



Women in leadership positions in Italian neurosurgery

ARTICLE INFO

Handling Editor: Dr W Peul

Keywords

Neurosurgery

Italy

Leadership

Gender

Female surgeons

Dear Editor,

The article by [Weiss et al. \(2023\)](#) was truly enlightening and thought-provoking. It sparked a significant reflection, prompting an exploration of the frameworks shaping the careers of female neurosurgeons in Italy in comparison to the broader European landscape.

As the authors point out, the number of women in medicine has been steadily increasing. Italy is no exception to this trend, with Primary Medical and Surgical Qualifications degrees (MBBS) now consisting of 60% women ([Women in Surgery, 2018](#)). Despite this progression, the proportion of female medical students pursuing surgical careers hasn't aligned accordingly. In 2019, women comprised only 46% of trainees in surgical specialities, indicating a significant gap between the increasing number of female medical students and their choice to pursue surgical paths ([Parini et al., 2021](#)).

The 'glass ceiling' phenomenon discussed by the authors has been previously highlighted by the Italian Association of Women Surgeons (WIS Italia). One of the association's largest surveys to date of Italian female surgeons unveils concerning trends, revealing limited opportunities in the operating rooms ([Lucidi et al., 2022](#)). Among the 1810 respondents, between trainees and faculty members, more than half (51.8%) reported that they spend more than 50% of their time on non-surgical activities (ward rounds, outpatient services, etc.). When it comes to case complexity, the respondents performed only 8.4% of the highly complex cases. These disparities point to a form of gender-biased underemployment, creating obstacles in achieving a substantial surgical case volume and hindering the career progression of young female surgeons as well as their acquisition of leadership positions ([Lucidi et al., 2022](#)).

Nevertheless, it is worth noting the insights gleaned from the 2016 European Women in Neurosurgery project (E-WIN), revealing Italy as home to the highest percentage of female neurosurgeons across Europe ([Steklacova et al., 2017](#)). Interestingly, the study highlighted that Italy is one of the countries in Europe with the greatest number of neurosurgical departments, ranking second only to Germany. Despite this, the representation of female-led neurosurgical departments in Italy remains below 10% ([Weiss et al., 2023](#)).

On the other hand, the first Italian study on gender-related challenges in neurosurgery, conducted by [Scerrati et al. \(2022\)](#), reported that out of 70 female neurosurgeons participants, a mere 9% (6,3/70) held positions as heads of surgical units, with a strikingly low 4% (2, 8/70) leading departments. This disparity translates to just one professor and three researchers.

The authors of this cross-sectional study have wisely considered another crucial factor: the volume of scientific contributions by female neurosurgeons ([Weiss et al., 2023](#)). Unfortunately, there's a lack of current literature documenting the extent of scientific contribution and academic productivity among Italian female surgeons. Nevertheless, it's anticipated that the findings, when available, might reveal a substantial disparity compared to their male counterparts ([Calise et al., 2021](#)). Many recurring themes emerge between the barriers to female neurosurgical leadership outlined in this cross-sectional study and those highlighted in referenced Italian articles ([Women in Surgery, 2018](#); [Parini et al., 2021](#); [Lucidi et al., 2022](#); [Calise et al., 2021](#)). These encompass challenges related to achieving a balance between work and family life, the scarcity of female role models in leadership positions, gender-biased work and case assignments.

Addressing these challenges requires a socio-political and cultural reform that acknowledges men as equal stakeholders. The survey by [Lucidi et al. \(2022\)](#) reported that 77% of respondents received mentorship throughout their careers by a male surgeon role model. These survey findings are a direct call to action for improving mentorship opportunities by women surgeons. Furthermore, practical barriers, such as legislation that fails to safeguard the rights of pregnant surgeons and neurosurgeons, demand immediate attention. Additionally, implementing stringent monitoring of surgical units to track individual neurosurgeons' caseloads and to monitor instances of gender-based discrimination in workplace settings is of paramount importance.

Establishing a robust support network stands as a pivotal step toward the complete integration of Italian female neurosurgeons into leadership roles. This can be achieved through initiatives facilitated by organisations such as the Associazione Italiana Donne Medico (AIDM) and WIS, which currently runs a mentorship program catering to 6th-year female medical students aspiring to pursue surgical careers ([Women in](#)

<https://doi.org/10.1016/j.bas.2024.102752>

Received 2 January 2024; Accepted 21 January 2024

Available online 26 January 2024

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Surgery). Notably, WIS bears a resemblance to the European Association of Neurosurgical Society Diversity Committee, serving as its Italian counterpart (**Women in Surgery**). Both entities are devoted to dismantling gender stereotypes in the surgical (and neurosurgical field) and strive for the achievement of equal opportunities and an inclusive environment for surgeons of all genders.

In conclusion, there is an increasing body of evidence suggesting a female underrepresentation in Italian neurosurgical departments and neurosurgical academia, in line with the general European trend noted by Weiss et al. (2023). Promoting early mentorship and hosting educational forums spotlighting successful female leaders in neurosurgical academia are ways to enhance the journey towards a more inclusive community. Nonetheless, securing essential financial, political, and educational support, alongside stronger backing from the male workforce in neurosurgery, remains imperative.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Shantidevi Murthy*

*Scuola di Medicina e Chirurgia, Università degli Studi di Bari Aldo Moro,
Piazza Umberto I, Bari, 70121, Italy*

Inês F. Silva Correia

*School of Medicine, Faculty of Health, Education, Medicine & Social Care,
Anglia Ruskin University, Bishop Hall Lane, Chelmsford, CM1 1SQ, United
Kingdom*

E-mail address: inesfsc22@gmail.com.

Raffaella Messina

*Division of Neurosurgery, Department of Translational Biomedicine and
Neurosciences (DiBrain), University of Bari "Aldo Moro", Bari, Italy*
E-mail address: raffamessina@gmail.com.

* Corresponding author. Università degli Studi di Bari Aldo Moro,
Piazza Umberto I, Bari, 70121, Italy.
E-mail address: s.murthy@studenti.uniba.it (S. Murthy).