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COMMENTARY

Period poverty in Bangladesh: Examining low-cost and sustainable solutions

ADITI TOMAR, HOIMONTY MAZUMDER, M MAHBUB HOSSAIN

Abstract

Period poverty is a widespread public health challenge among women and girls in Bangladesh, marked by poor access to sanitation, limited access to menstrual hygiene products and low education about reproductive and sexual health. Addressing these issues necessitates implementing cost-effective solutions for menstrual well-being. Sustainable approaches include community health initiatives focusing on menstrual health education and the provision of affordable menstrual products. Additionally, reforming existing sexual and reproductive health education to adequately address menstrual needs is essential. Policy frameworks should integrate cost-effective options, incentivise local production, and remove taxes from menstrual products. Media engagement and collaborative platforms can amplify awareness and facilitate sustained progress. Ultimately, addressing period poverty requires holistic approaches to ensure dignity, health, and empowerment for all women and girls in Bangladesh.

Keywords: *period poverty, Bangladesh, menstrual health*

Overview of period poverty in Bangladesh

Period poverty, characterised by inadequate access to menstrual products, hygiene facilities, waste management, education, and associated services, is a pervasive public health challenge among women and girls in Bangladesh [1]. According to a study conducted in 2008 in the slums of Dhaka, about 95% of women and 90% of adolescent girls reused rags during menstruation without adequate cleaning, which resulted in scabies in the vaginal area, urinary and reproductive tract infections, and complications during pregnancy [2]. In a more recent public health intervention among adolescent girls in Bangladesh, it was observed that 70% girls continued to adopt suboptimal menstrual management practices such as reuse of cloths [3].

Period poverty disproportionately affects socio-economically vulnerable women and girls, exacerbating existing societal disparities [4]. Among this community, challenges abound,

including lower retention rates for girls in schools, disparities in women's employment and empowerment, and missed opportunities to achieve gender equity in healthcare and overall well-being [4]. The intersectionality of factors such as limited education, economic opportunities, decision-making autonomy, and entrenched gender inequalities within Bangladesh further compound the challenges faced by these vulnerable groups in safeguarding their sexual and reproductive health (SRH) rights. Thus, addressing period poverty requires targeted interventions that not only provide access to menstrual hygiene products and education but also tackle broader socio-economic and gender inequities to ensure the dignity, health, and empowerment of all women and girls, especially those from low socio-economic backgrounds [5]. Furthermore, women and girls encounter obstacles in accessing SRH facilities or making informed health decisions, often due to a lack of autonomy rooted in oppressive socio-cultural norms and practices [6].

Despite advancements in maternal health services in the country, there is a gap in robust theoretical frameworks explaining the manifestation of period poverty in Bangladesh. This paradox may be attributed to policy priorities in the past that focused on reducing maternal mortality, with limited emphasis on addressing SRH (sexual and reproductive health) disparities like period poverty [7,8]. The absence of education and well-defined need for menstrual products and services makes it difficult to involve users in existing SRH services [9]. Given the limited focus on improving SRH and menstrual hygiene, it is imperative to explore community-level strategies to promote menstrual hygiene. Low-cost options and collaborative approaches involving various stakeholders need to be emphasised to address the pressing issue of period poverty in Bangladesh. Ultimately, we aim to contribute to the broader conversation on enhancing SRH and menstrual hygiene, paving the way for impactful initiatives that can change the lives of women and girls in Bangladesh.

Barriers to tackling period poverty

Challenges such as poor access to sanitation, water, private spaces, and affordability of menstrual hygiene products, along with limited education on reproductive and sexual health, and social stigma related to menstruation are widespread among women and girls of all ages in Bangladesh [10]. Insufficient water, sanitation, and hygiene (WASH) facilities not only pose critical health risks but also make it challenging for women and girls to manage menstruation effectively [11]. Furthermore, the prevailing silence surrounding dialogue on menstruation fosters myths, misinformation, and stigma, perpetuating a harmful cycle of period poverty [12]. The lack of proper facilities, coupled with shame and fear of stigma exacerbates the problem of rampant absenteeism during menstruation due to concerns about stained clothes and dysmenorrhea [13]. Therefore, while efforts to improve menstrual hygiene continue, there is a critical need to focus on promoting the use of biodegradable menstrual products alongside establishing proper disposal systems.

Socio-economic challenges related to period poverty, however, may differ within and between communities. The capital city Dhaka, for instance, accurately represents the heterogeneity in period poverty [14]. Women and girls living in affluent neighbourhoods of the city or engaged in education and formal employment have better access to menstrual products and services. Those with adequate access to information and menstrual hygiene products, both in households and in educational or workplace settings, can circumvent disruptions to their schooling or employment. Conversely, in areas where facilities are lacking, period poverty is one of the factors impeding women's empowerment. The situation is compounded by the heavy taxation on menstrual products in Bangladesh, further reducing access [15].

Disposal of menstrual products

In Bangladesh, cloth and disposable pads remain the most prevalent menstrual products among women and girls [15]. However, given the widespread absence of proper disposal facilities, these products are often improperly discarded in toilets, latrines, ponds, and open areas [16], posing risks of disease transmission through bodily fluids, including HIV, hepatitis B, and hepatitis C [17]. Inadequate disposal facilities also prevent women from frequently changing their pads or other menstrual products, heightening the risk of urogenital infections, including reproductive tract infections (RTIs) and urinary tract infections (UTIs) [18]. The issue extends further, as improperly discarded menstrual products pose significant health risks to conservancy workers, who often work without proper protection and tools such as gloves and masks [19].

Apart from the detrimental impact on health, menstrual waste poses significant environmental concerns. Sanitary pads often contain synthetic plastic materials for leak-proof bases and absorbent strips, that are disposed of either as

solid waste or flushed down toilets. Subsequently, they end up in landfills or are incinerated to generate energy. In landfills, disposable pads are estimated to take 500 to 800 years to decompose, while materials like plastic never truly biodegrade [20]. Therefore, along with promoting biodegradable menstrual products, there is a critical need to establish proper disposal systems. This dual approach can mitigate the environmental and health risks associated with the improper disposal of menstrual waste, ensuring sustainable and safe management practices.

Sustainable solutions to promote menstrual health

In Bangladesh, community health promotion has demonstrated notable success, primarily owing to the strong partnerships forged among public entities, non-profit organisations, and local community groups [21]. However, in the case of period poverty, health and social workers have limited access to institutional support, hindering collaborative services and shared resources. Tackling barriers related to period poverty in Bangladesh involves navigating a multitude of challenges, encompassing various socio-cultural and structural complexities.

At the community level, leveraging community health initiatives to provide SRH education, address queries, encourage open discussions, and debunk myths and taboos surrounding menstruation is crucial. This approach aims to reduce stigma and dispel misinformation surrounding menstruation, empowering young individuals to navigate this aspect of their health confidently. In schools, integrating menstrual health information early is crucial for promoting proactive management of menstrual health and hygiene. The existing comprehensive sexuality education (CSE) curriculum should be enhanced to incorporate local resources, ensuring that girls of reproductive age are well-informed about available services [15].

The incorporation of menstrual hygiene management (MHM) into the National Curriculum is a significant step forward, fostering a pleasant, inclusive learning environment, reducing barriers for schoolgirls and enhancing their educational experience [22]. It is also crucial to sensitise men and boys about menstruation as a normal bodily function and make them an integral part of the interventions. Including men in discussions and education initiatives, we can foster a more inclusive understanding of menstruation and promote support networks within communities.

Providing affordable alternatives, such as low-cost menstrual hygiene products, holds promise for improving accessibility, acceptability, and utilisation within low-income and marginalised communities in Bangladesh. In contrast to sanitary pads, which entail recurring expenses and frequent changes, menstrual cups offer an eco-friendly, durable solution with no disposal issues [23]. With a conservative lifespan of about five years, the cost of a menstrual cup is approximately one-fifth that of the most affordable sanitary napkin, making it a highly cost-effective measure to combat

period poverty in Bangladesh. However, despite their proven safety and cost-effectiveness, menstrual cups remain underutilised in the country, likely due to limited awareness about affordable menstrual products and the absence of local manufacturing units [24]. Another viable, low-cost solution is eco-friendly reusable pads, providing a more environmentally friendly and sustainable alternative to disposable pads [25]. Affordable alternatives such as menstrual cups and reusable pads are not only economical but also safer options, as they reduce solid waste impacts and offer other environmental benefits [20]. Additionally, they potentially reduce exposure to harmful chemicals and minimize the impact on users' health [26].

Mass education on low-cost menstrual products is crucial for ensuring their widespread availability. Non-profit organisations and development partners play an important role in reaching out to women in rural areas and should collaborate with social enterprises already manufacturing and providing low-cost menstrual products. The government of Bangladesh should proactively collaborate with these organisations to promote the use of menstrual cups, facilitating improved access at the grassroots level. Community-based organisations should pilot and assess various options based on community preferences, ensuring widespread availability of cost-effective menstrual products. At the same time, insights from initiatives to produce and disseminate menstrual products in low and middle-income nations can offer valuable guidance for enhancing social entrepreneurship for providing low-cost menstrual products in Bangladesh [27]. Moreover, harnessing the power of social media campaigns and digital health communication channels can play a pivotal role in promoting the adoption of menstrual cups and other cost-effective menstrual products, further advancing menstrual health and hygiene in the country.

While directing efforts towards expanding the availability of menstrual products, it is equally imperative to ensure their proper disposal at public spaces, institutions, offices, and homes. Enhancing WASH infrastructure, which includes separate facilities for men and women, clean and well-maintained restrooms, and the provision of disposal bins in all toilets, should be proactively undertaken by the government [28]. It is also crucial to train cleaners and solid waste workers on proper menstrual waste handling procedures and provide them with protective equipment, such as gloves and boots, to prevent exposure to diseases and physical harm. To dispose menstrual waste, systematic strategies such as ensuring that disposal bin wastes are collected regularly, transported to disposal facilities, and subjected to environmentally compliant incineration at the district level should be implemented [28]. Additionally, community-based menstrual hygiene initiatives should offer education on effective hygiene about the importance of providing accessible bins for disposing of menstrual products and establishing regular emptying and cleaning schedules within homes.

Ultimately, addressing period poverty in Bangladesh necessitates robust policy frameworks focusing on menstrual health. The current policy emphasises three key areas: integrating menstrual health management in SRH, ensuring availability and accessibility of menstrual products, improving WASH facilities and disposal of menstrual products, and fostering collaboration and coordination [28]. Regarding affordability, the current strategy favours sanitary pads, which are costlier in the long term [28]. Therefore, low-cost alternatives like menstrual cups should also be emphasised. Furthermore, reducing or eliminating taxes on menstrual products has gained momentum globally, yet more action is needed to ensure affordability of menstrual products in Bangladesh. Despite the temporary removal of value-added tax (VAT) on imported raw materials for sanitary pads, retail prices remain high, underscoring the need for further intervention [15]. Additionally, the existing strategy needs to place greater emphasis on supporting local manufacturing facilities and engaging social entrepreneurs. This should include discussing examples of social enterprises involved in manufacturing and distributing menstrual cups [24] and reusable pads [25], further highlighting the importance of these initiatives. Lastly, the strategy should delve more extensively into the power of social media and digital platforms in disseminating MHM information, engaging media and digital platforms to amplify information dissemination and foster mass awareness.

Bangladesh's MHM platform stands as a model of effective collaboration among various stakeholders. By bringing together NGOs, WASH and SRHR alliances, United Nations agencies, research institutions, and the private sector, impactful interventions can be implemented [29]. Furthermore, it's crucial to recognise and encourage the impact of social workers and entrepreneurs in addressing period poverty. Programmes like Ritu, in collaboration with Simavi, RedOrange, and TNO (a Dutch technology and research company), funded by the Royal Embassy of the Kingdom of the Netherlands, exemplify innovative approaches to improving menstrual hygiene and well-being among girls aged 10 to 13 in Netrakona, Bangladesh [30]. Other social workers and entrepreneurs could benefit from Ritu's approach by exploring collaborations with global academic institutions. By leveraging partnerships with academic institutions and other organisations, social workers and entrepreneurs can create a powerful impact in areas where period poverty is most prevalent and reduce existing gaps in menstrual health access and education. Lastly, continued efforts through collaborative platforms are pivotal for sustained progress in combating period poverty in Bangladesh.

Guaranteeing access to proper menstrual hygiene facilities and education is not solely a public health obligation but a moral duty rooted in principles of equity and human rights. Neglecting these needs perpetuates social injustices, and perpetuates gender disparities, thereby violating the

fundamental rights of marginalised individuals, particularly women and girls in Bangladesh. It also highlights the ethical dilemma of individuals being unable to afford basic menstrual hygiene products, depriving them of dignity and potentially limiting their opportunities solely due to their economic status. Ultimately, addressing period poverty comprehensively involves not only providing access to menstrual products but also ensuring proper waste management practices to safeguard public health and hygiene.

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COMMENTARY

Robust public health evidence should concede multifactorial causation

MATHEW GEORGE

Abstract

The recent controversy surrounding Covishield vaccine and its rare side effects reported by AstraZeneca raises an important ethical question in public health practice. Public health ethics has not been perceived as distinct from medical ethics and by default, evidence in medicine is at times interpreted as being the same as public health evidence, when the context of practice of the two disciplines is distinct. There is a tendency in public health practice to opt for those interventions with maximum benefit to the maximum number, guided by utilitarian ethics, whereas in medical ethics the focus is on benefits vs risks. It is important to examine whether the side effects of any public health intervention can be justified against the risk it can pose to even a single healthy individual.

Keywords: public health evidence, multifactorial causation, social determinants of health, vaccine ethics.

Public health decisions and policy making during crises and in normal situations need to be evidence based, and this is crucial for efficient public health practice. Recently, AstraZeneca acknowledged the side effects of Covishield vaccine and withdrew the vaccine when several cases were filed against the pharmaceutical company in courts in the United States (US) and United Kingdom (UK). This has revived the unresolved debate on the policy of national governments which implemented a Covid-19 vaccine drive during the pandemic [1]. The crux of the debate is the implications of “rare side effects” of Covishield vaccine, proven time and again across different groups of people and contexts. Uncertainty about the side effects of the vaccine existed even during the pandemic, as the small sample size in clinical research was insufficient to identify side effects which are rare. The scientific community now agrees about the “rare” side effects of Covishield, estimated to be around 1 to 2 per lakh population, which is posed as beneficial against the number of lives saved [2, 3]. A recent article mentioned that 35-40 deaths per lakh population were prevented due to vaccination [4]. This is apparently based on several studies on clinical trials of vaccines carried out in clinical settings [5, 6].

Contextualising public health evidence

To measure the effectiveness of clinical intervention systematically, based on scientific reviews and on best practices across the world, evidence-based medicine (EBM) became the gold standard for clinical practice. Public health evidence is often misconstrued as similar to EBM by those from the fields of medicine and biological sciences. Best public health evidences (PHE) in India are the Home-Based Neonatal Care (HBNC) trial to reduce neonatal mortality carried out by Society for Education, Action and Research in Community Health (SEARCH) in Gadchiroli, Maharashtra [7]; the Ekjut trial in Jharkhand on the effectiveness of Participatory Learning and Action (PLA) in reducing maternal and infant mortality [8], the deployment of Mitranin in Chattisgarh as a means to improve maternal and neonatal mortality, which was upscaled for the entire country as the flagship programme of Accredited Social Health Activist (ASHA) under National Health Mission (NHM) [9], with the latest being the RATIONS trial that has demonstrated the importance of nutrition in reducing the incidence of TB and treatment outcomes [10].

What is unique in public health evidence is that there must be a community trial demonstrated in a real-life setting, which then needs to be measured for its efficacy. This is based on the core understanding of public health that reminds us that even if a biological interaction exists as a possibility between human and other species, what ultimately decides the outcome — which could be the occurrence of a disease or improvement in treatment to the extent of preventing death — are the social, political, economic, cultural, and ecological contexts of an individual and the population to which they belong. This becomes obvious when one carefully examines the results of community trials of vaccines. For instance, a study on the effectiveness of rotavirus vaccine based on pre- and post-vaccination data, reveals that there has been a decline in the positivity rate [11]. Further, a systematic review of vaccine efficacy studies on Rotavirus raises the possibility of multiple