Gender-Related Perceptions and Barriers to the Clinical Competence of Male Student Nurses

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Abstract: Male student nurses often face gender biases affecting clinical growth, making it vital to examine how these biases, sexual orientation, and gender expression relate to clinical competence. This descriptive correlational study surveyed 401 Level 2-4 male student nurses from three universities in Baguio City enrolled in the second semester of the academic year 2024-2025, using cluster sampling and a validated questionnaire (CVI=0.94). Data from February to March 2025 were analyzed through frequencies, means, Pearson correlation, and Mann-Whitney U test. Results showed fair awareness of gender-related perceptions ($\bar{x}$=2.18) and occasional barriers ($\bar{x}$=1.77), mostly during hospital rotations ($\bar{x}$=2.07). Clinical competence was high in professional practices ($\bar{x}$=3.46) and patient care ($\bar{x}$=3.37), with moderate competence in procedures ($\bar{x}$=3.24). No significant relationships were found between perceptions, barriers, and competence, nor differences by sexual orientation or gender expression. Findings suggest inclusive curricula, gender-sensitive mentorship, and supportive environments mitigate barriers. Recommendations include strengthening simulation training, ensuring balanced clinical exposure, and enhancing institutional support.

Keywords: gender-related perceptions, gender-related barriers, clinical competence, male student nurses

I. INTRODUCTION

Nursing is often viewed as a female-dominated profession, based on the assumption that women are inherently more caring. This imbalance poses challenges for male student nurses in establishing their roles, making increased male representation a long-term goal to promote diversity and inclusiveness. Women comprise 90% of the global nursing workforce (World Health Organization, 2020), and in North America, the male-to-female ratio is about 1 to 19 (World Population Review, 2024). Data from the American Association of Colleges of Nursing (AACN, 2023) shows that male enrollment has remained steady from 2018 to 2022.

Despite growing participation, male students face unique challenges in demonstrating clinical competence, often shaped by gender perceptions and societal expectations. Male student nurses are frequently perceived as better at leadership and organization, while female students are viewed as more focused on value-based care (Prosen, 2022). These perceptions can influence the application of nursing concepts in practice. Although more men are entering nursing, challenges in performing routine care and building skills persist and may limit clinical competence (Yokoya et al., 2023). Research on how gender perceptions and barriers affect male student nurses' competence is limited, especially in the Philippines, making understanding these factors crucial for clinical practice.

The study's findings have implications for nursing practice, administration, education, research, and students. For staff nurses, they highlight challenges and the need for inclusive mentoring. Administrators can use the results to address gender dynamics and provide targeted support. In education, the findings support gender-inclusive curricula, simulation-based learning, and mentorship to promote equity. For students, the study raises awareness of how gender perceptions and barriers affect competence and helps them develop strategies to overcome challenges. In research, the study provides empirical data on gender's influence on clinical competence and professional growth, guiding future studies. These contributions foster diversity, equity, and inclusion, equipping male student nurses with the skills and confidence to succeed in a diverse professional landscape.

The study sought to determine the gender-related perceptions and barriers to the clinical competence of male student nurses. Specifically, the study aimed to answer the following questions:

1. What is the extent of gender-related perceptions among male student nurses?
2. What is the extent of gender-related barriers among male student nurses?
3. What is the extent of clinical competence among male student nurses?
4. Is there a significant relationship in the level of clinical competence in the presence of:
   a. Gender-related perceptions?
   b. Gender-related barriers?
5. Is there a significant difference in the gender-related perception of male student nurses when grouped according to their:
   a. Sexual orientation
   b. Gender expression
6. Is there a significant difference in the gender-related barriers of male student nurses when grouped according to their:
   a. Sexual orientation
   b. Gender expression

II.   LITERATURE REVIEW

Gender-related perceptions significantly challenge male student nurses, shaped by societal expectations of gender roles in nursing (Yip et al., 2021). These beliefs affect men in a traditionally feminine profession. They are grouped into three domains: Self-Perception of Competence and Role Identity, Self-Perception and Gender-Related Challenges, and Self-Perception of Professional Identity and Growth. The first domain emphasizes ethical and legal standards, where aligning nursing tasks with masculine traits can cause self-doubt (Prosen, 2022). The second addresses clinical struggles, including stereotypes, physically demanding task assignments, and limited learning opportunities (Huang et al., 2024). The third examines how gender roles influence career goals and commitment to equity, with male students seeking to challenge stereotypes through inclusive curricula (Huang et al., 2024).

Male students often face bias in clinical placements, discomfort in female-dominated wards, and exclusion from women's health areas (Yip et al., 2021). Gender-related barriers include Hospital Rotations, Interactions with Peers, Instructors, and Staff, and Social Expectations, affecting patient care assignments, team integration, and societal pressures (Alvarez, 2021; Hosseini et al., 2022; Yokoya et al., 2023). Discrimination, refusal of care in sensitive areas, female dominance, stereotypes, and media portrayals further discourage men from nursing (Asif, 2019; Raghavan et al., 2023; Teresa-Morales et al., 2022).

Sexual orientation and gender expression intersect with these barriers. Heterosexual students typically align with traditional norms and face fewer challenges, while homosexual or non-conforming students may encounter bias and reduced confidence (Shim & Park, 2023; Levy, 2024). Clinical competence, defined as the ability to apply knowledge and skills despite these barriers, was assessed using adapted domains from the Clinical Competence Questionnaire: Professional Nursing Practices and Standards, Fundamental Patient Care and Assessment Competencies, and Nursing Skills and Procedures (Liou & Cheng, 2013; Yokoya et al., 2023).

Despite growing awareness, localized, outcome-focused research in contexts like the Philippines remains scarce. Most studies are Western-based, overlooking cultural and institutional norms that shape male student nurses' experiences, highlighting the need for culturally specific strategies (Liu et al., 2019; Fisher & Purkis, 2021).

III.   MATERIALS AND METHODS

Research Design

The study utilized a descriptive correlational design, which described and analyzed relationships in a situation without attempting to change them (Burns & Grove, 2020; Bhandari, 2023). The study design described male student nurses' gender-related perceptions and barriers and examined their relationships to their clinical competencies.

Participants/Data Sources

The study was conducted from January to May 2025 in three Baguio City universities, known for accredited nursing programs, experienced faculty, and modern facilities. Respondents were Level 2-4 male student nurses enrolled in professional nursing subjects in the 2nd semester of A.Y. 2024-2025, aged 18 or older. Students who dropped out, were absent, or withdrew during data collection were excluded. Three universities were selected from six using simple random sampling with the fishbowl technique (Burns & Grove, 2020). A sample of 416 was determined using the Yamane formula (1967) at 90% confidence and 10% margin of error (Hazra, 2017) and proportionally distributed across universities by year level.

Cluster sampling was used to select respondents based on these criteria, dividing the population into groups or "clusters" and collecting data from all or a subset of individuals (Lohr, 2019). This method simplified data collection, reduced costs, and minimized selection bias (Hayes, 2024). Purposive sampling within clusters continued until the target sample size was achieved.

Tools and Instruments

The study used a self-made Likert scale questionnaire to examine male student nurses' gender-related self-perceptions, barriers, and clinical competence. It had two parts: the first collected demographic data, including sexual orientation and gender expression, and the second addressed key variables, taking 15-20 minutes to complete.

The Perceptions of Male Student Nurses (PMSN) section included 17 items rated 1 (strongly disagree) to 4 (strongly agree) across three domains. Self-Perception of Competence and Role Identity assessed abilities, confidence, and role assignments (Eagly & Wood, 2016). Self-Perception and Gender-Related Challenges explored discomfort, bias, and restricted participation in areas such as maternity and pediatrics (Huang et al., 2024). Self-Perception of Professional Identity and Growth examined career goals and commitment to gender equality. The second section measured gender-related barriers through 15 items rated 1 (Not experienced) to 4 (Always experienced), covering Hospital Rotations, peer and instructor interactions, and social expectations (Alvarez, 2021; Hosseini et al., 2022; Yokoya et al., 2023). The third section, adapted from the Clinical Competence Questionnaire (Liou & Cheng, 2013), included 39 items rated 1 (Poor) to 4 (Excellent) across Professional Nursing Practices and Standards, Fundamental Patient Care and Assessment Competencies, and Nursing Skills and Procedures. Advanced procedures such as venipuncture and chest tube management were excluded for second-year students.

Content validity, evaluated by three nursing experts, yielded an S-CVI of 0.94 (Polit & Beck, 2006). Reliability testing with 30 non-participant male students produced a Cronbach's Alpha of 0.93, indicating high internal consistency (Gliem & Gliem, 2003).

Procedures

Data collection began with ethics approval from the Saint Louis University Research Ethics Committee (SLU-REC 2024-291). Researchers coordinated with university officials and randomly selected sections using the fishbowl technique, repeating if the sample size was unmet. Students were briefed on the study and ethical considerations, provided consent, and completed questionnaires on-site with researcher support. Completed forms were sealed, stored securely, and accessible only to the research team. Identifying information was handled according to data protection laws to ensure anonymity and privacy.

Analysis Techniques

After data collection, all responses were encoded into Jamovi software for analysis. Descriptive statistics, including frequencies and means, addressed the first three research questions on gender-related perceptions and barriers among heterosexual and homosexual male student nurses. For the fourth research question, normality was checked using the Kolmogorov-Smirnov test due to a sample size above 50 (Mishra et al., 2019). With normality confirmed, Pearson correlation tested relationships between previously calculated means. The Mann-Whitney U test was used for the fifth and sixth research questions to compare clinical competence across independent groups, as the data were not normally distributed (Glass & Hopkins, 2008).

IV. RESULTS AND DISCUSSION

This section examines male student nurses' gender-related perceptions, barriers, and their link to clinical competence, highlighting the study's significance.

Table 1. *Extent of Gender-Related Perceptions Among Student Nurses*

Domains	$\bar{x}$	Description
1. Self-Perception of Competence and Role Identity	2.31	FA
2. Self-Perception Regarding Gender-Related Challenges	2.22	FA
3. Self-Perception of Professional Identity and Growth	2.01	FA
Overall Mean	**2.18**	**FA**

Mean Scale	Descriptive Rating
1.00 - 1.75	Poor Awareness (PA)
1.76 - 2.50	Fair Awareness (FA)
2.51 - 3.25	Good Awareness (GA)
3.26 - 4.00	Outstanding Awareness (OA)

Table 1 shows that male student nurses have fair awareness across three domains of gender-related perceptions: self-perception of competence and role identity (x̄=2.31), gender-related challenges (x̄=2.22), and professional identity and growth (x̄=2.01), reflecting a limited but notable understanding of gender influences in clinical settings.

Gender-role stereotyping is evident, with males often assigned physically demanding tasks ($\bar{x}$=3.21) and females caregiving roles, reinforcing traditional norms (Rabie et al., 2020). This contributes to discomfort with intimate care ($\bar{x}$=2.38) and childbirth assistance ($\bar{x}$=2.26), though professional growth continues (Prosen, 2022).

Patient discomfort ($\bar{x}$=2.37) and cultural pressures ($\bar{x}$=2.11) challenge male students, but diverse experiences foster adaptability (Zulu et al., 2021). Mixed-gender environments and mentorship help address stereotypes (Carlsson, 2020). Awareness of instructor bias is low ($\bar{x}$=1.89), yet students remain committed to equitable practice (Dadigamuwa, 2023; Fibriansari et al., 2023).

Table 2. *Extent of Gender-Related Barriers Among Student Nurses*

Domains	$\bar{x}$	Description
1. Hospital Rotations	2.07	SE
2. Interactions with Co-student Nurses, Clinical Instructors, and Hospital Staff	1.66	NE
3. Social Expectations	1.59	NE
Overall Mean	**1.77**	**SE**

Mean Scale	Descriptive Rating
1.00 - 1.75	Not Experienced (NE)
1.76 - 2.50	Sometimes Experienced (SE)
2.51 - 3.25	Often Experienced (OE)
3.26 - 4.00	Always Experienced (AE)

Table 2 shows that male student nurses sometimes experience gender-related barriers, with an overall mean of 1.77. Hospital rotations had the highest barriers ($\bar{x}$=2.07), including non-intimate task assignments ($\bar{x}$=2.16), requests for female caregivers ($\bar{x}$=2.14), and patient discomfort during intimate care ($\bar{x}$=2.08), reflecting persistent stereotypes and cultural concerns (Prosen, 2022; Hosseini et al., 2022; Huang, 2024).

Barriers in interactions with co-students, instructors, and staff were minimal, with limited collaboration ($\bar{x}$=1.74) and differential treatment ($\bar{x}$=1.66) rarely experienced, indicating growing inclusivity (Yip et al., 2021; Prosen, 2022). Social expectations were also low, with rare criticism for choosing nursing ($\bar{x}$=1.61) or pressure to change careers ($\bar{x}$=1.56), showing shifting perceptions toward gender-neutral nursing (Prosen, 2022).

Gender-related barriers are infrequent, though traditional roles and patient preferences occasionally limit learning, underscoring the need for equitable clinical exposure (Yokoya et al., 2023).

Table 3. *Extent of Clinical Competence Among Student Nurses*

Domains	$\bar{x}$	Description
Professional Nursing Practices and Standards	3.45	HEC

Fundamental Patient Care and Assessment Competence	3.37	HEC
Nursing Skills and Procedures	3.23	MEC
Overall mean	3.35	HEC

Mean Scale	Descriptive Rating
1.00 - 1.75	Very Low Extent of Competence (VLEC)
1.76 - 2.50	Low Extent of Competence (LEC)
2.51 - 3.25	Moderate Extent of Competence (MEC)
3.26 - 4.00	High Extent of Competence (HEC)

Table 3 shows male student nurses reported high competence in Domain 1, Professional Nursing Practices and Standards ($\bar{x}$=3.46), and Domain 2, Fundamental Patient Care and Assessment ($\bar{x}$=3.37), while Domain 3, Nursing Skills and Procedures ($\bar{x}$=3.24), was moderate, indicating areas for improvement.

In Domain 1, top skills included Respecting Patient Rights ($\bar{x}$=3.59), Providing Care without Discrimination ($\bar{x}$=3.55), and Professional Presentation ($\bar{x}$=3.54), reflecting the Nursing Code of Ethics (Martins et al., 2020) and inclusive practice preparation (Fabry et al., 2024). In Domain 2, the highest-rated skills were Assessing Vital Signs ($\bar{x}$=3.62), Monitoring Intake and Output ($\bar{x}$=3.59), and Implementing Rest and Comfort Measures ($\bar{x}$=3.48), supported by theoretical and clinical training (Nascimento et al., 2021). Lower ratings for emotional care may reflect gendered perceptions (Levy, 2024). In Domain 3, students excelled in Administering Medications ($\bar{x}$=3.64) and Sterile Techniques ($\bar{x}$=3.48). However, they showed lower competence in Intrapartal Care ($\bar{x}$=2.83), Bag-Valve Mask use ($\bar{x}$=2.88), and CPR ($\bar{x}$=2.92) due to limited exposure and societal norms (Yokoya et al., 2023; Kang & Lee, 2025).

Table 4. *Significant Relationship of Clinical Competence in the Presence of Gender-Related Perceptions and Barriers Among Student Nurses*

Gender-related:	r-value	p-value	Significance
Perceptions	-0.017	0.735	Not significant
Barriers	0.065	0.195	Not significant

Table 4 shows that clinical competence among male student nurses has a weak negative correlation with perceptions (r=-0.017, p=0.735) and a weak positive correlation with barriers (r=0.065, p=0.195), neither is statistically significant, suggesting minimal impact on performance.

This reflects growing acceptance of gender diversity. Inclusive curricula, respect for gender identity, and supportive clinical placements foster confidence and equality, though gender expression effects vary (Fisher & Purkis, 2021). Resilience and strong professional identity help students manage adversity, while Social Role Theory explains tensions between societal norms and self-concept (Alvarez, 2021; Eagly & Wood, 2016; Barkhordari-Sharifabad & Mortazavi, 2021).

Male students feel more accepted in technical areas than in feminine-coded units. Institutional supports, mentorship, role models, and cultural shifts encourage participation, though men remain underrepresented, highlighting the need to address systemic and cultural biases (Moore et al., 2020; Huang et al., 2024; AACN, 2023).

Table 5. *Significant Difference in the Gender-Related Perception of Male Student Nurses When Grouped According to Sexual Orientation and Gender Expression*

Groups	p-value	Description
Sexual Orientation	0.75	Not significant
Gender Expressions	0.17	Not significant

Table 5 shows no significant difference in gender-related perceptions of male student nurses by sexual orientation (p=0.75) or gender expression (p=0.17), reflecting increasing inclusivity and emphasis on competence over traditional norms (Brown & Waller, 2022). Unequal sample sizes, with more heterosexual (n=264) than homosexual (n=137) participants, may limit representation.

Male students view nursing as equitable, defined by competence, compassion, and patient-centered care (Prosen, 2022). Shared experiences in a female-dominated profession, diverse clinical settings, and mentorship foster understanding and respect (Averia et al., 2024; Yip et al., 2021; Ramjan et al., 2023).

Participants advocate rejecting rigid gender roles and promoting an inclusive workforce. Male student nurses share similar perspectives, prioritizing skills, empathy, and teamwork, reflecting a shift toward a competence-based professional identity (Prosen, 2022; Averia et al., 2024).

Table 6. *Significant Difference in the Gender-Related Barriers of Male Student Nurses When Grouped According to Sexual Orientation and Gender Expression*

Groups	p-value	Description
Sexual Orientation	0.30	Not significant
Gender Expressions	0.22	Not significant

Table 6 shows no significant difference in gender-related barriers among male student nurses based on sexual orientation (p=0.30) or gender expression (p=0.22), indicating similar experiences regardless of these factors. Anti-discrimination policies, LGBTQ+ sensitivity training, and inclusive curricula likely contribute to this trend.

Supportive measures, such as university LGBTQ+ groups, mentorship, and gender-equity frameworks, reduce discrimination and emphasize competence, empathy, and patient care over stereotypes (Finnegan, 2019; Crawford et al., 2024; Shim & Park, 2023). Resilience and strong professional identity enable students to manage adversity, while Social Role Theory explains tensions between societal norms and self-concept (Alvarez, 2021; Eagly & Wood, 2016; Abudari et al., 2016).

Male students feel more accepted in technical units than feminine-coded areas, but institutional support, role models, and training foster participation and buffer challenges. Underrepresentation highlights the need to address systemic and cultural biases (Barkhordari-Sharifabad & Mortazavi, 2021; Moore et al., 2020; AACN, 2023).

V. CONCLUSION

This study examined how gender-related perceptions and barriers influence the clinical competence of male student nurses. Findings indicate that while such perceptions and barriers exist, they do not significantly affect overall competence. Male students occasionally experienced limited exposure, particularly in maternal care and gender-sensitive tasks, yet demonstrated competence in professional nursing practices and patient care. The absence of significant differences based on sexual orientation or gender expression suggests these challenges are commonly shared. Although infrequent, these barriers can affect students' sense of belonging, confidence, and professional growth. The results underscore the importance of institutional support, gender-sensitive mentorship, inclusive clinical exposure, and targeted training to foster equity and professional development, promoting a supportive learning environment.

The study focused only on heterosexual and homosexual identities and masculine or feminine expressions, excluding other gender identities and expressions, and was conducted solely in Baguio City, limiting generalizability. Limited local literature further restricts comparison with international studies.

To enhance equitable competence, instructors and staff should ensure fair task distribution in intimate and emotionally sensitive procedures, review rotations to provide full clinical exposure, and maintain simulation-based training for skills with moderate competence, such as CPR and bag-valve-mask ventilation. Future research should examine broader gender identities and expressions, patient comfort with male caregivers, and use triangulation methods to strengthen data reliability.

Isabela L. Magno, and Gabrielle Anne J. Torralba collectively contributed to the conceptualization, methodology, data collection, and analysis. They also participated in drafting, reviewing, and revising the manuscript to ensure accuracy and clarity. All authors made significant academic contributions to the work and approved the final version of the manuscript.

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