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RESEARCH ARTICLE
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"EXPERIENCES AND PERCEPTIONS OF GENDER ROLES IN MEDICAL EDUCATION: A FOCUS GROUP STUDY AMONG MEDICAL UNDERGRADUATES IN A TERTIARY CARE CENTER IN KERALA

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ABSTRACT

Background: Gender roles and expectations significantly influences the medical students', learning opportunities, clinical exposure, specialty choice, and professional identity formation, making it a critical area of concern in medical education.

Objectives: The purpose of this study was to explore the experiences and perceptions of gender roles in medical education among undergraduate medical students.

Materials and Methods: A descriptive qualitative study was conducted through three focus group discussions held among 3rd-year MBBS students.

Results: Analysis yielded 5 major themes, 12 categories, and 100 unique codes. The themes included systemic gender inequities in medical education; gender dynamics in clinical practice and training; socio-cultural influence on gender roles; psychological impact; and pathways to equity, inclusion, and

professional growth. Female students reported stricter curfews, limited exposure in certain specialties, and differential expectations in both academic and social contexts. Male students described experiences of emotional neglect and pressures of toxic masculinity. Both groups reported that gender biases, both overt and subtle, shaped their academic journey and professional development.
Conclusion: Multifaceted and deeply rooted gender inequities persist in medical education. Addressing these requires institutional reforms, gender-sensitive teaching and mentoring, equitable clinical exposure, and supportive policies that promote inclusion and professional growth for all students.

Keywords: Gender bias, medical education, qualitative research, focus group discussion, undergraduate medical students, Kerala

INTRODUCTION

Medical education is not just about textbooks and clinical rounds, but is also about the everyday experiences that shape a student's journey. Among these, gender roles and expectations often play a silent yet powerful role. When choosing a medical specialty, female students have different experiences and concerns than their male counterparts (1). A study from United States documented female students frequently experiencing gender discrimination to which overtime, they became desensitized to this differential treatment. (2). Meanwhile, male students also faced exclusion from obstetric and gynaecology examination due to patient preference (3).

Using N-GAMS tool to quantitatively assess gender awareness among medical students, both international and Indian researchers observed similar trends of male students having overall lower gender awareness and greater stereotypical attitudes. Moreover, gender awareness was found to be higher among students from urban backgrounds and those with working mothers (4,5).

Females reported facing challenges like gender bias, limited training opportunities along with additional concerns like work life balance including childbearing, childcare and influence of maternity leave especially when deciding for challenging specialities like neurosurgery (1,6,7). These findings highlight that although female students are equally interested in pursuing competitive specializations, their decisions are impacted by societal and structural expectations which may ultimately limit their career options.

While these studies focused on how gender bias and stereotypes affect the learning environment and speciality choice among medical students, similar patterns were also seen in healthcare professionals. Studies from Kerala revealed how societal expectations and professional norms differently impact men and women. Bhatti and George's study (2019) on Male nurses, for example documented the effects of emotional neglect and toxic masculinity on men employed in female-dominated fields (8). Meanwhile Nambiar and Benny (2022) found that women leaders in Kerala's healthcare sector faced patriarchal barriers and gender stereotyping, with shared challenges across their careers as they struggled to climb the leadership ladder, often relying on adaptive strategies (9).

Most studies assess gender awareness or record outcomes, and only few concentrate on how students experience these challenges and shape, negotiate, or oppose the expectations. The primary issue is that gender prejudices are not only limited to the academic setting, but also in the future doctor-patient relations and professional practices, bringing the need to address this gender inequity early in medical education. This study attempts to fill that gap by investigating medical students' experiences and perceptions of gender roles in a tertiary-care setting with the goal to promote equitable training environments and safer, more gender-aware clinical practice.

RESEARCH QUESTION:

What are the experiences and perceptions of gender roles among Medical Undergraduate in a tertiary care center in Kerala ?

RESEARCH OBJECTIVE:
To explore the experiences and perceptions of gender roles in medical education among students in a private medical college.

METHODOLOGY
Pragmatism:
Constructivism

Study design:
Qualitative research using a phenomenological approach through focus group discussions (FGDs)

Study setting:
A Private medical college in Kozhikode district.

Study period:
Period of one month from 9/06/2025-3/07/2025

Study population:
UG 3rd year medical students of a tertiary care centre.

Inclusion Criteria:
1) Undergraduate medical students (MBBS) currently enrolled in the selected medical college.
2) Students studying in 3rd year
3) Both male and female students, willing to participate

Sampling Technique:
Purposive sampling.

Sample size:
2-3 focus groups each comprising 6-8 male and female participants.

Data Collection Tool:
(i) Semi structured FGD guide developed based on previous literatures.
Sample guide in questions:
1. Can you describe how patient preferences for specific genders influence your clinical exposure in specialties like OBG, urology, or others?
2. Can you share how gender influences opportunities for medical students, such as specialty choices, mentorship, or residency applications?
3. Can you describe how gender influences perceptions of leadership among medical students in settings like group projects, clinical rotations, or student organizations?
4. Can you share specific instances where you or others experienced or observed gender-related bias, including subtle or unintentional acts, in your medical education?
5. How do institutional policies, such as those related to safety or clinical assignments, affect students of different genders in your experience?
6. How do faculty behaviors or the medical curriculum reinforce or challenge gender stereotypes in your experience?
7. What suggestions do you have for addressing any gender-related challenges or biases in medical education?

(ii) Demographic data sheet.

SOCIODEMOGRAPHIC VARIABLES:

Sociodemographic variance		Frequency	Percentage
Gender	Male	11	47.83
	Female	12	52.17
Religion	Hindu	16	69.56
	Christian	2	8.69
	Muslim	5	21.73
Place of stay	Hostel	22	95.65
	Dayscholar	0	0
	Rented house	1	4.35
Total		23	100

Data Collection procedure:

(i) Permission obtained from institutional head.
(ii) Informed consent was obtained from each participant.
(iii) Each FGD (45-60 minutes) was moderated by a student, with one student preparing the sociogram and another taking verbatim notes.
(iv) Sessions were audio recorded (with permission) for accurate transcription.

Data Management and Analysis:

Thematic analysis using inductive reasoning was used to analyse data. Approach to coding was descriptive and coding was developed through consensus discussions. Thematic analysis was done using the following steps –

(i) Familiarizing with data
(ii) Coding of meaningful units
(iii) Generating categories and themes
(iv) Reviewing and defining themes

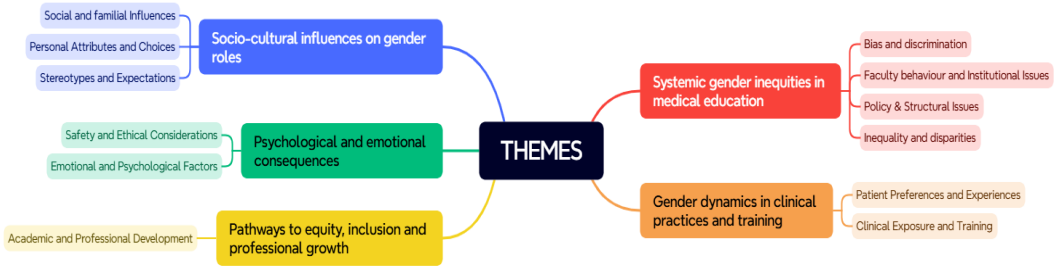
Ethical Considerations:

1. Clearance from Institutional Ethics Committee was obtained to conduct proposed study.
2. Confidentiality of the information collected was maintained during every stage of study

RESULTS:

The study was conducted through three FGDs, with 8 members in FGD-1, 6 members FGD-2, and 9 members in FGD-3. Among the 23 participants in the study, over half of them were female (52.17%), while the remaining were male (47.83%). In terms of religion majority were Hindu (69.56%), with followed by Muslim (21.73%) and Christian (8.69%). When it came to their living arrangements, the vast majority stayed in hostels (95.65%), one participant lived in a rented house (4.35%), and none were day scholars.

From our descriptive qualitative analysis, we identified a total of 5 major themes, 12 categories, and 100 unique codes.



THEME 1: SYSTEMIC GENDER INEQUITIES IN MEDICAL EDUCATION

Students felt that gender bias, unequal treatment from faculty, and strict institutional rules often make their learning experience unfair. They said such disparities limit their freedom, confidence, and chances to grow equally as future doctors. There are 4 categories and 45 codes.

Bias And Discrimination

A student pointed out that, “In OBG, female patients often refuse to let male students perform examination.”

Another student recalled, “When I was thinking of taking psychiatry as PG, many of my friends and relatives told me not to take it as girls can't deal with psychiatric patients.”, indicating discouragement based on gender rather than ability or interest.

Faculty behaviour and Institutional issues

Many students were of the opinion that unequal faculty behaviour and institutional bias reinforce gender disparities, limiting fairness and opportunities in medical education.

Another participant said “When there is any topic/work that needs to be done, the faculties are more intent on having the girls take up the work and expect more initiative from girls.”

Inequality and Disparity

A participant said that, “If girls were unable to reach hostel by 7 pm warden would call and inform their parents immediately, but it was liberal for boys.”

Another participant said that, “Faculties are easy going with boys and more strict with girls in case of submission of records.”

It shows that male students are given leniency, while female students are held to stricter standards for the same academic tasks.

Policy and Structural Issues

A participant said that, “If a girl returns after curfew she often has to face inappropriate questions from the security and warden which many girls dread.” The participant recalls the inappropriate gender based questions faced by female students while similar situation are almost low or null for male students.

Another participant said that, “The warden would wake them up at 7 am to go to class and if we skip a class he would inform the parents”.

THEME 2: GENDER DYNAMICS IN CLINICAL PRACTICE AND TRAINING

Under this theme participants pointed out that gender significantly affects medical students’ learning experiences, especially in sensitive areas such as obstetrics and gynecology.

There are 2 categories and 17 codes.

Patient Preferences And Experiences

A student said, “it is difficult for female patients to discuss their problems in presence of male students."

Female patients were often reluctant to undergo examinations by male students due to discomfort, which in turn limited their clinical exposure.

Another student said that, “Not only in OBG ward, in other departments also female patients are not willing to be examined by male students.”

Most students felt faculty involvement is vital to reassure patients and explain students’ role in training, ensuring a balance between patient comfort and learning.

Clinical exposure and training

A student said, "The facilities did not allow male students to observe the procedures like mammogram but showed the X rays and explained them later.”

Another student said, “Many male patients with hernia or hydrocele don’t prefer to be examined by female students.”
Students also felt that some parts of the curriculum, female sterilization is given more importance, leaving little to no clinical knowledge on male sterilization.

THEME 3: SOCIO-CULTURAL INFLUENCES ON GENDER ROLES

Students described how societal norms, family expectations, and gender stereotypes continue to shape their medical education. There are 3 categories and 18 codes.

Social and familial influences

Students reported that gender roles are shaped by external pressures. One explained, “Specialty choices for women are often not just about personal interest, families and society expect them to choose non-clinical branches seen as more ‘manageable’.” Another added, “She had to give up her dream of a surgical postgraduate specialty because her family felt it would interfere with her household responsibilities.”

Personal attributes and choices

Some participants emphasized confidence and autonomy in career decisions. As one stated, “It really comes down to individual choice & should be free to pursue any specialty in medical education.” This underscores the role of determination in resisting stereotypes.

Stereotypes and expectations

Students also described persistent stereotypes shaping training. One noted, “Male students are expected to always appear strong and unemotional, if they show stress or vulnerability, its seen as weakness.” reflecting restrictive masculine norms. Another pointed out, “When a female student makes a mistake it is noticed more because she is expected to be more careful and not slip up like the boys.”

THEME 4: PSYCHOLOGICAL IMPACT

Students shared the emotional and psychological toll of gender-related challenges in medical education. This theme includes 2 categories and 13 codes.

Safety and ethical consideration

One student noted, “Patients often prefer doctors of the same gender, which limits exposure for some of us.” Such restrictions created feelings of exclusion and frustration, underscoring the psychological impact of navigating training in sensitive clinical settings.

Emotional and psychological elements

A student stated that, “When it comes to mental health and its benefits, it feels like boys are at a significant disadvantage.” At the same time another student stated, “Curricula and awareness programs rarely addressed men’s emotional needs as they are not considered as an emotionally vulnerable group.” Such neglect reinforces toxic stereotypes and contributes to psychological strain among male students.

THEME 5- PATHWAYS TO EQUITY, INCLUSION, AND PROFESSIONAL GROWTH

Students suggested ways to tackle gender inequities faced in the medical institution. This theme includes 1 category and 8 codes.

Academic and Professional Development

One students said, “Male students should receive more hands-on opportunities, while female students should also be recognized for their initiative and leadership.” Another noted, “If a female is willing and capable, she can be a leader just like anyone else.”. Another reflected, “To break stereotypes, women should feel free to take up surgery, and men should feel free to choose OBG.”

1	Male Reluctance, Patient Refusal, Faculty bias, Patient Reluctance, unequal training access,Female Discrimination, Male predominance, Gender inequality, Gendered expectation, Male leadership assumption, gendered perception , Gendered rules, sexism, Gender stereotype, Gender favoritism, Gendered roles in Contraception	Bias and discrimination	Systemic Gender Inequities in Medical Education
2	Faculty expectation, Faculty assumption, Faculty intervention, Faculty behavior, Faculty discrimination, Unequal faculty behavior, Fair faculty behavior, Institutional issues, Gender neutrality	Faculty behaviour and Institutional Issues	
3	Liberal regulations, Authoritarianism, Institutional bias, Gendered curfew, Gendered disciplinary control, Pre-existing gender bias, fair action, Escalation of grievances, Futuristic approach	Policy & Structural Issues	
4	Opportunity gap, Exposure gap, inequality, Unfair behavior, Disparity, Limited resources, Gender-imbalance, Gendered restriction, Timing disparity	Inequality and disparities	
5	Patient preference, Patient discomfort, Patient vulnerability, Patient centered limitations, Patient cooperation, Patient sensitization	Patient Preferences and Experiences	Gender Dynamics in Clinical Practice and Training
6	Unequal clinical accessment ,Inadequate medical curriculum , Skill intensive perception, Learning gap , Theoretical knowledge, improving curriculum, Exposure limitation, Clinical exclusion, Indirect exposure, Restricted access, Limited clinical exposure	Clinical Exposure and Training	
7	Societal influences, Family influence, Family support, Family pressure,unequal contraceptive responsibility	Social and familial Influences	Sociocultural Influences on Gender Roles
8	Personal choice, individual enthusiasm, Determination,Empowerment, survivorship, Lacking courage, Discouragement	Personal Attributes and Choices	
9	Stereotype, Stoic-male stereotype, gendered attribution, Male emotional suppression, Recurring experience, Favouritism, curfew disparity	Stereotypes and Expectations	
10	Safety measures, Female safety concern, Accountability, Unequal rules, Disciplinary gender disparity, Comfort bias	Safety and Ethical Considerations	Psychological and Emotional Consequences
11	Empathy, Emotional well-being, discomfort, Blame, Negligence, Lack of awareness, Social Discouragement	Emotional and Psychological Factors	
12	Skill recognition, Skill based opportunity, Academic hindrance, Academic imbalance, Gender diversity encouragement, Equal capability, Equalpriority, Mentor support	Academic and Professional Development	Pathways to Equity, Inclusion, and Professional Growth

DISCUSSION

The findings of this study on gender roles among medical undergraduates revealed that gender disparities are deeply rooted in medical education and clinical practice. These results were consistent with prior research studies while adding a localized perspective on challenges faced by both male and female students.

Female participants in our study described facing unequal treatment by faculty, and limited clinical exposure in some specialties. These findings parallel Babaria et al. (2012), who documented recurrent gendered encounters and microaggressions experienced by female students in U.S. clinical settings, undermining their confidence and sense of belonging (2). In addition, our study uncovered female participants experiencing stricter curfews and regulations which were often masked under the guise of “safety”.

Influence of societal and familial expectations was another strong theme in our findings, particularly in shaping female students’ specialty choices and reducing their personal freedom compared to male

peers. This mirrors Rasheed et al.'s findings from Pakistan, which linked gender discrimination in learning-environment to broader socio-cultural pressures (6).

Meanwhile a study from Australia and New Zealand, found that male students also get frequently excluded from obstetrics and gynaecology examinations due to patient discomfort. We observed similar limitation in our study, which restricted male students' hands-on experience in sensitive departments (3).

Furthermore, the study's findings on the psychological impact on male students due to gender roles and societal expectations, align with George & Bhatti's (2019) findings among male nurses in Kerala, who reported pressures of toxic masculinity and emotional isolation while working in a female dominated field, indicating that gender bias goes both ways (8).

When examining gender awareness, our findings showed that many students were aware of these biases but often normalized or overlooked subtler forms of discrimination. This partially aligns with Rrustemi et al. (2020) in Switzerland and Pragjna et al. (2024) in Hyderabad, who found that male students often reported lower gender awareness and stereotypical attitudes compared to female peers (4,5). In our qualitative setting, however, open dialogue within focus groups allowed students to reflect more deeply, which may have enhanced awareness compared to the more limited scope of questionnaire-based assessments.

LIMITATIONS

The data are from one private medical college in India, and may not be representative of views of students of all medical colleges in India.

CONCLUSION

Our study highlights that gender discrepancies persist even within medical education, shaping students' clinical exposure, specialty choices, and psychological well-being. By capturing perspectives of both male and female undergraduates in a South Indian context, it adds regional insights to the international literature on gender roles in medicine. The findings align with global calls for action, such as the need for gender-sensitive teaching, equitable opportunities, and supportive institutional policies to foster equity and inclusion. The students themselves offered suggestions to break stereotypes, such as encouraging more female students to pursue surgical specialties and more male students to choose OBG, reinforcing the idea that opportunities should be based on passion and ability, not gender. The students also called for greater empathy and recognition for the emotional needs of all students, emphasizing the need for a more supportive institutional environment.

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Nil

CONFLICTS OF INTEREST

There are no conflicts of interest.

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