



## Commentary

## Gender and Health in Very Young Adolescents

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In 2005, the World Health Organization recognized gender as a structural driver of inequalities in health [1]. While health patterns unfold throughout the life course, it is during the transitional period of *early adolescence*, 10–14 years of age, that a gender divide in health begins to emerge with consequences that exacerbate across adolescence and through adulthood [2]. While the original understanding of this divide was mostly rooted in a biomedical conceptualization of gender (often conflated with sex), we have moved toward a biosocial understanding of gender as a sociocultural process that interacts with and regulates the bodies through differential patterns of exposures and practices [3]. However, there are limited data outside of the United States and other Western societies that contribute to our understanding of the ways in which gender shapes health and well-being among early adolescents across diverse cultural settings [4]. Understanding the extent to which this social process is fluid and consequential for health during this transitional period can also provide us with necessary insights into improving the design of effective early interventions to promote health and reduce inequities over the life course.

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The Global Early Adolescent Study (GEAS) is the first international multisite study to focus on gender socialization and health in early adolescence. As such, it offers a unique perspective to support theory and practice in the realm of gender and health, using nuanced and validated measures to shed light on young people's perceptions of gender, how these perceptions evolve across adolescence, and their relevance in shaping their health and well-being.

### Gender Socialization Contributes to Exposures and Practices that are Detrimental to Boys' and Girls' Health

The empirical findings from the GEAS support the notion of a ubiquitous patriarchal system that acts as an important social force informing young girls' and boys' health exposures, behaviors, and outcomes. In the present supplement, Mmari et al [5] highlight systematic differences in the social context of boys and girls across a diversity of sociocultural settings. Their results are consistent with prior GEAS qualitative research [6] that highlights the different ways in which boys and girls are socialized, which in turn can contribute toward differences in health exposures, behaviors, and outcomes across the life course [7]. As an example, Ramaiyya et al [8] point to differential exposure to child adversities between boys and girls in Indonesia – differences which in turn inform differential peer violence perpetration, as child adversity increases the risk of peer violence perpetration by two times. In addition, the authors describe the harmful influence of unequal gender norm perceptions on male violence

perpetration. Such unequal norm perceptions also correlate with greater pornography consumption among boys in the two GEAS Asian settings, which in the absence of comprehensive sexual education may increase unsafe sexual practices in addition to gender-based violence [9]. Koenig et al [10] show that unequal gender norm perceptions correlate with depressive symptomatology across a diversity of GEAS settings with girls consistently expressing more symptoms than boys.

The GEAS also draws attention to potential unexpected consequences of holding more gender-egalitarian views, especially in gender-conservative societies. Specifically, Blum et al report greater body satisfaction among adolescents who hold less gender equitable views [11]. Likewise, Zimmerman et al [12] report similar paradoxical findings in Kinshasa, DRC between unequal gender norm perceptions and young people's agency, or the power to exercise voice with family and peers and to make daily decisions as adolescents who hold more conservative views about gender are more likely to display higher levels of agency – a finding that warrants further exploration.

### Young People's Gender Outlooks are Complex and Fluid

While the GEAS study draws attention to the critical influence of gender socialization in shaping health-related exposures, practices, and outcomes in early adolescence, it also stresses the opportunity to intervene before gender norm perceptions intensify. Moreau et al show how patterns of gender norm perceptions vary across cultures while also stressing that even within individuals, progressive and conservative views about gender vary across areas of their lives [13]. Using longitudinal GEAS data from the study by Kinshasa et al show how young people solidify their gender perceptions over time [14]. Specifically, they demonstrate that young people's perceptions of a sexual double standard grow as they reach puberty, while acknowledging the roles of peers and family in fostering these changes. These results resonate with the depiction of the growing social divide in early adolescence leading to differential socialization processes between boys and girls as reported by Mmari et al [5].

### Early Adolescence, a Prime Time for Gender Transformative Interventions

The recognition of gender as a structural determinant of health, and adolescence as a sensitive window of gender socialization, encourages investments in gender-transformative interventions targeting adolescents. Current evidence supports such a strategy but fails to specify the most opportune time to intervene [15]. While the study does not directly address this question, findings as reported by Cislighi et al [14] support upstream interventions in early adolescence before gender outlooks solidify. In addition, the GEAS results presented in this supplement point to several theoretical and implementation considerations that could inform effective programming. First, while the global discourse promotes the notion of “equality” as a universal aspiration, a more complex reality of young people's gender outlooks should be considered, as progress toward more gender-egalitarian views in one area of life may not extend to other areas. If these complexities are ignored, interventions are likely to have limited impact. Second, the findings that gender norms and empowerment are distinct but interrelated as reported by Zimmerman et al reinforce the need for multilevel approaches that simultaneously promote agency and address

harmful gender practices, especially in conservative societies where challenging the gender order may generate potential backlash. Third, the GEAS findings stress the importance of including boys in gender programming not only as agents of change but also as beneficiaries of interventions that protect them from harmful gender practices. Finally, the study reiterates the importance of integrating the social context into early adolescent programming, including parents, educators, and peers who shape boys' and girls' gender development. Ultimately, multilevel and multisectoral interventions should pave the way for adolescents, their families, and their communities to promote gender equality and integration in early adolescence, while also sharing resources and power to support girls and boys alike to achieve their full potential.

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