Journal of Integrated Health xxx (2022) xxxxxx



Journal of Integrated Health (JIH)

https://urfpublishers.com/Health



Male Nursing Students and Barriers Faced in Obstetrical Courses: A Systematic Review

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ARTICLEINFO

Keywords:

Male nursing student; Male students in obstetrics; Male nursing students' education; Men in nursing maternity course

ABSTRACT

Nursing school is challenging in the best of circumstances. So, imagine facing barriers, such as biases, projected poorer outcomes, denied access to patients, cultural sensitivity for the female body, or exclusion from some learning environments. These are some of the problems male nursing students face daily in their didactic and clinical settings, especially in the obstetrical setting. This article focuses on four major problem areas: barriers to learning, outcome differences between genders, clinical experiences, and lack of male nurse representation in obstetrical courses. Clear evidence was found to support gender bias in male nursing students during clinical and didactic learning environments. There is a clear lack of representation of males in nursing, especially in obstetrical nursing. Recommendations include supplementary education, more extensive research, proper teaching strategies to address this problem, mentor/advocacy for male nursing students, and closing the gender gap by utilizing unique recruiting methods to increase male participation.

Background

Nurse educators strive to break down the many barriers to learning. One potential barrier identified is gender inequality of male students to female students. The nursing profession is predominantly female; therefore, the majority of classroom students are female. Teaching all students equally, means to be aware of potential gender biases pertaining to male students versus female students. Research suggests that gender biases do exist in nursing classrooms. Bias of any type affects the student's learning experiences in nursing school, especially in obstetrics. For example, teachers tend to call on the majority gender in class more than the minority [1]. In the event that the minority gender is called upon more in the classroom, inequality is still present. The potential for gender bias is even greater for an obstetrical course due to the specific course content, clinical experiences, including

males being the minority in the class. This Literature review will include the male nursing students' barriers to learning, outcomes for male students, clinical experiences, and representation of male students in obstetrical nursing courses.

Even in ideal circumstances, nursing school is a challenging endeavor, but imagine being refused the opportunity to practice and learn just because you are male. Nursing has long been considered a female role dating back to Florence Nightingale's time. Today, times are different, and we see both male and female roles changing. Women perform many jobs that, in the past were considered to be a man's job and many men now work what was labeled as a "woman's job", such as being a stay-at-home dad, educator, or nurse. The nursing profession, especially obstetrics, seems to see this gender bias even more than other previously labeled female roles [2]. The overall feeling men express is that their gender has a

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Received of March 2022; Received in revised form og April 2022; Accepted of May 2022

Journal of Integrated Health (JIH)

Available online 10 May 2022

Published by URF Publishers.

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negative effect on their obstetrical experiences[3]. Male nurses are often portrayed as being un-masculine, homosexual, and having the inability to nurture. This leads to men feeling isolated and lonely[3].

Male nursing students will face many challenges during their nursing education. One of these challenges is bias, just for being male[4]. The bias can stem from their instructor, clinical faculty, fellow students, or patients. The instructor may make patient assignments and display bias by not giving a student a particular assignment due to his gender. Clinical faculty may display bias by what role they feel the male student should be given. "Apart from playing a leadership role, studies have revealed that female nurses believe male nurses are perfect for tasks involving physical labor and dealing with aggressive and irritable patients" [5]. Fellow female nursing students may make the male student feel left out or isolated. Male nursing students oftentimes feel socially excluded from female-dominated clinical teams [6]. The way that their fellow female nursing student counterparts treat them plays an instrumental role in how men are perceived and treated in nursing. Many male students described feelings that their presence in the program was by invitation only - "like being given the nod, so to speak" [7].

How does this gender bias effect the male students learning opportunities? There is a belief, whether spoken or unspoken, that it is inappropriate to have male nurses provide intimate care to female patients, unlike with male physicians. Male nurses often feel embarrassed when they must deliver intimate care to a male or female patient. Male nurses are also thought to be less sensitive to others' emotions and less caring than female nurses. There are studies that discuss the male students and their experience in patient care. Male nursing students often experience gender bias from fellow female students and from female patients in obstetrics. "Although male nurses have several superior attributes, numerous studies have demonstrated that the gender barrier between male nurses and female patients has a significant negative impact on the delivery of care by male nurses. This barrier is one that is erected by both parties"[5]. These perceived attributes include: leadership skills, better suited for technical skills, handling machinery, strength, and the impact of their sexuality [5].

Search Methods

Databases Used

A literature search was completed via library databases using CINAHL, PubMed, and ProQuest. Four major themes were the focus of the search: barriers to male students' learning, outcomes of male nursing students, patient refusal of male nurses, and the number of males that work in obstetrics.

Time Period Covered

Due to lack of substantial articles over the topic, it was decided to include articles up to 10 years old. When searching for

evidence, five years old or younger is best; however, the search included up to 10 years due to the limited research yield on male nursing students.

Inclusion/Exclusion Criteria

The first search results were very limited *for patient refusal* of male nursing students. It was decided to include gender studies on male medical students for this topic as well. The limitations to this inclusion are discussed in the *Gap in Knowledge* heading of this paper. There simply were not many recent articles about male nursing students being refused by patients. Studies conducted in other countries were included to allow for more data. Also, studies pertaining to medical students were also included due to the low number of studies solely speaking to male nursing students.

Types of Studies and Number of Studies

The four major themes were barriers to male students' learning, outcomes of male nursing students, patient refusal of male nurses, and the number of males that work in obstetrics. Each theme was reviewed, and evidence was placed in an evaluation table and an evidence critique was completed. See the appendix for each category with at least five studies per category.

Results

Barriers to Male Student's Learning

Barriers for male nursing students are experienced in two different venues of their education; in the classroom during their didactic performance and in the clinical setting caring for patients in the hospital setting. In the classroom and clinical setting, male students experience similar barriers, such as gender-bias, stress, anxiety, and in many different ways discrimination [4]. In contrast, the barriers experienced for male nursing students can be quite different between the classrooms and clinical. In the classroom, these differences include faculty adjusting their instruction to the larger population of millennials, but more so approaching male nursing students as a minority. In the clinical setting, male students experience a decreased obstetrical practice for a host of reasons. Each of these areas where barriers exist present many specific concerns for the male students.

Classroom

Two elements play a key role in the overall feeling of barriers to learning; the environment of the classroom and the presentation of course content by the faculty. Difficulties in the environment for male students tend to be the minority in the classroom causing them to encounter different barriers to their learning. With being the minority in the classroom setting, feelings of isolation have been noted in many studies [8]. This isolation creates a desire for male students to sit in the back of the classroom and decrease their participation in class discussion and activities[8] also noted the use of phrases and vocabulary that contributes to a feeling of non-inclusiveness.

Faculty members contribute to these barriers for learning by calling out or putting male students in the spotlight for answering questions in class or other engaging activities. This is, in part, due to being in the minority and standing out above their peers. Professors and instructors demonstrated more firmness or harshness with male students over female students[9]. A contributing factor to this is a behavior for male students to be more confrontational with faculty, more so than female students [8]. Course content is not fully explained when referring to female anatomy because the perception is that all nursing students already know the information while male anatomy is expounded upon in more detail [10]. This contributes to a sense of awkwardness and a lack of learning for the female anatomy and the physiological responses associated to health conditions.

Clinical

The clinical setting presents its own unique challenges and barriers for the male nursing students. These themes include being singled out, being assigned to "manly" assignments, instructors setting limitations for male students, and no male role models for the male students [8]. Each nursing student is required to accumulate the same amount of clinical hours in obstetrics, but the actual hands-on and in-person experiences differentiate drastically between male and female nursing students for many reasons, such as patient refusal, threats to sexual advances, adjusted patient assignments, a sense of isolation for male students, and a lack of male nurses in the field of obstetrics.

Patient refusal has been noted to be caused by cultural sensitivity and patient preference, perception, or even the patient's level of trust toward a male to offer competent care in obstetrics[5]. In more severe cases, the intimate care from a male nursing student can be perceived as sexual advances toward female patients. When such refusal by a patient is evident, the faculty is forced into a position to alter nursing student assignments. In some cases, faculty alter nursing assignments on their own accord simply due to gender discrimination [4]. The faculty members may view the role of a male nursing student to address the physical labor of nursing care, such as moving or rotating patients in bed or transporting patients from bed to wheelchair or other medical devices and back to bed.

Lastly, male nursing students feel isolated from the female students. They lack mentors for clinical due to the lack of male nurses in the field of obstetrics. Not having amale mentor in the clinical setting decreases the option of promoting clinical experiences with patients and providing perspective as a male nurse in the given field. These barriers lead to a lack of clinical exposure, patient care and experience, and elevates the levels of stress and anxiety for male nursing students.

Summary of Barriers:

 Non-inclusiveness perpetuated by male and female students as well as faculty

- Higher degree of confrontation from faculty toward males
- Faculty assumes knowledge of the female anatomy, course content may not be covered well enough for male students
- Feelings of awkwardness
- Patient refusal of male students
- Inequality in patient assignments between male and female students, especially in obstetrical setting
- Isolation in clinical
- Lack of male role models

Outcomes for Male Students vs. Female Students

Potur D and Bilgin N [11] completed a clinical stress questionnaire and compared the stress levels between male and female nursing students. The majority of male students reported that dealing with a female patient population (93.8%) and gender bias against them from patients (40.4%) were sources of clinical stress. Themes often emerge when male students are experiencing gender biases. Stressors can be particularly excessive in obstetrical courses due to the predominantly female population of patients and staff. Eswi A and Sayed Y [12] stated that 50% of male students described their experience in maternity nursing clinical course as useful, while 18% described it as interesting and 39% described it as very embarrassing. Subsequently, male students were more likely to be the recipients of negative comments than females[13].

Similarly, a qualitative study on male nurse challenges in nursing school found that male nurses were often told they belong in the emergency room or intensive care unit after graduation, which limited their projection pertaining to future employment [4]. This same study also found that there is a perception of female nursing students being taught more than male nursing students.

In medical students, there is a trend of male students performing at a lower level than their female counterparts in the obstetric arena. One study compared male clinical evaluation scores at 72.9 to the female scores of 74.4. Craig L et al. [14] states that female students out-perform male students in obstetrics. Male students report negativity toward gender as being a key factor in fewer males applying for OB/GYN residencies.

Patients Refusing Male Students

There is clear evidence of female obstetric patients refusing male students in deliveries and routine gynecological exams. Medical student refusal rate is approximately 30%, and that percentage was repetitive in two studies[14,15]. Male nursing students not only experience refusal from the delivery room, they are also denied access to certain physical assessments such as episiotomy assessment and breastfeeding assessment. In [7], men described a hostile environment for male students in nursing. This includes a story of a male student not being allowed to educate high school students in the nursing student role.

Male nursing students should experience the same learning opportunities as their female counterparts. In a study by [7], respondents reported that areas of interest to them once qualified such as midwifery or pediatrics were greeted with anger and disdain - midwifery was considered "women's business," and male nurses shouldn't be anywhere near kids." In one study,82% of men versus 37% of women were denied participation in patient examinations[6]. In this study we can see both, male and female students were refused by patients. You can see that male students were denied the learning opportunity at more than two times the rate of female students. In another study Emmons et al. surveyed students and performed a student focus group which revealed that 78% of male students believed their gender adversely affected their obstetrics/gynecology clinical experience while 67% of female students believed their gender had a positive effect on their obstetrics/gynecology clinical experience [14].

Underrepresentation of Male Nursing in Obstetrics

One theory behind gender issues in nursing, particularly in obstetrics, is the lack of male representation in this field. Carrigan T and Brookes B [16] states the RN male population is only 9.6%. The article also states if greater numbers of men become nurses, with a goal of 20% by 2020, the resulting gender balance in the profession will change perceptions of men and women in nursing exponentially. Of the small percentage of men in nursing, only 6.8% of male nurses have ever worked in the specialty of obstetrics [17].

Discussion

Education is key. History has shown education breaks down barriers. Different perspectives are needed in education if we are to remove gender bias. Educate the instructors, clinical staff, nursing students, and the patients that will be receiving the care. Even if the instructor assigns the clinical care with no gender bias and the clinical staff has the proper education to understand that male students can and should provide care for obstetrical patients, if the clients are unwilling to accept their care, then we have solved nothing. According to the listed barriers, a number of teaching strategies resulted from the review of studies.

Classroom Teaching Strategies

- Call upon male and female students equally.
- Treat male and female students equally when it comes to confronting behavior or performance.
- Assure that important information about female anatomy or physiology is not left out of lecture.
- Implement strategies to make males feel more welcome or included in the group (group activities, consider assigned seating).

 Assure that measures are taken to decrease feelings of awkwardness.

Clinical Teaching Strategies

- Make equal assignments by keeping track of what each student gets to see and do in obstetrical clinical.
- Know the hospital policy on patients making requests of preferences. Example: Do patients have the right to request a certain gender of nurse/student legally, or is that considered discrimination?
- If a patient does refuse a male student, make sure that experience is made up on another clinical day, or assign them to another patient if available.
- Ask permission from patients before students arrive to clinical.
 This way the student and their peers will never know of the refusal. They can be assured that the patient accepts them.
- Utilize any male role models on the floor that can speak to the group in pre- or post-conference.

Limitations

After completion of the literature review, evidence showed there are many more research studies on gender pertaining to medical students rather than nursing students. More research is needed specifically to gender and nursing students. Some data for medical students tends to trend toward male students getting more opportunities to practice skills, but this may not be the case with nursing students. Due to the cultural differences between medicine and nursing, it is difficult to apply these research articles to nursing.

Conclusion

The literature available that reports on male nursing students is limited. While this indicates there is a need for more research, some of the findings can be beneficial to nurse educators. It is evident that male nursing students have experienced gender bias and limited learning experiences in the clinical setting, especially in the obstetrical setting. The limitations range from missing out on clinical practice to levels of discrimination. Nurse educators are charged with improving the teaching/learning atmosphere, seeking opportunities for students to engage in critical thinking activities, and improving clinical judgement skills. Nursing students are challenged to be proactive, interactive, and involved with as much patient care and learning as possible during their clinical rotation and throughout the nursing program. Instructors should strive to offer the best for students and patients by educating themselves, colleagues, and other health care providers in best practices for all students, regardless of gender. Getting to that point will take more research, purposeful planning, and the willingness to help break the barriers

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Appendix: Evidence Evaluation Table

Citation: Author, Date of Publication,& Title	Purpose of Study	Conceptual Framework	Design/ Method	Sample/Setting	Major Variables Studied and Their Definitions	Measurement of Major Variables	Data Analysis	Study Findings	Worth to Practice: LOE Strengths/Weaknesses Feasibility Conclusion RECOMMENDATION
Younas, A., Sundus, A., Zeb, H., Sommer, J. (2019). A mixed methods review of male nursing students' challenges during nursing education and strategies to tackle these challenges. Journal of Professional Nursing, 35, 260-276. [4]	Explore the challenges of male nursing students during their education and identify strategies to tackle the challenges.	None	Literature review using indexed search phrases	Sources: 1 mixed-methods, 6 quantitative, and 36 qualitative studies (43); PubMed, CINAHL, and Science Direct; peer-reviewed Included studies that recruited male nursing students' sample.	Searched 3 phrases: experiences and challenges of male nursing students, challenges of male nursing students, experiences of male nursing students.	Explored students' experiences and challenges in educational settings, clinical learning environments, and classroom teaching.	Quality assessment with 3 criteria: checklist for assessing the quality of quantitative studies; VAKS tool for qualitative studies; mixed methods appraisal tool Thematic synthesis was conducted: line by line reading of results and findings in qualitative studies; organization and analysis to develop descriptive themes; development of analytical themes based on personal judgement and interpretation Narrative summaries were used	Qualitative: Theme 1: Challenges During Nursing Education Respect learning needs of males-male students found instructors would teach females more info than males about female anatomy Appropriate work setting-male students are often told they belong in ER, ICU and are often told to work in places where heavy lifting is needed. Call me a nurse-nurses are referred to as female and male nurses are called 'male nurses' Need more men in nursing Theme 2: Strategies to Deal with Challenges Appraisal focused, problem focused, and social support strategies Quantitative: Role Strain-limitations for males, workload differences Educational Challenges-5/7studies found that males found nursing school a challenge, male students found: female language curriculum, lack of support, lack of guidance, negative remarks Clinical Challenges-rejection of male students, rejection from female patients; discrimination, stress	LOE: V Strengths: ample qualitative evidence LIMITATIONS: Inclusion of non-English language studies could have missed potentially significant contributions in this area. The lack of intervention studies on strategies used by students to overcome educational and clinical challenges may have limited the outlining of effective strategies 3 databases Lack of intervention studies Conclusion: male nursing students are still discriminated against compared to female students. Dire need for studies to identify and evaluate institutionallevelstrategiestorecruitmoremalestudentsandassistmale students to become successful nurses. Male nursing students were unable to meet the course requirements regarding practice in maternal and obstetrics settings. Simulation has shown to be helpful -Male students indicated the need of male mentors, therefore students could be included in interprofessional groups, where they can seek support from male healthcare providers RECOMMENDATION: Nursing institutions should emphasize the need of gender neutral discourse in classrooms as well as in the clinical settings and develop institutional level policies to provide support groups for male nursing students Need for more research
Zenobia, C. (2014). Therapeutic Relationship Between Male Nursing Students and Female Patients.[5]	Explore the therapeutic relationship between male nursing students and female patients	Exploratory research	Autobiography in a qualitative approach using autobiography, drawing, and focus group interviews	Snowball sampling used to recruit participants. 18 male nursing students in master's and bachelor's programs in Hong Kong	IV = student and patient perception DV = 18 male nursing students	Three themes identified: Gender and therapeutic relationships Symbolic meanings and therapeutic relationships Career features and therapeutic relationships	Thematic analysis. Responses were transcribed verbatim and read through to extract significant statements. Descriptive coding of the aggregate meanings were formed into cluster themes and cross checked by another member of the team. Quantitative Qualitative Content analysis A modified form of Chenail's and Waltz, Strickland, and Lenz's model on the procedure for conducting a content analysis was adopted	A total of 18 male nursing students participated. Age 22-30 years. 8 participants were recruited to record a diary and 18 joined to drawing session and focus group interview.	Strengths and limitations: It is a qualitative study so the result from a sample may not be generalizable to the population as a whole. Only one local nursing training school was included. The number of years of clinical experience possessed by the participants could have influenced the results. Small sample size Risk or harm: none Feasibility: can help improve current nurse training Conclusion: The findings demonstrate that the forming of a therapeutic relationship between a male nursing student and a female patient is influenced by the presence of a chaperon, social context, and the type of procedure involved. The attitudes of female patients are also critical in the development of the relationship. If male students are welcome to provide nursing care a sense of mutual trust can be fostered. Recommendations: We need to allow the male student to express their perspectives and seek improvements. Identifying self-efficacy can have a great impact on job performance. It is important to hear the voices of male nurses on the care of female patients. It is very important to see how male nursing students perceive themselves in this industry. Males can be competent nurses also. Male nurses should have the right to choose where to work same as their female counter part.

Chang, J. (2010). The Effect of Student Gender on the Obstetrics and Gynecology Clerkship Experience.[6]	To explore the effects of the students' gender on their perception of quality and quantity of teaching, the amount of experiential learning, and their interest in obstetrics and gynecology.	Descriptive research	Descriptive univariate statistics to describe participant characteristics. Bivariate analysis using chi-square analysis	81 students completed the survey, 33 men and 46 women, and 2 that did not reveal their gender	IV = male students in obstetrics and gynecology rotations DV = male students experiencing gender bias	Anonymous, self-administered surveys. Questions were developed with input from other obstetrics and gynecology faculty and residents as well as recently graduated and fourth-year medical students for content validity	Univariate statistics and Bivariate analysis using Chi-squate analysis	Response rate of 89% Male students more likely to report performing specific surgical procedures (p = 0.005) More men experienced patients refusing to participate in interview and physical exam (p < 0.0001) Male students report feeling their gender negatively impacted their clerkship (p < 0.0001)	Strengths and limitations: Participants were from one class of medical students at a single medical school, and the results cannot be generalized to other institutions containing different structure and characteristics. Sample had a slightly higher proportion of female students compared to the usual gender distribution in the medical class so it introduces the possibility of sampling bias. Possibility of a beta error in comparison of hands-on experiences for male and female students. Risk or harm: none Feasibility: Changes that need to investigate further to improve male students experiences Conclusion: Male students were more likely to experience gender bias from patients on the obstetrics and gynecology service. Male student also described feeling socially excluded from female-dominated clinical teams. Recommendations: Clinical settings that host medical students for clerkship experiences may need to consider methods of encouraging patients to accept medical student participation regardless of their gender. Male students should be made aware that patient gender biases are not significant issues for practicing obstetricians-gynecologists. Efforts should be made to correct student misconceptions about patient gender preferences to minimize the experiences and effects of having patients decline medical student participation. Educators need to encourage both faculty and residents to be equally inclusive and supportive of both male and female students.
Christensen, M. (2014), "Nursing is no place for men" – A Thematic Analysis of Male Students Experiences of Undergraduate Nursing Education.[7]	To examine the experience of men "training" to be registered nurses within a regional new Zealand context	Exploratory research Qualitative research	Narrative Analysis. A thematic analysis was undertaken and guided by an understanding of the way personal narratives informs the human sciences especially within the context of nursing praxis.	Seven male nursing students currently enrolled. Five of the seven agreed to participate, at New Zealand men currently undertaking their bachelor of nursing degree at a regional tertiary institute were interviewed as to their experiences of what it meant to be a man in "training"	IV = Barriers were emotional, verbal, or sexual to men in nursing DV = male experiences in nursing education	Data was collected through an in-depth, semi-structured interview. A guide was used as prompts and the sequencing and asking of questions was flexible and used to help focus on possible topics and issued. Interview was conducted in private and audiotaped and supplemented by written field noted of observations to capture both verbal and non-verbal activity.	Thematic analysis. Responses were transcribed verbatim and read through to extract significant statements. Descriptive coding of the aggregate meanings were formed into cluster themes and cross checked by another member of the team.	Using Inventory of Male Friendliness in Nursing programs, O'Lynn found that 92% (n=111) of male student were made to feel unwelcome in the clinical environment, were worried about accusations of sexual impropriety when providing care (90%) and anti-male remarks made by academics (89%).	Strengths and limitations: Small sample size make this study difficult to form any generalizations. It is questionable whether this is replicable in like-sized institutes due to admission numbers and the dispersal of cultural identities. This study does demonstrate that there are some significant aspects that as academics we need to consider in supporting this student group. Risk or harm: Participant autonomy and informed consent and a comprehensive participant information sheet was provided. Feasibility: Change to hostile environment for the male student Conclusion: the men in this study were attracted to the profession by career stability and advancement; the opportunities for travel also figured highly. They felt excluded and marginalized because of their minority status within their stereotypes. Some of the students behaved in a manner to exert their heterosexual orientation. The students in this study sensed their vulnerability in choosing nursing as a career. Recommendations: More should be done to entice significantly more men to apply for nursing programs. Every effort should be made to review the way nursing is taught so that an environment of inclusivity and equality are evident. Need to review and evaluate the way that nursing programs are male friendly in terms of positive male role models, health issues relating to men are more appropriately covered. Development of male nursing support groups and their effectiveness at transitioning men into the profession more seamlessly could be evaluated.

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Powers, K., Herron, E., Sheeler, C., &Sain, A. (2018). The lived experience of being a male nursing student: implications for student retention and success. <i>Journal of Professional Nursing</i> , 34, 475-482. [8]	To explore the lived experience of formal male nursing students.	None	Descriptive phenomenological approach	11 males previously enrolled in a pre-licensure baccalaureate nursing program	How did former male students perceive their experience; what were perceived facilitators to program progress and completion; and what were perceived barriers to successful progression and completion.	Questionnaires and individual interviews. Interviews were guided by semi-structured questions to elicit the views of participants. Interviews were audio recorded.	Transcript were reviewed for accuracy; analysis of transcripts were conducted by the research team; the team read the text to determine a theme from recurrent experiences or from participants emphasized as being particularly important; research teams synthesized their analytic interpretations.	5 themes revealed: 1) gender bias exists; 2)being singled out; 3) doing manly stuff, 4)limitations in clinical settings: 5) no male role models Participants experienced gender bias from family andfriends, patients, staff nurses, and faculty. Their motives for enteringnursing were often questioned. Participants also felt uncomfortable when called upon to provide the male perspective All participants reported being excluded from providing patient care during some portion of the maternity clinical rotation. Not only did this result in impaired learning, it also led to feelings of exclusion and isolation. Our findings build upon those of prior studies that identified the maternity clinical setting as problematic for male nursing students.	LOE: VII Strengths/Weaknesses: Only one program in southeast US, 1/3 participants were 30 years old or higher and second degree students RECOMMENDATIONs: provide faculty development to improve teaching and mentoring for male nursing students. Faculty development initiatives focus on increasing faculty awareness of actions that exclude male nursing students. The importance of treating all students equally, and with respect, must be emphasized as participants in our study described instances where faculty did not afford them the same opportunities for examination reviews and remediation as their female counterparts received; Encourage male nursing students to seek assistance; contact with faculty be a positive experience to ensure continued student efforts to engage with faculty; male nursing students may have improved maternity clinical experiences if faculty and staff nurses introduce them as nursing students who will be providing care without calling specific attention to the fact that they are male; faculty should assess areas of needs for male students; More research is needed
Cantrell, M. A., & Farer, D. (2019). Millennial nursing students' experiences in a traditional classroom setting. Journal of Nursing Education, 58(1), 27–32. https://doi.org/10.3928/01484834-20190103-05[9]	Analyze millennial undergraduate nursing students' experiences in traditional classroom and their interactions with nursing faculty.	Van Manen's (2007) Theory	Multisite qualitative study	8 focus groups were conducted at six schools of nursing comprising a total of 220 millennial generation undergraduate nursing students.	IV = enrolled in an accredited undergraduate nursing program, be in good standings, between the ages of 18 and 24, no previous degree and no more than 12 nursing-designated credits. DV = family upbringing, geographic location, school, faculty members.	Lincoln and Gobi (1985) criteria for establishing trustworthiness, credibility, dependability, transferability, and confirmability were followed.	Audio taped interviews transcribed to an electronic text file. Text were compared back with audio recordings for errors. Van Manen's (1990) guidelines were used.	Replication of Toothaker's (2014) study was replicated. Specific characteristics for faculty y to be effective were noted, one of those main characteristics were to be technologically savvy.	LOE: Strengths: Replication of Toothaker's (2014) study. Clear themes were present in qualitative analysis. Steps put in place for accuracy and minimizing of error. Weaknesses: A small range of ethnic background in students could limit findings and discredit findings to culture or other variables. Conclusion: The findings challenged educators' beliefs about millennial learners and faculty y teaching practices. The approach to learning for millennials in a traditional learning environment presents many complications for millennials. Recommendations: 1) Consider reconstructing 3-hour classes that decrease students experiences for being physically present, but mentally disengaged. 2) examine whether these millennial students are truly so divergent from previous generations of students and 3) study the unique, positive features these students bring to learning environments, and 4) hire faculty who desire to be engaged and demonstrate dynamic teaching styles.
Hodges, E. A., Rowsey, P. J., Gray, T. F., Kneipp, S. M., Giscombe, C. W., Foster, B. B., Kowlowitz, V. (2017). Bridging the gender divide: Facilitating the educational path for men in Nursing. Journal of Nursing Education, 56(5), 295–299. https://doi.org/10.3928/01484834-20170421-08[10]	To describe each of these barriers and provides strategies to improve male students' learning experience.	None	Literature Review	NA	IV = male nursing students, white, DV = age, ethnicity, upbringing, nursing school	NA	Varied	Schools of nursing may create a more inclusive environment and enhance the profession's diversity by acknowledging gender barriers and taking intentional steps to address them with pre-nursing and nursing students.	LOE: Strengths: A thorough assessment of surveys was completed and specific stereotypes in male nursing. Weaknesses: No data analysis was completed Conclusion: Through acknowledging gender barriers and taking intentional steps to address them with pre-nursing and nursing students, schools of nursing may create a more inclusive environment and enhance the profession's diversity. Recommendations:

Potur, D. &Bilgin, N. (2014). Assessment of clinical stress in male and female nursing students, as measured on the first and last day of the obstetrical nursing clinical course. <i>KASHED</i> , <i>I</i> (1), 93-106.[11]	Explore the clinical stress levels of male and female nursing students attending the first and last day of the delivery room and obstetrics wards.	None	Cross-Sectional study	108 nursing students in an obstetrical course. 84 (77.8%) female and 24 (22.2%) male	Levels of stress; difference in stress levels according to gender; comparing first and last day of clinical rotation;	Student questionnaire; The Clinical Stress Questionnaire (CSQ)	Statistical Software Package for Social Sciences (SPSS) version 15.0; data was examined with percentages, chi-quare analysis, the Mann- Whitney U test, paired t-test, the Wilcoxon test and Cronbach's alpha coefficients.	The majority of male students reported that dealing with a female patient population (93.8%) and gender bias against them from patients (40.4%) were sources of clinical stress. The difference between male and female students in this regard was statistically significant (p < 0.01). There was no significant difference in clinical first day(CFD) stress levels between the male and female students (p > 0.05). There was no significant difference in clinical last day (CLD) stress levels between the male and female students (p > 0.05). There was no significant difference in clinical last day (CLD) stress levels between the male and female students (p > 0.05). Male students' harm and benefit mean scores and total CSQ mean scores on the CLD were significantly higher than those on the CFD (p < 0.05). Results indicated that male and female nursing students' stress levels on the first and last day of the course were similar. Female students experienced higher levels of stress on the CLD than their male counterparts did. The harm and benefit mean scores of both male and female students on CLD were significantly higher than they were on CFD. The CSQ is a reliable tool for the first and the last day of obstetrical clinic course. The majority of male students reported that dealing with female patients was the most important source of clinical stress The male nursing students experienced stress during course from the rejection of some doctors, nurses and mothers as some time doctors were refusing to let them into examination room and nurse asked them to stay outside and Eswi and El-Sayed (2010) found that the majority of Egyptian male students (66.7%) found the clinical maternity nursing course very stressful.	LOE: V Strengths/Weaknesses: First study, very limited data and research in this area Feasibility CONCLUSION: Public needs education on the nursing professional and roles within; educators should be aware of stress levels in clinicals especially obstetrics; eliminate stressors if possible; educators and health professionals should educate students on coping with stress; obstetric doctors should be role models for male students in approaching female patients. RECOMMENDATION: The CSQ is a reliable tool to assess stress level in students during clinical rotations; further research is needed.
Eswi, A. &Sayed, Y.E. (2011). The experience of Egyptian male student nurses duringattending maternity nursing clinical course. Nurse Education in Practice, 11(2), 93-98. doi: 10.1016/j. nepr.2010.11.012[12]	To explore the learning experience of Egyptian male student nurses during attending maternity nursing clinical course at Cairo University Maternity Hospital.	None	Descriptive design - nonrandomized	60 male undergraduate students who finished clinical practice in maternity nursing course/ Cairo University Maternity Hospital	IV : male nursing students DV: male nursing students experiences in maternity nursing courses.	Quantitative data – questionnaires (50 items); qualitative data – interviews. Factors affecting the nursing experience; stressors faced while attending the maternity nursing course	Quantitative data - frequency distribution and measures of central tendency, qualitative data – analyzed by content analysis	More than half of male students preferred treating male patients versus females; Stressors in clinical found were high requirements of clinical; clinical instructor's unfavorable attitude, refusal of treatment by female patients due to being male. Embarrassing procedures – abdominal exams, breast exams, and perineal care. Interesting procedures – newborn assessment, cesarean sections, and mother classes both antenatal and postpartum. 50% described maternity course useful, 18% described interesting, 39% described it as embarrassing.	Strengths – Research in an area of study with little data. Provided recommendations to improve the male nursing students maternity clinical course experience. Weaknesses – Small sample size, non-randomized, single cohort. Conclusion – Egyptian male students have increased stressors than those in western societies. Main sources of stressors included rejection and incorporation of women to receive care by student male nurse. Recommendations: substitute clinical training through the skill lab for male students, team with a female student in the maternity clinical area; Strategies to change the male student's attitude toward child-bearing experience and fatherhood;

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Chan, Z., Chan, Y., Yu, H., Law, Y., Woo, W., & Lam, C. (2014). An ethnographical study on the academic experiences of Chinese male nursing students. Nursing Education in Practice, 14, 130-136 [13]	Giving male students a chance to voice their concerns and feelings while exploring their educational experiences		Qualitative ethnographic study Interviewing	18 second- to fourth-year male nursing students in China Snowball sampling	Characteristics: Age (mean) Year in study Specially rotation Clinical hours attended (mean)		Content analysis; narratives coded by units; each narrative with 0.6 consensus was included;	Factors influencing choice of nursing; nursing in society's eyes; male students' voices in nursing; need for gender sensitivity in nursing curriculum; areas of difficulty or ease encountered -the majority could not see any significant difference between both genders, possibly because both sexes had difficulties when studying topics concerning the opposite gender. Alternatively, some participants stated that males were better at logic and calculation -people would be more likely to accept male nurses; and male nursing students would be more able see their role as nurses with the acceptance of some feminine subjects in the nursing curriculum. -males were more active and assertive in classMales more likely to be the recipients of negative comments than female	LOE: V LIMITATIONS: Only male students from one university participated-not a comprehensive pool; no comparisons of Western and Chinese cultures CONCLUSION: There is a common view that it would be better for male nurses not to take care of the female patients. Males need support and acceptance in nursing profession
Craig, L. (2018) To the Point: Gender Differences in the Obstretics and Gynecology Clerkship.[14]	Describe the gender differences that have been found, examine factors that could be contributing to these issues, and propose measures to correct these disparities.	Expert Review Explanation and Prediction	Surveys/Interviews - student reports Secondary Data Analysis - Study of exam scores and clinical evaluation scores	Expert Review Male in obstetrics/ gynecology	IV – Exams, clinical scores, reported data DV – male students	Female dominated programs When in their studies do students make a choice to pursue obstetrics/ gynecology Diversity Clinical evaluations	Quantitative	Gender differences in performance on the obstetrics and gynecology clerkship have been reported, with female students outperforming male students. Male students report that their gender negatively affects their experience during the clerkship. There are fewer male students applying for obstetrics/gynecology residency	LOE = VII Strengths and limitations: multiple studies reviewed from a wide range of populations and sizes. Risk or harm: none Feasibility: positive changes for male students Conclusion: According to the study female students outperform male students in obstetrics/gynecology. This may contribute to the low proportion of male students who choose this career. More male students report being denied involvement in clinical care and this provides a negative perception of obstetrics. Gender discrimination in the behavior of faculty has an impact on students experiences of intimate examinations. Recommendations: Improve acceptance by healthcare teams through educational messages to introduce students to patients to help them feel more comfortable in the exam rooms. Faculty development to improve preceptors' ability to help patients feel more comfortable in sensitive exams. Improve performance grading components to avoid gender bias. Provide curricular support and ample clinical opportunities to decrease discomfort with intimate examinations and provided ample hands-on experiences. Monitor the number of intimate examinations that students are doing to ensure equality of experience. Create student interest groups and highlight the benefits of a career in obstetrics. Create mentoring programs that provide a good role model, consider having mentors of the same gender. Address gender and lifestyle issues that dissuade students from choosing obstetrics. Minimize gender discrimination and educational inequities experienceed by male students by being sensitive to subtle forms of gender bias and ensure equal inclusion.
Buck, K. & Littleton, H. (2016). Impact of educational messages on patient acceptance of male medical students in OB— GYN encounters. Journal of Psychosomatic Obstetrics and Gynecology, 37(3), 84- 90.[15]	The current study examined the efficacy of two messages at increasing male medical student acceptance into a well woman visit. M	None	Cross-sectional study	656 college women	IV = educational messages DV = refusal of student participation	Simulation study, interview`	Not disclosed	Both messages similarly increased student acceptance with 44.8% of those receiving the empathic skills training message and 48.9% of those who received the medical/technical skills training message accepting student participation, v2 (1, N ½ 181) ½ 0.3, p ½ 0.58.	LOE: VI Strengths: Exclusion criteria, Weaknesses: primarily white college age students, 56% previously had a pelvic exam Conclusion: Educational messages about medical student training delivered in an engaging fashion by a credible source are a potentially effective tool to increase male student acceptance into sensitive patient encounters. Recommendations: Educational messages about medical student training delivered in an engaging fashion by a credible source are a potentially effective tool to increase male student acceptance into sensitive patient encounters.

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Carrigan, T. & Brookes, B. (2016). Q: How will we achieve 20% by 2020? A: Men in nursing. Nurse Leader, 115-119.[16]	Disclosure of demographics in nursing in US. Recommendations and Recruitment strategies.	None	Review	Male nursing student data found in U.S Census, National League for Nursing, American Organization of Nurse Executives, and American Association Colleges of Nursing	NA	Data collection from U.S Census, National League for Nursing, American Organization of Nurse Executives, and American Association Colleges of Nursing	Not disclosed	Research suggests that, if greater numbers of men become nurses, the resulting gender balance in the profession will change perceptions of men and women in nursing.	LOE: V Strengths: Large amount of data Weaknesses: Retrospective data, review Conclusion: Continuing to focus on promoting gender diversity in nursing and changing attitudes will benefit the profession, patients, communities, and society. Recommendations: Academic settings, employment settings, retention strategies, role models, career guidance, male specific socioeconomic needs, address stereotypes and biases and social networking
McRae, M. (2003). Men in obstetrical nursing: perceptions of the role. American Journal of Maternal Chile Nursing, 28(3): 167-73. [17]	To explore the role of men as ob- stetrical nurses.	None	Cross-sectional study	Three groups: 599 men licensed as Registered Nurses by the Commonwealth of Massachu- setts, 337 District I AWHONN members, and 130 pregnant women.	IV: Perceptions of male RNs DV: AWHONN members and pregnant women	Open-ended questions, survey	Univariate, bivariate, and logistic regression were performed	Seventy-three percent of AWHONN members had positive attitudes toward men in obstetric nursing. The experience of having worked with men in obstetrical nursing roles was the most significant predictor of positive perceptions by AWHONN members.	LOE: V Strengths: open-ended questions Weaknesses: limited group dependent variable group Conclusion: Nurses in the positions of clinical nurse specialists or nurse educators in academia had more negative perceptions of men in this specialty. No predictor variables reached significance for the group of pregnant women. Only 6.8% of the male RNs questioned had ever worked in the specialty, and most reported a lack of interest in working in the specialty of obstetrics. Recommendations: Findings suggest that both clinical and academic settings may need to adopt more nontraditional recruitment and teaching strategies to encourage men to pursue this specialty.
Abushaikha, L., Mahadeen, A., AbdelKader, R., &Nabolsi, M. (2014). Academic challenges and positive aspects: Perceptions of male nursing students. International Nursing Review, 61(2), 263-269. doi: 10.1111/inr.12098.[18]	To explore the challenge and positive aspects that undergraduate male nursing students encounter during the course of their study.	None	Qualitative descriptive approach with a purposive sample	20 male nursing students from four difference academic levels – undergraduate nursing program in Jordan – single, middle classed, 18 to 22 years of age	IV: male nursing students DV: students' views, opinions, and perceptions of the challenges and positive aspects about their nursing education	Discussions were audiotaped, transcribed verbatim and narratives compared to recordings	Inductive thematic content analysis – reading transcript, open coding of the text, creating categories and abstracting final themes	Themes that emerged for males studying nursing: Negative: Academic difficulties, biased policies (females preferred in hospital settings for clinical experiences), no social life, negative views of nursing, negative self-view. Positive: personal benefits of studying nursing, every home needs a nurse, nursing is a science	LOE – Level IV Strengths: understudied topic Weaknesses: small sample size, the male students were recruited from only one program in one setting. Conclusion: There are both challenges and positive aspects of studying nursing that males encounter. Nursing should be a viable career choice for males. Ensure that both male and female students have nursing careers as a viable choice due to the global nursing shortages. Support positive aspects that nursing students face during their education. Recommendations – recruit both male and female nursing students from different settings and different programs. Cross-cultural and comparative studies are recommended to comprehend commonalities and differences in global perspectives.
Adelanwa, O., Barton-Gooden, A., Dawking, P., &Lindo, J.L. (2016). Attitudes of patients towards being cared for by male nurses in a Jamaican hospital. Applied Nursing Research, 29, 140-143. doi: 10.1016/j.apnr.2015.06.015. [19].	To determine the attitudes of patients towards male nurses in a Jamaican hospital	Swanson's middle- range theory	Descriptive, quantitative, Cross-sectional; self-administered questionnaire and attitudinal measuring scale.	73 patients; setting was a 536 bed tertiary referral facility in Kingston, Jamaica	IV = male nurses DV = patient's attitudes toward male nurses	The Attitude Towards Men in Nursing Scale (ATMINS) used to collect data – contained six questions – 5 point Likert Scale	Chi square and T-test analyses	Response rate of 91%. 51% had overall negative perception of male nurses, 44% had a neutral view, and 4% have overall positive perception	LOE = Level VI Strengths: Area of study with little research Weaknesses = small sample size from single hospital Conclusion: patient satisfaction is determined by several factors. Only 21% of patients' satisfaction was explained by their attitude towards male nurses. Patients' age, gender, and education contribute to patient satisfaction. There is a global shortage of nurses. Hard to recruit men to the profession. Study found there was a general negative perception about male nurses but those that received care from male nurses had significant positive attitudes from patients. Recommendations = expand the sampling frame to include other hospitals, larger sample size, perform with a randomized design to compare male and female nurses in the perception of care received. A campaign should be formed to recruit more men into nursing and foster gender diversity in the profession to lift barriers of gender roles.
Anfinan, N., Alghunaim, N., Boker, A., Hussain, A., Almarstani, A., Basalamah, HSait, K. (2014). Obstetric and gynecologic patients' attitudes and perceptions toward medical students in Saudi Arabia. Oman Medical Journal, 29(2), 106-109. doi: 10.5001/omj.2014.26[20]	Identify patients' attitudes, preferences and comfort levels regarding the presence and involvement of medical students during consultations and examinations.	None.	Cross-sectional descriptive study – Random sample	327 patients -Outpatient and inpatients from clinics at the Department of Obstetrics and Gynecology and the Emergency Department who were admitted for gynecologicor obstetric conditions	IV: medical students care of obstetric patients DV: Attitudes of patients concerning gender of medical students.	Reliability – Cronbach's alpha; Chi square tests	Descriptive analyses calculate means and proportions for continuous and discrete data – Chi squared tests to compare outcome variables between the two groups	Religious beliefs were most common reason that influenced patients' opinions during consultations. Personality and cultural beliefs also cited. Gender was found to be the main reason for their decision regarding medical student involvement.	Strengths: large sample size, different locations Weaknesses: None Conclusion – Patient gender was found to be the primary factor that influenced patient attitudes regarding student involvement during physical exams. Recommendations: Members of obstetrics need to be sensitive to subtle forms of gender bias so that equal training is provided. Need for alternative methods to teach obstetrics for male medical students.

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Carnevale, T., &Priode, K. (2018). "The Good Ole" Girls' Nursing Club": The Male Student Perspective." Journal of Transcultural nursing, 29(3), 285–291. https://doi.org/10.1177/1043 659617703163[21]	Garner the male nursing students' perspectives of their lived experiences while enrolled in their undergraduate program.	Van Manen's (2007) Theory	A qualitative study approach	Phenomeno-logical group focus approach was utilized with male nursing students regarding their lived experiences. Semi structured groups of male students were formed. 11 male students participated within the ages of 20 to 42. All Caucasian and spoke English.	IV = gender, ages 20 – 42, Caucasian, English speaking DV = previous level of education, personal experiences, religion, learning styles, individual personalities and experiences.	Four main themes were established: Exclusion Gender bias Career expectations Acceptance	Triangulation of these data was accomplished in the following ways. The transcribed focus group interviews were provided to each researcher independently and were reviewed for common themes and elements.	Nurse faculty may unknowingly cause or reinforce barriers. The fact does remain that the recruitment of diverse students, especially males, into nursing is regarded as a needed change to the profession and the nursing culture to match the objectives set forth by HDM and the Transcultural Nursing Society.	LOE: Strengths: Focus groups were used. Topic appealing to the reader. Weaknesses: data analysis not clear and concise, hard to follow. Conclusion: A call for change to the profession of nursing from a culture of the "good ole' girls' nursing club" to one of "great nurses from both genders and all ethnicities" is critical for the future growth of the profession. Recommendations: test a larger
Kouta, C. &Kaite, C.P. (2011). Gender discrimination and nursing: A literature review. Journal of Professional Nursing, 27(1), 59-63. doi: 10.1016/j. profnurs.2010.10.006.[22]	Examine gender stereotypes in relation to men in nursing, discuss gender discrimination cases in nursing, and explore methods used for promoting educational opportunities during nursing studies	None.	Literature review	N/A	IV: male nursing students 'studies DV: Gender discrimination, stereotypes,	N/A	Varied	Found that gender discrimination is still prevalent within nursing profession.	Strengths – Included many relevant sources. Exhaustive search of literature. Weaknesses – Case studies give only one side to argument; lit review is only information collected in past; Conclusion: Nursing faculty should prepare male nursing students to interact with female patients. Role modeling therapeutic relationship, equal learning opportunities should be provided by faculty. Recommendations – Nursing faculty should empower male students and provide a climate of acceptance in order for them to provide intimate care for women clients. – share stories; nurse explorer program. Nurses should be aware of nursing stereotypes and the effects they have on students in practice.; provide counseling.; use humor.
Hoffart, N., McCoy, T. P., Lewallen, L. P., & Thorpe, S. (2018). Differences in gender-related profile characteristics, perceptions, and outcomes of accelerated second degree nursing students. Journal of Professional Nursing. https://doi.org/10.1016/j. profnurs.2018.10.00. [23]	The NCIN database was analyzed to identify gender-based differences in scholars' profile characteristics, program experiences, and post- graduation outcomes.	Jeffreys's (2015) Nursing Universal Retention and Success Model (NURS) was chosen to guide our analysis because it identifies factors that help nursing students to succeed.	Qualitative study	Three surveys were administered to NCIN students for program evaluation purposes: at program entry, midpoint of enrollment, and within six months of graduation with four cohorts of data collection each year (28 cohorts total) to accommodate different program lengths and enrollment start dates	IV = male nurses DV = patient's attitudes toward male nurses	Gender differences were assessed for model components by using ttests or Wilcoxon rank-sum tests for continuous variables and Chisquare tests or Fisher's exact tests for categorical variables	Approximately 47% were considered as having a disadvantaged socioeconomic status, 23% were not, and data were not available for the remaining 30%.	Efforts are needed to better understand and address the nuanced gender-based perceptions and needs of nursing students who are male.	LOE: Strengths: Thorough assessment of NCIN database. Reliable source. Significant N value. Weaknesses: None Conclusion: Efforts are needed to better understand and address the nuanced gender-based perceptions and needs of nursing students who are male. Recommendations: First, studies aimed at better understanding of the subtle differences in how males and females weigh nursing as a career may be helpful to develop marketing messages about nursing. Additional research is needed to understand the nuanced difference in perceptions of male and female students about the helpfulness of programs such as career guidance, mentoring/advising, and support services. Finally, it is important for research to be guided by theory.
Toothaker, R., &Taliaferro, D. (2017). A phenomenological study of millennial students and traditional pedagogies. Journal of Professional Nursing, 33(5), 345–349. https://doi.org/10.1016/j. profnurs.2017.01.004[24]	The purpose of this study was to identify the perception of millennial students participating in traditional pedagogies and its significant implication for nursing education.	van Manen's methodology	The chose phenomenology was interpretive, or Heideggar hermeneutics, which aligns with the purpose.	Thirteen interviews were collected from Millennial students were currently enrolled in a nursing course within a traditional BSN program. 12 were female and 1 was male. All were 18 – 24 years of age.	IV = nursing student in BSN program DV = working hours, gender, age, ethnicity, socio-economic background	Interviews were conducted in a private room at the university and collected on separate dates allowing the room location to change. Privacy was consistent.	The interviews were transcribed verbatim. Each recording was listed to fine times and compared to the transcription to ensure accuracy. The data from the interviews were analyzed using van Manen's methodology	Five themes emerged from the data: physically present, mentally dislocated; unspoken peer pressure; wanting more from professors; surface learning; and lack of trust.	LOE: Strengths: An effective in-depth study at millennials Weaknesses: gender of population sample. Conclusion: Students were not engaged in class learning, faculty lacked skills necessary to make class an effective learning environment, and students felt peer pressure due to classroom culture. Recommendations: Engage nursing students through a method of shared responsibility of educational approach. Blended teaching pedagogies that offer traditional and active methods are beneficial.
Carte, N. S., & Williams, C. (2017). Role strain among male RNs in the critical care setting: Perceptions of an unfriendly workplace. Intensive & Critical Care Nursing, 43, 81–86. https://doi.org/10.1016/j.iccn.2017.08.009. [25]	Study the relationship between the variables of demographics and causes of role strain among male nurses in critical care settings.	None	Descriptive, quantitative study ANOVA and MANOVA	37 male nurses in critical care settings from eh northeastern part of the U. S.	IV = age, ethnicity, employment status, highest level of nursing education completed, type of organizational facility, employment setting, years working, salary, and primary assigned shift. DV = role ambiguity, role conflict, incongruity, overload.	Two levels of role strain 1) role overload and 2) role ambiguity.	Sherrod Role Strain Scale was used as scoring scale.	1) explore ways to improve the orientation process to be less gender-specific and more gender neutral 2) a clear job description with expectations 3) recruitment or a more diverse nursing population 4) offer support for employees with discrimination	LOE: IV Strengths: precise and clear assessment through quantitative analysis with the use of ANOVE and MANOVA for accuracy Weaknesses: Conclusion: Major role strains in male nursing is role ambiguity and role strain. Recommendations: An increase in recruitment for men in nursing and an increase in nursing education to support diversity and inclusion of men.