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Puberty Education for Boys: An Invisible Gender Disparity in Adolescent Development

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Abstract

Puberty is a universal and transformative stage of human development, involving profound physical, emotional, and psychological changes. Adequate preparation through structured puberty education is essential for adolescents of all genders to navigate this phase in a healthy and informed manner. In recent years, public health and educational initiatives have predominantly focused on adolescent girls and young women due to their heightened vulnerability to gender-based violence, sexual exploitation, and restrictive gender norms. While these interventions are critically important, the developmental needs and challenges of boys during puberty have received comparatively little attention. Socially reinforced ideals of masculinity often discourage emotional expression among boys and normalize risk-taking behaviours such as substance abuse, unsafe sexual practices, and aggression. The absence of comprehensive puberty education for boys has thus resulted in an invisible yet significant gender disparity. This paper argues for the inclusion of boys as equal stakeholders in puberty education, emphasizing its role in fostering self-understanding, emotional regulation, respectful attitudes toward others, and the formation of healthy gender identities. Inclusive puberty education is fundamental not only to individual well-being but also to the creation of a safer, more equitable, and harmonious society.

Keywords: Puberty, Puberty Education, Gender Disparities, Gender Norms, Gender Identity

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INTRODUCTION

Puberty is a critical and transformative stage in the human life cycle that marks the transition from childhood to adulthood. It is characterised by rapid physical growth, hormonal changes, and significant emotional, psychological, and social development (Santrock, 2019; World Health Organization, 2017). During this period, the human body undergoes profound biological changes, including the development of primary and secondary sexual characteristics, changes in body composition, and maturation of reproductive capacity (Patton et al., 2016). These physical transformations are accompanied by heightened emotional sensitivity, emerging sexual awareness, and the gradual formation of gender identity (Kågesten et al., 2016). As a result, puberty represents not merely a biological milestone but a complex developmental phase that shapes an individual's personality, behaviour, and self-concept.

Alongside physical maturation, puberty is also a period of considerable cognitive and moral development. Adolescents develop advanced reasoning abilities, enhanced abstract thinking, and a growing capacity for self-reflection (Santrock, 2019). They begin to question existing beliefs, norms, and values, and attempt to establish a personal identity that aligns with both internal feelings and external expectations (Connell, 2005). This process often gives rise to an identity crisis, as adolescents struggle to reconcile personal experiences with societal norms, cultural expectations, and peer influences (Kågesten et al., 2016). At this stage, young people irrespective of gender are particularly vulnerable to confusion, anxiety, low self-esteem, and emotional instability (Patton et al., 2016).

The sudden onset of physical and emotional changes during puberty can be overwhelming for many adolescents. Feelings of embarrassment, fear, curiosity, and uncertainty are common, especially when young people lack adequate information or guidance (UNESCO, 2014). In many societies, discussions related to puberty, sexuality, and bodily changes remain surrounded by silence, stigma, and cultural taboos (Sommer et al., 2017). As a result, adolescents often rely on peers, media, or unverified online sources for information, which may lead to misconceptions and unhealthy attitudes toward their own bodies and others (Garcia & Sharif, 2015). This situation highlights the critical importance of structured and age-appropriate puberty education as an essential component of adolescent development (UNESCO, 2018).

Puberty education plays a vital role in equipping young people with accurate knowledge about the physical, emotional, and hormonal changes they experience. It helps adolescents understand that puberty is a normal and universal phase of human development rather than a problem to be feared or suppressed (UNESCO, 2014). By providing scientific explanations and emotional support, puberty education can reduce anxiety, promote self-acceptance, and foster healthy coping mechanisms (Fantaye et al., 2020). Moreover, it encourages adolescents to develop a positive body image, emotional resilience, and responsible health behaviours (Santrock, 2019).

In recent years, public health and educational interventions related to puberty and adolescent health have largely focused on adolescent girls and young women. This focus is justified, as girls are often more vulnerable to gender-based violence, sexual abuse, early marriage, and restrictive gender norms that limit their educational and social opportunities (UNICEF, 2011; Jewkes et al., 2015). Programmes addressing menstruation, menstrual hygiene management, and reproductive health have gained increased visibility and policy attention (Sommer et al., 2017). While such initiatives are essential and long overdue, they have inadvertently contributed to a gendered approach to puberty education that prioritises girls while marginalising boys (Garcia & Sharif, 2015).

Comparatively little attention has been paid to the experiences and challenges faced by boys during

puberty and adolescence. There is a widespread assumption that boys navigate puberty naturally and independently, without the need for structured guidance or emotional support (Connell, 2005). Such gender norms discourage boys from expressing vulnerability, seeking help, or openly discussing their fears and confusion related to pubertal changes (Rohleder & Swartz, 2012). Consequently, boys' experiences during puberty remain under-discussed and under-addressed within educational frameworks (Garcia & Sharif, 2015).

The neglect of puberty education for boys has significant implications for both individual well-being and societal health. Boys also experience anxiety, mood swings, sexual curiosity, self-doubt, and identity confusion during puberty (Carney et al., 2022). However, in the absence of proper guidance, they may internalise stress or resort to maladaptive coping strategies such as aggression, substance abuse, or risky sexual behaviour (Rohleder & Swartz, 2012). Furthermore, limited understanding of their own developmental changes and those of the opposite gender can reinforce harmful gender stereotypes and unequal power relations (Jewkes et al., 2015).

Societal expectations surrounding masculinity further exacerbate these challenges. Boys are often socialised to conform to rigid masculine ideals such as emotional stoicism, dominance, and physical toughness (Connell, 2005). During puberty, when emotional regulation is already challenged by hormonal changes, these expectations can create internal conflict and psychological distress (Kågesten et al., 2016). Boys who fail to conform to these norms may experience ridicule or social exclusion, while those who internalise them may engage in behaviours that negatively impact their own health and the safety of others (Jewkes et al., 2015).

The lack of comprehensive puberty education for boys also affects girls and women. Boys' attitudes toward menstruation, sexuality, consent, and gender roles are shaped during adolescence (Sommer et al., 2017). When boys are excluded from meaningful discussions about puberty and reproductive health, it fosters ignorance and misunderstanding regarding female bodily processes (UNESCO, 2014). This contributes to the perpetuation of gender inequality and gender-based violence (Jewkes et al., 2015). Therefore, addressing boys' educational needs during puberty is not only a matter of individual development but also a crucial step toward achieving gender equality (UNESCO, 2018).

Despite growing global recognition of the importance of inclusive sexuality and puberty education, boys continue to be overlooked in many interventions (Garcia & Sharif, 2015). True gender equality in education requires a balanced, gender-sensitive approach that acknowledges the developmental needs of all adolescents (Fantaye et al., 2020). This paper therefore emphasises the urgent need for comprehensive puberty education for boys, equal in importance to that provided for girls. Addressing this overlooked area of adolescent education is essential for nurturing well-adjusted individuals and for building a safer, more equitable, and harmonious society (UNESCO, 2018; World Health Organization, 2017).

PUBERTY EDUCATION

During the onset of puberty, a child faces different emotional and physical challenges. This creates feelings of stress, anxiety, confusion, and low self-esteem, making puberty one of the most challenging periods for learners (Santrock, 2019). To overcome these challenges, young people irrespective of gender should be properly educated about the bodily, emotional, and biological changes they are likely to experience (World Health Organization, 2017). An important fact to be considered is that many adolescents enter this stage unprepared, and the information they receive is often selective and surrounded by taboos (UNESCO, 2014). It is therefore necessary to provide accurate information and help young boys and girls understand that puberty is not a problem to be solved but a normal

phase of accelerated physical growth and sexual development (UNESCO, 2018). Inculcation of this understanding in adolescents can be effectively achieved through structured puberty education.

Puberty education refers to learning about pubertal development embedded in health or sexuality curricula as well as stand-alone interventions targeting attitudes and behaviour associated with specific pubertal changes (UNESCO, 2018). In recent years, health and education interventions have primarily focused on adolescent girls and young women, as this population is particularly susceptible to gender-based violence, sexual abuse, and restrictive gender norms that reduce their educational and social opportunities (UNICEF, 2011; Jewkes et al., 2015). While the health and education of girls are critically important, there is growing concern about the turmoil that boys encounter during puberty and adolescence (Garcia & Sharif, 2015). Like girls, boys also undergo changes that lead to anxiety, stress, self-doubt, shame, and curiosity (Carney et al., 2022). Educating boys about these changes is necessary for their well-being and can contribute to a healthier social environment and greater gender equality (Fantaye et al., 2020). Although UNESCO emphasises the need for puberty education for both boys and girls to ensure a safer society, the importance of puberty education for boys continues to be neglected (UNESCO, 2014). This neglect results in an invisible gender disparity within society (Garcia & Sharif, 2015).

In the modern world, many awareness programmes are conducted by schools in collaboration with health departments and NGOs for adolescent girls regarding physical and psychological changes during puberty, menstruation, and menstrual hygiene management (Sommer et al., 2017). A considerable number of initiatives also address violence against women and adolescent girls (Jewkes et al., 2015). However, it must be emphasised that puberty is an important part of the human life cycle affecting both girls and boys, and addressing one without the other will inevitably reduce the effectiveness of such programmes (UNESCO, 2018).

Teaching about puberty irrespective of gender is crucial, as it helps adolescents understand themselves better and enables them to deal positively with the changes they experience (Santrock, 2019). This also contributes to the enhancement of self-esteem and emotional resilience (Patton et al., 2016). Adolescents become more conscious of socially constructed myths and taboos around puberty, such as negative perceptions of menstruation or the dismissal of emotions as un-masculine, which act as gateways to gender disparities (Kågesten et al., 2016). These disparities can be reduced to a large extent by providing comprehensive puberty education to all genders (UNESCO, 2018).

As mentioned earlier, adolescent boys, like girls, face various challenges during the onset of puberty. However, the problems faced by boys during this period are far less discussed compared to those of girls (Garcia & Sharif, 2015). This is largely due to persistent gender discrimination embedded in cultural norms, where male pubertal changes are considered unproblematic while female changes receive greater attention (Connell, 2005). The negative consequence of this attitude is that boys are denied opportunities to understand and express themselves (Rohleder & Swartz, 2012). As a result, dominant masculinity norms often encourage boys to adopt risky health behaviours such as substance use, unprotected sexual activity, and even sexual aggression (Jewkes et al., 2015). Therefore, providing puberty education and awareness to boys is as essential as it is for girls in order to promote healthy development and respectful gender relations (UNESCO, 2018).

PROBLEMS FACED BY BOYS DURING PUBERTY

Some of the common problems faced by adolescent boys are described below.

1. *Fear and anxiety caused in boys during their first encounter with wet dreams due to lack of*

awareness: Many young boys are unaware of how their body marks the onset of puberty by wet dreams. A study conducted in 'Kenya regarding adolescent boys' transitions through puberty' stated that, 'Many young adolescent boys misunderstood their first encounter with wet dreams as urinating on bed, which makes them shy to speak up to their parents or peers. Some think that they have some kind of disease, which thereby leads to anxiety, stress, shame and confusion'.

2. *Increased sexual desire:* An increase in sexual desire is observed in boys during puberty and adolescence. This is mainly because of hormonal changes like increased level of testosterone. Unaware of the actual facts, results in creating a feeling of confusion, tension and stress on some adolescents, while others tend to find false understandings from various unauthentic sources like pornography.
3. *Problem with regulating mood swings and problems of self-consciousness:* Like girls, boys also experience mood swings which is mainly caused due to hormonal imbalance. But we often tend to neglect this, mostly because of the gender norms set by our society (emotional stoicism etc.) This creates frustration in them leading to aggression and thereby finding relief through substance use and violence to same and opposite gender, as they are unaware about how to channelize their emotions. This is also a period where boys become self-conscious and try to inculcate certain masculine norms set by society like physical toughness, dominant attitude etc. But some might not be able to fit into these masculine norms and has a high chance of being criticized by others, which can reduce their self-esteem.
4. *Sexual exploitation:* Boys also face sexual exploitation like girls. But our gender normed society fail to open up about the exploitations faced by them. Many young adolescent boys are also unaware on how to deal with it.
5. *Lack of knowledge about girl's menstrual cycle and women health:* Results in misunderstanding and devaluing an important aspect of womanhood among boys, and also creates in them a notion that, it is something unpleasant and needs to be concealed.

There can be even more problems faced by young boys in our society. But they are often silenced, as we live in a society that has rigid gender norms of male to be strong, aggressive and bold and female to be calm and composed.

NEED OF PUBERTY EDUCATION FOR BOYS

According to UNESCO, including boys in puberty education is essential for a number of reasons. 'First, they too are going through radical changes, psychological and cognitive as well as physical which they might not understand. Secondly, the attitude of boys will have a direct impact on girls. Third, knowledge acquired in school could have a positive impact on future seeking behavior such as using sexual and reproductive health services. This is particularly important as take up of sexual and reproductive health services does not only depend on women'.

Boys often find it difficult to communicate with parents or peers about the challenges that they go through at this phase. Proper puberty education for boys will help them:

- To understand their bodily changes like development of muscles, change in voice, pubic and facial hair growth.
- To understand that like the onset of puberty is marked by menstruation in girls, it is 'nocturnal emissions' also called as 'wet dreams' for boys. This can thereby reduce their false notions on

their first encounter and understand it as a normal biological process in their body.

- To understand that they undergo various hormonal changes specially in the production level of hormones like testosterone thus contributing to sexual desires and development of secondary sexual characters.
- To understand how to deal with any kind of sexual harassment.
- To know about the changes that girls face during puberty, this will help in developing a positive attitude and consideration towards opposite sex.
- Will provide insights on how to deal with mood swings and how to properly channelize them, thereby preventing from ending up in substance use and gender-based violence.
- Removes false gender notions, taboos and myths about puberty by providing scientific explanations.

ROLE OF THE TEACHER

Teachers have a crucial responsibility to break the taboos created by society around puberty education and to provide a safe platform for discussing the issues faced by boys and girls during this stage (UNESCO, 2018). This can be achieved by establishing a warm, friendly, and open-minded classroom environment where students can freely ask questions that trouble them and receive honest, age-appropriate answers (Fantaye et al., 2020). Teachers can also provide scientific explanations about pubertal changes, as accurate knowledge helps to remove unnecessary fear, shame, and misconceptions among adolescents (Santrock, 2019).

Organising additional counselling sessions on puberty for both boys and girls together can promote mutual understanding and respect between genders, thereby contributing to the creation of a safer and more equitable society (Kågesten et al., 2016). Such gender-inclusive interactions help adolescents recognise that pubertal changes are natural for all and not a matter of embarrassment or stigma (UNESCO, 2014). Teachers should also take the initiative to organise awareness programmes on puberty education for parents, as this can help reduce the communication gap between parents and children regarding the difficulties and confusions experienced during this stage (Sommer et al., 2017). Parental involvement supported by teachers is particularly important because many adolescents hesitate to discuss bodily changes at home due to cultural silence and rigid gender norms (Connell, 2005). By acting as facilitators between school and family, teachers can encourage healthy dialogue and emotional support for boys as well as girls (Garcia & Sharif, 2015).

Allocating dedicated instructional time for puberty education in schools, with equal emphasis on male and female pubertal experiences, will significantly help to address the existing invisible gender disparity (UNESCO, 2018). Such teacher-led initiatives can ultimately foster emotional well-being, responsible behaviour, and gender-sensitive attitudes among adolescents (Patton et al., 2016).

CONCLUSION

Many taboos and false notions about puberty and gender identity have evolved from time in memorial. This often acts as a gateway to gender disparities. In the contemporary world, it is true that we discuss only about the problems faced by adolescent girls during puberty and women health. This leads to an invisible gender disparity, as we tend to neglect the challenges faced by boys during this phase. It is very essential to understand that all children irrespective of gender should be nurtured in a safe environment. Hence puberty education should be provided for all without any gender discrimination, as it helps

to understand oneself better and mutually respect opposite gender. This will help in creating a safe, harmonious and equitable society, discarding all traditional gender norms. In other words, 'puberty education is relevant for life'. Thus, our education sector should give prime importance to puberty education for boys as for girls, because this will indirectly improve the health of young girls and women who are impacted by their behavior and will result in the formation of a safe society.

REFERENCES

Carney, A., Mulei, T., Kurao, D., Hagstrom, C., & Sommer, M. (2022). "When I woke up I was so worried and ashamed, I thought it was a disease": Adolescent boys' transitions through puberty in Kenya. Frontiers in Reproductive Health, 4, 956060. https://doi.org/10.3389/frph.2022.956060

Connell, R. W. (2005). Masculinities (2nd ed.). University of California Press.

Fantaye, A. W., Buh, A. W., Idriss-Wheeler, D., Fournier, K., & Yaya, S. (2020). Effective educational interventions for the promotion of sexual and reproductive health and rights for school-age children in low- and middle-income countries: A systematic review protocol. Systematic Reviews, 9(1), 216. https://doi.org/10.1186/s13643-020-01464-w

Garcia, L., & Sharif, M. (2015). Puberty education and boys' health: Breaking the silence. Journal of Adolescent Health, 56(2), 123–129.

Jewkes, R., Flood, M., & Lang, J. (2015). From work with men and boys to changes of social norms and reduction of inequities in gender relations: A conceptual shift in prevention of violence against women and girls. The Lancet, 385(9977), 1580–1589. https://doi.org/10.1016/S0140-6736(14)61683-4

Kågesten, A., Gibbs, S., Blum, R. W., Moreau, C., Chandra-Mouli, V., Herbert, A., & Amin, A. (2016). Understanding factors that shape gender attitudes in early adolescence globally: A mixed-methods systematic review. PLOS ONE, 11(6), e0157805. https://doi.org/10.1371/journal.pone.0157805

Patton, G. C., Sawyer, S. M., Santelli, J. S., Ross, D. A., Afifi, R., Allen, N. B., . . . Viner, R. M. (2016). Our future: A Lancet commission on adolescent health and wellbeing. The Lancet, 387(10036), 2423–2478. https://doi.org/10.1016/S0140-6736(16)00579-1

Rohleder, P., & Swartz, S. (2012). Young men's constructions of masculinity and sexuality in South Africa: Implications for HIV/AIDS education. Journal of Health Psychology, 17(6), 805–816.

Santrock, J. W. (2019). Adolescence (17th ed.). McGraw-Hill Education.

Sommer, M., Figueroa, C., Kwauk, C., Jones, M., & Fyles, N. (2017). Attention to menstrual hygiene management in schools: An analysis of education policy documents in low- and middle-income countries. International Journal of Educational Development, 57, 73–82. https://doi.org/10.1016/j.ijedudev.2017.09.008

Subramaniyan, V. K. S., Reddy, P., Chandra, G., Rao, C., & Rao, T. S. S. (2017). Silence of male child sexual abuse in India: Qualitative analysis of barriers for seeking psychiatric help in a multidisciplinary unit in a general hospital. Indian Journal of Psychiatry, 59(2), 202–207. https://doi.org/10.4103/psychiatry.IndianJPsychiatry_195_17.

UNESCO. (2014). Puberty education and menstrual hygiene management. Good Policy and Practice in HIV & AIDS and Education, Booklet 9. UNESCO.

UNESCO. (2018). International technical guidance on sexuality education: An evidence-informed approach (Revised ed.). UNESCO. https://doi.org/10.54675/UQRM6395

UNICEF. (2011). The state of the world's children 2011: Adolescence—An age of opportunity. UNICEF.

World Health Organization. (2017). Adolescent health and development. WHO.

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