

## Gender norms and the wellbeing of girls and boys

### Author's reply

We are pleased our Article<sup>1</sup> has generated interest and discussion, including around the need to include boys in gender policy, programming, and research.

Severi Luoto and colleagues suggest that we should expect differences in outcome between females and males, and that these differences are driven by biological sex. We agree that biological sex differences might explain some gender disparities in health; however, if observed differences were driven predominantly by biological sex, we would not observe the wide variation in health across boys—or between boys and girls—or across countries or over time. Nor would we expect to see adolescent girls to be at increased risk of suicide as we observed in India, Pakistan, and Bangladesh. It is also difficult to conceive of a biological basis for our observed gender differences in the domains of education, protection, or safety.

Biology needs to be considered in a context of socially constructed gender systems. Gender inequality becomes evident in adolescence—a time of great biological and neurocognitive change driven by puberty. These biological changes bring a sensitivity to the social environment and drive identity formation, including what it is to be a given gender (male, female, or non-binary).<sup>2</sup> The gender norms and values embedded in the individual during childhood and adolescence persist into later adult life and, through parenthood, are generally passed on to the next generation. In summary, although we agree that biology contributes to this process, much of the variation in health outcomes observed can be attributed to socially constructed gender systems, and these are amenable to transformative intervention.<sup>3</sup>

Our Article did not systematically explore the drivers of gender inequalities or what the responses should be. We speculate that, in addition to driving the disadvantage and discrimination experienced by girls, patriarchal systems also reinforce rigid, restrictive norms around masculinity that contribute to boys' risk-taking and use of and exposure to violence. As such, we support Kylie King and colleagues' call to include boys in programming to address gender inequality. Further to Gwyther's review that King and colleagues cite, we note a 2020 review<sup>4</sup> that identified 36 randomised trials of gender-transformative programming with men and boys to improve sexual and reproductive health and rights, as well as a synthesis of programmes targeting gender inequality and restrictive norms to improve outcomes for children and adolescents.<sup>5</sup> We hope that this growing body of evidence informs effective responses to the gender disparities identified in our study.

We declare no competing interests.

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- 1 Kennedy E, Binder G, Humphries-Waa K, et al. Gender inequalities in health and wellbeing across the first two decades of life: an analysis of 40 low-income and middle-income countries in the Asia-Pacific region. *Lancet Glob Health* 2020; **8**: e1473–88.
- 2 Blum RW. Gender norm transformative programming: where are we now? Where do we need to be? *J Adolesc Health* 2020; **66**: 135–36.

- 3 Heymann J, Levy JK, Bose B, et al. Improving health with programmatic, legal, and policy approaches to reduce gender inequality and change restrictive gender norms. *Lancet* 2019; **393**: 2522–34.
- 4 Ruane-McAteer E, Gillespie K, Amin A, et al. Gender-transformative programming with men and boys to improve sexual and reproductive health and rights: a systematic review of intervention studies. *BMJ Glob Health* 2020; **5**: e002997.
- 5 Levy JK, Darmstadt GL, Ashby C, et al. Characteristics of successful programmes targeting gender inequality and restrictive gender norms for the health and wellbeing of children, adolescents, and young adults: a systematic review. *Lancet Glob Health* 2020; **8**: e225–36.

