

A critical exploration of the impact of gender disparities on female students and decision-making regarding specialisation whilst at medical school

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INTRODUCTION

In 2019, it was reported that 48 percent of doctors working in England were female;¹ a greater proportion than ever before. Despite this, only 36 percent of consultants are female.² As the employment demographics have evolved so has the profile of gender-based barriers, driven by a combination of enhanced issue based social awareness and the willingness to raise concerns. This is depicted in the 2021 BMA Sexism in Medicine Survey which revealed that nine in ten female doctors in the UK have experienced sexism in work.³ Additionally, a 2023 observational study published by the British Journal of Surgery clearly portrayed that women were affected disproportionately in relation to sexual harassment, assault and rape; it revealed that 63.3 percent of women were victims of such behaviour in the workplace.⁴

This worrying reality has coincided with recent social movements such as the “#MeToo” campaign where women stood in solidarity whilst sharing their own personal experiences of both sexism and sexual assault.⁵ This was augmented by the outcry surrounding “Med Bikini” on social media,⁶ due to a since retracted study which claimed that photographs of female vascular surgeons in bikinis were “provocative” and hence unprofessional. The targeting of these female professionals and of how they spend their time whilst not working was met with disdain and uproar, along with anger regarding how the same level of criticism was not directed towards their male counterparts.

The majority of the literature details the impact of gender disparities on doctors. We aim to critically evaluate research surrounding gender disparities, but with a particular focus on medical students, an area that remains relatively unexplored. Then, we will consider the impact of such inequality in relation to the career path individual students decide to take.

RESULTS

The origins of the gender disparities that occur in medicine can be underpinned by Glick and Fiske’s Ambivalent Sexism Theory,⁷ which conveys the evolution of gender inequalities and produces two contrasting subtypes of sexism. Firstly, hostile sexism refers to the traditional lay person’s interpretation; constituting harsh and unpleasant attitudes relating to gender which ultimately aim to maintain a facade of power and dominance.⁸ Female medical students experiences of hostile sexism include being instructed to dress or interact in a provocative way to pursue success with their male superiors. Contrastingly, benevolent sexism can often present covertly; micro aggressions and gender bias ideas which are camouflaged by patronising attempts to compliment an individual. Benevolent sexism consistently refers to the notion of protective paternalism in which the male figure is expected to conform to its dominant role of authority in society in protecting and providing for women.⁹ It is imperative that the

notion of benevolent sexism and the consequent impact that it has upon decision making regarding specialisation for medical students is explored.

Gender disparities and academia

Medical school is where the careers of future doctors are first established. Sexism and inequality stemming from education may consequently be amplified through an individual’s career, as argued by a group of fifth year students in 2021. It was their assertion that an already discriminatory environment would predispose to the “new generations of male doctors adopting the behaviours of their seniors”¹⁰ and thus continue to magnify the impact of the historical disparities that still exist.

Females have a significantly different experience of academia whilst at university, their male counterparts are more likely to work with the most highly accredited tutors, undertake further degrees and be awarded greater funding.¹¹ In 2018, the Yale School of Medicine found that despite females authoring 50.9 percent of the final year theses, only 30.9 percent of the highest honours were awarded to female authored research.¹² It concluded that research projects conducted by female authors were less likely to receive enhanced accreditation, leading to their suggestion that gender disparities may originate during undergraduate education. This inequity in achievement may impose a significant impact on the future careers of female medical students and portrays a phenomenon described by Rossiter as the “Matilda Effect”¹³ where women do not earn the equivalent recognition as their male competition. Poorer outcomes in results obtained in higher education may subsequently influence decision making regarding specialisation; candidates who are ranked lower are less likely to succeed in their application for more competitive specialities, therefore indicating that a gender bias in the academic achievement of medical students may influence their choice in terms of career path.

Furthermore, female medical students are subjected to a higher mental health burden during their time studying at university,¹⁴ which may again negatively impact their academic success and subsequently influence their choices for which speciality applications they perceive as achievable within the realm of their own ability. A linear relationship is depicted, displaying that as the existence of gender disparities increases, so does the burden on mental health. However, this argument can be contested due to the stigma surrounding gender and the discussion of mental health; male students have been shown to be frequently less likely to seek help regarding their mental status and coping abilities as it does not conform to the masculine stereotypes that are imposed on men.¹⁵

Sexism in medicine

The focus will now shift to the practical element of a medical degree and the consequent impact that sexism in relation to placement may impose on students.

It is reassuring that women are being increasingly encouraged to voice concerns regarding hostile sexism in the workplace, again emphasised by the “BMA Sexism in Medicine Survey”, which depicted the dramatic increase in the reporting of incidents relating to sexism,³ illustrating the rising overall consensus that sexism will be reported. This aligns with the increasing momentum behind social movements, including the global “#MeToo” campaign,¹⁶ suggesting that the public will not tolerate behaviours that signpost overt hostile sexism. This is depicted by how women in science, technology, engineering, and mathematics (STEM) now perceive that they are subjected to more a benevolent sexism rather than hostile sexism; thus, beginning to demonstrate a shift in the type of ambivalent sexism that women are being exposed to today.¹⁷

Whilst in discussion with a fifth-year medical student, they disclosed frequent experiences of gender disparities directed both towards themselves and their peers; enabling the proposition of the argument that sexism is still rife for medical students in a healthcare setting despite the increase in the proportion of female working doctors. During conversation, we explored a particular scenario of note where a patient called over the female medical student and their male clinical placement partner, another medical student, by referring to the partner as “the doctor” and themselves as “the nurse”. This assignment of gender to vocation both portrays the extent of the sexist stereotypes that society facilitates and has the potential to cause great offence as it undermines the value of our nurses. On reflection, it is interesting to note how they did not discuss this benevolently sexist interaction with anyone; this clearly exemplifies how normalised we are to the ambivalent sexism that occurs in healthcare and how crucial it is for gender bias and disparities to be spoken about when they occur to enable change. The deep rooting of these assumptions can result in detrimental effects on confidence; the consistent recognition by both other members of the healthcare team and the patients themselves of the role of the doctor as being a male figure can progress to the development of imposter syndrome for women.¹⁸ This suggests sexism may not just affect the choice of speciality for female medical students, but the negative effects may be more harmful than initially suspected, as it poses the potential to in fact deter women away from a career as a doctor entirely.

In spite of this, during discussion with the medical student we also explored elements of placement that have been detrimental for male counterparts, particularly whilst on placements that involve intimate examinations. Female medical students are often never refused to observe any consultation by either gender, whereas on multiple occasions, female patients request that male students do not observe. This concept is illustrated consistently throughout literature relating to obstetric and gynaecological placement for medical students;¹⁹ examples included males being declined from involvement in history taking and examinations as well as feeling excluded in comparison to the female staff as they were not able to relate to patients in situations such as childbirth. This suggests that it is not only female medical students affected by ambivalent sexism whilst at medical school.

Speciality decision making

The gender-based labelling of vocation in the medical field occurs as a result of the process of gender socialisation;

the notion that we learn the psychological and social traits associated with a person's sex based upon our surroundings.^{20,21} Therefore, the sexist stereotypical assignment of a caring, empathetic and talkative doctor being attributed as feminine, may influence a female medical student's decision and thus direct them towards a career in general practice, whereas it is insinuated that men are more suited for the specialities that are portrayed as tougher and more demanding such as surgery.²²

In 2014, the UK Academy of Medical Royal Colleges responded to an article which suggested that the feminisation of medicine was both risky and damaging. It insinuated that women avoided the specialities that required greater commitment and consequently chose the “convenient” general practice career. The author used statistics stating that women were more likely to work part time and retire early, to suggest that it negatively impacted their overall ability and worth as a doctor.²³ This caused nationwide uproar due to offence both regarding the sexist views portrayed in the article and the insults that resulted due to the depiction of general practice as an apparently easier career.²¹ Guidance of females towards specific careers links to the benevolent sexism that was previously introduced; it is a clear depiction of protective paternalism where females are directed towards a career in general practice as it is suggested that it will protect them as the more “emotional” and “fragile” gender.¹⁰ In the statement from the Academy it was declared that the profession needed to “remove gender disparity across medical specialities”.²⁴

As previously stated, the female gender is consistently directed away from the male dominated career of surgery, in 2018 a National Health Service (NHS) report found that only 27 percent of surgeons were female.²⁵ This may be explained by the difference in prioritisation factors when choosing a career as women list lifestyle factors much more highly than men.²⁶ This conforms with the proposition made in a 2009 literature review;²⁷ which established that speciality decision making is dependent on two key factors, the first relating to the predictability of the schedule and the consequent antisocial working hours that may result, and secondly the extent of face-to-face patient interactions. Thus, it introduces the suggestion that female medical students are more likely to pick careers such as general practice rather than surgery due to the conditions that may be imposed by specialities when they are considering starting a family. Throughout the literature this idea is echoed through tones of benevolent sexism; a 2021 article from the British Journal of General Practice interviewed female medical students, one of whom stated she had been told by a senior doctor, “when will you have time for the kids”, when discussing what speciality she wished to pursue.²⁸ Women additionally expressed concerns regarding the impact of the more demanding specialities on aspects of motherhood such as pregnancy, breastfeeding and the amount of maternity leave that was deemed to be acceptable. There was also reported apprehension in relation to the effects of stress on pregnancy.²⁹ Therefore, workload and flexibility present as significant factors for female medical students when deciding on their chosen speciality, due to gender disparities in relation to a woman's childbearing role.

In addition to gender socialisation and prioritisation factors, the levels of sexual harassment, intimidation and humiliation experienced by surgical trainees may deter female medical students from a career in surgery; 16.6% of female surgical trainees disclosed that they witnessed sexual coercion

as part of training and career progression.⁴ The positions of authority of the perpetrators lead to many feeling as though they could not report incidents. Additionally, the formation of a “banter culture” was found to both normalise and justify unacceptable behaviour.⁴

However, some may contrastingly argue that decision making regarding speciality is not as a result of gender disparities and instead a matter of entirely personal choice. The “personal choice/different voice” analogy highlights this notion, stating that it is simply an independent decision made by the medical student who has the ability to pick any of the specialities.³⁰

The lack of presence of female role models in the field may also deter female medical students from ensuing the surgical route; a 2018 survey found that 88 percent of female respondents felt dissuaded from a career in neurosurgery due to the lack of female role models.³¹ The literature advocates that female role models are not only important in attracting medical students to under-represented specialities and leadership, but also, more significantly in retention.²⁹

DISCUSSION

This review has identified that significant gender disparities still exist for female students at medical school and that the consequences can result in serious implications when decision making regarding their future career.

The prevalence of benevolent sexism is still high. It can be concluded that benevolent sexism can greatly influence women when decision making, as it often occurs in the form of protective paternalism, in which women are directed towards “less demanding specialities” by men as it is seen as an attempt to shelter the weaker sex. In order for this to be resolved, it is imperative that the subtle and micro aggressive benevolent sexism that occurs in both medical school and healthcare environments is addressed. In an attempt to remove inequalities, we must reverse the process of gender socialisation that has taken place and encourage an environment of questioning stereotypes. This can be shown through the medical student’s experience previously discussed; they did not voice any of their own opinions or concerns after being pre-labelled by the patient. It is crucial that we discuss these incidents when they occur to both alleviate any detrimental effects such as imposter syndrome and also to demonstrate that benevolent sexism is no longer normalised or accepted.

The existence of the perspective of easier versus harder specialities must be recognised as dated. We should instead encourage individuals to choose specialities based on personal interest, passion and motivation to do well in an area, not what the gender that they identify as is deemed capable of. The “personal choice” analogy cannot currently be applied due to the confounding issue of the existence of gender disparities and sexism, however in an ideal world where gender disparities did not exist it could be argued that it would be the ideal.

To facilitate a reduction in gender disparities practical changes are also required. An increase in the number of female role models would be a crucial factor for those considering otherwise male dominated fields. Additionally, creating flexible training programmes for female medical students who wish to start a family is critical; this can be done via ensuring support for pregnant mothers and the provision of facilities such as on-site childcare.

It is paramount that we enable females to feel safe and protected during training programmes. We have recognised that sexual harassment and assault is still occurring within healthcare, specifically the surgical setting and that it is consistently enabled by the historical “banter culture”. We must address the power imbalances created by the medical hierarchy and the idea that victims feel as though they are unable to report perpetrators due to their superiority.

Finally, the gender disparities in academia must be removed. If gender socialisation occurs, presenting gender inequalities and benevolently sexist views as the norm whilst at university, then it is likely to be ingrained in the careers of our future doctors. The removal of these disparities could therefore potentially prevent the “Matilda Effect”, enabling all medical students a fair chance at competing for particular specialities regardless of gender.

It was also identified that it is not only the female gender who experience gender disparities. More research is required regarding the impact of medical school on the mental health of young males and the subsequent impact on academic performance, as well as the consequences for speciality decision making for males who are not granted permission by patients to participate in specialities such as obstetrics and gynaecology.

A limitation of this project we must consider is the origin of the research; the majority of the literature discussed is American, where there are differences in both the structure of medical school and the speciality decision making process. It is pressing that future primary research regarding this matter is conducted in solely the United Kingdom for a conclusion regarding the decision-making process in the NHS to be made.

This project is further limited by its significantly over simplified portrayal of gender; it is imperative that future research focuses on the impact of gender disparities on all and does not exclude those who are not represented by the outdated male and female categories. Hence, it should be recommended for research to be conducted in groups such as those who identify as non-binary and transgender to prevent discrimination.

CONCLUSION

The weight of the evidence presented portrays that significant gender disparities still exist for female medical students and that the subsequent effects of these inequalities can result in momentous implications during the speciality decision making process. It is crucial for change to occur and for equality to be achieved. However, it is imperative to conclude that gender disparities do not affect females alone and thus more research is required in relation to the effects on both males and other groups who do not identify within the outdated male and female definitions.

CONFLICT OF INTEREST STATEMENT

There are no conflicts of interests for Catherine Berrow, Alice Warcup or Dr Nomi Olsthoorn.

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