

The Influence of Comprehensive Sexuality Education on Gender Roles Attitude as Mediated by Gender Awareness Among Senior High School Students

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DOI: <https://doi.org/10.51584/IJRIAS.2025.100500048>

Received: 24 April 2025; Accepted: 06 May 2025; Published: 07 June 2025

ABSTRACT

Poor attitudes toward gender roles remain a pervasive issue globally. This study explored the significance of gender awareness as a mediator of the correlation between comprehensive sexuality education and gender roles and attitudes. Using simple random sampling, 300 senior high school students were selected and data were analyzed using mediation analysis. The result showed that the interest variable significantly mediates the correlation between the predictive and criterion variables. Further studies may be undertaken using other potential mediators in order to trace the variance in the strength of the correlation between comprehensive sexuality education and gender roles attitude. Furthermore, educational institutions should offer workshops and discussions on gender issues to deepen awareness, challenge biases, and promote equality.

Keywords: comprehensive sexuality education, gender awareness, gender role attitudes, senior high school students

INTRODUCTION

The Problem and Its Scope

Poor attitudes toward gender roles remain pervasive globally (UNDP, 2023). Studies conducted in various countries demonstrated poor attitudes regarding gender issues among youth (Jones et al., 2020; Kim & Lee, 2020). In India, the severity of negative attitudes toward gender roles is highlighted in the incidents of gender-based violence (Singh & Aggarwal, 2019). In Spain, negative attitudes on gender roles persist (de la Villa Moral-Jiménez et al., 2025). In Pakistan, there is a stereotypical view about gender roles (Khalid, 2021).

In the Philippines, negative attitudes toward gender roles remain deeply embedded in cultural and societal norms (David et al., 2017). In many areas of the country, traditional gender attitudes persist (Bejasa, 2024).

Poor attitudes toward gender roles have far-reaching consequences, perpetuating gender-based violence, economic disparities, and limited career opportunities. Research indicates that societies with rigid gender norms experience higher rates of gender-based violence and discrimination, as individuals who deviate from traditional roles often face stigma and exclusion (Lomazzi, 2021). Moreover, such attitudes contribute to unequal economic participation and decision-making power, leading to the underutilization of human potential (Arceño & Sarino, 2024), slowing down national development. These consequences make this study very urgent, in addition to the scarcity of research regarding attitudes toward gender roles. Hence, this study was conducted.

Significance of the Study

The influence of comprehensive sexuality education on gender roles attitudes as mediated by gender awareness among senior high school students aligns with the Holy Cross of Davao College's vision and mission by fostering socially responsible, Christ-centered individuals who value diversity, equity, and inclusion through

transformative education. It supports Sustainable Development Goals, specifically SDG 4 (Quality Education) and SDG 5 (Gender Equality), by promoting comprehensive gender education to challenge stereotypes and advance inclusivity. Additionally, it contributes to the National Higher Education Research Agenda and CHED's Gender and Development Framework by addressing social equity and mainstreaming gender sensitivity. Locally, it aligns with the Davao Region's focus on youth education and inclusivity, addressing critical issues and fostering respect for diverse identities. The findings will advance academic understanding and guide educational institutions in creating programs that empower students to build equitable and inclusive communities.

Statement of the Problem

The study's general objective was to determine the significance of gender awareness as a mediator of the relationship between comprehensive sexuality education and gender roles attitude. Specifically, it aimed to address the following objectives:

1. To determine the levels of comprehensive sexuality education in terms of knowledge, attitude, and perception; gender roles attitude in terms of physical appearance, personal traits, occupation, and domestic behavior; and gender awareness in terms of gender laws, gender stereotypes, gender discrimination, and gender equality among senior high school students.
2. To determine the significance of the relationship between comprehensive sexuality education, gender awareness, and gender roles attitude among senior high school students.
3. To determine the direct and indirect effect of comprehensive sexuality education on gender roles attitudes as mediated by gender awareness.

Hypotheses

The study was tested at a 0.5 level of significance.

H₀ -Comprehensive sexuality education and gender awareness are not significantly correlated with gender roles attitude.

H₁ - Comprehensive sexuality education has no significant direct and indirect effect on gender roles attitude, with gender awareness serving as a mediation.

Theoretical Framework

This study is based on the Theory of Planned Behavior (Ajzen, 1991), which suggests that a person's behavior is shaped by their attitudes, subjective norms, and perceived control over their actions.

This study is delimited only to the following variables: Attitude towards behavior, represented by comprehensive sexuality education; subjective norms, represented by gender awareness; and behavioral change, represented by gender roles attitude. The idea of behavioral control and intention mentioned in the theory are excluded from this study.

The comprehensive sexuality education variable is indicated by perception, attitude, and knowledge (Arise et al., 2024); the gender roles attitude variable is indicated by physical appearance, personal traits (Pedragoza et al., 2024), occupation, and domestic behavior; and the gender awareness variable is indicated by gender laws, gender stereotypes, gender discrimination, and gender equality (Generale & Emilyn, 2023).

Conceptual Framework

INDEPENDENT VARIABLE MEDIATING VARIABLE DEPENDENT VARIABLES

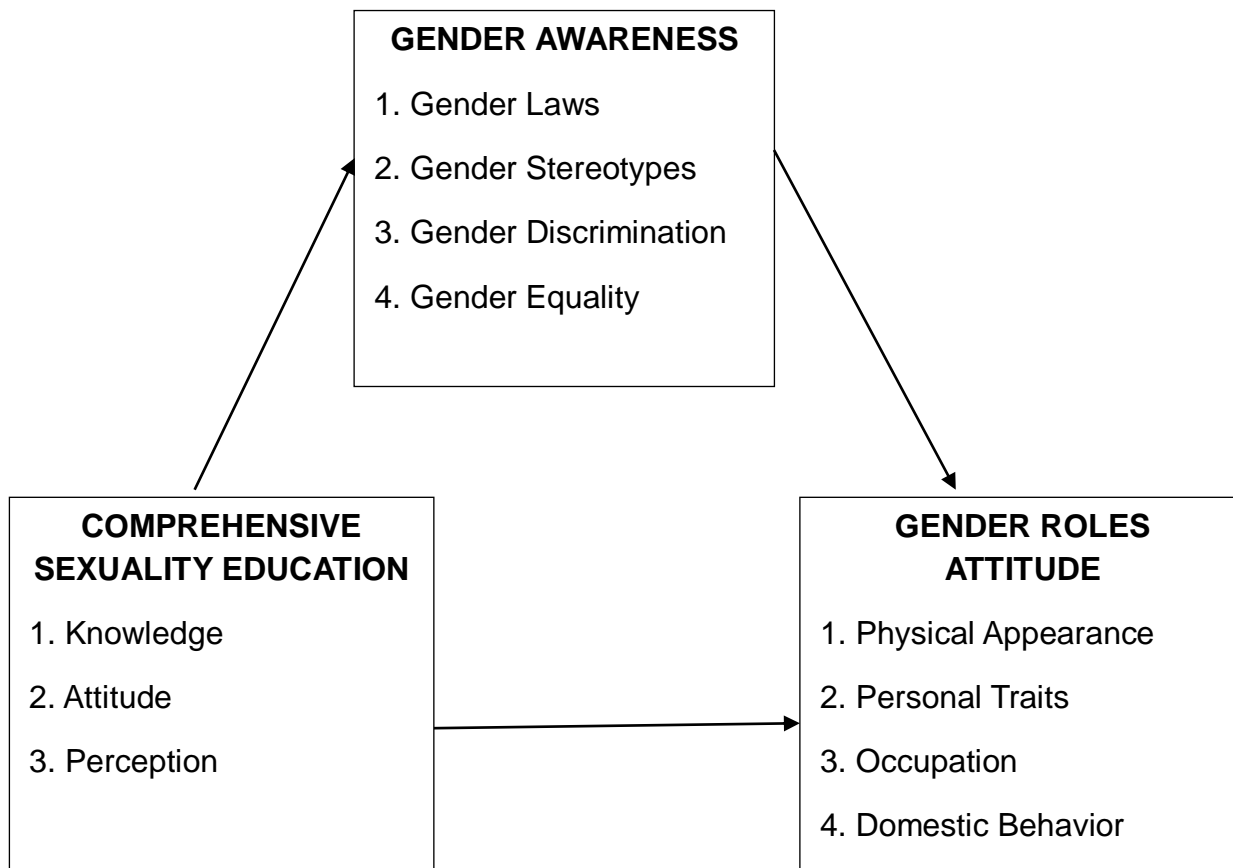


Figure 1. Conceptual Framework of the Study

METHODS

This chapter begins with an overview of the research methodology that helped explore the influence of comprehensive sexuality education on gender roles attitude as mediated by gender awareness. In this section, the researcher presents the research design, research instrument, data collection procedure, and data analysis methods.

Research Design

The researcher used a quantitative research design for this study. In the social sciences, quantitative methodology has been the predominant research approach. It included various methods, approaches, and assumptions aimed at using numerical pattern analysis to study psychological, social, and economic phenomena. Various types of numerical data were gathered for this type of research, with specific data being inherently quantitative. Researchers aggregated knowledge by collecting quantitative data and applying various statistical methods, ranging from simple to complex. Ahmad et al. (2019) emphasized that quantitative research methods employ instruments such as experiments, organized observations, and questionnaires.

This research utilized a correlational research design. According to Jaffee and Price (2012), correlational research is a type of nonexperimental study that involves assessing two variables and analyzing the statistical relationship or correlation between them.

Research Locale

This study was conducted at Compostela National High School, Poblacion, Compostela, Davao de Oro. The school, managed by the Department of Education (DepEd), is a monograde public secondary institution with approximately 5,000 students, including 1,925 senior high school learners and more than 200 teachers. The researcher selected this school due to its diverse student population, which provided a rich environment for examining the influence of comprehensive sexuality education on attitudes toward gender roles as mediated by gender awareness. Additionally, the school had reported cases of bullying related to gender and sexuality, highlighting the need for this research. The study aimed to provide valuable insights into how comprehensive sexuality education could influence students' attitudes toward gender roles and reduce discriminatory behaviors. By examining these relationships, the study sought to mitigate bullying and promote respect for diverse gender identities, fostering a more inclusive and supportive environment.

Sample and Sampling Technique

The researcher chose 300 respondents from a population of 1,925 senior high school students using simple random sampling to guarantee that each individual had an equal probability of being selected. The respondents for this study were selected to ensure that the data collected would effectively address the research objectives. Senior high school students were chosen because they are at a critical developmental stage where their attitudes toward gender roles are being shaped and solidified. This age group is also more likely to have been exposed to comprehensive sexuality education, making them an ideal population for examining how such education influences gender role attitudes through gender awareness. According to McCombes (2019), simple random sampling is a statistical technique in which every individual from the chosen population has an equal opportunity of being chosen, which minimizes the selection bias and increases the likelihood that the sample is representative of the entire population.

Research Instrument

In gathering data for this study, the researcher used a survey questionnaire. For the independent variable, comprehensive sexuality education, the researcher-made questionnaire has 20 items. For the dependent variable, gender roles attitude, the tool was adopted from Pedragoza et al. (2024). For the independent variable, gender awareness, the survey questionnaire was adopted from Generale and Emilyn (2023).

The scales that follow were used in interpreting the data generated from the responses of the respondents.

Part I. Comprehensive Sexuality Education

Range	Description	Interpretation
3.26-4.00	Very High	Comprehensive sexuality education is very good.
2.5 - 3.25	High	Comprehensive sexuality education is good.
1.75 - 2.49	Low	Comprehensive sexuality education is poor.
1.00 - 1.74	Very Low	Comprehensive sexuality education is very poor.

Part II. Gender Roles Attitude

Range	Description	Interpretation
3.26-4.00	Very High	Gender roles attitude is very good.
2.5 - 3.25	High	Gender roles attitude is good.
1.75 - 2.49	Low	Gender roles attitude is poor.
1.00 - 1.74	Very Low	Gender roles attitude is very poor.

Part III. Gender Awareness

Range	Description	Interpretation
3.26-4.00	Very High	Gender awareness is very good.
2.5 - 3.25	High	Gender awareness is good.
1.75 - 2.49	Low	Gender awareness is poor.
1.00 - 1.74	Very Low	Gender awareness is very poor.

To ensure that the research instrument's content was accurate, relevant, and aligned with the study's objectives, it underwent expert validation by professionals with expertise in gender studies and education. Following this, pilot testing was conducted with a small, representative sample of the target population to evaluate the tool's consistency and reliability. The pilot testing aimed to confirm that the questions effectively measured the variables of interest, specifically attitudes about gender roles and gender awareness. The results indicated that the instrument demonstrated good to very good reliability across all variables. The independent variable, comprehensive sexuality education, achieved a Cronbach's alpha of 0.767, which is interpreted as good. The dependent variable, Gender Roles Attitude, showed a Cronbach's alpha of 0.835, while the mediating variable, Gender Awareness, scored 0.839, both interpreted as very good. Additionally, the overall reliability of the survey questionnaire was 0.837, which was also interpreted as very good. These results confirm that the survey questionnaire is a reliable instrument for measuring the intended variables.

Data Gathering Procedure

This research paper was submitted to a research ethics committee for approval and assessment as part of the data collection process. Ensuring ethical compliance was essential to safeguard each study participant's rights, privacy, and dignity. The study followed ethical guidelines by securing informed consent to protect the confidentiality of the participants and reducing any possible risk or discomfort. The ethics committee's approval confirmed that the methodology aligned with ethical principles, particularly regarding sensitive topics such as comprehensive sexuality education, gender awareness, and attitudes toward gender roles.

Once approved by the ethics committee, the researcher ensured that the respondents were informed about the purpose of the survey before the survey was done. The researcher distributed the questionnaires after providing this information and addressing any questions. Once the respondents had finished answering the questionnaires, the researcher collected them and prepared the data for statistical analysis.

Data Analysis

To analyze the data gathered for this study, the following statistical tools were utilized:

Mean. This was used to analyze the levels of Comprehensive sexuality education, Gender Roles Attitude, and Gender Awareness.

Pearson-r. This was used to determine whether there was a significant relationship between Comprehensive sexuality education, Gender Awareness, and Gender Roles Attitude. This analysis addressed the second statement of the problem presented in the first section of this study.

Mediation Analysis. This was employed to evaluate the relative strength of various pathways and mechanisms through which an exposure might influence an outcome (VanderWeele, 2016).

Society for Moral Integrity and Legal Ethics

The researcher ensured that the study adhered to strict ethical standards to maintain trust, safeguard respondents' rights, and prevent harm or unethical behavior. Senior high school respondents were treated with the utmost respect, following HCDC's Research Ethics Committee guidelines. The manuscript passed the SMILE review, confirming no potential risk. Ethical protocols, respondent confidentiality, and clearance

procedures were addressed. Informed consent and assent forms secured the voluntary participation of participants, guaranteeing their freedom to withdraw at any time. Privacy and confidentiality were strictly observed, as required by the Data Privacy Act of 2012, ensuring anonymity and data security. Random sampling ensured justice and equal opportunities for participation, with risks and benefits fairly distributed. Transparency was upheld throughout, with results shared with stakeholders, including parents and guardians, and submitted to academic repositories. The researcher, equipped with relevant qualifications and facilities, ensured adequate resources. Community involvement was emphasized by sharing findings to empower teachers and improve instruction, contributing to addressing pressing educational challenges.

RESULTS

This chapter presents the study's results, including the descriptive analysis of comprehensive sexuality education and gender awareness as predictive variables, gender roles attitude as criterion variable, and the inferential analyses of the predictive, mediator, and criterion variables.

Descriptive Analysis

Table 1 summarizes the key variables examined in this study: Comprehensive Sexuality Education, Gender Awareness, and Gender Roles Attitudes among senior high school students. This table presents each variable's mean and standard deviation, offering insight into the general student response trends and variations. These descriptive statistics provide a basis for comprehending the general levels of exposure to sexuality education, awareness of gender-related issues, and attitudes toward gender roles, prior to carrying out more in-depth inferential analyses.

Table 1. Descriptive Table

Variables	SD	Mean	Descriptive Level
Comprehensive Sexuality Education	0.368	3.33	Very High
Student's Knowledge about Comprehensive Sexuality Education	0.424	3.29	Very High
Attitude towards Comprehensive Sexuality Education	0.424	3.37	Very High
Perception of Comprehensive Sexuality Education	0.426	3.34	Very High
Gender Roles Attitude Among Senior High School Students	0.403	3.43	Very High
Physical Appearance	0.528	3.39	Very High
Personality Traits	0.508	3.43	Very High
Occupation	0.476	3.39	Very High
Domestic Behaviors	0.476	3.50	Very High
Gender Awareness Among Senior High School Students	0.353	3.30	Very High
Gender Laws (National Mandates)	0.412	3.29	Very High
Gender Stereotypes	0.445	3.23	High
Gender Discrimination	0.433	3.17	High
Gender Equality	0.449	3.50	Very High

Comprehensive Sexuality Education

The overall mean score is 3.33 (SD = 0.368), which is interpreted as very good. Student's Knowledge about Comprehensive sexuality education is very good (mean = 3.29, SD = 0.424). Attitude toward Comprehensive sexuality education (mean=3.37, SD=0.424) is interpreted as very good. Perception of Comprehensive sexuality education is very good (mean = 3.34, SD = 0.426).

Gender Roles Attitude Among Senior High School Students

The result showed that the overall mean was 3.43 (SD = 0.403), which is very good. Among its indicators, Physical Appearance (mean = 3.39), which is interpreted as very good, SD = 0.528) with a relatively higher SD. Personality Traits (mean = 3.43, SD = 0.508) received a very high rating and were interpreted as very good. Occupation (mean = 3.39, SD = 0.476) while Domestic Behaviors (mean = 3.50, SD = 0.476) received the highest mean and were interpreted as very good.

Gender Awareness Among Senior High School Students

The mean score of 3.30 (SD = 0.353) was very good, with a relatively lower SD, indicating that gender awareness among senior high school students is very good. Gender Laws (National Mandates) (mean = 3.29, SD = 0.412) received a very good. However, Gender Stereotypes (mean = 3.23, SD = 0.445) and Gender Discrimination (mean = 3.17, SD = 0.433) were rated good. The highest rating in this category is Gender Equality (mean = 3.50, SD = 0.449).

Correlation Analysis

Table 2 presents the correlation matrix among the study's key variables: Comprehensive Sexuality Education, Gender Awareness, and Gender Roles Attitude. This table offers a summary of the strength and direction of the associations between each pair of variables. The correlation coefficients reveal how fluctuations in one variable correspond with changes in another, providing preliminary insights into possible direct and indirect effects that are examined more thoroughly in the following analyses.

Table 2. Correlation Table

	Gender Roles Attitude Among Senior High School Students			
	r	p-value	Decision on H ₀ @ 0.05 level of significance	Interpretation
Comprehensive sexuality education	0.702	0.000	Reject H ₀	Significant
Gender Awareness Among Senior High School Students	0.654	0.000	Reject H ₀	Significant

The results shown in Table 2 indicate a significant relationship between gender role attitudes, comprehensive sexuality education, and gender awareness among senior high school students.

The correlation between comprehensive sexuality education and gender roles attitude obtained a p-value of 0.000, less than 0.05 degrees of confidence. Hence, the null hypothesis was rejected. It indicated that the correlation between comprehensive sexuality education and gender roles attitude was significant. Furthermore, the correlation between these variables obtained an r-value of 0.702, which indicated a strong positive correlation.

The correlation between gender awareness and gender role attitude obtained a p-value of 0.000, which is less than 0.05 degrees of confidence. Hence, the null hypothesis was rejected. It indicates that the correlation between gender awareness and gender role attitude was significant. Furthermore, the correlation between these variables obtained an r-value of 0.654, indicating a moderate positive correlation.

Mediation Analysis

Table 3. Mediation Table

Type	Effect	Estimate	SE	β	z	p	Interpretation
Indirect	CSE \Rightarrow GA \Rightarrow GRA	0.241	0.037	0.220	6.58	0.000	Significant
Component	CSE \Rightarrow GA	0.587	0.044	0.611	13.37	0.000	Significant
	GA \Rightarrow GRA	0.411	0.054	0.360	7.56	0.000	Significant
Direct	CSE \Rightarrow GRA	0.528	0.052	0.482	10.13	0.000	Significant
Total	CSE \Rightarrow GRA	0.770	0.045	0.702	17.04	0.000	Significant
Percent of Mediation = 31.3%							

Table 3 presents the mediation analysis results conducted to examine the indirect and direct effects of Comprehensive Sexuality Education on Gender Roles Attitudes, with Gender Awareness as the mediating variable. This analysis aims to determine whether Gender Awareness significantly transmits the effect of Comprehensive Sexuality Education to shape students' attitudes toward gender roles. The table presents path coefficients, standard errors, and significance levels, highlighting the strength and direction of the relationships between the variables.



Figure 2. Direct and Indirect Effect of Comprehensive Sexuality Education on Gender Roles Attitude as Mediated by Gender Awareness

The results in Table 3 show that the mediation analysis explores how Comprehensive Sexuality Education (CSE) influences Gender Roles Attitude (GRA) both directly and indirectly through Gender Awareness (GA). Without considering the mediator, the total effect of CSE on GRA is significant, with an estimate of 0.770 and a standardized effect size (β) of 0.702.

The indirect effect, which captures the mediating role of GA, is also significant, with an estimate of 0.241 and a β of 0.220. This effect is calculated by multiplying the estimates of the component paths: CSE to GA (estimate = 0.587, β = 0.611) and GA to GRA (estimate = 0.411, β = 0.360). Since both component paths are significant ($p < 0.001$), GA is a significant mediator.

After accounting for GA, the direct effect of CSE on GRA remains significant, with an estimate of 0.528 and a β of 0.482. Since the direct path is still significant when GA is included as a mediator, this indicates partial mediation. Further, the percentage of mediation, which estimates how much of the total effect is explained by the indirect path through GA, is 31.3%.

SUMMARY OF FINDINGS

1. Comprehensive sexuality education, gender roles attitude, and gender awareness are very good.
2. Comprehensive sexuality education and gender awareness are significantly correlated with gender roles attitude.
3. Comprehensive sexuality education has a substantial direct and indirect effect on gender roles attitude. The gender awareness variable partially mediates the relationship between comprehensive sexuality education and gender role attitudes.

DISCUSSIONS

This discussion presents the results on the domains of Comprehensive Sexuality Education (CSE), Gender Awareness (GA), and Gender Roles Attitude (GRA). It includes the correlation between CSE and GA on GRA, as well as the direct and indirect effects of CSE on GRA as mediated by GA.

The Theory of Planned Behavior (TPB) is widely used for examining behavioral intentions. It posits the direct influence of three key factors—attitudes toward the behavior, subjective norms, and perceived behavioral control—on the intention to engage in a specific behavior of an individual (Huang & Cheng, 2022). Yu et al. (2022) explored how self-control mediates the relationship between self-efficacy and physical activity among college students, applying TPB constructs to understand the behavioral intentions influencing physical activity. Similarly, Shin and Kim, (2019) applied the same theory to understand the factors influencing parents' decisions to mediate their children's smartphone use, highlighting attitudes, social norms, and self-efficacy as mediators.

The above studies highlighted the idea that the Theory of Planned Behavior may be used as an anchor theory for mediation studies. However, it should be noted that such theory may be used for variables other than behavioral intention. The subjective norms may also be used as the interest variable to determine the correlation between attitude towards the behavior and behavioral change. The succeeding discussions focus on the correlation between CSE, which stands for attitude towards behavior, and the GRA, which stands for behavioral change, and how the GA, which stands for subjective norms, mediates the said relationship.

Comprehensive Sexuality Education

According to the quantitative data of this study, students possessed a strong understanding and acceptance of comprehensive sexuality education, much like the result of the study done by Ademuyiwa et al. (2022). This may be due to globally implemented, rights-based, and comprehensive sexuality education (CSE), which was designed to improve adolescents' sexual and reproductive health while equipping them with the skills needed to build respectful and healthy relationships (Sell et al., 2023). Similarly, the study of Arise et al. (2024) indicated that secondary students in Kwara State, Nigeria, both males and females, have received sex education in their schools. However, many of these students believed that sex education was not effectively

taught in their institutions. Therefore, this study recommends regular implementation of sex education programs and awareness campaigns for secondary school students.

Results showed that the respondents' attitude towards comprehensive sexuality education reveals a positive reception towards learning about gender issues. Similarly, in another study (Siva et al., 2021), significant numbers of adolescents—76% of the respondents have a high positive attitude towards learning sexuality and gender education as gender attitudes begin to form during adolescence, and education can promote more egalitarian views in certain groups. However, its impact may vary, as not all individuals are influenced similarly (Yüçetas & Carol, 2024).

Moreover, the data in this study reflected a strong recognition of the significance of comprehensive sexuality education in shaping societal values, equipping students with essential knowledge and skills, despite facing socio-cultural and structural barriers in its implementation (Rivenes Lafontan et al., 2024). In the study of Anilkumar et al. (2022), it was emphasized that most male and female respondents in the adolescent stage have a high perception of sex education, highlighting the significant association between gender and perception of sex education.

Gender Roles Attitude

In this study, the results indicated that the respondents manifest positive attitudes towards gender roles, highlighting that during adolescence, increased gender equality may help foster a positive body image, which is a key indicator of overall well-being. Moreover, people who appreciate their bodies more are less likely to worry about their appearance constantly. This, in turn, helps improve their overall mental well-being (Matera et al., 2024). Teenagers developed more open and egalitarian attitudes during adolescence, rejecting traditional gender roles and emphasizing the relevance of social gender for the prevention of body image problems during adolescence (Ullrich et al., 2022; Finne et al., 2020).

The findings of this study revealed a strong awareness of how society attributes certain traits to specific genders. Students' personality traits significantly influence attitudes toward gender roles (Aydin Ozkan & Kucukkelepce, 2019). The study recommends targeting educational interventions to promote egalitarian attitudes among students with introverted and neurotic personality traits.

Statistical data in this study revealed that students hold positive views on gender equality, demonstrating a strong belief in equal opportunities and rights for all genders, indicating that students acknowledge gendered expectations in career paths. A vast majority reject the outdated stereotype that assigns women to household duties, such as cooking while reserving professional careers for men. The same result was observed by Orfan and Samady (2023). Younger generations are adopting more modern and inclusive views on gender roles, pushing back against long-standing traditions that have restricted opportunities based on gender. As gender equality grows in the workplace and at home, men and women adjust their daily routines to align with these evolving norms. It is becoming increasingly common for women to pursue careers and for men to take on household responsibilities, reflecting a shift toward a more balanced division of labor (Kan & Kolpashnikova, 2021).

The results suggest that despite exposure to comprehensive sexuality education, some students continue to adhere to traditional gender roles, particularly in the context of household tasks. This implies a need for more comprehensive and critical gender education that challenges deeply rooted societal norms and promotes equitable perceptions of gender roles. Siraw et al. (2023) revealed that 64.1% of youth respondents believe in sharing household chores equally between husbands and wives, while they generally support some level of gender-based division of housework. Analyzing data from 24 countries over a decade, one research (Kan & Kolpashnikova, 2021) found that the link between egalitarian attitudes and equal housework distribution strengthened over time, indicating a global shift towards more balanced domestic roles.

Gender Awareness

The data in this study indicates that the respondents have a strong understanding of legal frameworks that promote gender equality, suggesting that they are well-informed about policies and laws that support gender fairness. This implies that ongoing gender education efforts effectively foster knowledge that can contribute to more equitable attitudes and behaviors. Students demonstrate a strong awareness of gender rights and value learning about gender equality, applying this knowledge in their everyday lives. The study concludes that gender sensitivity training is vital in enhancing awareness and shaping individuals' attitudes toward gender-related issues and challenges. The same conclusion was reached by Casas et al. (2024). Similarly, it was found that university students in Cebu were fully aware of the law's existence, with the highest awareness of employer duties and the least penalties imposed (Aviso et al., 2023).

The result suggests that while students are aware of gender biases and inequalities, their understanding may not be as profoundly developed as in the area of gender stereotypes or gender awareness. This implies a need for more targeted educational interventions to address and challenge deeply ingrained stereotypes, promoting a more critical understanding of gender issues. Rahmani Azad et al. (2023) investigated individuals' ability to predict their implicit gender stereotypes using Implicit Association Tests (IATs) and found that participants could accurately anticipate their implicit biases, suggesting a conscious awareness of these automatic associations. This awareness could be pivotal in designing interventions to mitigate the influence of implicit stereotypes. The causes of gender stereotypes stem from inherent biological differences and external influences, such as textbooks, that reinforce these stereotypes. The impacts of gender stereotypes affect both individuals and society, leading to issues like bullying. However, schools and families play a crucial role in addressing and overcoming these stereotypes (Wang, 2023).

The data of this study suggests that respondents are highly aware of the prevalence and impact of gender-based inequalities. This implies a need for continued efforts to strengthen gender education programs to challenge discriminatory norms further and promote equality. Mozumder (2022) discussed gender discrimination and women empowerment and emphasized that it significantly affects people's lives, creating obstacles and limitations. When someone is denied opportunities solely because of their gender, it can be deeply distressing. Ideally, gender should never be a reason to exclude or disadvantage anyone, yet discrimination remains a persistent issue in society.

The findings of this study also indicate that students strongly support equal rights and opportunities for all genders, suggesting that comprehensive sex education has effectively instilled progressive attitudes. This positive outcome implies that continued emphasis on inclusive and comprehensive sexuality education can further reinforce equitable perspectives and contribute to reducing gender-based biases. Fegasanti (2022) showed that students strongly understand gender equality, adding they are highly aware of the concept of gender, indicating that they understand how gender identity and roles function in society. This supports this suggestion that students are informed about gender-related issues, likely due to education, media exposure, and evolving social norms. Tong et al. (2024) highlighted that students in Vietnam are strongly aware of gender inequality and recognize that it should not occur; however, some students hold conflicting opinions regarding women's rights, leading them to recommend actions in achieving Sustainable Development Goal 5 (SDG5) in Vietnam. This suggests that students' awareness of gender equality is generally positive despite differing perspectives.

Correlation of Comprehensive Sexuality Education and Gender Awareness on Gender Roles Attitude

Pearson Correlation analysis was performed to measure the relationship between gender roles attitudes and comprehensive sexuality education and gender awareness among the respondents. According to the findings, a significant relationship exists between gender roles attitude and comprehensive sexuality education and gender roles attitude and gender awareness. Students strongly understand gender rights and value learning about gender equality. They actively apply this knowledge daily, suggesting that gender education positively influences their attitudes and behaviors, the same suggestion forwarded by Casas et al. (2024). Moreover, sex education that pays attention to gender issues positively contributes to a deeper understanding of gender roles in relationships and sexuality, helps reduce harmful gender stereotypes, and fosters an inclusive learning

environment. Furthermore, raising gender awareness plays a crucial role in shaping attitudes that support gender diversity and sexual orientation, which in turn encourages healthy sexual behaviors and open communication within relationships. Assessing the effectiveness of sex education programs that incorporate gender issues is also critical for enhancing the quality of such programs. Thus, inclusive and gender-sensitive sexuality education not only enhances understanding but also acts as a tool for creating a more inclusive society, honoring gender diversity, and promoting safe, healthy sexual behavior (Suwarni et al., 2024).

Direct and Indirect Effect of Comprehensive Sexuality Education on Gender Roles Attitude as Mediated by Gender Awareness

It was hypothesized that comprehensive sexuality education has no direct or indirect effect on gender roles attitudes as mediated by gender awareness. Results showed that the mediation model demonstrates that comprehensive sexuality education positively affects gender roles and attitudes both directly and through enhancing gender awareness. Since partial mediation is observed, interventions aimed at improving gender role attitudes should not only focus on enhancing gender awareness but also continue to strengthen direct comprehensive sexuality education efforts. The findings highlight the importance of integrating comprehensive sexuality education programs that simultaneously promote gender awareness and progressive gender role attitudes. A study by Stepahanie (2024) demonstrated that participants aged 13-18 showed significant improvements in sexual knowledge and attitudes after engaging in a CSE program, highlighting the effectiveness of such education in promoting adolescent sexual health and well-being. Individual gender awareness plays a key role in reducing gender inequality. Promoting community gender education helps people become more aware of gender issues, which helps both men and women adopt progressive attitudes. This awareness fosters equal gender relations and creates a supportive social environment that can be passed on to future generations, contributing to sustainable development (Handayani, 2020). Yavas and Oncel (2023) further emphasized that students who completed a gender studies course scored higher on the Personal Gender Scale (PGS), Gender Equality Scale (GES), and Gender Role Attitudes Scale (GRAS) compared to those who did not take the course. This suggests that learning about gender enhances awareness, equality, and progressive attitudes toward gender roles. Therefore, integrating gender-related topics into the curriculum can help foster more inclusive and informed perspectives among students.

CONCLUSION

Based on the study's findings, gender awareness significantly mediates the relationship between comprehensive sexuality education and gender role attitudes. This conclusion affirms the theory of planned behavior, stating that a person's behavior is shaped by their attitudes, the subjective norms they perceive, and their behavioral control over their actions.

RECOMMENDATIONS

Based on the study's conclusion, it is mainly recommended that further studies be undertaken using other potential mediator variables to trace the 68.7% variance in the strength of the correlation between comprehensive sexuality education and gender roles attitude. Additionally, educational institutions should introduce workshops, seminars, and interactive discussions focusing on gender-related laws, discrimination, and stereotypes. These programs can reinforce classroom learning by allowing students to engage in open conversations, reflect on personal biases, and develop a deeper awareness of gender issues. Increasing students' exposure to gender-related discussions helps challenge misconceptions and promote equality in various aspects of life.

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