Applying feminist theory to medical education

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To adequately address gendered issues of sexual harassment, wage gaps, and leadership inequities, medical institutions must interrogate medical education. Feminist theories can help to understand how power operates within our classrooms and at the bedside. This scoping review maps the four main ways in which feminist theory has been applied to medical education and medical education research—namely, critical appraisal of what is taught in medical curricula; exploration of the experiences of women in medical training; informing pedagogical approaches to how medicine is taught; and finally, medical education research, determining both areas of inquiry and methodologies. Feminist theory has the potential to move clinicians and educators from theory to action, building bridges of solidarity between the medical profession and the community it is called to serve.

Introduction

Despite the incorporation of elements of the social sciences and humanities into medical education, most Western medical education is firmly rooted in biomedicine. Biomedicine itself is rooted in male dominance, or patriarchy, which "does not relate to a cultural context that refers only to men, but refers to a dominant cultural form based on a particular kind of logic that embraces heroism, rationalism, certainty, the intellect, distance, objectification, and explanation before appreciation".[1] Trainees learn mostly about male diagnosticians and scientists, in academic institutions where men take up most leadership positions.[2] This historical gendering of medicine prioritises particular types of knowledge (and ways of producing that knowledge), and creates barriers for critical, and specifically feminist, research and practice. Patriarchy has ripple effects, such as harassment, the gender wage gap, and gender segregation in specialties and medical leadership.[3] Yet, anti-bullying workshops, interventions to decrease the pay gap, or changes in recruitment policies to increase the diversity of medical school applicants will all miss the mark if underlying structures are left untouched. Application of critical theories to medical education and education research, then, can be a powerful means of changing how medicine is taught and whose voices are heard. Drawing from both medical and social science literature, this scoping review explores how feminist theory has been applied to the field of medical education, and how its rigorous application can help address some of the challenges facing medicine today.

Search strategy and selection criteria

I searched PubMed, MEDLINE, Embase, Gender Studies, and the Education Resources Information Centre with the search terms (["medical education"] AND [feminis* OR "gender issues" OR "feminist theory"]). The phrase "gender issues" was added after the initial search to include manuscripts that might not have explicitly included feminism in their keywords list but that could have had issues of gender equity as a priority. Given the paucity of overall data in this area, no time limit or language restriction was placed on the search. The initial project was done in December, 2014, and the search was repeated and updated in February, 2018. This Review focused on published literature, rather than on websites, blogs, and social media, because published literature provides key insights on what is considered legitimate or worthy in any given field.

A flexible and iterative approach was used to determine inclusion and exclusion criteria, in keeping with scoping review methodology. All abstracts resulting from the initial search were reviewed. Manuscripts that dealt solely with female representation, recruitment, and retention, and those that atheoretically documented sexual harassment or discrimination, were excluded. Although these are important concerns, they were not the primary focus of this Review, which focused on the application of feminist theory and critical analysis to medical education. Articles focusing only on medical practice rather than medical education were excluded, because the focus of this Review was primarily on the role of feminist theory in the educational context. After review of the articles selected for further study, I also excluded those that were completely atheoretical or focused only on the inclusion of women's health (eg, reproductive health, intimate partner violence) into medical curricula, since many such articles approached these issues atheoretically.

A coding framework was developed iteratively. The initial coding framework allowed for separation of manuscripts into broad thematic categories on the basis of their content, such as work–life balance, discrimination and harassment, and curriculum content. Using this coding framework, manuscripts that dealt atheoretically with issues of representation, discrimination, and harassment, or women's health issues in curricula, were excluded. For the final 80 sources that were reviewed, a broader coding framework using four main categorisations was used to develop an overarching narrative review of how feminist theory has been applied to medical education.

How can theory shape the practice of medical education?

Fundamentally, theory can help question underlying assumptions. Although education can be a process of liberation and growth for both student and teacher, it can also be a means of maintaining societal hierarchies and exerting dominance, as shown by the historical exclusion of women and racialised groups from academies of higher learning.[4,5] The so-called fathers of modern medicine were largely white, heterosexual, cisgender men—with the culture of medicine recreating itself in this image ever since. Even when members of marginalised communities are present or included, interpersonal power differentials and discriminatory practices can still occur. Students might be subject to racist or sexist comments, or might see the health concerns facing their communities completely omitted from curricula. Exclusion of some voices from medical education and research can deepen social and health inequities by rendering the medical profession ill-equipped to hear and serve the most marginalised.[6,7] Understanding power and privilege has the potential to allow practitioners to connect with their students, humanise their collective practice, and provide better care

to their patients.[8,9] Feminist scholar bell hooks notes "feminist perspectives in the classroom [affirm] the primacy of critical thinking, of linking education and social justice".[10]

How can theory shape the practice of medical education research?

Although many qualitative social science research methodologies have entered academic medical discourse, the theories that enable and inform these methodologies have often been bypassed. No research is truly theory free, for all research is situated within a so-called grand theory or way of viewing the world.[11] Yet, Western medicine often operates under the notion that it is value neutral, an occurrence that has been referred to as the "culture of no culture".[12] By failing to interrogate its own culture, this so-called view from nowhere can reinforce societal, patriarchal, or cultural norms in medical education.[13] Critical theories, then, can help educators to better locate and understand the culture within which they practise medicine and do research. As medical educators, unpacking underlying theoretical bases and assumptions results in improved rigour and integrity, achieved through the alignment of ontological (what can be known) and epistemological (how it can be known) stance with methodological approach.[11] This integrity translates back into the classroom or bedside, when there is "congruence or agreement between what we think, say, and do".[10]

Medical schools have considerable power within universities, and medical practitioners wield profound power over bodies, understandings of health and illness, and the health-care system itself. As such, it is essential that theory not only be used as a means of aligning a researcher's viewpoint with their methodology, but also as a means of thinking critically against prevailing perspectives.[14] Critical theories draw attention to the hidden curriculum and to the voices that are silenced by dominant culture in institutions and societies.[15] Brian Hodges goes further to herald that "when critique exposes inequity, oppression or even the roots of violence, some of us will hear a call to action", allowing transformation of theory into praxis.[8]

The role of feminist theory in medical education and its research

There is no singular definition of feminism. The central issues with which it grapples have spanned from suffrage (first-wave feminism) to issues of workplace equality and reproductive rights (second-wave feminism) to cultural constructions of gender and patriarchal oppression, with recognition that previous iterations of feminism often did not account for the perspectives of racialised or queer women (third-wave feminism). Hooks' simple definition of feminism is useful because it plainly but powerfully encapsulates the starting point of feminist theory: "feminism is a movement to end sexism, sexist exploitation, and oppression".[16,17]

Just as there is no singular understanding of feminism, there is no single feminist theory. Feminist theory can be considered a family of critical theories and approaches that enable us to understand complexity (table). Feminist

	Fundamental principles	Examples in medicine	Critiques
Liberal feminism	Women and men are fundamentally equal; social conditions result in disparity; political action required	Recruitment policies to increase number of women in leadership positions	Can ignore role of other factors in oppression, such as race and class
Cultural feminism	Women and men are inherently different; female nature relational and empathetic	Feminist bioethics centring on values of care, relationships[18]	Can be reductionist; notion of inherently male or female values controversial
Queer feminism	Gender and sex are socially constructed	Qualitative work on women trainees' gendered experiences[19]	Focus on discourse alone might prevent analysis of material or social conditions
Anti-racist feminism	Role of race in oppression highlighted, as often ignored by liberal feminist thought	Curriculum on race and health; researching race[7,20,21]	Might not include other conditions of oppression; intersectionality often posited as solution
Radical feminism	Focuses on patriarchy as fundamental method of oppression and gender as primary oppression; revolutionary change (rather than reform) required	Introduction of reproductive and contraceptive rights	Revolutionary change considered by some to be unrealistic
Socialist feminism	Focuses on economic oppression; female oppression is part of structural inequality based on class	Social policies advocating for equal pay, maternity leave	Ignores other axes of oppression (race, sexual orientation)
Postmodern feminism	Focuses on identity and how social discourse and language create our understanding of women	Gender bias in medical textbooks; gender bias in letters of reference[22,23]	Focus on language alone could shift energy away from action around tangible and political change
Indigenous feminism	Intersectional form of feminism focused on decolonisation and Indigenous sovereignty; both a theory and activist movement	Cultural safety course requirements in many institutions[24]	Often focused on North American communities only
Marxist feminism	Capitalism is primary cause for oppression in modern society; economic dependence and valuation of female labour	None found; examples outside medicine involve paying women for household labour	Does not account for effect of other axes of oppression such as race or sexual orientation
Postcolonial feminism	In response to colonialism and Euro-American feminist tendency to universalise white female experience and values	Examination of difference in the educational and clinical encounter; examinations of power[25,26]	Critics note that in light of modern economic and cultural imperial practices, the prefix post is premature
Intersectional feminism	Focuses on intersection of various parts of identity (race, class, gender, sexual orientation) in oppression; social and individual change required	Work on reflexivity, diversity, and inclusion[27,28]	Application in medical education often ignores roots and ongoing scholarship in Black Feminist Thought

There are numerous strands or branches of feminist theory, only some of which are mentioned in this Review. This table serves only as a brief introduction to highlight the diversity of feminist theories.

Table: **Diversity of feminist theories**

standpoint theory; for instance, contends that people with less power are better able to understand power and how it is exerted through sexist, racist, or classist individual and structural practices.[29] This theory lends credence to the notion that improvements in admissions processes and changing who is in the position to make decisions are essential to achieving gender-based and race-based equity in medical training. Feminist theories that acknowledge the limitations of scientific knowledge and knowledge production can also help to question concepts and practices in medical education that are taken for granted as beneficial, such as the practice of evidence-based medicine.[30] For instance, postcolonial feminists might critique exported Western medical hegemony, and anti-racist feminists might critique the erasure of the health effects of racism. Feminist theory can also allow clinicians and educators to move from theory to action and build bridges of solidarity between the medical academy and the communities they are called to serve. The multiplicity of feminist theory, however, can make it difficult to identify in the literature.

Although some scholars have explored feminist theories in medical education and research, there has not yet been a review of the scholarly literature to improve the current understandings and potential applications of feminist theory to medical education.[1,31,32] Although my personal research and pedagogical framework draws from intersectional feminism and other critical race and postcolonial theoretical perspectives, the aim of this Review is to explore how feminist theories, multiple and broadly defined as they are, have been applied to medical education and medical education research.

Analytical approach

In this Review, I used the method described by Hilary Arksey and Lisa O'Malley.[33–35] The central purpose of a scoping review is to rapidly identify and map the concepts that are foundational to a field of research, and to better understand the types of sources and evidence available.[34] Notably, scoping reviews can function as stand-alone research endeavours when a particular research area has not previously been reviewed comprehensively. Scoping reviews allow for the examination of existing scholarly work on a subject area, the dissemination of these findings, and the identification of gaps and areas for further research.[33] Scoping reviews use iterative and flexible processes, that allow for the identification of important literature that might be missed in less well-defined research areas when rigid predefined research designs are followed. Flexibility is required in both search strategy and analysis. The initial search yielded 262 citations, with considerable overlap between databases, resulting in 202 unique citations. All abstracts were reviewed, and a total of 70 citations were deemed potentially relevant. After reviewing the reference lists of all selected articles, another ten citations were reviewed and five selected for further study.

For the second phase of the literature search, two experts in medical education and feminist theory were identified on the basis of their prolific or influential work in this area. These experts suggested an additional 36 sources, of which 28 were relevant to this specific study question. Many of these were key feminist texts that feminist scholars have applied to medical education but would not have been found within the medical literature.[29,30] Another four references were identified from these reference lists for further review. Finally, eight manuscripts were included on the basis of previous knowledge of these papers, though they were not identified in any of the literature searches or expert review. In February, 2018, in the wake of increasing recognition of implicit bias in medicine, an additional search was done using the same databases using the search terms ("medical education") AND ("gender bias"). This yielded an additional eight articles for review and two articles for inclusion. Thus, I reviewed a total of 268 abstracts and 131 manuscripts and books, and selected 80 for inclusion in this Review.

Based on this scoping review of the literature, feminist theory has been applied to medical education in four main ways. First, the inclusion of so-called gender issues into the medical literature has been viewed from a feminist perspective. Second, the experiences of women in medical training have been critically examined. Third, feminist theory has been applied to pedagogical approaches. Finally, feminist theory has been applied to medical education research, in terms of both the questions that are asked and how they are answered.

The what: understanding gender issues in medical curricula through a feminist lens

The women's health movement originated over 40 years ago from a growing awareness of gender bias in a male-dominated medical enterprise. Scholars from the USA, the Netherlands, and Norway all highlighted systems that did not adequately consider women's health issues and social contexts, frequently patronised women and their experiences, and placed little value on their lived experiences and expertise.[36–38] Much has been written about improving coverage of women's health concerns in medical training.[39–42] For example, gender-specific knowledge has historically been sparse or absent in many medical textbooks and presentations, with some overtly demeaning and sexist.[22,43–48] In 1995, Ruth Simkin[49] and Susan Phillips[50] demanded more contextual, inclusive definitions of women's health that recognised injustices and worked to address power imbalances and systemic injustices. Barbara Zelek and colleagues[51,52] similarly highlighted the need for gender sensitivity in medical education, whereby content, language, and process could be used to improve gender awareness and equity rather than to reinforce sexist norms.

In 2000, a special issue of *Academic Medicine*[53] dedicated itself to women's health, emphasising that women's health could be viewed as a "catalyst—first for reforming

existing medical curricula, and then for larger curricular transformation" through systemic change. Calls have long been made to develop gender competencies and address gender bias in medical curricula.[54,55] The work of Petra Verdonk and colleagues[37,56,57] is particularly informative in understanding how gender mainstreaming has been understood from a theoretical perspective. They identified key challenges to incorporating sex and gender into medical education, including the difficulty of finding discrete points of entry into curricula for complex, interdisciplinary concepts and in challenging dominant systems of thought. Educators often believed that general biomedical knowledge was gender neutral, or that gender was merely a feminist political issue rather than a medical concern.[56,58] As such, Verdonk and colleagues[37] recommended a critical approach to implementing, researching, publishing, and monitoring gender issues in medical education to sustainably and meaningfully change gender bias. Others in both Sweden and the USA have noted that women were key drivers of introducing gender perspectives into clinical teaching and practice.[59,60] These observations are in keeping with previous work that suggests that the usual strategies operationalised to achieve gender equality, such as policy agencies and gender mainstreaming, could be ineffective if they lead only to the assimilation of women into male-dominated environments, rather than transforming the spaces themselves.[61]

A key critique of the approach to gender in medical education is its handling of gender in isolation from any other forms of oppression. By contrast, Alexandra Müller and Sarah Crawford-Browne[62] provide a powerful example of how to conceptualise gender issues as more inclusive of other forms of discrimination (panel 1).

***Panel 1*: Practical applications of the 2013 study by Müller and Crawford-Browne[62]**

Setting
University of Cape Town Health Sciences Faculty

Objective
Challenge current pedagogy and foster more critical understandings of gender and sexuality that are more inclusive of people of all races, genders, and sexual orientations

Challenges
A packed curriculum, variable engagement of students from highly privileged backgrounds, faculty resistance, paucity of culturally relevant teaching materials, existing strains on the health-care system

Pedagogical approach or curricular intervention
Incorporating social science and social justice teaching into the health sciences

Outcomes
The authors identified the following as critical pieces to incorporating inclusive understandings of gender and sexuality in the curriculum: creating faculty awareness through ongoing seminars, symposia, and journal clubs; finding allies and experts (including partnership with civil society organisations); developing an evidence base around the experiences of marginalised people within the health-care system; mainstreaming inclusive approaches to gender and sexuality content whenver possible (such as by disrupting heteronormativity by including a same-sex partner in a routine case-based scenario); and challenging the supposed neutrality of the existing scientific framework

The who: feminist analyses of the lived experience of medical training

Although much has been written about the practical challenges and inequities facing women trainees and physicians in the academy, most perspectives have centred on representation and access atheoretically. By contrast, the feminist scholar Brenda Beagan's[6,63,64] work on the lived experiences of medical trainees has been instrumental in outlining the issues of classism, racism, homophobia, and sexism faced by many trainees in Canada. Similarly, Palav Babaria[19,65,66] explored the gendered experiences of medical trainees at the Yale University School of Medicine, New Haven, Connecticut USA, drawing on Judith Butler's theory of gender identity as performance. Feminist scholar Maria Tsouroufli[67–69] examined how negative perceptions of part-time work or commitment to responsibilities outside the workplace contribute to the gendered hierarchy in which female physicians find themselves, and explored the use of first-person narrative to highlight the challenges of introducing feminist thought into academic spaces. With little leverage in the halls of academia, women physicians historically were much more likely to try to integrate themselves into the male social group than view themselves in solidarity with other women workers, patients, or community members.[2,38]

The how: feminist pedagogical approaches

Feminist pedagogical approaches involve challenging assumptions and examining the hidden curriculum of our institutions. For instance, Alan Bleakley[1] argued that increasing representation of women in medicine is insufficient to transform how gender identities and power differentials are created and perpetuated through cultural and linguistic practices in medical education, and that a feminist theoretical approach is required. Although situated in the UK, Bleakley's work has implications across geographical contexts. Ling-Fang Cheng and Hsing-Chen Yang[70] critically analysed an online platform used by medical students in Taiwan to show profoundly gendered beliefs among medical students, proposing strategies to address issues of gender stereotyping, gender sensitivity, and empathy. This unveiling of the hidden curriculum can transform pedagogic practices at individual and institutional levels.[71]

The work of scholar Delese Wear[21,31,72–74] draws extensively from feminist perspectives to reveal the assumptions that underpin much of how and what is taught (panel 2). More than just knowledge transfer, Wear notes that medical training is a process of socialisation and professionalisation.[74] Wear focuses a critical eye on discourses of professionalism and narrative medicine that neglect social contexts and do not advocate for broader curricular or

***Panel 2*: Practical applications of the 2016 study by Wear and colleagues[21]**

Setting
Northeast Ohio Medical University in the USA in the context of numerous killings of young black men.

Objective
To manifest a commitment to social justice through educational action.

Challenges
A packed curriculum, variable engagement of students from highly privileged backgrounds, faculty resistance, paucity of culturally relevant teaching materials, existing strains on the health-care system.

Pedagogical approach or curricular intervention
Development of a medical curriculum arising from anti-racist pedagogy and structural competency. Anti-racist pedagogy centres on race as a key determinant of people's experience of the world, and calls students to critically reflect on how oppressive power relations shape the lives of themselves and their patients. Structural competency calls students to not only recognise the broader social determinants of health, but also to act upon them. Although neither theory is explicitly feminist, critical understandings of power and privilege are central to these theoretical perspectives.

Outcomes
The authors describe strategies and tools for teaching and learning that focus on critical reflection and dialogue, ideally in small-group settings. These include the use of literature, film, and bioethical inquiry, as well as structured clinical and community experiences.

cultural shifts.[75] In critiquing these movements within medicine, scholars can force the acknowledgement of how what is said can often contradict is done, and how organisational structures contribute to this misalignment. As Wear[74] describes, although one might say they "value compassion, reflectiveness, social responsiveness, autonomy, and diversity" they might in fact be "rewarding and sustaining practices based on competition, hierarchies of authority, fixed spheres of practice, bottom-line thinking, and economies of privilege".

In addition to revealing and challenging the hidden curriculum, feminist pedagogy is concerned with the provision of meaningful and competent care to patients of all races, ethnicities, sexual orientations, and genders. However, traditional cultural competency curricula might actually fail to achieve this goal.[76] Beagan[64] showed how a course addressing social and cultural issues served to further Other communities, because it taught students to see difference without dissecting their own power and privilege.[4] Similarly, Kelly Baker and Beagan[77] showed that in their so-called view from nowhere, physicians can actually reinforce heteronormativity and gendernormativity that alienate patients who identify as queer. A common theme identified here and in other feminist pedagogies is the need to learn with, rather than learn about.[78] For instance, a "pedagogy of discomfort"[79] can frame moments of discomfort between patient and provider as fruitful moments of shared understanding, rather than being something to be minimised and avoided. US scholars have similarly explored more participatory methods of teaching and learning as means of creating more connected ways of learning with patients, rather than solely from them.[80,81]

From a feminist perspective, understanding oneself is essential to being able to understand another, and key to patient-centred and culturally safe care. Being able to understand one's own position and potential place of power is known as reflexivity.[82] Medical training, rather than fostering reflexivity, can instead work to diminish it. Over time, students are inculcated into the belief that their class, race, ethnicity, gender, and sexual orientation are irrelevant to their medical practice.[12,83] By contrast, reflexivity requires trainees and teachers to identify their values and professional identities to recognise how they are shaped by broader cultural contexts and institutions.

Another theme in feminist medical education literature is the role of empathy in medical training and socialisation.[18,74] In her work on feminist bioethics, Rosemarie Tong[18] argues that empathy as a teachable skill is a crucial component of caregiving, but one that is unlikely to be fully valued until culturally associated so-called feminine skills and virtues are similarly valued and equally distributed along gender lines in society. In a study of Junot Diaz's fictional *Wildwood*, Rebecca Garden[84] provided a brilliant example of how narrative can be used in health-care education to teach skills such as empathy, but also to show the limitations in being able to do so within the confines of traditional medical curricula. Part of empathy involves placing primacy on the patient's experiences and expertise, allowing practitioners to set aside their own expectations of medical and patriarchal omnipotence.[85]

The why: feminist approaches to medical education research

Feminist approaches to medical education research itself can manifest themselves in four ways: the questions that are asked, the theoretical frameworks through which those questions are asked, the methodologies used, and the ways in which research is translated into action, or rather how scholars engage in praxis.

Several of the papers described above are examples of how questions raised in the field might be feminist in their nature, in that they aim to address sexism, sexist exploitation, and oppression. For instance, researchers might choose to focus on how gender issues and gender bias are conceptualised and operationalised in medical literature.[56,58] Alternatively, they might choose to explore how feminist ways of knowing can be incorporated into medical education.[75,77,85] Using critical perspectives to explore the hidden curriculum are important ways in which feminist theory can be operationalised within medical education research.[67,86,87] In another example from Sweden, Gunilla Risberg and colleagues[88] developed a theoretical model for understanding how gender bias occurs and thus how it can be addressed.

Feminist medical research has also applied feminist theory to substantive topics within medical education. Wear and colleagues[3] applied third-wave feminist theory to understand how female medical students conceptualised sexual harassment and explained previous atheoretical findings in the medical literature on this topic. Ericka Johnson[89] applied a theoretical lens to question the "one-sex body" of medical simulators used in medical education, while others[90,91] have applied the feminist theory to understand gendered differences in comfort and willingness to participate in peer physical examination among medical students.

Although there is no singular feminist methodology, many methodologies place primacy on exploring lived experience, understanding gender from various perspectives, and incorporating how gender intersects with other aspects of identity. For example, the experiences of a black woman going through medical school are probably substantially different than that of her white female colleagues.[27,28] Other methodologies might seek to understand power and hierarchies.[25,92] Lastly, key to a feminist approach to medical education research is the notion of praxis, the process by which theory is actualised, made practical, and used to create change.[9,20,21]

Areas for further study

Feminist theory has influenced critical pedagogy and education scholarship across the world, but is largely missing from medical education theorisation. This absence suggests that academic institutions continue to create a culture of medicine and medical education that is rooted in patriarchy, with the perspectives of women, and especially women of colour, pushed to the margins. It is heartening that feminist approaches and theoretical lenses are being applied with increasing frequency to medical pedagogy and medical education research. However, important gaps remain. Much of medical education and medical education research is dominated by a pragmatic approach that remains largely atheoretical, with theory viewed as irrelevant or inaccessible to curriculum design. Yet, as psychologist Kurt Lewin suggested, "there is nothing so practical as a good theory". Although discussion of gender-based discrimination, sexism, and harassment is increasing within the classroom and in medical journals, an understanding of how women's multiple identities as women (and as all members of society) shape their realities is largely missing. Tsouroufli and colleagues[93] describe this theory of intersectionality, as coined by scholar and critical race theorist Kimberlé Crenshaw, as treating "systems of power and oppression along axes of gender, race etc. as interweaving in such a manner that their effects can only be examined by considering all dimensions and without prioritising any one form of power or oppression over another". Lynn Monrouxe[28] goes further to explain that intersectionality "recognises the impossibility of separating social categories such as race, class, gender, and sexuality: the multiple identities we possess should be seen as transformational rather than additional".[28] Applying intersectional approaches more explicitly and specifically to the problems facing medical educators and researchers could yield important contributions to policy, pedagogy, curriculum design, and research methodology, as suggested by Maaike Muntinga and colleagues' intersectionality-based approach to curriculum evaluation.[94] An intersectional approach would also bring forward many of the voices and perspectives that remain largely unheard in medical education and scholarship, including those of women living in poverty, women of colour, gay, lesbian, and transgendered people, and Indigenous peoples.

Intersectional approaches to medical education research can be especially powerful when combined with emancipatory pedagogical and research practices, such as community-based participatory research methods. However, to be truly transformative, any intersectional approach must grapple with the issue of power and privilege within medicine itself. As feminist researchers and educators work within their institutions, they must reckon with how their institutions support and potentially constrain their ability to critique power structures and social injustices that might be perpetuated in medical education.[95] Ultimately, the goal of feminist theory is social change. As such, it is important that medical educators and education researchers engaged in feminist work consistently and iteratively analyse their own practice and pedagogy to ensure that it is one that is moving towards praxis and social justice.

Limitations

A key challenge to this Review is that much feminist or feminism-informed work in the literature is not explicitly identified as such. For example, the work of Beagan was largely absent from the first literature searches. This might reflect the nature of medical scholarly categorisation, in which critical, theoretically informed research is lumped under so-called social science. By contrast, the multiple theories within the broader feminist umbrella could be categorised in more granular ways missed by this search strategy. The term feminism itself has undergone a cultural transformation, and although commonly used in some contexts, it can still carry negative connotations and potentially even career implications. Some scholars might have been reticent to overtly identify the theoretical grounding of their research as feminist. Feminist theory takes direct aim at the roots of power, and when applied to medicine it demands that physicians do the uncomfortable work of recognising their own privilege and at whose expense that privilege is won. As such, some academics might feel that labelling their work as feminist is too discomforting, if they can engage in such work at all. These are important limitations but speak to the gaps in

knowledge and knowledge production within the field, as is the objective of a scoping review. Furthermore, consultation with experts in the field has hopefully mitigated these limitations to some degree.

The small number of publications in this area might reflect a publication bias, and it would be important to understand potential structural gender biases in medical education publishing, such as male-dominated reviewers or editors, or a preference for quantitative data.[96] However, it might also be reflective of the challenges in engaging in feminist work, as described by Wear[72] and Tsouroufli.[69] These challenges can include resistance to gender mainstreaming in the curriculum, a delegitimising of social science or qualitative work, and resistance to the uncomfortable introspection or reflexivity that can accompany feminist pedagogy.[56,73,82,96]

Although English was not specified as an inclusion criterion, most of the literature reviewed was generated in or pertained to North America or Europe, with few notable exceptions.[42,54,62,70] Scholarship was often concentrated in particular settings, such as among Wear and colleagues in the USA, Verdonk and colleagues in the Netherlands, and Risberg and others in Sweden. This suggests the need for a critical mass of engaged academics, and the need for supportive institutions, in any line of inquiry. Despite the concentration in high-income settings, many of the issues addressed through the application of feminist theory to medical education can be extrapolated to low-income and middle-income countries, because much of medical education globally fits squarely within a biomedical framework. A biomedical framework relies largely on objective science that is posited as neutral and value free, that determines the body as purely the result of biological processes. This framework does not understand the body in its social context.[62] In thinking across geographical contexts, however, it is important to avoid a neocolonial perspective that universalises and normalises a Western worldview while marginalising all other perspectives.[25,26] This becomes particularly relevant when recognising that even when feminist thought has been applied to medical education, it has seldom drawn explicitly from Black feminist or postcolonial thought.[25,27,28,93,97]

Conclusion

Medical education lays the foundation for medical practice, and a deeper understanding of how we teach future practitioners is essential to understand pressing issues of discrimination and harassment, and to foster physicians who practise in safe and inclusive ways. In many parts of the world, women make up over 50% of medical trainees. Yet, they do not see themselves mirrored in the halls of academia, they experience sexism in the surgical suite, and they bear witness to the ways in which their patients are further marginalised. This is particularly true for women of colour and for people whose gender identity does not fit the mainstream. Feminist theories are therefore not only beneficial, but also can be considered essential, ensuring that attempts at increasing the number of women in leadership and decision-making roles do not stop at recruitment and retention, but also challenge the patriarchal underpinnings of medical education. Doing so is crucial to achieving workplaces that are safe for both practitioners and patients—where individuals of all races, genders, sexual orientations, and social classes feel recognised, heard, and supported. As the medical community seeks to address these challenges, critical analyses of how and what is taught, and whose stories are told, are essential to creating structural change. By interrogating and challenging patriarchy within medical education, the experience of learning and caregiving for students and faculty can be transformed, ultimately improving the experience of illness and healing for patients.

Declaration of interests

I declare no competing interests.

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