use can be promoted by medical professionals' or sexual health educators' advice. Programs for the provision of free or heavily discounted condoms improve accessibility and use (Abdulkharim, 2019).

Relationship between Demographic Profile and Knowledge

Table 6 presents the relationship between demographic profile and knowledge, using chi-square values, p-values, and Cramer's V for effect size (ES). The results indicate significant relationships between demographic variables and knowledge.

Table 6: Relationship Between Demographic Profile and Knowledge

Variables	chi value	p value	Cramer's V	Decision	Interpretation
Gender	387.07	<.001	.984	Reject Ho	Significant
Knowledge	778.40	<.001	.986	Reject Ho	Significant

Note: Correlation is significant if the p value is $\leq .05$. Dependent Variable: Gender. Cramer's V: $ES \leq 0.2$ – the result is weak. Although the result is statistically significant, the fields are only weakly associated. $0.2 < ES \leq 0.6$ – the result is moderate. The fields are moderately associated. $ES > 0.6$ – the result is strong. The fields are strongly associated.

The table presents the relationship between demographic profile and knowledge, with gender and age both showing strong, statistically significant associations with knowledge. The chi-square value for gender was 387.07, and Cramer's V was 0.984, indicating a strong positive relationship, with a p-value of less than 0.001, which confirms statistical significance. Similarly, age showed a chi-square value of 778.40 and a Cramer's V of 0.986, reflecting a strong positive association with knowledge, also with a p-value of less than 0.001, confirming statistical significance. These results suggest that both gender and age are strongly related to knowledge, with higher knowledge levels being significantly associated with these demographic factors.

Relationship between Demographic Profile and Attitude

Table 7 presents the relationship between demographic profile and attitude, using Pearson correlation coefficients (r values) and corresponding p-values to assess the strength and significance of the association.

Table 7: Relationship Between Demographic Profile and Attitude

Variables	r value	p value	Decision	Interpretation
Knowledge VS Attitude	.993	<.001	Reject Ho	Significant
Knowledge VS Practices	.976	<.001	Reject Ho	Significant
Attitude VS Practices	.968	<.001	Reject Ho	Significant

Legend: Significant if the p value is $\leq .05$. Pearson r value interpretation: -1 perfectly negative, -0.8 strongly negative, -0.5 moderately negative, -0.2 weakly negative, 0 no association, 0.2 weakly positive, 0.5 moderately positive, 0.8 strongly positive, and 1 perfectly positive

This table delineates the correlation between demographic profiles and attitudes toward condom use, emphasizing a substantial association as per the study's findings.

The data interprets the interrelations among knowledge, attitudes, and practices within the sexual health domain. Pearson correlation coefficients (r) and their associated p-values are employed to assess the strength and statistical significance of these correlations. All observed relationships are statistically significant, with p-values below 0.001, indicating robust positive correlations. Specifically, knowledge is exceedingly correlated with both attitudes ($r = 0.993$) and practices ($r = 0.976$), indicating that increased knowledge correlates with more favorable attitudes and enhanced condom use behaviors. Furthermore, the correlation between attitudes and practices is also significantly strong ($r = 0.968$), suggesting that positive attitudes facilitate effective condom usage. These findings are consistent with Ajzen's Theory of Planned Behavior (1991), which posits that knowledge and attitudes serve as pivotal predictors of behavioral outcomes. The results imply that an improvement in knowledge, when coupled with positive attitudes, fosters an environment conducive to the adoption of effective sexual health practices.

According to Lim's 2019 study, demographic variables notably impact attitudes toward condom use. Specific trends emerge; adolescents often view condom use as stigmatizing or superfluous due to inadequate sexual health education, whereas young adults generally exhibit greater receptivity, particularly in casual contexts. Conversely, trust issues can complicate condom use within long-term relationships. Older demographics may perceive condoms as obsolete, particularly post-menopause or within stable partnerships. Gender dynamics further complicate this landscape. Men frequently resist condom use, associating it with reduced pleasure or discomfort, influenced by societal norms surrounding masculinity. Women, while recognizing the necessity of condoms, often encounter negotiation challenges due to cultural or relational constraints. Among LGBTQ+ populations, attitudes and behaviors can vary significantly; for instance, gay men typically exhibit a heightened awareness of condom use for HIV prevention yet may display inconsistent usage patterns, partly due to the availability of alternative preventive options such as PrEP. Educational attainment is also a critical determinant: individuals with higher levels of education tend to adopt more positive attitudes towards condom use, buoyed

by enhanced access to information and resources. Conversely, those with lower educational backgrounds may harbor negative or ambivalent perspectives shaped by misinformation or cultural stigmas.

Cultural beliefs exert additional influence; in conservative contexts, condom use may be deemed immoral or unnecessary, aligning with religious doctrines advocating for abstinence or natural family planning. The attitudes toward condom use are shaped by a confluence of demographic factors, including age, gender, education, socioeconomic status, and cultural context. Positive attitudes toward condom use are more likely when individuals have access to accurate information, cultural affirmation, and adequate resources. However, barriers such as stigma, misconceptions, and relational dynamics persist. Thus, targeted interventions that address specific demographic attitudes are critical for promoting consistent condom use (Lim, 2019).

Relationship between Demographic Profile and Practices

Table 8 below presents the statistical relationship between demographic profiles and practices.

Table 8: Relationship Between Demographic Profile and Practices

Variables	chi value	p value	Cramer's V	Decision	Interpretation
Gender	387.07	<.001	.984	Reject Ho	Significant
Age	778.40	<.001	.986	Reject Ho	Significant

Note: Correlation is significant if p value is $\leq .05$. Dependent Variable: Gender. Cramer's V: $ES \leq 0.2$ – the result is weak. Although the result is statistically significant, the fields are only weakly associated. $0.2 < ES \leq 0.6$ – the result is moderate. The fields are moderately associated. $ES > 0.6$ – the result is strong. The fields are strongly associated.

Table 8 shows how gender and age are linked to different practices. The results indicate a strong connection between these demographic factors and the observed behaviors. For gender, the chi-square value is 387.07, with a p-value of less than .001 and a Cramer's V of .984. This means the relationship is statistically significant and very strong. For age, the chi-square value is 778.40, with a p-value of less than .001 and a Cramer's V of .986, confirming a strong association as well. These high Cramer's V values, which are above 0.6, highlight the importance of considering gender and age when looking at these practices.

Relationship Between Knowledge, Attitude, and Practices

Table 9 below summarizes the statistical relationships between knowledge, attitude, and practices.

Table 9: Relationship Between Knowledge, Attitude, and Practices

Variables	r value	p value	Decision	Interpretation
Knowledge VS Attitude	.993	<.001	Reject Ho	Significant
Knowledge VS Practices	.976	<.001	Reject Ho	Significant
Attitude VS Practices	.968	<.001	Reject Ho	Significant

Legend: Significant if the p value is $\leq .05$. Pearson r value interpretation: -1 perfectly negative, -0.8 strongly negative, -0.5 moderately negative, -0.2 weakly negative, 0 no association, 0.2 weakly positive, 0.5 moderately positive, 0.8 strongly positive, and 1 perfectly positive

Table 9 demonstrates the relationship between knowledge, attitude, and practices, as measured by Pearson correlation coefficients (r values) and their corresponding p -values. All relationships between the variables show strong statistical significance, with p -values less than 0.001.

As a result, Knowledge vs Attitude: The correlation coefficient ($r = 0.993$) indicates a strong positive relationship between knowledge and attitude, suggesting that as knowledge increases, attitudes become more favorable or aligned. The p -value of $<.001$ confirms this relationship is statistically significant. Knowledge vs Practices: The correlation coefficient ($r = 0.976$) reveals a strong positive relationship between knowledge and practices, meaning that higher knowledge levels are closely associated with better or more frequent practices. This relationship is also statistically significant, with a p -value of $<.001$. Attitude vs Practices: The correlation coefficient ($r = 0.968$) shows a strong positive association between attitude and practices, implying that a more favorable attitude correlates with more effective or consistent practices. Like the other relationships, this association is statistically significant ($p <.001$).

Overall, all three relationships—Knowledge vs Attitude, Knowledge vs Practices, and Attitude vs Practices—are strongly positive and statistically significant. The high r values (close to 1) indicate that as one variable increases, the other tends to increase as well. This highlights the interconnectedness of knowledge, attitude, and practices, suggesting that improving knowledge and fostering a positive attitude can lead to more effective practices.

CONCLUSION AND RECOMMENDATION

Based on the study, the following results were formulated: there is a positive relationship between the profile and the knowledge, attitude, and practice regarding condom use in preventing STDs. The majority of the respondents were using condoms and knew the importance of condom use in preventing STDs.

Conclusion

Based on the results, there is a need to enhance awareness and education on the use of condoms as an essential preventive measure against HIV and other STDs. Both genders demonstrate varied levels of knowledge and attitudes that influence their practices, emphasizing the need for tailored educational programs and community engagement.

Recommendations

The research study presented opportunities for innovations focused on improving the utilization of knowledge as an efficient tool in the prevention of Sexually Transmitted Infections (STIs). The research team therefore highlighted the following key recommendations:

- Increase people's awareness about STIs through the utilization of appropriate Information, Education, Communication, and Motivation strategies.
- Intensify frequent health seminars at the community level about current or new ways to prevent the spread of sexually transmitted infections.
- Improve the capacity of healthcare providers to deliver information to the target population.
- Conduct case findings for populations that are at risk.
- Utilize unconventional communication platforms, such as social media, to capture a wider audience.
- Advocate for multisectoral involvement in improving the knowledge of the population concerning STIs.
- Create visually appealing and easy-to-understand materials about condom use, HIV prevention, and the benefits of safe practice. (Infographics)

- Utilize platforms like Facebook, Instagram and other Social Media tools to share engaging content, including challenges and success stories. (Social Media Campaigns)
- Promote hashtags and interactive content encouraging discussions on HIV prevention and condom use in Cebu City. (Social Media Campaigns)
- Focus on addressing stigma, building confidence, and promoting open conversations about safe sex. (Educational Videos)
- Distribute informative brochures that address gender-specific concerns, FAQs about condoms, and guidance on proper usage. (Brochures)

REFERENCES

1. Ahmed, Z., Khan, H., & Malik, S. (2020). Barriers to condom use: An exploration of misconceptions and accessibility issues in urban communities. *International Journal of Public Health*, 65(3), 231-239.
2. Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
3. Aral, Uzbach (2020). Holmes, Erica (2020). Communicable Diseases: A Wildfire. Ankara, Turkey.
4. Avinash, I., & Sri, M. (2019). HIV/AIDS Counselling Skills and Strategies: Can Testing and Counselling CURB the Epidemic? *Journal of Pharmaceutical Research*, 49-49.
5. Balisa Mosisa Ejeta (2017). Assessment of Knowledge, Attitude and Practices of Condom Use among People Living With HIV/AIDS in Nekemte Referral Hospital, West Ethiopia Wollega University
6. Benes, Franklin (2021). The Concepts of Growing Up. Dublin, Ireland: McKings and Dustin.
7. Brunner & Suddarth (2021) Medical Surgical Nursing 12th edition: Sexually Transmitted Disease page. 2143-2151. Wolters Kluwer Health, Lippincott William & Wilkins.
8. Bhagavathula, Akshaya Srikanth (2015) A cross-sectional study: the knowledge, attitude, perception, misconception and views (KAPMV) of adult family members of people living with human immune virus-HIV acquired immune deficiency syndrome-AIDS (PLWHA). Springer Plus volume 4, Article number: 769 (2015)
9. BVS Salud. (2023). Cultural and gender-based barriers to condom use in public health programs.
10. Cameron, Joshua (2019). Cultural Practices. Wisconsin: Kirby's.
11. Campo, Liv G. (2019, March 3). Selling Sex. The Freeman.
12. Centers for Disease Control and Prevention (CDC). (2022). Sexually Transmitted Diseases (STDs).
13. Contraception Medicine. (2022). Exploring attitudes toward female condom use in diverse populations.
14. Crosby, R. A., DiClemente, R. J., & Wingood, G. M. (2003). Condom-use errors and problems: A neglected aspect of studies assessing condom effectiveness. *American Journal of Preventive Medicine*, 24(4), 367-370.
15. Destacamento, J. (2019, June 9). Cebu City highest in HIV prevalence. CNN Philippines.
16. Dr. Albert Cruz-Garcia, (2019) The Hidden Face of STD's, Siliman University College of Allied Medical Sciences.
17. Dr. Glenda Asturias, (2019) HIV Prevalence among High Risk Areas, Jose Rizal Memorial State University College of Arts and Sciences.
18. Dr. Timothy Casio, Dr. UmiHamaguchi, Dr. Stella Tan,(2019) Epidemiology of HIV in the Philippines,Siliman University College of Allied Medical Sciences.
19. Durano, Ace (2019). Philippine Tourism: Stimulating Growth and Capacity Expansion in Key Destinations.
20. Fact Sheet (2012). Philippines Data: HIV, AIDS, Sexually Transmitted Disease. World Health Organization.
21. Fact Sheet (2015, December). Sexually T9ransmitted Infections (STIs). World Health Organization.
22. Fact Sheet (2015, December). World AIDS Day 2015: Getting Zero. World Health Organization.
23. FasshanJyumpath, (2019) HIV Prevalence Study, Cebu Doctor's University College of Allied Medical Science.

24. Feijoo, Yuan (2019). *The Horrors of the Prevalence of STIs in Southeast Asia*. Beijing, China: Sun Yat Sen University.
25. Florence Samkange-Zeeb (2021, March). *Assessing knowledge and awareness of sexually transmitted infections among workers*. University of Bremen Faculty of Human and Health Sciences.
26. Florence N Samkange-Zeeb, et al, (2021, Sept.25) *Awareness and knowledge of sexually transmitted diseases (STDs) among workers in Europe: a systematic review of published literature*
27. Francis Prescilla L. Cuevas, RN, MAM (2017). *Communicable Disease Prevention And Control* 297. Public Health Nursing in the Philippines.
28. *Frontiers in Public Health*. (2022). *Educational disparities in sexual health knowledge among urban populations*.
29. *Frontiers in Public Health*. (2023). *Integrating gender-sensitive approaches in comprehensive sex education programs*.
30. Garcia, Albert (2019). *The Hidden STIs Status*. Siliman University College of Allied Medical Sciences.
31. Garside, Micheal (2018). *Awareness of STIs to Workers in Western Europe*. Berlin, Germany: Brinks and Georgie.
32. Glanz, K., Rimer, B.K. & Lewis, F.M. (2002). *Health Belief Model Theory, Research and Practice*. SanFrancisco: Wiley & Sons.
33. Heinz, Josephine (2021). *Dangers of Unprotected Sexual Practices*. Prague: Lambastck.
34. Heyden, Tom (2019, March). *Online dating for people with sexually transmitted infections*. BBC, News Magazine.
35. *HIV/AIDS and ART Registry of the Philippines (HARP)*. (2022). *HIV/AIDS Statistics and Reports*.
36. Johnson, T., & Smith, R. (2021). *Cultural and social determinants of attitudes toward condom use in Southeast Asia*. *Journal of Sexual Health and Education*, 12(4), 345-359.
37. Kreiss, Wilhelm (2017). Hopkins, Justin (2013). *HIV and the World*. Heidelberg: Wursth.
38. *Le Monde*. (2024). *Decline in condom use among teenagers: A global concern*.
39. Lengen, Andrea (2018). *Knowledge and Awareness of STIs in Global Aspect*. North Carolina: Grit and Tenderkells.
40. Little, Stephany (2011). Wyver, Ashley (2011). *Learning the Behaviors of Adolescents*. Wisconsin: Debbie and Leslie.
41. anabe, T., Zaw, T., & Tanaka, J. (2020). *Barriers to condom use and STI prevention: A systematic review of behavioral and contextual factors*. *Journal of Sexual Health Research*, 15(3), 233-245.
42. Marie Starks, (2014) Jasmine Chiu, *STD and its Hidden Grudge*, *Journals of Health Guide*.
43. McKay, Oliver (2011). *Prevalence of STIs to Urbanized Countries*. North Carolina: University of North Carolina.
44. Melgar, J., Melby, M. K., Vicencio, J., & Rimando, R. (2018). *Exploring the cultural barriers to contraceptive use in the Philippines: Insights from community and religious perspectives*. *Global Public Health*, 13(5), 675-689.
45. Miller, K., Coleman, A., & Brown, J. (2021). *Knowledge versus practice: Addressing gaps in condom education for STI prevention*. *International Journal of Public Health Education*, 20(4), 413-427.
46. Miyamoto, Okamura (2012). *The Different Concepts of Contraceptives*. Hokkaido, Japan.
47. Moses, Sullivan (2014). *STIs :Basics and Concepts*. United Kingdom: Davidson's.
48. MyukiHaguchi, (2014) *Epidemiology of Sexually Transmitted Infections*, Siliman University College of Allied Medical Sciences.
49. Ngugi, E., Njuguna, S., & Mwangi, M. (2019). *Gendered perceptions and practices in condom use for STI prevention in sub-Saharan Africa: A case study of urban Kenya*. *African Journal of Reproductive Health*, 23(2), 67-78.
50. Pachaud, Clark (2000). *Prevalence of STIs Among Young Asian Children*. Bangkok, Thailand: Chulalongkorn University.
51. Paek, H. J., Lee, B., Salmon, C. T., & Witte, K. (2008). *The contextual effects of gender norms, communication, and social capital on family planning behaviors in Uganda: A multilevel approach*. *Health Education & Behavior*, 35(4), 461-477.
52. Polit, D. F., & Beck, C. T. (2010). *Essentials of nursing research: Appraising evidence for nursing practice* (7th ed.). Philadelphia: Wolters Kluwer Health, Lippincott Williams & Wilkins.
53. PMC. (2023). *Knowledge gaps and misconceptions in condom use practices among university students*.

54. Renkert, S., & Nutbeam, D. (2001). Opportunities to improve maternal health literacy through antenatal education: An exploratory study. *Health Promotion International*, 16(4), 381–388.
55. ResearchGate. (2023). Gender-based decision-making power in condom use among East African women.
56. Richard Steen,^a Teodora Elvira Wi,^b Anatoli Kamali ^c & Francis Ndowa (2009).
57. Routledge (2000). *Sex Work Southeast Asia: The place of desire in time of AIDS*/Lisa Law, London and New York: Taylor and Francis Group. Page 30.
58. Santelli, Rodrigo (2009). Schalet, Richardson (2009). *Beyond the Horizon: Asia's Darkest Secrets*. Punjab, India: Malwa College of Nursing.
59. Santos, Romeo (2012). *Prevalence of STIs in Urbanized Countries in Europe*. Madrid, Spain: Javier and Krustch
60. Sasadeusz, Vargendesz (2012). *Introduction to the World of Infectious Diseases*. Poland: Ingrid.
61. Sivaram, S., Johnson, S., & Fritz, K. (2018). Gendered differences in sexual health behaviors: The interplay of knowledge, attitudes, and socio-cultural influences. *Global Health Perspectives*, 10(1), 45-56.
62. Spano, Roberta (2013). *Journey to Adolescence*. Madrid, Spain: Garcia and Dino.
63. Stamm, Albert (2010). *The Wonderful World of Communicable Diseases*. Philadelphia: Starks and Davids.
64. Tan, Maria Cynthia (2014). *Knowledge and Awareness of STIs in the Philippines*. Siliman University College of Allied Medical Sciences.
65. The Columbia Encyclopedia, 6th ed., (2016) HIV, The Columbia University Press, <https://www.questia.com/library/science-and-technology/health-and-medicine/diseases-and-disorders/aids-and-hiv/hiv>.
66. WHO/UNAIDS (2019). *Sexually transmitted diseases: policies and principles and principles for prevention and care: 1.1 significance of STD's*, page 5.
67. Williams, Fredierick (2021). Davidson, Martin (2021). *Worldwide Epidemiology of STI*. Michigan: Simons and Scheur.
68. Wikipedia. (2023). *Meta-analysis of comprehensive sex education programs*.
69. World Health Organization (WHO). (2021). *Sexually Transmitted Infections (STIs): Key Facts*.
70. WHO. (2023). *Comprehensive strategies for STI prevention in high-risk regions*.
71. WHO. (2022). *Addressing gender disparities in STI prevention and treatment programs*. Retrieved from <https://who.int>