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Commentary

## Gender equality: Framing a special collection of evidence for all

Gary L. Darmstadt

Associate Dean for Maternal and Child Health, and Professor, Department of Pediatrics, Stanford University School of Medicine, Stanford, CA, USA

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In this issue of *EClinicalMedicine*, the editors have assembled a special collection of papers which reinforce and extend concepts advanced recently in other *Lancet* family journals on Gender Equality, Norms and Health [1] and Advancing Gender Equity in Science, Medicine and Global Health [2]. These works in turn, build on decades of scholarship in the study of gender inequalities which to this day have disproportionately impacted women and girls, and even more so women who are poor or from racial or religious minorities or other intersecting aspects of identify which impart social disadvantage. More recently, the role of restrictive gender norms has been emphasised [1]. These are powerful rules or guardrails that govern the attributes and behaviours that are valued and considered acceptable for males and females within the family, social circles, workplace, and institutions. Restrictive gender norms have the effect of limiting all people – women, men, boys, girls, and gender minorities – from achieving their full human potential.

The papers in this collection well illustrate the critical importance of gender in health and well-being and in the development of societies across the world, all along the life course, and within families and sectors ranging from education to health and labour. These papers further demonstrate that gender inequalities and restrictive gender norms are institutionalised within gender systems – including within medical educational and healthcare systems – which apportion power and privilege to males and things deemed masculine over females and femininity. These discriminatory systems ultimately harm health for all. In contrast, advancing gender equality benefits all.

Two articles explore sexual harassment amongst students and faculty in medical schools in Canada and the USA, respectively. Phillips et al. [3] find that student victims of sexual harassment are mostly women who experience harassment from all sides – peers, patients and faculty. It appears that while these students maintain a belief in the transformative power of education, they are victimised by a system that normalises their victimisation and leaves them feeling that they are to blame, are powerless to change a system that betrays them, and

must wait for larger social changes to occur. Meanwhile, medicine loses talent as many women exit the system early [4]. Similarly, Raj et al. [5] uncovered that most women in US medical academia suffered sexual harassment during their training period, in severe forms for one-third of them. Remarkably, sexual harassment was not associated with academic achievement; moreover, counterintuitively women who suffered severe sexual harassment were more likely to rise to the highest ranks of academic medicine. These women were not deterred, and against the odds rose to the top of their profession. While we must celebrate the accomplishments of these pioneering women, the rampant discrimination and fundamental violations of human rights that women senior academicians often endure along the way is deplorable. While medical doctors are learning to apply the Hippocratic Oath at the bedside, some are inflicting harm on their colleagues alongside them. Multiple recommendations for comprehensively addressing this situation in our academic medical institutions have been advanced and must be enacted urgently across medical education systems – in developed and developing countries alike [4].

Stepanikova et al. [6] build on the concept of embodiment, advanced by Heise et al., [1] whereby gender-based discrimination gets “under the skin” and thus is translated into physical manifestations, for example through stress-mediated alterations in biological processes. While this concept has been documented for racial discrimination, data has been lacking on the embodiment of gender discrimination. Examination of a Czech longitudinal cohort shows for the first time that women's perceived gender discrimination during pregnancy was associated with increased risk of depression during their child-caring years [6]. Other intersecting aspects of social disadvantage were also linked to higher depressive symptoms, including financial hardship and childhood neglect and sexual abuse. Having a boy child was protective against depression, suggestive of norms favoring boys, as was social support. This new evidence hopefully will open up opportunities for further investigation into ways in which gender injustice and discrimination impact health and well-being, and pave the way for interventions to prevent these harmful occurrences and effects. Similar to the innovative approaches advanced by Weber et al. [1], Raj et al. [7] used analysis of serial

E-mail address: [gdarmsta@stanford.edu](mailto:gdarmsta@stanford.edu)

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cross-sectional survey data from across India to gain insights into powerful gender norms impacting health. They found that when boys were born into families with two preceding girls, infant mortality among those boys was significantly lower compared to boys born into families with an older brother. Moreover, risk for infant mortality was much higher for third-order girls than boys who were born subsequent to two older sisters – a finding that has persisted unchanged over the more than two decades captured by this data. This stunning example suggests an insidiously powerful impact of gender norms that ascribe more value to boys than girls and that empower families to invest in saving the lives of boys in preference to girls when there are already girls in the home. On the other hand, this suggests that uncovering and exposing such gender-based injustice, and equipping families with tools to combat it, could be a massive force in driving improvements in infant survival.

While gender-based discrimination drives many women out of medical academic and health systems, [1,4] Gadot et al. [8] build on work by Heymann et al. [1] showing benefits of gender equality in education and work. Using an index of educational parity, they show that increases in gender parity in education across multiple countries are associated with reduced maternal mortality and longer life (two full years) for women. Males also reaped the benefits of educational parity with an additional year of longevity. Improvements in parity in work were also associated with reduced maternal mortality and increased longevity for women, with no impacts on men. These important results suggest that the very systems that harm women bring benefits to women and to men when women are enabled and treated with equality within those systems. It is not a zero-sum game. Educational and work parity benefit everyone, and policies to ensure the right to equality in education and work must be fundamental to societies everywhere.

Two other studies in this collection further explore the benefits of advancing gender equality in health systems. Bhan et al. [9] extend the work by Hay et al. [1] which documented that gender-based discrimination within health systems leads to poor performance in delivering good health, especially for women and gender minorities. Greater representation of lady medical officers within primary healthcare facilities in India was found to be associated with improved reproductive and maternal health. [8] This suggests that improving gender parity in the health workforce and access to female physicians is an important potential leverage point for improving maternal health.

In a similar vein, Hazra et al. [10] found that empowering women, especially marginalised women, within rural community self-help groups in Uttar Pradesh, India, was associated with improved maternal and infant healthcare practices. Self-help groups in Uttar Pradesh typically are formed to promote women's economic opportunities through access to credit and livelihoods. Incorporating health-related content

into women's collectives offers an additional avenue for normalising and spreading improvements in health care knowledge, behaviours and outcomes.

As the articles in this collection well illustrate, gender inequalities, gender-based discrimination, and restrictive gender norms have pervasive effects that hold back whole societies and all people from achieving their full developmental potential. It will not be possible to achieve the mandate of the Sustainable Development Goals to leave no one behind and to reach the farthest behind first without concerted attention to gender within all aspects of development. These issues affect all of us and actions of all of us are critical to the solution.

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## Author contribution

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