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Gender Parity in Critical Care Medicine

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Abstract

Clinical practice guidelines are systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances. These documents inform and shape patient care around the world. In this Perspective we discuss the importance of diversity on guideline panels, the disproportionately low representation of women on critical care guideline panels, and existing initiatives to increase the representation of women in corporations, universities, and government. We propose five strategies to ensure gender parity within critical care medicine.

Keywords

diversity; gender; critical care; interprofessional

Our critical care community is interdisciplinary, interprofessional, and international. It includes women and men of various races, ethnicities, cultures, and belief systems. Our work environments are also diverse, spanning the spectrum of health care systems from urban to rural settings and from centers with an abundance of resources to resource-poor centers in economically challenged regions. Our diverse backgrounds and experiences shape and enrich our field, generating a collective wisdom that is greater than the sum of its parts. Notwithstanding this diversity, we share a common goal of providing optimal care for critically ill patients and their families.

Diversity is a complex construct. A comprehensive discourse of the dimensions and depth of diversity in critical care is beyond the purpose of this Perspective. Herein, we focus on gender parity and briefly address other domains of inclusivity, proposing initiatives for the critical care community to better leverage our collective talent to the benefit of our profession and critically ill patients worldwide.

Embracing diversity is essential when creating documents to inform the care of patients with sepsis—a global scourge that disproportionately affects those in the poorest regions of the world (1–3). The task force convened by the Society of Critical Care Medicine (SCCM) and European Society of Intensive Care Medicine, which crafted the Third International Consensus Definitions for Sepsis and Septic Shock, lacked such diversity (4). The 19-member panel did not include women and underrepresented minorities, physicians in low- and middle-income countries, and other professional scholars with expertise in sepsis and septic shock.

Clinical practice is shaped by various definition documents, consensus statements, and practice guidelines. The benefits of panel diversity may be better understood for developing practice guidelines than other types of professional documents. It is implausible for guideline panels to understand all populations to which the recommendations may apply or be familiar with all jurisdictions in which the guidelines may be considered. Thus, inclusion of panelists with different perspectives and from various regions of the world can ensure that the underlying research evidence is integrated with local values and practice patterns and the crafted recommendations are applicable beyond tertiary care, first-world, high-income settings (5, 6). Empirical evidence suggests that panel composition has an impact on the content of recommendations (3, 7), and inclusion of women in international guideline development improves gender responsiveness of the health-sector workforce (8). Thus, panel member diversity is key for globally relevant guidelines. Guideline recommendations are unlikely to inform care when they do not consider crucial contextual factors (9). Accordingly, panels formulating documents designed to shape clinical practice sensibly and wisely comprise individuals who may use or be affected by the guidelines—various professionals from different cultures and countries, as well as citizens—past or future patients (10)—including women (11–13). Diversity of panel members helps to educate all panel members about patient-specific considerations, stakeholder-specific concerns, and setting-specific barriers and facilitators. Conversely, lack of diversity sharply attenuates the relevance and representativeness of these laborious academic endeavors (10, 14).

Women have been involved in developing many critical care consensus statements and clinical practice guidelines (15–35) but have been notably absent from others (36, 37), including the recent Sepsis-3 definition (4) and the Berlin acute respiratory distress syndrome definition (38). A review of 413 clinical practice guidelines published between January 2012 and July 2016 found that 25% of authors overall were female physicians, and only 13% of authors of critical care guidelines were women (39). Meanwhile, women make up at least 50% of medical school admissions and approximately 30% of postgraduate critical care trainees today in Canada (40), the United States (41), France (42), Australia (43), and the UK (43). Many critical care leaders advocate for women; such sponsorship creates important academic opportunities and brings meritorious talent to the table (44). By excluding women, as noted by Dr. Catherine DeAngelis, the first female Editor-in-Chief of the *Journal of the American Medical Association*, we “waste half our genetic pool of intelligence, creativity, and critical insights and experience. Medicine simply cannot afford that loss” (45).

Gender imbalance on panels is unlikely to be a random occurrence (46). The singular focus on expertise as an invitational criterion (47) suggests that women do not have the requisite expertise on the topics of sepsis, septic shock, or acute respiratory distress syndrome, which lacks veracity (48). Assertive women may not be invited as panelists, given that women’s competence may be evaluated using different standards than men’s, and not independently from their personal warmth (49). However, the exclusion of women is not necessarily intentional. Implicit gender biases that favor men do not necessarily arise from explicitly avowed beliefs (50–52). Unconscious bias refers to an implicit attitude, stereotype, motivation, or assumption that can occur without one’s knowledge, control, or intention; forms of unconscious bias include gender bias, racial bias, and ageism (53). Unconscious

bias exists for many reasons (54): men may be more assertive about seeking leadership roles, women may more commonly decline opportunities because of other professional priorities or caregiving responsibilities, leaders may habitually seek their customary colleagues, and both men and women may implicitly associate science with males (55).

Ideal approaches to panel composition ensure proportionate representation (56). The exclusion of women from guideline panels is not unique to medicine. Impassioned protestation on social media, from men and women alike, condemns the exclusion of women (e.g., #allmalepanels; https://allmalepanels.tumblr.com). If asked to serve on all-male panels or committees, some participants ask why there are no women (57) or pledge not to serve until the imbalance is rectified (http://www.Genderavenger.com/the-pledge/). The Society for Historians of the Early American Republic declared “It is no longer acceptable to submit a panel that’s all-male and all-white, but these are not the only forms of diversity we look for” (58). Some organizations have made explicit declarations that they “will not sponsor events that include all-male judges for competitions, all-male panel discussions, or all-male speakers” (www.Acaia.co, June 20, 2016).

Many corporations, universities, and governments have mandated gender equity, diversity representation, transparency, and public reporting of gender ratios (e.g., https://30percentclub.org, www.catalyst.org, Athena SWAN charter [http://www.ecu.ac.uk/equality-charters/athena-swan/]). For example, the speaker composition of neuroscience conferences is tracked, particularly with respect to gender representation (www.BiasWatchNeuro.com). Such reporting allows benchmarking and promotes social accountability. As stated by Lakshmi Puri, the Deputy Executive Director of United Nations Women: “Gender equality is everyone’s business” (http://www.unwomen.org/en/news/stories/2016/6/lakshmi-puri-speech-at-forbes-powerful-women-summit).

Gender-diverse groups collaborate more effectively and exhibit higher collective intelligence (59, 60). This effect is primarily explained by benefits to group processes, including different interpersonal work styles promoting greater social sensitivity, conversational turn-taking, more interaction, and cooperative work (59–61). Peer-reviewed publications with male and female authors receive more citations than publications produced by gender-uniform authorship teams (61). In his 2015 book *Challenging Boardroom Homogeneity*, Aaron Dhir, an Associate Professor at Osgoode Hall Law School of York University, interviewed board directors in Norway, where quotas require every public boardroom to be at least 40% women (62).“The heterogeneity brought about by quotas enhanced the quality of boardroom deliberations and overall corporate governance,” he wrote (62). “The directors I interviewed believed that women were more likely than men to thoroughly deliberate and evaluate risks” (62). It has been proposed that, in general, women and men think and behave differently, and the overall tendency of women to have a more interactive, people-oriented, and cooperative work style enhances the effectiveness of groups, particularly in activities requiring extensive information management and decision-making over prolonged periods (60). However, women’s input is not always and not only stereotypically stylistic; in the corporate world, companies with more women on their boards of directors demonstrate greater innovation (63) and have higher financial returns (64).

Habit-changing educational interventions may help to breach gender bias and change climate (65). Although Girod and colleagues observed that male sex and older age were significantly correlated with greater implicit bias against women, they found that viewing a 20-minute educational presentation had a small but significant effect to reduce implicit biases against women, regardless of the age or sex of the viewer (50). To this end, there are resources to raise awareness and reduce unconscious bias, such as the Association of American Medical Colleges free web-based course (www.aamc.org/members/leadership/catalog/178420/unconscious_bias.html), as well as workshops for health professionals (www.aamc.org/initiatives/diversity/322996/lablearningonunconsciousbias.html). The Canadian Institutes of Health Research mandates a training module for peer reviewers on gender bias (http://www.cihr-irsc.gc.ca/e/49347.html). The foregoing successful efforts and programs can serve as models for the international critical care community.

Although we are drawing attention to female underrepresentation in critical care, it is important to highlight successes. The Canadian Critical Care Trials Group (CCCTG; www.CCCTG.ca) and the Canadian Critical Care Society (www.canadiancriticalcare.org) have a long history of female leadership; presently, more than 50% of the CCCTG executive members are women. The current Editor in Chief of the *American Journal of Respiratory and Critical Care Medicine* is a woman. The president of the SCCM is a woman, 7 of 17 presidents since 2000 have been women, and the 20-member multiprofessional SCCM council is 50% women (www.SCCM.org). Recently, SCCM and European Society of Intensive Care Medicine have declared their commitment to “ensure improvements in representation on future task forces and in diversity within the field” (66).

Gender parity offers women leadership roles traditionally assumed by men, creates an environment that maximizes academic productivity, and emphasizes social accountability. To change culture, our critical care community must acknowledge that gender inequity exists and is problematic. We advocate for diversity as a fundamental tenet in our field and propose proactive strategies to ensure gender parity.

1. We propose that Critical Care Societies establish diversity policies for populating the panels they commission, sharing this responsibility with panel chairs and members. Merit-based representation should reflect sex, gender, geography, ethnicity, economy, and discipline.
2. We propose that authors document, and journals report, the principles and methods of panel composition for professional document development.
3. We propose publically available metrics of women’s representation on panels for definition documents, consensus statements, and practice guidelines.
4. We propose that gender parity policies be incorporated into relevant bylaws within all areas of academic critical care, containing explicit targets which reflect, at a minimum, the proportion of women in the specialty.
5. We propose training on diversity and unconscious bias for all critical care academics, particularly for those in leadership positions.

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Gender disparity is complex and ingrained—if not encoded—in many spheres of life, in many parts of the world. We must mainstream gender parity (67) and model all forms of diversity. In critical care definition documents, consensus statements, and practice guidelines, a broader array of relevant stakeholders need to be represented to catch up with contemporary professional standards. In November 2015, Justin Trudeau, the newly elected Canadian Prime Minister, appointed a gender-equal and racially diverse cabinet. When asked why he selected a gender-equal cabinet—the first in Canadian history—he responded "Because it is 2015."

It is now 2017, and in critical care medicine, we can do better.

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