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Diversity in orthopaedics and traumatology: a global perspective

The International Orthopaedic Diversity Alliance[1]

- Europe represents true diversity, with cultural, linguistic and geopolitical variation spanning a large geographical area. Politics for many of its 750 million inhabitants revolves around the European Union (EU) and its 27 member states. The overarching goal of the EU is to promote peace and the values of the union (inclusion, tolerance, justice, solidarity and non-discrimination).[1,2]
- EFORT was created to connect orthopaedic associations across Europe, fostering relationships between member countries that celebrated diversity and facilitated the exchange of knowledge. Whilst the global landscape changes and politics attempts to interfere in how we live our lives, it is important to remember that a strong organization is a diverse one that evolves over time.
- Various initiatives exist across the global landscape to support diversity in terms of culture; gender; black, Asian and minority ethnic (BAME) groups; disability groups; lesbian, gay, bisexual, transgender and queer (or questioning) and others (LGBTQ+); and the 'ageing' surgeon. This article explores the creation of some of these initiatives and how they have been supported by different orthopaedic organizations.

Keywords: diversity; surgery; trauma and orthopaedics

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Introduction

The European Federation of National Associations of Orthopaedics and Traumatology (EFORT) dates back to 1993. The idea of creating an organization to connect all the national orthopaedic associations in Europe began with a committee whose primary function was to organize a single combined meeting of European associations to mark the creation of the European Single Market in 1993. A federation was chosen, rather than an organization with individual memberships, to avoid conflict with the large number of national societies. It was agreed that the General Assembly, comprising two delegates from each participating nation, would be the legally responsible body for the activities of the Federation.

Diversity is essential to create strong organizations that maximize their membership's talents and skills. Organizations that are diverse are dynamic, exhibit a better quality of decision making and are attractive to future employees. The critical mass for effective diversity is 30%.[3–6] At an international level, diversity within orthopaedics has been addressed by various associations, driving the creation of an International Orthopaedic Diversity Alliance.[7]

Unconscious or implicit bias underpins the 'hidden curriculum' which can adversely affect our choice of colleagues and how we treat patients.[8–10] Frequently, the 'hidden curriculum' suggests that orthopaedics is a 'boys club' which may deter good candidates from considering such a career. Varied role models, good mentors and flexible working patterns are all important in supporting under-represented groups within our work force.[11–13]

Cultural diversity

Under-represented groups have difficulty in accessing care and show evidence of health disparity. For example, African American and Hispanic patients are 50% less likely than white patients to undergo a joint replacement.[14] Patients are more likely to be satisfied with their treatment if treated by a doctor representing their own cultural group. Doctors from minority groups are also more likely to work in under-served areas leading to improvements in health equality.[15]

Africa

The population of South Africa (SA) is around 57 million, with a doctor-to-patient ratio of 6:10,000, less than half the global average. The 'brain drain' out of SA has had an immense impact on the healthcare system, with thousands of skilled doctors (nearly half of those registered) and healthcare professionals now working abroad. Although the shortfall of BAME (black, Asian and minority ethnic) doctors has improved over the years, a 2016 study showed

that only 25.85% of doctors in SA represent the black community. A recent article highlighted that 38.7% of undergraduates in South African medical schools were black, 13.4% coloured, 13.6% Indian/Asian and 33% white.[16]

Australia

Aboriginal people and Torres Strait Islanders are the indigenous, First Nations peoples of Australia and comprise 3% of the population. Indigenous Australians experience higher rates of cardiovascular, respiratory and diabetic diseases as well as higher rates of trauma and considerably lower life expectancy.

The Royal Australasian College of Surgeons (RACS) is responsible for surgical training in Australia. The Australian Orthopaedic Association (AOA) is a specialty society and its members account for 20% of the 7000 surgeon and 1300 trainee members of the RACS. Australia has three indigenous surgeons and five indigenous surgical trainees; three of whom are in orthopaedic training. There are no qualified indigenous orthopaedic surgeons (RACS Indigenous Health Committee data, February 2020).

In 2019, the AOA participated in the Australian Indigenous Doctors Association (AIDA) Conference for the first time, facilitating workshops and encouraging delegates into orthopaedic surgery. An expanded involvement is planned for 2020. The indigenous orthopaedic trainees will attend the workshop as facilitators and role models for their younger colleagues.

Australian initiatives to increase the number of indigenous surgeons involve creating an 'Indigenous Trainee Pipeline' through career enhancement scholarships for medical students, surgical skills workshops, an annual RACS Aboriginal and Torres Strait Islander Mentoring Prize, a Surgical Trainee one-year Indigenous Scholarship and an Indigenous Surgical Trainee Selection Initiative.

New Zealand

New Zealand's (NZ) Treaty of Waitangi mandates equal access to national resources and requires the government to ensure that Maori have at least the same level of health as non-Maori. Currently, this is not the case, with Maori having significantly worse health outcomes.

Ensuring all surgeons have an understanding of the role of whanau, Maori belief systems and values or tikanga, will likely promote changes to Maori health outcomes but improving the diversity of the medical workforce such that it is reflective of the population is also key.

Maori make up 16.5% of the NZ population but in 2015, only 6% of house officers. There are no accurate statistics regarding current numbers of Maori orthopaedic surgeons. Efforts continue to improve the diversity of the workforce in terms of ethnicity as well as gender. Greater numbers of graduating Maori medical students will help, and currently 15.5% of orthopaedic trainees are Maori.

Gender diversity

Although, in many countries, females represent over 50% of medical graduates they still often constitute less than 10% of orthopaedic surgeons, and disappointingly orthopaedics remains the least gender diverse of all surgical specialties. Recognizing the importance of benchmarking diversity, last year, a survey on gender diversity was commissioned amongst the National and Speciality Societies of EFORT. The results (Table 1) showed the proportion of female consultants ranged from 1–27 % in 2019. A global survey of members of the International Orthopaedic Diversity Alliance (IODA) (Table 2) has shown similar data.

Initiatives such as mentoring, female role models and flexible training all support greater parity by encouraging more women into the orthopaedic workforce.[17,18] Various international strategies have focused on changing the traditional orthopaedic culture to support a better work–life balance for both genders.

Africa

In South Africa, gender disparity still exists despite 62.2% of medical students identifying as female.[16] SA has 1,007 registered orthopaedic surgeons but only 5% are female. The South African Orthopaedic Association (SAOA) has made efforts to increase the cultural and gender diversity of its membership to better represent its multiracial population. However, despite these efforts, some groups remain underrepresented, raising awareness that combined active efforts and interventions from universities at undergraduate level, orthopaedic departments at trainee level and representative associations at all levels are still necessary, with special attention focused on the growth and development of females pursuing careers in orthopaedic surgery.

Tanzania

Tanzania is an East African nation with a population of 51 million. It faces major challenges such as poor infrastructure, low education levels, poverty, and disease including musculoskeletal injuries, contributing to high mortality and disability. Tanzania has one of the lowest physician-to-population ratios (3.1:100,000) in the world, despite the high disease burden. In 2006, only 20% of doctors practiced in the rural areas where 73% of the population live. The Tanzania Development Vision 2025 commits the nation to providing universal access to quality primary healthcare. To fulfil this vision, the government has committed to increase the health workforce to meet the population demands resulting in a 28-fold increase in medical student intake over a 24-year period (from 55 to 1580 per year). Despite this, only 7.6% of the 118 orthopaedic surgeons and 5.3% of the 51 orthopaedic trainees are female. The College of Surgeons of East, Central and Southern Africa (COSECSA) with the Tanzania Development Vision 2025 aims to increase

Table 1. EFORT gender diversity survey

Rank	Country	Total	Females	% Females
1	Germany DGOU*	3,269	876	27
2	Estonia	110	29	26
3	Spain	6,449	1,604	25
4	Romania	700	150	21
5	Denmark**	1,068	0	20
6	Austria	1,244	217	17
7	Sweden	1,376	231	17
8	Norway	673	108	16
9	Portugal	1,434	215	15
10	Finland	666	93	14
11	The Netherlands	850	118	14
12	Germany DGOUC*	3,340	460	14
13	Poland	1,475	198	13
14	Germany BVOUe.V.*	6,773	905	13
15	Belgium	369	47	13
16	Germany DGU*	4,766	575	12
17	UK***	5,195	564	11
18	Italy	4,350	459	11
19	Switzerland	1,047	90	9
20	Lithuania******	243	17	7
21	France****	4,000	220	6
22	Greece	1,307	67	5
23	Iceland	45	2	4
24	Albania/Kosovo	75	3	4
25	Turkey	3,088	22	1
Rank	**Speciality society**	**Total**	**Females**	**% females**
1	EBJIS*****	237	60	25
2	Eurospine*****	685	37	5
3	EHS	440	11	3

Note. In December 2019, EFORT performed a survey of all national and specialty societies asking for the total number and total number of female orthopaedic surgeons within their membership in 2019.
*Certain overlaps exist.
**Number of women not recorded but society advised approx. 20% female members.
***Not all members answered gender question.
****19% of surgeons under the age of 40 are female.
*****Multi-speciality society.
******Paediatric orthopaedics and traumatology not included since it is a separate society.
DGOU, Deutsche Gesellschaft für Orthopädie und Unfallchirugie; DGOUC, Deutsche Gesellschaft für Orthopädie und Orthopädische Chirurgie E.V.; BVOUe.V, Berufsverband für Orthopädie und Unfallchirugie; DGU, Deutsche Gesellschaft für Unfallchirugie; EBJIS, European Bone and Joint Infection Society; EHS, European Hip Society.

the number of surgeons in the region. Women in Surgery Africa (WISA), under the umbrella of COSECSA, has established a mentorship programme in each of its member countries including Tanzania. The American College of Surgeons is also committed to supporting WISA and the education and training of young female surgeons.

Malawi

Currently there are 13 qualified orthopaedic surgeons in Malawi, including three women, covering a population of 17.5 million. Five are from other countries: three from within Africa, two from Europe. As of January 2020, there are five orthopaedic trainees; one is female.[19]

Table 2. Female orthopaedic surgeon diversity on a global scale

			How we fare (2019)*				
Rank	Country		Population (million)	Orthopaedic surgeons	Surgeon:population	Female orthopaedic surgeons	% of female orthopaedic surgeons
1	Estonia		1.3	110	1:12,045	29	26.4
2	Sweden		10.1	1,376	1:7,316	231	16.8
3	Brunei		0.4	15	1:28,666	2	13.3
4	Canada		37.6	1,659	1:22,658	199	12.0
5	Colombia		50.3	2,020	1:24,900	208	10.3
6	Malaysia		32.6	982	1:33,197	98	10.0
7	Hong Kong		7.4	470	1:15,744	38	8.1
8	Tanzania		50.0	118	1:423,728	9	7.6
9	France		67.0	3,503	1:19,126	248	7.1
10	Chile		18.9	794	1:23,803	49	6.2
11	United States		329.1	27,651	1:11,900	1673	6.1
12	Indonesia		270.6	1,000	1:252,897	54	5.4
13	New Zealand		4.8	302	1:15,894	15	5.0
14	Japan		126.7	21,275	1:5,955	1,040	4.9
15	United Kingdom		66.9	2,960	1:22,591	141	4.8
16	Australia		25.4	1,334	1:19,538	57	4.3
17	Kosovo		1.8	78	1:23,076	3	3.8
18	Thailand		69.6	2,430	1:28,641	92	3.8
19	Philippines		108.1	1,070	1:146,081	35	3.3
20	Singapore		5.8	253	1:22,924	8	3.2
21	Kuwait		4.7	149	1:31,543	3	2.0
22	Myanmar		54.1	500	1:108,200	10	2.0
23	Sri Lanka		21.3	90	1:236,666	1	1.1
24	Taiwan		23.7	1,982	1:11,957	20	1.0
25	Korea		51.2	8,227	1:6,223	67	0.8
26	India		1,366.0	10,000	1:136,640	50	0.5
27	Nepal		28.6	400	1:71,500	2	0.5
28	Bangladesh		163.0	1,200	1:135,833	5	0.4
29	Pakistan		216.5	1500	1:144,333	4	0.3
30	Cambodia		16.5	100	1:165,000	0	0.0
31	Laos		7.2	50	1:143,400	0	0.0

Note. Reproduced/Adapted with permission from The British Orthopaedic Association. Green JA, Chye VPC, Hiemstra LA, et al. Gender diversity in orthopaedic surgery: A perspective from the International Orthopaedic Diversity Alliance. *Journal of Trauma and Orthopaedics*. 2020;8(1):44-51.
*Data collected from each nation's orthopaedic association. Asia-Pacific data courtesy of PC Chye.

United States of America (USA) and Canada

In 2019, 6% of the 27,651 board-certified members of the American Academy of Orthopaedic Surgeons (AAOS) and 15.4% of the 3,963 residents were female.[20] There are fewer than five female chairs of major orthopaedic departments.

The American Academy of Orthopaedic Surgeons (AAOS) now has its first female President and is implementing the 2019–2023 Strategic Plan which includes greater transparency in committee appointments, diversity in committee membership and training on diversity and implicit bias for

Academy leaders, volunteers, and staff. A diversity dashboard measures the key recruitment, selection, retention and culture metrics and in 2020, the Board of Directors will be 25% female.[21] The goals of the Ruth Jackson Orthopaedic Society, The Perry Initiative and the Nth Dimension are to increase the number of women in medicine and engineering and eliminate disparities for all communities.[22,23] Numerous efforts are in place in North America to improve diversity. The focus has been on reducing unconscious bias, encouraging women in leadership roles, mentoring young women, engaging female medical students to consider orthopaedics, creating an environment that is inclusive of women and providing support for both men and women with family commitments.[21–23]

In Canada in 2018, 198/1659 (11.9%) of practicing orthopaedic surgeons were female and in 2019, 26% of residents or fellows were women.[24] The Canadian Orthopaedic Association (COA) 2019 Gender diversity strategic plan, provides key strategies and practical actions to promote and advance gender equity within Canadian orthopaedics.[25] In Canada women are now represented through the orthopaedic specialty and in their national professional organization. At the COA annual meeting the number of females on the podium is in keeping with the percentage of female members in the association.[26]

South America

The percentage of female trauma and orthopaedic (T&O) surgeons varies between countries. Six percent of the Chilean Society of Orthopaedics and Trauma (SCHOT) are women in contrast to 13% of trainees. In Perú, women represent 4.8% of the total registered traumatologists but less than 2% of the National Society of Orthopaedics and Trauma (SPOT).

In order to increase opportunities for and participation of women in the speciality, various initiatives have started with the first T&O women's association founded in Chile in 2019, focussing on equal opportunities in selection processes, avoiding gender discrimination, mentoring and providing network support. Since then, other societies have been founded in Latin America, such as the Peruvian Female Orthopaedic Surgeons Society. Further efforts are aimed at promoting and increasing the participation of women in different fields of T&O and strengthening networks between Latin American countries.

Australia

In Australia, only 4.3% of orthopaedic surgeons and 15% of orthopaedic trainees are female. A recent AOA initiative has assessed the two-stage orthopaedic trainee selection process for gender bias. Initially, a score based on the applicant's CV and training supervisors is generated, then the highest-scoring 50% are interviewed and, of these, 50% will be selected onto the training programme. Data from 2007 to 2019 showed that females represented 16.5% of applicants to orthopaedic training but only 12.1% of the successful applicants. A significant gender difference favouring male applicants was demonstrated in stage 1 of the selection process. In 2018–2019, almost 50% of the interviewers were female (compared to only 11% between 2011–2017) and this has eliminated gender bias in the interview stage of selection. As a result, the AOA is increasing the percentage of applicants that will be interviewed to more than 80% and considering interviewing all applicants with the required basic CV application criteria in the future.

In 2018, the AOA established a diversity strategy to address the persisting lack of gender diversity. Again, key initiatives included supporting females in leadership roles, improving female representation on boards, providing childcare and breastfeeding facilities, setting up workshops, championing change through male diversity advocates, providing female examples in orthopaedics on social media and publishing a quarterly newsletter promoting diversity.[27–29]

Estonia

During 2014–2019, 64% of medical graduates have been female. Currently, 36% of orthopaedic trainees are female. The increasing number of female orthopaedic trainees is a reflection of the more generous parental leave policies dictated by national laws. A reduced workload in the third trimester is accepted and after birth, parental benefits guarantee the previous income. Such benefits are paid for a period of 435 days, or until the child is 18 months old. It is possible to stay at home until the child turns three years without losing health insurance or employment. Until the child is 70 days old, only the mother is entitled to the parental benefit but after this either parent may receive it.

France

In France, there are concerns that over the next 20 years, the medical profession will be affected by reducing workforce numbers due to ageing and feminization.[30] The number of orthopaedic surgeons has risen sharply in 30 years, increasing from 1.44:100,000 inhabitants in 1981 to 4.3 in 2013. Between 2006–2019, the proportion of females increased from 3.3% to 7.0%, and it is higher in younger age groups. In 2015, there were 14% females in the 30–34 age group, compared with 0% in the 65–69 age group. In 2019, France had 248 female orthopaedic surgeons. The proportion is significantly higher in hand surgery, where 20% of members and 38% of junior members are women.[31]

Kosovo

In Kosovo, orthopaedic surgery was established as a specialty in the 1970s. Currently, there are 78 orthopaedic

surgeons and 12 trainees. Only 3.8% of orthopaedic surgeons are female and there are no female trainees. However, two of these three female orthopaedic surgeons have leadership positions in the Orthopaedic and Traumatology Society. There is no fixed quota for training female surgeons but, when candidates are considered equal, the female candidate has priority.[28]

Sweden

Over the last 25 years, the number of female orthopaedic surgeons has increased from 6% to 17%.[32] Currently, 35% of residents are female, reflecting the increasing number of female medical students. In 2018, 56% of medical graduates were female.[33] Sweden has generous parental leave of 390 days with three months available for each parent. This has increased diversity in parental leave and in 2018, 29% of all parental leave was used by males.[34]

Gulf co-operating countries (GCC) and Kuwait

It was not until the mid-1980s that women began to receive surgical training in these countries, so a significant gender disparity still persists.[35] The low female participation in orthopaedic surgery can be attributed to many issues. Female faculty members make up only 10% of Kuwait University's Department of Surgery. Currently, there are three female orthopaedic surgeons in Kuwait, but only one is a Kuwaiti national. Between 2014 and 2019, five females completed orthopaedic training in Kuwait compared with 51 males.

Despite the large regional demand for more orthopaedic surgeons, in Kuwait, only one woman was accepted into orthopaedic residency training for 2020. Accurate data for Kuwaiti females in residency programmes abroad is not available.

There is a perception that females in the GCC are less likely to match than males in an orthopaedic residency programme. Poor maternity and parental benefits in Kuwait appear to be a deterrent, with the majority of females in orthopaedic surgery residencies in the GCC being single (data from the Ministry of Health).

Hong Kong

The first female orthopaedic surgeon was appointed in 1993. As the proportion of female medical students has reached parity, the number of female orthopaedic trainees has increased to 20%. In Hong Kong, all trainees are employed by the Hospital Authority. There is equal pay and parity of treatment. All female doctors are entitled to up to 14 weeks of maternity leave and, on return, each hospital is committed to providing a space for breastfeeding. Part-time surgical training is not available. Consequently, most female orthopaedic trainees elect to have children after training has been completed.[27]

Asia, Malaysia and the Philippines

Prior to 2000, female orthopaedic surgeons were unusual in Asia, but the turn of the millennium saw an increasing female presence in both orthopaedic training and practice. The three female Malaysian orthopaedic surgeons in 1999 were joined in 2000 by three more female graduates from the National University of Malaysia. Since then, there has been a steady increase of females in the orthopaedic postgraduate programmes. Recent advocacy by the female Malaysian Orthopaedic Association President at Orthopaedic Association meetings throughout Asia has highlighted the issue of gender diversity in orthopaedics.

United Kingdom

In general, UK data and the initiatives developed by the British Orthopaedic Association (BOA) and the British Orthopaedic Trainee Association (BOTA) mirror those of other European and international strategies. National statistics suggest that over the last decade the number of female consultant T&O surgeons has only increased from 4% to 6%; during the same period the percentage of female trainees has doubled at the junior level (15% to 30%) and risen from 13% to 19% at registrar level. Within the BOA, 12% of consultant members are women suggesting a willingness to 'belong' and the percentage of 'early years' consultant members is rising. Twenty-eight percent of BOTA committee members are female. Some subspecialties, notably paediatric orthopaedics, are significantly more diverse at national (25% female consultants), European and international levels (Table 1) whilst others such as spinal surgery have yet to make progress. The BOA sponsors one female delegate per year in a Future Leaders Programme and is encouraging female participation in research applications.

Orthopaedic diversity in the military

USA

Females have been permitted to serve in permanent roles within the US Armed Forces since the Women's Services Integration Act was passed by the United States Congress in 1948. Previously, women only served in times of war and were barred from combat roles. Since 1980, females have seen an increased role in the military, from attending US military academies starting in 1976 through the 2013 reversal of the combat exclusion policy and presently inclusion in special operations forces. Females accounted for approximately 2% of the military workforce at the end of the draft in 1973 but most recent data show that 18% of the US military officer corps is female.[36]

Despite females representing nearly 50% of the US medical school graduates annually in the civilian sector, in

2016, only 28.5% of military physicians were female, mirroring overall gender differences in the US military. Most of the female physicians are in the junior ranks with only 18% reaching the rank of Colonel.[37]

Given the smaller overall female applicant pool within military healthcare, the Department of Orthopaedics at San Antonio Military Medical Center (SAMMC) has far outpaced national US averages for female orthopaedic surgeons in training and on staff. The 2019 AAOS data showed that 6% of staff surgeons and 15% of residents were female, whilst the SAMMC Dept of Orthopaedics was represented by 26% female attendings and 23% female residents. This jumps to 30% faculty and 27% residents for the 2020–2021 academic year. Actively recruiting strong female leadership (including the first female Vice Chair) and the presence of female staff surgeons has led to a reciprocal rise in female residents via a culture that not only recruits female orthopaedic surgeons but helps with their faculty development and subsequent promotion.

LGBTQ+

LGBTQ+ is an abbreviation for lesbian, gay, bisexual, transgender and queer (or questioning) and others. LGBTQ+ healthcare providers can help to inform, research, advocate, and educate around LGBTQ+ healthcare issues, with the goal of better serving the patient population. There are very few studies examining the experiences of LGBTQ+ providers, but there is concern about whether the educational and work environment is open, welcoming, and inclusive.[38]

In one of the first studies of LGB physicians, Schatz and O'Hanlan surveyed members of an LGB medical organization and found that many LGB physicians witnessed disparaging remarks or discriminatory care of LGB patients.[39] Seventeen percent of respondents had been refused privileges or denied promotion based on their sexuality, 16% reported being denied referrals, 34% had experienced verbal harassment from colleagues, 37% felt socially ostracized, and 88% had heard their medical colleagues disparage LGBT patients. In a more recent follow-up study, Eliason et al found that 10% of LGBT physicians were denied referrals from heterosexual colleagues, 15% had experienced harassment by a colleague, 22% had been socially ostracized, 34% had witnessed discriminatory care of an LGB patient, and 65% had heard derogatory comments about LGBT individuals.[38]

An LGBTQ+ friendly environment is critical, not only for trainees, but also for the healthcare providers.[40,41] Enhancement of cultural competence in health training programmes will be a cornerstone to deliver care in a culturally responsive, sensitive, and inclusive manner. Comprehensive training, inclusive policies and practices, and mechanisms to address harassment and discrimination will demonstrate a commitment to equality, social justice, social inclusion, and human rights.

The ageing surgeon

With an ageing population and workforce, questions exist regarding whether it is safe to operate at an older age. Other safety professions such as the fire service mandate a retirement age, yet there is no mandatory age for surgeons. Whilst accumulated knowledge and wisdom make the older surgeon valuable to colleagues, cognitive and physical decline necessitate the need for additional checks in the over 70s and a staged approach to retirement.[42] Changing population demographics mandate workplace and practice adaptations to safeguard patients and the needs of the employee. Retaining mature workers can have a significantly positive fiscal effect on the economy but must be balanced against the physical demands of the job. Organizations need to attract and retain mature workers but ensure effective working across the generations to ensure age diversity. Purposeful work enables healthy ageing and is beneficial to the mature workforce.[43]

Patients may have a lower mortality rate when operated on by older surgeons, with a US study of 45,826 surgeons showing that whilst, overall, the gender of the surgeon made no difference to mortality rates, the lowest mortality rates occurred with female surgeons in their 50s. Skill and knowledge acquired from experience may explain these findings but confounders such as patient selection, with older surgeons being less likely to operate on high-risk patients, may also have affected the results.[44]

Competency-based assessments for trainees are well documented, yet currently there are no competency-based assessments for older surgeons.[45,46] Should these include tests of eyesight, dexterity and cognition? Relying on revalidation or surgeons deciding when they should retire may not be sufficient to ensure the mature workforce is supported in a phased and dignified progression to retirement.

Conclusions

The perspective of the next generation of orthopaedic surgeons is this: the workforce needs to be more diverse. Diversity is improving and difficult questions are finally being asked with a challenge to the perceived status quo.[47,48] However, the next step is the easiest to ask for and the hardest to achieve, a total change in culture. Not just in terms of equity and equality, but inspirationally across the board. As the workforce becomes more

diverse, so the new generation of orthopaedic surgeons will be empowered, (self) aware and not afraid to challenge inequality.

There are some examples of where this new perspective on what it is to be an orthopaedic surgeon, and what culture these new surgeons wish to work in, can be seen. The most obvious would be the use of social media. Campaigns such as #ILookLikeASurgeon,[49,50] #HammerItOut[51] and #OperateWithRespect[52] are perfect examples of the power of social media to communicate change, ideas and initiatives to a global audience, not just those within the ever growing #orthotwitter[53,54] community.

2020 is the start of a new decade with changes seen throughout the political landscape in Europe as well as globally. A willingness to embrace change and champion diversity provides the opportunity for EFORT member nations to stand together, and strengthens the bonds that allow knowledge to be shared and innovation to benefit all patients.

AUTHOR INFORMATION

For a full list of members see Appendix 1.

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Appendix 1. The International Orthopaedic Diversity Alliance

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