Preventing the tower from toppling for women in surgery

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In a rich qualitative analysis of interviews with women who left surgical training in Australia, Rhea Liang and colleagues report in *The Lancet*[1]their study that applied insights from feminist and social theories to illuminate how various factors interact to disadvantage women. They persuasively argue that various stresses accumulate like a tower of stacked blocks. Eventually, an individual's tower can reach a height that it will topple in the absence of efforts to stabilise it; often the final toppling precipitator appears relatively minor. Their findings suggest that interventions seeking to improve retention and advancement of women in surgery must address the underlying multiple and constituent factors (blocks) rather than narrowly focus on the ultimate triggers. Ideally, such interventions should not overtly focus on women alone.

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In their Article, Liang and colleagues[1]vividly describe a number of challenges faced by both men and women pursuing careers in surgery, including long working hours, fatigue, unpredictable lifestyle, unavailability of leave, and the ensuing effect of these generally inflexible and all-consuming professional expectations on personal relationships. These challenges can be particularly difficult for women, given persistent societal expectations of a

gendered division of domestic responsibilities. For example, in one US study[2]of high-achieving medical faculty, women spent 8·5 h more per week on parenting and domestic tasks than men, even after adjustment for factors such as spousal employment status. Moreover, given that only women face the physical consequences of pregnancy, parturition, and lactation, and given that the peak years of fertility coincide with those of postgraduate training, the inflexible expectations of both professional credentialing bodies[3]and individual institutions[4]that limit leave from medical or surgical training clearly have a disparate effect on women.

Interventions to ameliorate these challenges need not be—and, ideally, should not be—gender specific. Liang and colleagues argue that narrowly targeted women-only interventions can result in unintended adverse consequences, reinforcing stereotypes, and a female-deficit approach. Their analysis is in keeping with growing international experience across a number of sectors and professions that suggests gender equality to be accelerated fastest when a systems or whole institution approach is taken.[5]

One such example is the regulation of medical and surgical trainees' duty hours—the focus of numerous political and professional efforts in many countries, including in the USA and the UK, in recent years. These reforms have raised concerns about possible unintended consequences on education, professionalism, supervision, and continuity of care. Nevertheless, although the evidence is complex and sometimes conflicting, studies generally suggest that quality of care and level of procedural experience can be maintained with the introduction of initiatives that seek to reduce trainees' hours, which appears to reduce burnout and improve mood.[6]Unsurprisingly, such initiatives have been viewed as particularly important by women,[7]although such interventions do not label women as the sole beneficiaries. Similarly, a shift towards making leave from training more available to men and women alike is consistent with the broader shift towards competency-based assessments in graduate medical education. Such changes can unstack some blocks for both men and women, but they are likely to disproportionately benefit women because, as the Article notes, "[W]omen have more blocks to deal with". In addition, interventions that provide support to all those facing demands of extraprofessional caregiving of family members[8]also provide another mechanism to stabilise the tower for all, but in ways that disproportionately benefit women (who are more likely to serve in caregiving roles domestically).

Another set of challenges faced by both men and women relates to workplace incivility. Bullying and sexual harassment are challenges described by the women in Liang and colleagues' study, which have clear relationships to other dynamics they describe. Bullying and harassment are known to result in poor mental health,[9]and fear of repercussion limits reporting.[10]Others have shown that cooperation in operating rooms is less common when women are poorly represented on surgical teams,[11]and sexual harassment is more common in environments where women fail to share equally in power.[12]In addition to interventions directly seeking to promote civility in the workplace, a key component to improving workplace culture involves the promotion of women to positions with authority.[12] Moreover, culture-change interventions have demonstrated effectiveness in health-care settings without necessarily focusing specifically on issues of sex or gender.[12]The cultivation of respectful and inclusive work cultures is increasingly recognised as essential for a

productive working environment in surgery and the medical profession more generally; however, it will be of particular importance and benefit for women.Finally, the Article describes the challenge of social isolation in a context where few surgeons (and only 11% of consultant surgeons) are women. Fortunately, this particular block is rapidly being removed from the tower by social media, which is enabling younger generations to form new communities. Here, gender specificity seems to be without the potential stigmatising effect that Liang and colleagues observed, precisely because these communities are informal, deliberately private, and limited to women. For example, the Facebook Physician Moms Group has been transformative, with more than 70 000 members using the platform to share experiences, seek support, and help one another.[13]

In summary, Liang and colleagues provide a detailed and nuanced understanding of how challenges accumulate to disadvantage women in surgery. We believe their observations have broad relevance to the discussion of how best to promote gender equity and the success of women in medicine, science, and global health more generally. The metaphor of the toppling tower of blocks is intuitively appealing and useful in advancing the conversation on how best to address the multiple challenges women in health care confront. It is also extremely timely if fields like surgery are to recruit and retain the very best members of the talent pool and appropriately reflect the population the profession serves.

References

[1] Liang R, Dornan T, Nestel D. Why do women leave surgical training? A qualitative and feminist study *Lancet* 2019; **393:** 541–49.

[2] Jolly S, Griffith KA, DeCastro R, Stewart A, Ubel P, Jagsi R. Gender differences in time spent on parenting and domestic responsibilities by high-achieving young physician-researchers. *Ann Intern Med* 2014; **160:** 344–53.

[3] Jagsi R, Tarbell NJ, Weinstein DF. Becoming a doctor, starting a family—leaves of absence from graduate medical education. *N Engl J Med* 2007; **357:** 1889–91

[4] Magudia K, Bick A, Cohen J, et al. Childbearing and family leave policies for resident physicians at top training institutions. *JAMA* 2018; **320:** 2372–74.

[5] White K, O'Connor P, eds. Gendered success in higher education: global perspectives. London: Palgrave Macmillan, 2017.

[6] Philibert I, Nasca T, Brigham T, Shapiro J. Duty-hour limits and patient care and resident outcomes: can high-quality studies offer insight into complex relationships? *Annu Rev Med* 2013; **64:** 467–83.

[7] Jagsi R, Surender R. Regulation of junior doctors' work hours: an analysis of British and American doctors' experiences and attitudes. *Soc Sci Med* 2004; **58:** 2181–91.

[8] Jagsi R, Jones RD, Griffith KA, et al. An innovative program to support gender equity and success in academic medicine: early experiences from the Doris Duke Charitable Foundation's Fund to Retain Clinical Scientists. *Ann Intern Med* 2018; **169:** 128–30.

[9] Cortina LM, Berdahl JL. Sexual harassment in organizations: a decade of research in review. In: Barling J, Cooper CL, eds. The SAGE handbook of organizational behavior. Thousand Oaks, CA: Sage, 2008: 469–97.

[10] Jagsi R. Sexual harassment in medicine—#MeToo. *N Engl J Med* 2018; **378:** 209–11.

[11] Jones LK, Jennings BM, Higgins MK, de Waal FBM. Ethological observations of social behavior in the operating room. *Proc Natl Acad Sci USA* 2018; **115:** 7575–80

[12] Cortina LM, Jagsi R. What can medicine learn from social science studies of sexual harassment? *Ann Intern Med* 2018; **169:** 716–17.

[13] Adesoye T, Mangurian C, Choo EK, Girgis C, Sabry-Elnaggar H, Linos E. Physician moms group study group. Perceived discrimination experienced by physician mothers and desired workplace changes: a cross-sectional survey. *JAMA Intern Med* 2017; **177:** 1033–36.