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RESEARCH ARTICLE

Girls in scrubs: An ethnographic exploration of the clinical learning environment

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Abstract

Background: Gender bias is an enduring issue in the medical profession despite women being more represented within medical schools and the health care workforce in numerous countries across the world. There have been frequent calls for further exploration of gender-based discriminations within medical education, owing to its lasting impact on student's professional development and career trajectories. This paper presents an ethnographic exploration of the experiences of female medical students and doctors in the clinical learning environment (CLE), aiming to disrupt the cycle of gender inequity in the clinical workplace.

Methods: Our research field involved two teaching wards in a Scottish urban hospital, where 120 h of non-participant observations were conducted over 10 months. Combining purposive and convenience sampling, we conducted 36 individual interviews with key informants, which included medical students, foundation doctors, postgraduate trainees, consultant supervisors, and other health care professionals such as nurses and pharmacists. Data was thematically analysed using Bourdieu's theory of social power reproduction. The research team brought diverse professional backgrounds and perspectives to the exploration of data on gendered encounters.

Results: Combining the observational and interview data, five themes were generated, which suggested gender-related differentials in social and cultural capital that the participants acquired in the CLE. Experiences of discriminatory behaviour and stereotypical thought processes impacted the female students' engagement and drive towards learning, implying an adverse influence on habitus. In contrast, the valuable influence of gendered role-models in building confidence and self-efficacy signified a positive transformation of habitus. The research participants displayed considerable internalisation of the gendered processes in the CLE that appeared to be linked to the transient nature of clinical placements.

Conclusions: This research reveals that despite constituting the majority demographic of medical school, female students struggle to gain social and cultural capital. Gendered hierarchies that structure clinical workplaces disadvantage female students and doctors, and the differential experiences transform their habitus. Based on our

theoretically informed investigation, we advocate for role-models given their positive impact on students' and doctors' habitus. Additionally, medical educators may consider extended clinical placements that provide opportunities for female students and early-career doctors to secure social and cultural capital through integrating better in health care teams and building meaningful interprofessional relationships.

1 | INTRODUCTION

Gender is one of the dominant axes around which our identity revolves, shaping our interpersonal relationships and world experiences. Gender bias is an enduring issue in the medical profession despite the percentage of women entering medical school exceeding 50%, and women being more represented within the medical workforce in a number of countries including the UK.[1,2] The recent British Medical Association report based on a survey of 2.5 thousand doctors shows that 91% of women doctors in the UK have experienced sexism at work (Sexism in medicine report (bma.org.uk)). Scholars have described how gendered encounters can lead to medical students' acculturation to unprofessional behaviour, desensitising them to gender bias within health care.[3] Gender-specific inequalities and harassment in undergraduate medical education can also affect the attitudes and future career paths of medical students.[4,5] Research has alerted us to the deficit positioning of the female students, both undergraduate and postgraduate, with deficiency in role-models influencing them towards changing career track.[6] Understandably, there are calls for further exploration of gender bias within medical education, given its lasting impact on students' professional development and career trajectory.[7]

Professional development and workplace learning take place in the sociocultural milieu of the Clinical Learning Environment (CLE), which is a complex setting with various interconnected factors at play, of which gender is only one.[8,9] Ethnographic anthropology has the potential to highlight the subtle ubiquitous presence of gendered culture in social fields.[10] Historically, the well-known book titled 'Boys in White' by Howard Becker was based on an ethnography that sheds light on the culture of the medical school as experienced by young men at the University of Kansas.[11] Another anthropological text 'The Woman in the Surgeon's Body', by Joan Cassell explores how experiences of women surgeons differed from their male colleagues, and whether such differences affected patient care.[12] Contemporary researchers have successfully employed ethnographic techniques to explore workplace culture and learning affordances but have not analysed the gendered nature of the CLE.[13,14] Additionally, anthropological enquiries have yielded rich diction on interprofessional dynamics and the emotional world of health care professionals; however, these studies have not differentiated between experiences of different genders.[15,16] In this paper, we present an ethnographic exploration of the experiences of female medical students and doctors, providing a valid account of the contemporary CLE.

Our ontological position is that the CLE is a sociocultural context where multiple and legitimate realities exist, and this encouraged us to explore the events and perspectives of the diverse actors in field. In order to understand the nuances in the field and represent the participant voice accurately, we chose Bourdieu's theoretical framework of social power reproduction.[17] This selection was driven by our epistemic reflexivity on how we, as a team wanted to investigate the topic, and analyse the variations and similarities in the data. Bourdieu's Theory helped us achieve analytic depth adding a layer of theoretically informed perspective on everyday phenomena in the CLE, thereby rendering 'familiar strange'.[18] It afforded a deeper understanding of how existing social structures are perpetuated and reproduced, given that it is the historically derived dispositions that individuals bring to local activities.[19] Applying the theory to health care apparatuses, along with its key concepts of field, capital and habitus enable unpacking of the social construction of interactions and processes herein. Field is a social space or an arena of interactions, such as the clinical workplace in our context. The types of capital most legitimate here are 'cultural capital', which implies educational knowledge, experience or qualifications, and 'social capital', which refers to membership in a group and the associated status and respect.[20] Habitus is understood as disposition or the mechanism of an individual's behaviour that are gradually ingrained from the societies they are involved with, through the process of inculcation.[19] Bourdieu has intimately braided the three concepts together explaining how the cognitive structures of agents (i.e. the medical students, doctors etc.) tend to reflect their structural positions in the field inhabited. This framework particularly suits ethnographic tradition which aims to capture the social world holistically, including dimensions that are tacit and 'taken for granted'.[21] Gathering and sharing narratives of agents in the field is a step towards social analysis of inequality and a nuanced explanation of domination.

Against the backdrop of existing literature on gender bias in medical education and adopting a theoretical orientation, we addressed the research question: What are the experiences and the associated perceptions of female medical students and doctors in the CLE? Understanding and revealing the gendered inequalities in the learners' experiences of the CLE has the potential to develop novel strategies to disrupt the cycle of gender inequity in the clinical workplace.

2 | METHODS

2.1 | Study design and setting

Our research field involved two teaching wards in a Scottish urban hospital, which hosted clinical placements for undergraduate medical students and postgraduate trainee doctors. The wards were selected

on the basis of Spradley's criteria of accessibility, unobtrusiveness and permissibleness.[22] One of the selected field-site was on the medical floor and the other on the surgical floor (the exact specialities cannot be divulged for risk of identification of some of the participants). The first author (SG) undertook fieldwork, including non-participant observations. Being medically trained, but not in contemporary clinical practice, allowed a dual insider-outsider perspective to SG and 'a marginal native' position suited to immersive fieldwork.[10] In addition to ethical approval from the Institutional Ethics Committee, access was negotiated with key gatekeepers; these being the curriculum leads, the clinical supervisors and nurses in-charge at the selected wards. Students and staff located in the field were provided details of the research by SG during fieldwork. Written informed consent was obtained from those expressing an interest in the study, and a willingness to be shadowed in the ward and interviewed. No patients or patient-related information was used in the study in any form.

2.2 | Sample and data collection

Aiming for a polyphony of voices in the field, and combining purposive and convenience sampling, a range of staff and students were recruited.[23] These included medical students, foundation doctors (junior doctors in the UK), postgraduate trainees, consultant supervisors, and other health care professionals such as nurses and pharmacists. Fieldwork was conducted sequentially in the two selected wards over a period of 10 months, and employed an 'interweaving of looking, listening and asking' approach to understand the world from the participants' perspective (,[24] p. 109). SG aimed to blend-in and immerse herself in the flow and patterns of community life in the selected wards, displaying genuine interest in the lives of the people. Handwritten field notes comprised verbatim phrases and disconnected sentences, which captured mundane and exciting events in the CLE. These were reviewed and developed within the following 24 hours into more vivid and detailed accounts while the context was still fresh in the mind. SG was deliberate in her attempt to include diverse views, regularly interacting with health care staff and students in the field; the informal exchanges facilitated data collection, and indeed were data in their own right. Immersion in the wards made the ethnographer aware of the social distribution of knowledge in the CLE, and aided in identifying key informants- individuals in the field who were available, cooperative and forthcoming regarding the information on gendered experiences.[25]

Ethnographic interviews were conducted adopting a flexible and reflexive approach with participants with whom the researcher had established a rapport and trust.[10] These included formally arranged interviews, spontaneous interviews and informal questions asked opportunistically during field observations.[26] Participant observations and interviews took place concurrently and data from each illuminated the other, cueing the ethnographer to see things differently in field observations. Interviews were audio-recorded and transcribed manually. No prescribed interview guide was used, but rather distinct questions were developed for individual interviews with each of the participants; this helped to cross check inferences made from observations or to glean information on issues that could not be observed. Hence, open questions served as triggers to stimulate informants to share concrete details, resolving ambiguity arising during observations. Additionally, during scheduled interviews, participants reflected on their overall experiences of clinical placements and these reflections were not restricted to the chosen field-sites. We consider this to be desirable feature, because although the two field-sites were from diverse specialities, having participants' longitudinal experiences would enhance transferability. Concurrent data interpretation and analysis revealed emerging themes, which guided subsequent observations and interviews, enabling capture of natural as well as 'contrived' or researcher-provoked data.[27] Data was stored and managed as per the University of Dundee's research protocol (Data protection | University of Dundee, UK), and the NVivo 12 Plus software.

2.3 | Data analysis and team reflexivity

Analysis is 'the process of bringing order to the data', which in ethnographic research is typically complex and bulky.[23] For this paper, we aimed to reconstruct the reality of the CLE through thick description of the gendered encounters. The observational field notes and interview transcripts were scanned and viewed through the conceptual lens of Bourdieu's reproduction of social power (discussed earlier). Using background knowledge from published research is considered 'perfectly legitimate' to analyse field notes and interview transcripts.[28], p. 210 We were attuned to the gender discourse in the existing literature and were matching what people in the field were doing and saying to Bourdieu's principle of capital and habitus. The theoretical bearings on gendered encounters in the CLE, facilitated development of plausible propositions and interpretative themes based on the empirical investigations.

A reflexive and critical approach heightened our senses to the multiplicity of the competing versions of reality and ensured rigour. A reflexive journal was maintained, recording memos to combine ethnographer's introspection with field notes to generate truthful descriptions of the culture. Furthermore, analytic memos during team discussions aided in making connections between raw data, preliminary analysis and literature. Reflections were shared in the team meetings, but member-checking could not be attempted owing to short placements of medical students and junior doctors, and inability to trace the research participants after they had left the field-sites and moved onto another placement. All five members of the research team identify as women and have experienced their distinctive gendered journeys. However, we aimed to shed our personal baggage to view the data reflexively in-tandem with the situated realities of the two field-sites. As a team, we integrated reflexivity during attributing meaning to the data to ensure that the representation of the reality was not partisan but faithful and rich.[23] Mindful of the contemporary discourse on gender fluidity, and that some may consider the term 'woman' more inclusive than 'female', for the presentation of this study, we have used the term 'female' as an adjective and 'woman' as a noun.[29]

3 | RESULTS

This ethnographic study resulted in the primary researcher (SG), conducting sequential fieldwork in the two selected hospital wards. This

included 120 h of observations over 10 months, and 36 individual interviews with staff and students in the field; these being the research participants with whom SG spent extended time during immersion in the field. Table 1 provides the list of participants as per their role in the health care team and their self-identified gender.

Findings related to the gendered interactions in the field are presented below as themes along with contextual descriptions to ground them in the social reality of the CLE. Five themes were generated viewing the observational and interview data through the framework of Bourdieu's power analysis. As evident below, use of theoretical concepts and parallel insights from the literature helped to delineate emic (i.e. the perspective of the subject) and etic (i.e. the perspective of the observer) stances, and create a 'theoretical amalgam' into which the pieces of analysis fit (,[30] p. 160). The reader may refer to another paper by the research team for visual illustrations of the field-sites; this paper focusses on how space is configured in the CLE and the related impact on student experience and learning.[31]

The themes below are supported by elaborate quotations to convince the reader of the derived inferences in relation to the gendered reality of the CLE and to furnish context-sensitive accounts of participants' experiences. Specific sections have been replaced by XX to maintain confidentiality of the field sites and the research participants. Participants have been given identity codes to preserve anonymity, such as MS for Medical Student, FY for Foundation Doctor, PT for Postgraduate Trainee, CS for Consultant Supervisor, WN for Ward Nurse and HP for Hospital Pharmacist.

3.1 | Theme 1: undermining of female students' and doctors' professional status — lower social capital in the field

All grades of female doctors and female medical students reported that there was a lack of recognition of their role in the health care team compared with their male counterparts. It was very common for female medical students and FY doctors to be addressed as 'nurses' by patients on the wards. The following snippet from field notes should not be read as an isolated occurrence in the CLE.

> Field-site1: I was with FY3 (female junior doctor), and we were chatting in the corridor while heading towards the nursing station, when a patient in Bay 2 called out to her "Nurse, can you Please get a jug of water for me?" FY3 nodded and replied "Let me find XX, she will get one for you". FY3 was wearing scrubs, but she had the bright blue lanyard around her neck that displayed 'FOUNDATION DOCTOR' in bold clearly, but the patient had missed that evidently.

According to the study participants, patients were less receptive to professional instructions imparted by female doctors as opposed to their male colleagues.

> MS9: *"I identify as non-binary, but I'm male presenting, everyone just assumes I am male. I suppose I am in that the social privileged position, that my experience is that of a male person. That cannot be understated. [.] currently there's myself and a girl, who is on the placement with me. We both were introduced as students, she has never been referred to as a doctor and I get called "doctor" a couple of times a day*. That says a lot about the societal views of what we expect doctors to be, on the whole nurses are women and doctors are men. So, I'm perceived as competent, even if I'm not. The fact that I'm male presenting definitely helps, and a lot of female colleagues are perceived as just timid and sort of just there. I do not think people do it maliciously, but yeah, female docs are perceived differently in our setup".
>
> FY6 (female): *"…we had the female consultant leading the ward round accompanied by a male FY, she was discussing the management with the patient and explaining to him the plan. In the end the patient shook hands and thanked the FY, and completely ignored the female consultant."*

It was a recurrent occurrence in the field-sites that the other members of the health care team, particularly the nursing staff, failed to attribute equivalent professional status and respect to the female doctors as they did to the male doctors. This differential treatment by the nursing staff was affirmed by the male doctors of all grades.

> CS1 (male): "*the nurses often give the female doctors a hard time. I've heard it reported many times. As their educational supervisor, I'll learn about some of the*

TABLE 1 Number and sources of interview data.

Participant group	Number	Female	Male
Medical student (MS)	13	8	5
Foundation doctor (FY)	8	5	3
Postgraduate trainee (PT)	6	2	4
Consultant supervisor (CS)	5	1	4
Other Health care Professionals (Ward nurse (WN), Hospital Pharmacist (HP)	4 (3WN + 1HP)	3	1
Total	**36**	**19**	**17**

difficulties that the girls have had and be giving advice or directing them to various forms of support."

FY4 (male): "*my female colleagues will get more comments from the nursing staff. And I could do the same thing and not get any sort of remark, while they receive more resistance, maybe in terms of accepting the job. I mean it will be done, but not in kind as it would have been done if I had asked for it. It can be difficult for my female colleagues."*

FY7 (female): "*I have had a (female) nurse literally throw a Kardex (prescription chart) at me and say "here, fix it!". And with X (male FY), she is sugary sweet."*

The following extract from the field notes is indicative of the general dynamic between a female junior doctor and the nursing staff rather than a solitary incident, which I (ethnographer) picked during my 10 months in the two wards.

> Field-site1: The ward has been very chaotic today, and FY3 (female junior doctor) has been tasked with a number of discharges, particularly as beds are needed for new patients. There are two medical students around who are trying to help her with the bloods (for various patients in the bays and side-rooms), and FY3 is trying to get on with the discharges on one of the PCs in the narrow doctor's room. She is a bit stressed, and I consider leaving her alone when the staff nurse comes and addresses FY3 in a very stern tone, "If the discharge for Patient X is not done by 2pm, the patient is not going home!". FY3 is very apologetic and reassures the nurse that she is on it, and that "I wouldn't go for lunch till I am done with this". I wonder, was there really a need for the nurse to be so sharp?

Interestingly, the female doctors and medical students both perceived a need to establish a goodwill with the nursing team so that they were accepted professionally. They felt it was an unfair expectation as their male colleagues made no extra effort while interacting with the health care staff, and yet were able to earn the professional recognition and support from the team.

FY8 (female): "*whenever I am starting new on a ward, it is always like I have to pass a test. I have this pressure to strike a friendship with the nurses and gain their trust. I definitely have to try harder, I do not see X making that effort. He is just normal, behaving naturally."*

These differential interpersonal interactions were observed by the ethnographer (SG) during fieldwork in both the wards. The following extract from the field notes will illustrate the issue; the reader must take note that this was not a singular incident (which could otherwise be interpreted in multiple ways) but a recurrent pattern observed during fieldwork.

> Field-site 2: Today FY4 (male) and FY7 (female) are the junior doctors on duty, and I can see MS6 (male medical student) shadowing WN3 (female ward nurse) as she is organising the ECG for a patient. I am seated in the doctor's room with FY4 as he is sorting a discharge on the PC. FY7 comes in and logs onto the second PC to request a referral for a patient in Bay2. After a few minutes, a staff nurse walks into the room with file in hand, to clarify an issue regarding a patient's prescription. FY7 rose from her chair promptly to stand next to the nurse, addressing the issue, which she raised. FY4 continued to work on the discharge that he was doing on the computer but did attend to the nurse's query regarding the medications. He answers professionally while remaining seated all along. FY7, on the other hand, did not go back to her job or her chair till the nurse had left the room. As always, I also noted a difference in the nurse's tone while she was talking to them both, was a lot more authoritative and demanding as she talked to FY7 (female FY doctor) compared to when addressing FY4 (male FY doctor).

The disparate treatment was, however, contradictory to the perception that the nursing staff held towards the male and female doctors. The nurse participants in the study appeared to regard the female doctors in high opinion with respect to their professional competencies and interpersonal skills.

WN3 (female): "*Our female doctors can teach a lesson or two to their male counterparts on bedside manners. They sit the patients down, talk to them, explain things, clear their doubts. They speak in a kinder way. They are better at communicating. Male doctors can be a bit abrupt."*

In a similar vein, the educational supervisors perceived the female medical students to be more hardworking and professional in their conduct during the clinical placements.

CS4 (male): "*female students usually outperform on average. The male students tend to be the ones who are least well prepared for sessions, who maybe turn up late for things."*

However, having spent extended time with both male and female students in the field, and shadowed and conversed with them frequently, I did not perceive any difference in professionalism or academic efforts between different genders. I got the sense that hardworking and professional engagement was a very individual student thing.

3.2 | Theme 2: educational affordances in the clinical learning environment — varying cultural capital

During 10 months of fieldwork, the ethnographer (SG) observed several instances when both male and female medical students were invited to participate in learning activities. The CLE is predominantly informal and unstructured, generating spontaneous educational opportunities. As per the following field-notes extracts, these opportunities were available opportunistically to any medical student present in the ward regardless of gender.

> Field-site 1: I see MS2 (female medical student) outside bay 2 with the blood tray, she is very excited as WN1 (ward nurse) has asked her to do bloods for patient 12.
> Field-site 2: MS9 (male medical student) is in the doctor's room when PG4 (female trainee doctor) asks him if he would like to assist her with the patient's canulation. He follows her like a puppy.

The interview data from the female participants in the study, confirms that they feel included in the ward activities and supported by their seniors.

> MS1 (female): *"The surgeon (male) proactively sought me out to say that there was a case for appendicectomy, and I was welcome to join in, especially because I need it for sign-off. We are always encouraged and invited by seniors."*

Likewise, the junior doctors on the ward also felt encouraged by their seniors during professional learning activities and procedures. The positive support from the supervisors aided in motivating and building self-efficacy amongst the female doctors.

> FY8 (female): *"the consultant I was assisting was quite tall and you can see I am short. But he got the bed lowered especially to my level so that I could assist better. That was rather nice."*

Interestingly, there was male allyship demonstrated by some senior clinicians to reinforce the status of female junior doctors amongst the patients. This was acknowledged by the participants and appeared to enhance the female students' sense of legitimacy in the CLE.

> FY2 (female): *"In my last block, the consultant (male) asked especially my surname, and on the ward round, took care to introduce me as Dr X (Surname) to every patient. I think he was trying to drive this home to the patient that I belong to the medical team. I felt good, it was uplifting in a way."*

However, some study participants in the advance stages of postgraduate medical training, spoke of a sexist attitude demonstrated by senior clinicians, which was disappointing and disheartening for the female postgraduate trainees. According to the participants, the quantity of learning opportunities declines as the training stage advances and their male counterparts would be favoured for these limited opportunities.

> CS5 (female): *"He would take the male trainees and say: "Have you read this? Have you seen that? Look at this cool bit of kit…" and it did not even occur to him that I might be interested in that too. I had to say "Please could I see the paper as well? And can I have a shot of that drill too."*
>
> PT6 (female): *"the male trainees are essentially allowed to do whatever they want, they have more freedom, whereas with a me (female trainee) they are much more likely to constrain me, question me."*

3.3 | Theme 3: impact of differential experiences in the clinical learning environment — transforming habitus

Female doctors and medical students described feeling demotivated and disappointed in the workplace, on experiencing discriminatory behaviour from health care colleagues and role models on multiple occasions. They report that it impacts their engagement and drive towards learning and attending placement opportunities when they experience exclusionary behaviour and see male students being positively regarded over them.

> MS10 (female): *"there have been occasions when I am the only female on the ward round, and when things are being explained, I can see there's eye contact with each of the male FY2, the male FY1, the male medical student. And occasionally I'll get thrown a look. I've had days like that when I've left the ward very upset, and I've just thought I don't wanna go back in tomorrow. Why am I there?"*

According to many study participants, the gender-based discriminatory behaviour was ubiquitous in the CLE with, both undergraduate and postgraduate learners who experienced it feeling disappointed in their seniors.

> PG4 (female): *"I have had male role models who are very professional, they care about the patients, they are holistic in their approach and they are fantastic trainers. But unfortunately, there is an element of sexism that almost seems to be subconscious and ingrained, and from people that you would not necessarily expect, which is quite disappointing to find."*

Some participants described how some of the historical stereotypical thought processes regarding medicine being a male-dominated

profession were still in existence and discussed amongst staff groups. When they perceived the stereotypical attitude amongst their seniors, it discouraged them from asking questions or clarifying doubts for fear of reinforcing stereotypes.

MS7 (female): *"You feel as if you have to try harder. It's like I'm working twice as hard to get the same recognition as the male student. It makes me hold back a bit and not ask the questions that I want to ask because you just feel like "" God, what if I ask a question and then it's like, of course, female student does not know her stuff"" the stereotyping."*

Participants reported that in male-dominated settings and specialities, crude jokes and sexist comments were frequent, creating a hostile environment for female doctors to work in. They were understandably hesitant to speak up, for fear of repercussions since seniors have considerable power over training and career opportunities.

PG6 (female): *" ...they would be joking about things like sexual favours for assessments or talking about female trainees that's obliquely crude, inappropriate and derogatory comments about females, things that you would maybe expect on a night out, when people are drunk. But for it to be said, in the workplace, outside the patient's cubicle or in theatre across the table, when you are operating, it's very uncomfortable... "*

Study participants who experienced gender-based discriminations and difficult working conditions considered a change in career route and expressed plans to leave the speciality to escape the toxic environment. There were several gender-related factors that impacted different participant groups, including pregnancy and maternity issues. One of the participants experienced difficulties coming back from maternity leave including unpleasant discussions and uncooperative behaviours from colleagues.

CS5 (female): *"I love my job but there have been times when I have looked up the GP training scheme and checked how much of my time would count realistically? Should I jump ship? And I'm not alone in that, several of my colleagues have done that."*

3.4 | Theme 4: the valuable influence of gendered role-models in the clinical learning environment — transforming habitus

It was noted that study participants subconsciously selected role-models of the same gender in the CLE. This was observed for both male and female medical students and junior doctors. On probing their preference more deeply, the female medical students shared reasons for their preference as below:

MS8 (female): *"I really liked X (female FY doctor) because she's female, and I feel like in the workplace, the way men and women navigate is very different. Like your actions and how they are perceived are very different. So when I look for role models, it's easier to mirror females. And because certain things men do, you cannot really get away with."*

In both the field-sites, the ratio of female: male consultant was low (1:5). This is somewhat reflected in our participants list (Table 1), which indicates that the female representation starts to reduce moving up the vertical hierarchy in the health care team, from medical students to consultant supervisor. Female research participants expressed that it was inspiring for them to see women in senior positions in the health care team.

MS10 (female): *"It's nice to, as a student, be able to see yourself in a consultant, so it's really nice when you are on the ward and it's a female consultant."*

According to the female doctors, there was valuable learning that they received from the role-models of the same gender, which they ascribed to their lived experiences. These senior doctors had learnt to navigate gender issues and societal stereotypes over years; they shared these important professional social skills with the juniors. These interpersonal communication-related and teamworking competencies were perceived as worthwhile skills in professional working life.

PG4 (female): *"I did have a couple of really strong female role-models and while they do not have to be female to be a role-model, it does help seeing people that have succeeded in understanding these issues. For example, patients do call you nurse, [.] it is about having strategies to deal with such issues. So they did acknowledge these factors that previously had not been acknowledged. Like knowing when to change the intonation of your voice and raise it, not in an aggressive way, but, so people listen to what you were saying or signalling to indicate this is a serious moment on ward rounds, [.] making clear to the patient that you are delegating a task and that you are the one that's in-charge."*

It is worth commenting that we did not come across any instances of 'Queen Bee syndrome' during fieldwork, where senior women in positions of authority discourage younger females; on the contrary the interview data confirmed that the same-gendered role-models helped more junior women through sharing valuable advice and guidance.[12]

3.5 | Theme 5: internalisation of gendered processes — transforming habitus

The research participants displayed significant acceptance towards the gendered processes and discriminatory interactions in the CLE. According to the female FY doctors, they were pressed with workload; so, fighting for professional recognition would be an added struggle.

> FY2 (female): *"…patients do keep calling us nurses all the time. It does not overly bother me anymore, and I do not even bother correcting them…"*

The sense of resignation amongst medical students and FY doctors appeared to be linked to the transient nature of clinical placements. It is worth noting that students and FY doctors have ward postings for short durations, spanning over a week to 4 months. According to participants, their short stay in the CLE, the frequent gendered encounters and the resistance to change made taking any action exhausting.

> MS3 (female): *"…that is a hangover from medical school like- "ohh I'm here for X amount of time. It's going to be an uphill battle. I'm just going to ride it out!" Sometimes when you get consistently met with "Nos", it can be a very uphill journey."*

Interestingly, participants appeared to hold themselves responsible if they were unable to strike an amicable working relationship with the wider health care team. For example, the female medical student below introspected on her own shortcomings when she had difficulties with a nurse in one of the field-sites.

> MS1 (female): *"…but I think that's partly my fault too [.] I should take a bit more time to be like -I'm XX, nice to meet you all that kind of thing. Yeah, because that's actually gonna be really important for FY."*

It was rare for any medical students to challenge a patient or health care staff when they encountered gendered or inappropriate behaviour. However, on the one occasion when this medical student stood up for herself and raised the issue with the senior team, her self-advocacy stance was admired and appreciated by her fellow peers.

> MS7 (female): *"I was spoken to less than professionally in front of a patient, and I simply do not accept not having a basic level of respect. So, I challenged it. My friends were being nice about it, like, good for you for making sure that it did not continue and not allowing someone to speak down to you! There's few of us that acknowledge that even if we do not see the benefit of it, we want to change it for the people coming behind us. That's why we try and push for certain things to be done."*

4 | DISCUSSION

This study was guided by Bourdieu's core concepts of field, capital, and habitus, to explore female medical students' and doctors' experiences of the CLE. The theoretical framework enabled complex social processes in the field to be analysed and understood, revealing inherent power dynamics that shape students' and doctors' learning and overall experience of the CLE. Despite constituting the majority demographic of medical school, female students and doctors struggle to gain social and cultural capital, and the differential experiences perhaps contribute to transforming their habitus.

Bourdieu's concept of habitus helped us to explain internalisation and acceptance of the gendered experiences. Habitus has been referred to as 'embodied social structure', when the actions and reactions of the body or indeed the orientation of an individual in the world is based on incorporated experiences and knowledge.[12] It is the 'presence of the past in the present', and understandably the participants displayed a sense of resignation owing to persistent experiences of gender-related stereotypes amongst the patient population and the health care teams.[19] Our findings align with the previous literature speculating internalisation of a gendered perspective amongst medical students owing to pervasive discriminatory experiences.[3,32] The authors describe gendered acculturation advocated by senior clinicians and promoted by the institutional silence surrounding issues of gender, resulted in students' desensitisation and fatigue.

The two selected hospital wards serving the field for our study, are structured social space with rules and hierarchies, and the social processes therein are likely reflective of the larger societal narrative. The female doctors and students feel unfairly deprived of the social capital here, which are forms of influence and prestige amongst the health care professionals and service users. In contrast, same-gender role-models may be considered a form of capital, which the participants in our study immensely appreciated, as building their confidence, and nourishing self-efficacy. Wider literature confirms the role of mentors in personal and professional development of health care students, including conveying the 'hidden curriculum' of professionalism.[33,34] The valuable input of same-gender role-models is previously discussed in context of female surgeons, where 'embodied learning is most easily imparted by other women' ([12] p. 90).

Applying Bourdieu's habitus as a thinking tool, aids in understanding the transformative potential of role-models in influencing individuals' actions and choices. Role-models, and in turn habitus foster agency, with social orders operating in the minds and experiences of the participants. It is noteworthy though, that the role models in our study offer individualised solutions and advice that involve no change to underlying institutional structures. Nevertheless, these individualised solutions based on the mentor's lived experience were deemed critical in navigating the social impediments, so that the participants in our study were not 'bushwhacking their solitary way' as described by

Jo Cassell in context of women surgeons, nearly three decades ago ([12] p. 181). Our findings underscore that role-models and mentors are vital for a satisfying learning journey for female medical students and doctors. Institutional commitment is required as well to pave the path, and future research could perhaps adopt a critical feminist approach that challenge constraining structures to find collective solutions, which focus beyond the notion that women are responsible for their own well-being and success.

Gender bias in the workplace and social expectations shape individual behaviour through impacting motivation and choices; thereby resulting in self-perpetuating stereotypes. This is akin to transforming the habitus and reinforcing the social structures as illustrated in Bourdieu's theory of social power reproduction.[17] Women doctors in our study admitted to considering a change in career track owing to hostile workplace experiences. This finding resonates with existing literature where insufficient role models, loss of collegial and social supports, and the predominantly male institutional structures have been implicated as the contributory factors in women leaving male-dominant specialities, such as surgery.[6] We may argue that the participants are not the sole authors of their perceptions, thoughts, and actions or inactions. The lack of interest and motivation to challenge gendered behaviours is linked to the cumulative impact of an intense, demanding course, together with the transient nature of clinical placements. The temporal feature of clerkships has been discussed in the literature as a contributory factor in students' engagement and learning through a multitude of mechanisms.[35] Longer placements are known to foster relationships and transdisciplinary respect, which facilitates rich interprofessional learning for medical students.[36] Our empirical data suggests that short placements peppered with gendered experiences, have an adverse impact on the students' and junior doctors' habitus.

There is existing literature highlighting that female doctors are less supported and respected by nurses than their male counterparts.[37,38] Similar to this, both male and female doctors and students in our study reported that nurses treated the male doctors more favourably in the CLE. Wider literature provides a range of plausible explanations for this disparity including flirtation and sexual tension between male doctors and female nurses, or perhaps the nurses' attempts at minimising the status differential between doctors and nurses, which disproportionately impacts the female doctors.[37,39] The study participants shared their experiences of assimilation and negotiation in the interprofessional health care team, which were fraught with gendered social encounters.

It is worth noting that the nurse participants in the research considered the female doctors superior to the male counterparts with respect to patient communication and empathy. Female medical students were also reported as more hardworking and professional in their conduct as opposed to male students in our study. These findings link to existing literature that confirms superior clinical outcomes for patients treated by women doctors in both medical and surgical settings.[40,41] Additionally, there is evidence of female trainees outperforming their male counterparts in both knowledge and skills domains, in the UK primary care context.[42] It is established that both men and women have equal cognitive capacities of,[43] and it is rather the negative social experiences and stereotypical expectations that contaminate the workplace environment and reduce self-efficacy.[44] Despite this being a qualitative exploratory study, where we employed a combination of purposive and convenience sampling, we could not help reflecting with interest, the fall in female representation as we ascend the vertical hierarchy in the health care team, from medical students to consultant supervisor (see Table 1). Although the specialities of the chosen field-sites may have a role, we do not consider this to be a strong influencing factor given that the participants' reflections included their longitudinal experience in the clinical workplace and were not confined to just their present clinical placements.

5 | LIMITATIONS

Educational experts have advised against making empirical generalisations to extant population from an ethnography, and indeed we cannot claim transferability from this single institution study. However, anchoring our findings using an established social theory and universal abstraction should aid the reader in digesting the cultural meanings and judge applicability in their own setting. Lack of intersectional approach is a limitation, which can be potentially addressed in future studies. Interestingly, non-binary perspectives did not arise in our data set; although, we were tuned to any emerging findings on gender fluidity from the contemporary discourses. Lack of gender diversity in the research team might have potentially impacted the interpretative processes given that all five members of the research team identify as females. We admit that our depiction could be biased, even as we broadly empathised with the participants' experiences and sympathised with their distress. However, care was taken to ensure rigour through questioning assumptions and analytic decisions constantly during the research process.

6 | CONCLUSION

In this research, we have explored the gendered hierarchies that structure clinical workplaces and shape experiences for medical students and doctors. Pervasive gendered interactions in the CLE disadvantage female students and doctors in terms of social and cultural capital. Bourdieu's theoretical framework offered nuanced insights into how embedded inequalities in the CLE transformed their habitus. Based on our theoretically informed investigation, we suggest that the medical education community invest in mentoring, given the valuable impact of role-models towards enriching female students' and doctors' habitus, equipping them with sophisticated measures to navigate the gendered CLE. Additionally, extended clinical placements can provide opportunities for female students and junior doctors to secure social and cultural capital through integrating better in health care teams and building meaningful interprofessional relationships.

We believe our findings will be valuable to medical education community willing to reflect on established practices and challenge self-perpetuating stereotypes in the currently gendered social order.

AUTHOR CONTRIBUTIONS

Shalini Gupta: Conceptualization; investigation; funding acquisition; writing—original draft; methodology; writing—review and editing; project administration; formal analysis; data curation. **Stella Howden:** Conceptualization; funding acquisition; methodology; supervision; writing—review and editing; validation. **Mandy Moffat:** Writing—review and editing; methodology; validation; supervision. **Lindsey Pope:** Writing—review and editing; validation; methodology; conceptualization; formal analysis; supervision. **Cate Kennedy:** Validation; formal analysis; supervision.

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CONFLICT OF INTEREST STATEMENT

The authors disclose no conflicts of interests.

DATA AVAILABILITY STATEMENT

Data sharing not applicable to this article as no datasets were generated or analysed during the current study.

ETHICS STATEMENT

The study was approved by the Institutional Ethics Committee (SMED REC Number 22/54).

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REFERENCES

1. Blalock AE, Smith MC, Patterson BR, Greenberg A, Smith BRG, Choi C. "I might not fit that doctor image": ideal worker norms and women medical students. *Med Educ*. 2022;56(3):339-348. doi:10.1111/medu.14709
2. Brown MEL, Hunt GEG, Hughes F, Finn GM. 'Too male, too pale, too stale': a qualitative exploration of student experiences of gender bias within medical education. *BMJ Open*. 2020;10(8):e039092. doi:10.1136/bmjopen-2020-039092
3. Babaria P, Abedin S, Berg D, Nunez-Smith M. "I'm too used to it": a longitudinal qualitative study of third year female medical students' experiences of gendered encounters in medical education. *Soc Sci Med*. 2012;74(7):1013-1020. doi:10.1016/j.socscimed.2011.11.043
4. Jendretzky K, Boll L, Steffens S, Paulmann V. Medical students' experiences with sexual discrimination and perceptions of equal opportunity: a pilot study in Germany. *BMC Med Educ*. 2020;20(1):56. doi:10.1186/s12909-020-1952-9
5. Stratton TD, McLaughlin MA, Witte FM, Fosson SE, Nora LM. Does students' exposure to gender discrimination and sexual harassment in medical school affect specialty choice and residency program selection? *Acad Med*. 2005;80(4):400-408. doi:10.1097/00001888-200504000-00020
6. Liang R, Dornan T, Nestel D. Why do women leave surgical training? A qualitative and feminist study. *Lancet*. 2019;393(10171):541-549. doi:10.1016/s0140-6736(18)32612-6
7. Shaw MK, Chandratilake M, Ho M-J, Rees CE, Monrouxe LV. Female victims and female perpetrators: medical students' narratives of gender dynamics and professionalism dilemmas. *Adv Health Sci Educ*. 2020;25(2):299-319. doi:10.1007/s10459-019-09919-z
8. Philibert I, Elsey E, Fleming S, Razack S. Learning and professional acculturation through work: examining the clinical learning environment through the sociocultural lens. *Med Teach*. 2019;41(4):398-402. doi:10.1080/0142159X.2019.1567912
9. Shapiro, M. F. (1978). *Getting doctored: critical reflections on becoming a physician*.
10. Atkinson P, Hammersley M. *Ethnography: principles in practice*. Tavistock Publ; 1983.
11. Becker HS. *Boys in white: student culture in medical school*. Transaction publishers; 1961.
12. Cassell J. *The woman in the surgeon's body*. Harvard University Press; 2000.
13. Hägg-Martinell A, Hult H, Henriksson P, Kiessling A. Community of practice and student interaction at an acute medical ward: an ethnographic study. *Med Teach*. 2016;38(8):793-800. doi:10.3109/0142159X.2015.1104411
14. Sheehan D, Jowsey T, Parwaiz M, et al. Clinical learning environments: place, artefacts and rhythm. *Med Educ*. 2017;51(10):1049-1060. doi:10.1111/medu.13390
15. Andrews GJ, Rowland E, Peter E, Rowland E. *Case study I: hospital-based multidisciplinary work—institutional emotional geographies. Place and professional practice: the geographies in healthcare work*; 2021:69-91.Wiley.
16. Paradis E, Leslie M, Gropper MA. Interprofessional rhetoric and operational realities: an ethnographic study of rounds in four intensive care units. *Adv Health Sci Educ*. 2016;21(4):735-748. doi:10.1007/s10459-015-9662-5
17. Bourdieu, P. (1977). *Outline of a theory of practice, transl. R. Nice*.
18. Bressers G, Brydges M, Paradis E. Ethnography in health professions education: slowing down and thinking deeply. *Med Educ*. 2020;54(3):225-233. doi:10.1111/medu.14033
19. Bourdieu P, Wacquant LJ. *An invitation to reflexive sociology*. University of Chicago press; 1992.
20. Bourdieu P. The forms of capital. In: *The sociology of economic life*. Routledge; 1986:78-92.
21. Cohen L, Morrison K, Manion L. *Research methods in education*. 7thed. Routledge; 2011.
22. Spradley, J. (1980). Participant Observation: The ethnographic interview. Administrative Science Quarterly, September, 526–530.
23. Brewer J. *Ethnography*. McGraw-Hill Education (UK); 2000.
24. Lofland, J. (1971). *Analyzing social settings*.SAGE.
25. Roper JM, Shapira J. *Ethnography in nursing research*. SAGE; 2000.
26. O'Reilly K. *Participating and observing*. Routledge; 2012:259-267. doi:10.4324/9780203864722-17
27. Speer SA. `Natural' and `contrived' data: a sustainable distinction? *Discourse Stud*. 2002;4(4):511-525. doi:10.1177/14614456020040040601
28. Rubin HJ, Rubin IS. Listening, hearing, and sharing social experiences. In Qualitative Interviewing (2nd ed.): The Art of Hearing Data (2nd ed., pp. 1-18). 2005 SAGE Publications, Inc., doi:10.4135/9781452226651
29. Lawrence M, Mckendry S. *Supporting transgender and non-binary students and staff in further and higher education: practical advice for colleges and universities*. Jessica Kingsley Publishers; 2019.
30. Burgess RG. *In the field: an introduction to field research*. Routledge; 1984.
31. Gupta S, Howden S, Moffat M, Pope L, Kennedy C. Placement or displacement: an ethnographic study of space in the clinical learning

environment. *Med Teach*. 1-10. doi:10.1080/0142159X.2023.2273783
32. Samuriwo R, Patel Y, Webb K, Bullock A. 'Man up': medical students' perceptions of gender and learning in clinical practice: a qualitative study. *Med Educ*. 2020;54(2):150-161. doi:10.1111/medu.13959
33. Henry-Noel N, Bishop M, Gwede CK, Petkova E, Szumacher E. Mentorship in medicine and other health professions. *J Cancer Educ*. 2019;34(4):629-637. doi:10.1007/s13187-018-1360-6
34. Sng JH, Pei Y, Toh YP, Peh TY, Neo SH, Krishna LKR. Mentoring relationships between senior physicians and junior doctors and/or medical students: a thematic review. *Med Teach*. 2017;39(8):866-875. doi:10.1080/0142159x.2017.1332360
35. Gupta S, Howden S. Medical students' perceptions of 'community' in a longitudinal integrated clerkship. *Educ Prim Care*. 2021;32(3):157-165. Taylor & Francis doi:10.1080/14739879.2020.1850211
36. Gupta S, Howden S. Context and mechanisms of interprofessional learning during a longitudinal integrated clerkship. *J Interprof Care*. 2022;36(3):413-418. doi:10.1080/13561820.2021.1904850
37. Gjerberg E, Kjølsrød L. The doctor–nurse relationship: how easy is it to be a female doctor co-operating with a female nurse? *Soc Sci Med*. 2001;52(2):189-202. doi:10.1016/S0277-9536(00)00219-7
38. Van Wyk JM, Naidoo SS, Moodley K, Higgins-Opitz SB. Perceptions of final-year medical students towards the impact of gender on their training and future practice. *Adv Med Educ Pract*. 2016;7:541-550. doi:10.2147/amep.S107304
39. Wear D, Keck-McNulty C. Attitudes of female nurses and female residents toward each other: a qualitative study in one U.S. teaching hospital. *Acad Med*. 2004;79(4):291-301. https://journals.lww.com/academicmedicine/Fulltext/2004/04000/Attitudes_of_Female_Nurses_and_Female_Residents.4.aspx. doi:10.1097/00001888-200404000-00004
40. Tsugawa Y, Jena AB, Figueroa JF, Orav EJ, Blumenthal DM, Jha AK. Comparison of hospital mortality and readmission rates for Medicare patients treated by male vs female physicians. *JAMA Intern Med*. 2017;177(2):206-213. doi:10.1001/jamainternmed.2016.7875
41. Wallis CJ, Ravi B, Coburn N, Nam RK, Detsky AS, Satkunasivam R. Comparison of postoperative outcomes among patients treated by male and female surgeons: a population based matched cohort study. *BMJ*. 2017;359:j4366. doi:10.1136/bmj.j4366
42. Pope L, Hawkridge A, Simpson R. Performance in the MRCGP CSA by candidates' gender: differences according to curriculum area. *Educ Prim Care*. 2014;25(4):186-193. doi:10.1080/14739879.2014.11494276
43. Hyde JS. Gender similarities and differences. *Annu Rev Psychol*. 2014;65(1):373-398. doi:10.1146/annurev-psych-010213-115057
44. Rippon G. Mind the gender gap: the social neuroscience of belonging. *Front Hum Neurosci*. 2023;17:1094830. doi:10.3389/fnhum.2023.1094830

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