

Gender equality and equity in anaesthesia research: Why are we still talking about numbers?

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All disaggregated data published in recent years have shown unequivocally underrepresentation of women in leadership positions in medicine. “Delivered by women and led by men” seems generally well accepted a short description of the healthcare system’s gender workforce structure¹. Further on, academia and research within medical specialties follow the same pattern. Medicine is not different than STEM (Science, Technology, Engineering and Mathematics) where the “leaky pipeline” has been described earlier². It is becoming more obvious that the increased number of women medical students does not increase proportionally the number of them in academia, research, and leadership within the medical profession². Anaesthesiology and intensive care just mirror broader trends.

Quite recently, among a list of similar references, results of several analyses across multiple anaesthesia journals from different countries have been published³. It was established that women represent only 22–32% of the first authors, and 30,8 % and 20 % of authors of anaesthesia clinical and critical care guidelines respectively³. Further, only 20 % of peer reviewers are women and 10-20% are members of the editorial boards³. There were some differences between subspecialties: a higher percentage of paediatric and obstetric articles have been authored by women³.

In line with these previously published data, trends in the analysis of female authorship by Eggermont et al. published in this issue of the *Acta Anesthesiologica Belgica*, are not surprising: out of 475 manuscripts that were included for data collection from the period of 2005 until 2021, 146 (30.7%) had a female first author, 94 (19.8%) had a female second author, and 61 (12.8%) had a female last authorship position⁴. Male authors are more likely to publish alone, whereas women are more often first authors when there is a longer list of co-authors. More often women are first authors if the last author is a woman too.

Again, of no surprise, we are still reading the numbers that confirm what we seem to know already: there is a gender gap in research and leadership in anaesthesiology in almost every data analysis coming from different professional environments and countries. As always, explanations are based on guessing and speculation about the reasons behind them.

In a recently published survey, 30% of European Society of Anesthesiology and Intensive Care (ESAIC) members (1796 women, 1342 men) responded to questions exploring attitudes and barriers to career advancement in anaesthesia⁵. It has been confirmed that both women and men aspire to leadership equally and that they are confronting the same barriers, which seem to affect women more. Women still experience sexism at work and see childbearing as the most difficult to overcome. Another very extensive survey on gender equity in departmental leadership, research opportunities and clinical work attitudes, which included nearly 12,000 respondents from over 100 counties, has shown that an alarming number of women (44%) feel that they are mistreated at work⁶. Additionally, a possible change of lifestyle (women having fewer children and seeming to be reluctant to start a family) was present as the solution to secure career progression^{6,7}.

This year’s Nobel Prize winner, Harvard economist Claudia Goldin, best known for her work on women in the labour market, discovered that the earnings difference between men and women in the same profession arises as soon as the first child is born⁸. Once it is established, the pay gap stays on in time. In the majority

of data exploring reasons for women underrepresentation in anaesthesia and critical care profession and research, childbearing keeps appearing as constant and one of the obstacles the most challenging to address.

Obviously, there are many additional departmental, cultural and systemic drawbacks that hold women back in their aspirations for research and advanced professional careers. Those are not easy to identify and overcome. There is an obvious need for a consistent and sustainable approach that will include systemic changes and enable women to advance in their careers based on their own merit. Future research should be distanced from simply counting women and men in different positions. A deeper understanding and recognition of the reasons and correctable factors that favour women underrepresentation should be the objective of any future gender analysis.

Undoubtedly, cultural change and broader community advancement toward gender equity is a long-term objective. Short term, monitoring improvements and changing policies towards less biased promotion of women leaders is a task that is quite obtainable. Raising awareness of potential bias and empowering women may be a quite realistic goal within one professional environment, but it needs a very broad society and political consensus on equality and equity.

Of utmost importance is to understand intersectionality, since not only gender itself affects career choices and opportunities. Attention should be placed on diversity and vulnerable groups, particularly in the turbulent world where migration of anaesthesiology professionals is so common. A great number of high-quality professionals may be lost in the everyday struggle to overcome bias and stereotypes.

Meanwhile, there is a tendency to overemphasize numbers, their true meaning and finding optimism in small, often not essential improvements⁹. Eggermont et al. have nicely shown that the trend in the increase in numbers of female first authors tends to be unstable⁴. At the same time, the European Society of Anaesthesiology and Intensive Care (ESAIC) has dismissed the appointed Gender Equity Committee after only three years of action with the explanation that the “numbers” within the society “look good”. We may just point out once more that numbers should not be the goal, but the monitoring tool and their interpretation should come with great caution. The goal is changing culture, encouraging fairness, and creating an environment where every anaesthesiologist can reach their professional objectives. If we go beyond, we must never forget that it is a basic human right for every individual to be free to develop personal abilities and make choices without limitations imposed by gender rules. Once we truly reach equality and equity, counting women in different roles will be of no importance.

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