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■ EDITORIAL

Getting the culture right

The last year has seen a worldwide drive to fight racism and misogyny, and to encourage diversity and inclusion. We have seen the *Black Lives Matter* and *#MeToo* movements asking people to recognize their privilege. Even if we may not have seen or been a victim of these behaviours, we must now acknowledge that these problems are real. Likewise in surgery, the *#ILookLikeaSurgeon* and *#SpeakupOrtho* social media campaigns have called out inappropriate behaviours, highlighted female surgeons as role models, and demanded respect and equity for all surgeons, regardless of their sex and origin. A report on avoiding unconscious bias from the Royal College of Surgeons of England (RCSE) has placed a spotlight on the current culture of surgery in the UK.¹ Among the many equality and diversity issues described in Baroness Kennedy's investigation, it was identified that there should be more female leaders within the RCSE to represent its members and encourage the next generation of female surgeons. Within surgery, orthopaedics is the worst of the worst when it comes to female representation.² There are other diversity issues in orthopaedics regarding ethnicity, education, and disabilities; however, we have the most data and research for sex comparisons.³⁻⁵

Although females make up 60% of medical students, this number dramatically drops down during training to only 7% of UK orthopaedic consultants.² Although 25% of orthopaedic trainees are female,² we are somehow losing most of our female trainees along the way. By perpetuating our current culture, we are losing out on talented orthopaedic trainees and consultants, and this negatively impacts the care we deliver to our patients.

We often hear people say that "not everyone is suited to orthopaedics". The issue is not about forcing trainees into any speciality to make up the numbers, but about ensuring that people who are interested in exploring a particular speciality or role, and would potentially make excellent surgeons, are not put off or turned away because they are made to feel that they do not belong. Although it is recognized that the surgical path involves long hours, physical work, stress, and evening and weekend responsibilities, there are many types of people who can become orthopaedic surgeons who do not necessarily conform to old-fashioned stereotypes. The fact that some senior female orthopaedic surgeons who have succeeded

will say, "I did not have any problems" or "I did not care what people thought" does not absolve us of responsibility, as these are the minority who manage to make it to consultant level.⁶

The Hidden Curriculum describes the unofficial story of what it means to be an orthopaedic surgeon.⁷ These myths are often perpetrated by other specialties with an outdated view of our speciality.⁸ It has been shown that medical students are more likely to pursue orthopaedics if they see themselves as having the same traits as the traditional 'white, athletic, male' orthopaedic surgeon.⁹ However, diversity has repeatedly been shown to improve innovation and patient outcomes,¹⁰⁻¹² so we need to work harder to make a career in orthopaedics accessible to all.

Others may say "orthopaedics is just better suited to males". Is this because our techniques, equipment, gowns, gloves, and even trolley height have been designed for males? The book 'Invisible Women'¹³ is an eye-opening read detailing how the world has been created and maintained for the convenience of males, at the expense of females. For example, in a car crash, females are 47% more likely to be seriously injured and 71% more likely to be moderately injured than males. They are 17% more likely to die. Females tend to sit closer to the wheel and more straight in their seat, which is classed as 'out of position' (the male position is the 'standard seating position'). They also have less neck muscle and so are more prone to whiplash, which has not been taken into account in car design.¹³ This is because crash-test dummies are 1.77 m tall and weigh 76 kg, with male muscle mass proportions and a male spinal column. There are now some female crash-test dummies; however, they are only tested in the passenger seat, and are just a shrunken male dummy without taking female anatomy into account. For example, the presence of breasts and pregnancy mean that many females must use the standard seatbelt 'incorrectly'. There are parallels here with the equipment used in orthopaedics. Many NHS hospitals stock only large, extra-large, and extra-large extra-long sterile theatre gowns, making them cumbersome for smaller surgeons to wear while operating.¹⁴ If a female surgeon struggles to use a piece of equipment, such as an arthroscope, it does not necessarily mean they are not suited to orthopaedics, it may be that the tools were designed for bigger hands. This

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problem also applies to males who are shorter, have smaller hands, or those who have difficulty with power grip. Surely our equipment can be improved to allow everyone to use them easily?

Working hours are now more protected, and flexible working has improved the work-life balance. However, females still do the majority of 'unpaid' work, looking after the home and family, irrespective of the proportion of income they bring in.¹⁵ This can add another layer of stress to an already stressful career.¹⁶ The extra commitments make it harder to find the time for out of hours work needed to reach leadership positions. When planning a family, a recent survey of North American surgeons found a 42% higher rate of miscarriage when compared with the rest of the population, suggesting we still need to do more to support pregnant surgeons.¹⁷ There is also an issue with maternity leave impacting training,¹⁸ and many countries now offer balanced paternity leave. Until there is more gender parity in childcare, and more equal expectations of males and females in the home, it will be difficult to achieve a balance.

When females do enter orthopaedic training, they are often met with unconscious bias and microaggressions, which can build up over time and make trainees feel that they do not belong.¹⁹ Many male surgeons may not be aware that female surgeons are treated differently by patients and nursing staff.¹⁹ Language has the power to make minorities feel excluded and unwanted. There is a well-known pyramid infographic, which explains how everyday sexism can lead to bullying, degradation, and assault.²⁰ Sexual harassment is already rife in surgery, and must be addressed at all levels.²¹ A lack of visible female leaders makes female surgeons feel there is no opportunity for them to progress.²² Male-only panels at orthopaedic meetings compound the impression that females do not belong. When females are presenting at meetings, they are more likely to be introduced by their first name, which reduces their professional standing.²³ Female audience members are also less likely to ask questions, but this improves if there is a female chairperson and if a female is the first person to ask a question.²⁴ Unfortunately, most males are not aware of these issues and the extra work that females must do to belong. This is similar to problems faced by all minorities within surgery, but this appears particularly pronounced for females in orthopaedics.

Once we accept that we need to improve diversity within our profession, we must actively try to address the imbalances in orthopaedics. Every student and trainee who is a potential orthopaedic surgeon should be treated as an individual, regardless of their origin or sex. We must never jump to conclusions based on appearances and we must set up systems which give everyone the opportunity to progress. All trainees must be supported equitably. A recent paper by a senior cardiothoracic surgeon gave practical examples of how senior surgeons can be an ally for females in a male-dominated surgical speciality.²⁵ Males are able to mentor female trainees just as well as women. For example, studies have shown that females are given significantly less autonomy in theatre.²⁶ It is therefore important to encourage female students, and trainees in particular, to take an active role in clinics and in the operating theatre.

There may be some uncomfortable truths in how our behaviour affects others. Not only do we need to watch what

we say, but we need to pull up our colleagues when they use inappropriate language or display biased behaviours. We need to encourage diversity in leadership positions. The 30% Club is a global campaign run by chairs and CEOs to improve female representation at all levels in business, as many studies have shown that when there is at least 30% diversity within a group, innovation and productivity improve.^{10,11,27} This should be the aspiration for our profession. Not only must we ensure that we get the best people, we also need surgeons who represent our population.

Many orthopaedic associations, including the British Orthopaedic Association, are also attempting to address these issues and to implement change with the creation of Diversity and Inclusion Panels. There is a new international collective called Women in Orthopaedics Worldwide (@orthoWOW), which hosted free symposia at the 2021 American Association of Orthopaedic Surgeons meeting,²⁸ as well as the British Orthopaedic Association Congress. There are also British informal support groups, such as W.ORTH on Facebook and @OrthoWomen on Twitter. All orthopaedic surgeons are invited to join the new group International Orthopaedic Diversity Association, and there is a wealth of online resources available for free on their website. The AO Foundation has also created AO Access, which is an initiative to encourage diversity, inclusion, and mentorship.²⁹

The goal must be for orthopaedics as a speciality to get and keep the best people, by increasing our talent pool and allowing those with the greatest aptitude the opportunity to succeed. By opening our speciality in this way, we will naturally improve diversity and encourage greater female representation. We need to proactively consider our inherent biases and think carefully about the language we use with colleagues. Each of us, while engaged in teaching, training, research, and clinical care, must play a part in encouraging minorities to embrace trauma and orthopaedics. Once attracted to our speciality, we must ensure all trainees feel supported and included. In this way, we will improve our speciality for future generations, and ensure that we are not left behind as the rest of the world moves forward.

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