

Demystifying Misconceptions: A Gender-Based Analysis of Senior High School Students' Knowledge of Sex Education

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ABSTRACT

Misconceptions about sex education continue to influence adolescents' knowledge of reproductive health and relationships, even when formal instruction is provided. This study examined misconceptions and the level of knowledge of sex education among senior high school students at Panpacific University, with emphasis on gender differences and predictive relationships. A quantitative descriptive-correlational design was employed with 110 respondents. Results showed a relatively balanced gender distribution, with 47.3% male and 52.7% female students. Findings revealed that students generally agreed with several misconception statements about sex education, indicating the persistence of inaccurate beliefs despite formal instruction. However, respondents demonstrated high to very high levels of understanding across four domains: human reproductive health, contraception and STI prevention, boundaries and healthy relationships, and gender roles and stereotypes. Correlation analysis indicated that gender had no significant relationship with either awareness of misconceptions or level of knowledge. Regression analysis further revealed that awareness of misconceptions significantly predicted students' level of knowledge, whereas gender did not. These findings underscore that correcting misconceptions is not merely an instructional task but a critical step in empowering adolescents to make informed, responsible, and health-promoting decisions about their sexuality.

Keywords: Sex Education, Misconceptions, Reproductive Health Education, Gender Differences

INTRODUCTION

Background of the Study

Sex education has gained increasing global attention as educators and policymakers recognize its importance in promoting adolescent health, well-being, and responsible decision-making. Comprehensive Sexuality Education (CSE) has been widely acknowledged as an effective approach to improving adolescents' knowledge, attitudes, and behaviors regarding sexual and reproductive health [1, 2]. Studies across different countries show that CSE helps reduce misconceptions about sexuality, foster gender sensitivity, and improve awareness of reproductive health issues [3, 4]. However, international evidence also indicates that while CSE programs increase factual knowledge and awareness, misconceptions and uneven behavioral outcomes often persist, particularly when gender differences and socio-cultural contexts are not adequately addressed [1].

Research further demonstrates that adolescents' understanding of sexuality education is shaped not only by formal instruction but also by social environments, peer influence, and media exposure. In many settings, young people rely on peers and online sources for sexual health information, which can contribute to the spread of misinformation about contraception, sexually transmitted infections, and gender roles [5]. Global reviews by international organizations emphasize that misconceptions remain prevalent when sexuality education programs lack trained teachers, gender-responsive pedagogy, and strategies that actively address myths and social stigma [6]. These findings highlight the need for context-sensitive and culturally responsive approaches in implementing sexuality education.

In the Philippines, sexuality education is supported by policy through Republic Act 10354, which mandates the provision of age-appropriate reproductive health education in schools. Despite this legal framework, studies indicate that Filipino adolescents continue to hold misconceptions about contraception, reproductive health, and gender norms due to inconsistencies in educational delivery and cultural barriers to open discussion [8]. Cultural values such as *hiya*, *paggalang*, and *pagkamahinhin* often discourage open dialogue about sexuality, leading many students to seek information from peers or informal sources instead of formal instruction [9, 10]. Furthermore, limited teacher preparation and curriculum materials that focus primarily on biological aspects of reproduction rather than broader themes of consent, relationships, and gender equality further contribute to gaps in student understanding [11, 12].

Recent Philippine studies also reveal notable gender differences in students' knowledge and perceptions of sexuality education. Male students are often more likely to rely on informal information sources and demonstrate lower comprehension of consent and gender-related topics, while female students tend to show higher awareness but may hesitate to participate actively due to cultural expectations of modesty [13]. These findings indicate the importance of examining misconceptions and gender differences within specific educational contexts, particularly among senior high school students who are at a critical stage of adolescent development.

Despite increasing attention to sexuality education in the Philippines, empirical research focusing on misconceptions and gender differences in senior high school contexts remains limited. Addressing this gap, the present study examines students' understanding of four key domains of Comprehensive Sexuality Education: human reproductive health, contraception and STI prevention, boundaries and healthy relationships, and gender roles and stereotypes. By exploring how misconceptions and gender differences shape students' understanding of sexuality education, this research aims to contribute to the development of culturally responsive and gender-sensitive educational strategies that promote accurate knowledge and responsible decision-making among Filipino adolescents.

This study examines misconceptions and the level of knowledge of sex education among senior high school students at Panpacific University during the Academic Year 2025–2026. Using a descriptive-correlational design, the research investigates the relationship between gender, misconceptions, and students' knowledge of sex education through a researcher-made questionnaire.

The study is limited to Grade 11 and Grade 12 students from this institution and focuses only on their perceptions and understanding of sex education. It does not include behavioral outcomes or other stakeholders such as teachers, parents, or administrators.

Statement of the Problem

This study aims to investigate the knowledge and misconceptions about sex education and gender differences among senior high school students at Panpacific University. Specifically, it seeks to answer the following questions:

1. What is the demographic profile of the senior high school students in terms of gender?
2. To what extent do senior high school students agree with common misconception statements about sex education?
3. What is the level of knowledge of senior high school students regarding sex education in terms of the following domains:
 - 3.1. Human Reproductive Health
 - 3.2. Contraception and STI Prevention
 - 3.3. Boundaries and Healthy Relationships
 - 3.4. Gender Roles and Stereotypes

4. Is there a significant relationship between students' level of knowledge of sex education, their misconceptions, and gender?
5. To what extent do gender and students' misconception predict level of knowledge about sex education?
6. What outcome-based program may be proposed based on the findings of the study?

Theoretical Framework

This study is grounded in the Comprehensive Sexuality Education (CSE) framework and the Gender-Transformative Framework (GTF). The CSE framework emphasizes the delivery of scientifically accurate, age-appropriate, and culturally relevant information on sexuality, relationships, and reproductive health to promote informed decision-making among adolescents. It views sexuality as a multidimensional concept involving biological, emotional, cognitive, and social aspects.

Complementing this perspective, the Gender-Transformative Framework focuses on challenging harmful gender norms and stereotypes that shape young people's perceptions of sexuality and relationships. It promotes equality, respect, and critical reflection on traditional gender roles. Together, these frameworks provide both educational and sociocultural perspectives for examining students' misconceptions and understanding of sex education.

METHODOLOGY

This study employed a quantitative correlational research design using a validated researcher-developed questionnaire (Cronbach's Alpha = 0.82) administered through total enumeration to 110 Grade 11 and Grade 12 students of Panpacific University (AY 2025–2026), with data analyzed using descriptive statistics, independent samples t-test, Pearson correlation, and multiple regression in SPSS to examine the relationships among gender, misconceptions, and the level of knowledge of sex education, while adhering to ethical research standards and the Philippine Data Privacy Act of 2012.

RESULTS AND DISCUSSION

This chapter presents the empirical findings derived from the study of 110 senior high school students. The analysis is structured to first establish the demographic baseline, followed by a descriptive evaluation of misconceptions and understanding, and concluding with an inferential analysis of the predictors of student knowledge in sex education.

Demographic Profile of Respondents

To ensure the validity of gender-based comparisons, the study first identified the sex of the participants. Table 1 summarizes the frequency and percentage distribution of the sample.

Table 1. Frequencies of Sex

Sex	Frequency	Percentage of Total	Cumulative Percentage
Male	52	47.3%	47.3%
Female	58	52.7%	100.0%
Total	110	100.0%	100.0%

The sample exhibits a balanced distribution between male (47.3%) and female (52.7%) respondents. In the context of sexuality research, this parity is essential; it ensures that the findings are not skewed by gender-specific socialization patterns. This balance allows for a high degree of confidence when asserting that the misconceptions identified in this study are shared across the adolescent experience rather than being a byproduct of an imbalanced dataset.

Analysis of Common Misconceptions: The "Permissiveness" Myth

The study evaluated the level of agreement with statements representing common myths about sex education. Table 2 details the weighted means for male and female respondents.

Table 2. Comparison of Awareness of Common Misconceptions about Sex Education

Gender	Average Weighted Mean	Descriptive Equivalence
Male	3.07	Agree
Female	3.00	Agree

Table 2 presents the level of agreement with common misconception statements about sex education among male and female senior high school students. The results indicate that both male and female respondents demonstrated a high level of agreement with common misconceptions, with an average weighted mean of 3.07 (Agree) for males and 3.00 (Agree) for females. These findings suggest that misconceptions about sex education remain prevalent among students regardless of gender, although male respondents exhibited a slightly higher overall level of misconception.

Among the misconception items, the statement *“Learning about condoms and protection prepares students for future sexual experiences”* obtained the highest mean scores for both male respondents (3.37) and female respondents (3.64), both interpreted as Strongly Agree. This finding indicates that students from both genders strongly associate discussions on contraception and protection with the encouragement of premature sexual activity. Such a belief reflects a dominant misconception regarding the purpose of comprehensive sexuality education, which is intended to promote informed decision-making and risk reduction rather than early sexual engagement. Similar misconceptions have been documented in previous studies, which report that adolescents often misinterpret sexuality education as permissive rather than preventive, particularly in culturally conservative contexts where discussions of sexuality are regarded as morally sensitive [1, 6]

In contrast, the lowest mean score among male respondents was recorded for the item *“Sex education focuses too much on sexual risks and makes students think more about sexual behavior”* with a mean of 2.81, while female respondents obtained the lowest mean score for the statement *“Students can learn enough about sensitive topics on their own without needing sex education in school”* with a mean of 2.55. Although these items registered the lowest levels of agreement, the descriptive interpretation of Agree indicates that these misconceptions persist to a certain extent. This suggests that while some students recognize the importance of formal sexuality education, partial doubts and misconceptions continue to influence their perceptions.

When examined by gender, the results reveal that male respondents generally obtained slightly higher mean scores across most misconception items compared to female respondents. However, the overall pattern indicates that misconceptions about sex education are shared across both genders rather than being exclusive to one group. This finding supports existing research suggesting that misconceptions are often shaped by social influences such as peer interaction, media exposure, and cultural narratives rather than gender alone [4, 5].

The persistence of these misconceptions aligns with literature emphasizing that adolescents may retain socially and culturally influenced beliefs about sex education despite exposure to factual information. UNESCO and the World Health Organization note that misconceptions tend to persist when sexuality education is framed as taboo or morally inappropriate, leading students to associate such instruction with curiosity or moral risk [6]. In the Philippine context, cultural conservatism, parental concerns, and limited open discussion within schools further contribute to the continued acceptance of myths surrounding sex education [9, 11]. These findings underscore that misconceptions are not solely the result of insufficient knowledge but are deeply shaped by broader social and cultural contexts that influence how students interpret sexuality education.

Level of Knowledge Across Domains

The level of knowledge was measured across four essential domains, revealing a high degree of conceptual mastery among respondents.

Table 3. Mean scores of understanding by domain and gender

Domain	Gender	Mean	Interpretation
Human Reproductive Health	Male	3.35	High
	Female	3.41	High
Contraception and STI Prevention	Male	3.27	High
	Female	3.19	High
Boundaries and Healthy Relationships	Male	3.46	Very High
	Female	3.39	High
Gender Roles and Stereotypes	Male	3.46	Very High
	Female	3.49	High

shows the level of knowledge of senior high school students regarding sex education across four domains: Human Reproductive Health, Contraception and STI Prevention, Boundaries and Healthy Relationships, and Gender Roles and Stereotypes. Overall, students demonstrated a high to very high level of knowledge, suggesting generally adequate comprehension of both biological and socio-emotional aspects of comprehensive sexuality education.

In Human Reproductive Health, males and females scored 3.35 and 3.41, respectively (High), reflecting solid knowledge of puberty, reproductive functions, and personal health practices, consistent with the structured inclusion of these topics in the K–12 curriculum [14].

In Contraception and STI Prevention, males scored 3.27 and females 3.19 (High), the lowest among the domains, indicating partial gaps in technical knowledge. Cultural sensitivity, limited instructional time, and classroom discomfort may constrain understanding in this area [11, 16]

For Boundaries and Healthy Relationships, males scored 3.46 (Very High) and females 3.39 (High), demonstrating strong understanding of consent, mutual respect, and interpersonal boundaries, supported by socio-emotional learning and values formation in sexuality education programs [4]

In Gender Roles and Stereotypes, both genders obtained Very High scores (males 3.46, females 3.49), reflecting awareness of gender equality principles and the ability to recognize traditional norms, in line with gender-transformative educational frameworks [17, 18]

Collectively, these results indicate that students excel in socio-emotional and values-oriented domains, while technical domains such as contraception and STI prevention require further instructional reinforcement. This aligns with research suggesting that comprehensive sexuality education effectively fosters awareness and attitudes but may leave gaps in specialized health knowledge, highlighting the need for culturally sensitive and gender-responsive teaching strategies [6, 11]

Table 4. Relationship Between Gender and Students’ Awareness and Knowledge of Sex Education

Variables	Pearson r	p value	Interpretation
Gender and Awareness of	-0.063	0.511	Not Significant

Misconceptions

Gender and Human Reproductive Health	0.070	0.466	Not Significant
Gender and Contraception and STI Prevention	-0.086	0.371	Not Significant
Gender and Boundaries and Healthy Relationships	-0.086	0.373	Not Significant
Gender and Gender Roles and Stereotypes	0.038	0.690	Not Significant

Table 4 presents the correlation between gender and students' awareness of misconceptions as well as their level of knowledge across four domains of sex education. The results show no significant relationship between gender and awareness of misconceptions ($r = -0.063$, $p = 0.511$), indicating that both male and female students hold similar misconceptions. Likewise, no significant relationships were found between gender and knowledge in Human Reproductive Health ($r = 0.070$, $p = 0.466$), Contraception and STI Prevention ($r = -0.086$, $p = 0.371$), Boundaries and Healthy Relationships ($r = -0.086$, $p = 0.373$), or Gender Roles and Stereotypes ($r = 0.038$, $p = 0.690$).

These findings suggest that gender does not influence either misconceptions or comprehension levels; instead, students' awareness and knowledge appear to be shaped by shared sociocultural, educational, and institutional factors [6, 9, 14]. This underscores the importance of inclusive and comprehensive sexuality education programs that address all students equally, rather than targeting interventions based on gender alone [17, 18, 4].

Table 5. Regression Summary Predicting Students' Level of Knowledge of Sex Education

Predictor	B (Unstandardized)	SE	β (Standardized)	t	p	Interpretation
Intercept	3.498	0.188	—	18.575	<.001	Constant level of knowledge
Awareness of Misconceptions (MEAN1)	0.219	0.052	0.375	4.172	<.001	Significant positive predictor of knowledge
Gender	-0.012	0.056	-0.019	-0.208	0.836	Not a significant predictor

The regression analysis examined whether gender and students' awareness of misconceptions predict their level of knowledge of sex education. The overall model was statistically significant, $F(2,107) = 8.83$, $p < .001$, with an R of 0.376 and an R^2 of 0.142. This indicates that the combined predictors explain approximately 14.2% of the variance in students' understanding, suggesting a moderate relationship between the independent variables and the dependent variable. Although significant, the relatively modest explained variance implies that other factors, such as instructional quality, cultural influences, or prior knowledge, may also contribute to students' comprehension [6].

Analysis of individual predictors revealed that awareness of misconceptions significantly predicts students' level of knowledge, with an unstandardized coefficient of 0.219 ($t = 4.172$, $p < .001$) and a standardized β of 0.375. This finding indicates that for every one-unit increase in misconception awareness, students' understanding increases by approximately 0.22 units, holding gender constant. The 95% confidence interval (0.197 to 0.553) further confirms the reliability of this predictor. These results highlight that addressing misconceptions is crucial for enhancing comprehension in sexuality education, supporting previous research emphasizing that students' beliefs and misunderstandings directly affect their learning outcomes [1].

In contrast, gender was not a significant predictor of understanding ($B = -0.012$, $t = -0.208$, $p = 0.836$, 95% CI = -0.197 to 0.159), indicating that differences in comprehension are not determined by whether students are

male or female. This aligns with prior studies showing that gender alone does not significantly influence adolescents' knowledge in sexuality education; instead, shared sociocultural, educational, and institutional factors shape knowledge and understanding across both sexes [4, 17, 18]

Overall, the findings suggest that students' awareness of misconceptions plays a meaningful role in predicting their level of knowledge, while gender does not have a significant independent effect. This underscores the importance of designing inclusive, misconception-focused interventions within comprehensive sexuality education programs to enhance learning outcomes for all students, regardless of gender [6]

CONCLUSION AND RECOMMENDATION

Conclusion

The findings of this study indicate that senior high school students hold significant misconceptions about sex education while demonstrating generally high levels of knowledge across biological, technical, and socio-emotional domains. Both male and female students shared similar misconceptions, with the strongest belief being that learning about condoms and protection encourages premature sexual activity. Although males exhibited slightly higher overall agreement with misconceptions, the differences by gender were minimal, highlighting the shared influence of sociocultural and educational factors on students' perceptions [4, 6, 9]

Students demonstrated high to very high knowledge in Human Reproductive Health, Boundaries and Healthy Relationships, and Gender Roles and Stereotypes, while comprehension of Contraception and STI Prevention was comparatively lower, suggesting the need for reinforcement in technically complex or culturally sensitive areas [1, 11, 14]. Correlation analyses confirmed that gender does not significantly influence misconceptions or level of knowledge, underscoring the importance of inclusive, non-gendered approaches in sexuality education [17, 18]

Regression results further revealed that awareness of misconceptions is a significant positive predictor of students' knowledge, explaining approximately 14% of the variance, while gender remains non-significant. This highlights that addressing misconceptions is critical for improving learning outcomes in comprehensive sexuality education programs. Overall, the study emphasizes the need for culturally sensitive, misconception-focused, and inclusive educational strategies to ensure balanced knowledge for all students, regardless of gender [6, 11]

Recommendations for Action

Based on the study findings, it is recommended that sex education programs strengthen students' understanding by directly addressing misconceptions through guided discussions and clarification activities, enhancing instructional focus on technical topics such as contraception and STI prevention, adopting interactive and learner-centered teaching strategies that encourage open dialogue and critical thinking, implementing continuous assessment to monitor knowledge and identify persistent misconceptions, and conducting further research on social, cultural, and educational factors that influence students' knowledge and perceptions of sex education.

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