



# Women in European neurosurgery

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For the purpose of this editorial, I am allowing myself to refer to the European situation rather than to the German situation alone. Without doubt, women are underrepresented in the European arena of neurosurgery. That is particularly the case when looking at high-ranking clinical and academic positions and partaking in the organization and in the scientific committees of neurosurgical congresses. That may have numerous reasons—from lack of interest to compete by female neurosurgeons on the one end to conscious or subconscious discrimination of females by their (male) peers on the other.

It may be helpful to stay on the purely factual side. Based on European data, the number of female neurosurgical trainees was marginal until the early 1990s. Ever since, and in parallel to the female-to-male ratio at medical schools, which is showing a female preponderance since the 2010s across Europe, the number of female neurosurgical trainees is indeed increasing [1]. It is my sincere conviction that in the light of the changes, which can be expected with the alternation of generations from the currently ruling (grumpy) white old men neurosurgeons (“The Boomers”) through the “Xers” and the “CYers” to the “Millennials”, a tidal wave of women will arrive in the field, who will not only trigger discussions and developments, but have no choice than to lead them. Twenty or 30 years ago, when presumably very few neurosurgical leaders may have paid attention to the lack of female participation, it may have been a lot more opportune and timelier to develop dedicated programs in order to provide better working conditions and opportunities for female neurosurgeons. Now, with the application of the European Working Time Directive 2003, and with some countries actively promoting paternal leave instead of maternal leave for young families, it seems inappropriate to focus on the promotion of women alone when it comes to

creating opportunities for the future leaders in our field. In my opinion, we should focus on the elimination of the phenomenon of *bias* [3, 4].

*Bias* applies across all humans—to women, to men, to minorities, to believers vs. non-believers, and others. It is clear that the standards and the threshold for academic achievements and success cannot be lowered just to accommodate candidates of whatever provenience or gender in positions, which require both solid academic and clinical standing. As, e.g., abstract reviewing for big scientific congresses such as the DGNC is blinded, overt discrimination should be avoided a priori.

Changes in generations bring change in values. It has been stressed that millennials are lesser likely to contribute to particular organizations (such as our professional associations) [2]. It is thus the noble task of the current leadership in European neurosurgery to prepare the grounds that boundary conditions shall improve in order to facilitate a fulfilling family life and professional evolution as well. Engagement and commitment within clinical (hospital) structures and scientific organizations are key to move up in the hierarchy. That will not change. The primary goal is to motivate people to engage themselves in the job and within their peer group so as to arrive at the best possible selection of candidates when it comes to recruitment of leadership positions.

Despite the ameliorations in child care, working time reduction and development of alternative working models, and despite the ongoing technological revolution toward minimally invasive and robotic procedures, transcranial (bloodless) therapies, neuro-restoration and others, we cannot delude ourselves from the fact that to become a competent neurosurgeon, one has to sacrifice and to strive, and to do scientific work in addition when interested in an academic career. The young generation of whatever background has to train. That training must be understood to be part of an investment in them and by themselves. The current seniors must provide the best possible training for them and be open for paradigm shifts when it comes to the acceptance of new generational values. There will always be seemingly endless numbers of night shifts, where one has to deal with streams of patients suffering from

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traumatic brain injury and spinal injury, no matter if women or men are on duty. Some things are bigger than us, and society will always have a big impact on our working conditions and on our work. The EANS is trying to keep up with the challenges given by the presently unsatisfying participation of women by actively encouraging women to engage with our subspecialty sections and committees, and by the creation of a *Diversity Task Force*. We are striving to keep the lead when it comes to the implementation of new and modular training concepts as well. All that is not easy, and takes a lot of time and work and steady influx of wo/men, who are committing themselves to the service within our community. That is why we cannot and will not allow ourselves to leave one group behind or exclude anyone from his/her engagement. Avoidance of *bias* is key, as is open-mindedness and the creation of opportunities, not the promotion or the protection of one group in disregard of another.

## References

1. Albesa A (2014) Female doctors in Europe. Convegno Internazionale. Aspetti del Lavoro Medico in Europa. Gorizia. <http://www.quotidianosanita.it/allegati/allegato8891433.pdf> (date of access 2 December 2019)
2. Case J (2019) Millennials are changing the landscape of social change, report finds. PND July 29, 2019. <https://philanthropynewsdigest.org/news/millennials-are-changing-the-landscape-of-social-change-report-finds> (date of access 2 December 2019)
3. Hols S, Hägg S (2017) Positive bias for European men in peer reviewed applications for faculty position at Karolinska Institutet. Version 2. *F1000Res*. 2017 Dec 18 [revised 2018 Aug 14];6:2145. <https://doi.org/10.12688/f1000research.13030.2>. **eCollection 2017**
4. Stark T (2015) Understanding the selection bias: social network processes and the effect of prejudice on the avoidance of outgroup friends. *Soc Psychol Q* 78(2):127–150

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