

# Menstrual Hygiene Practices and Their Impact on the Reproductive Health of Economically Backward Class Women

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## ABSTRACT

Menstrual hygiene is a vital aspect of women's reproductive health, yet it remains insufficiently addressed among women from economically disadvantaged backgrounds. Many women continue to experience barriers such as poverty, inadequate sanitation facilities, limited access to clean water, lack of privacy, poor awareness, and restricted healthcare services. Studies from low- and middle-income countries indicate that unhygienic menstrual practices—including the reuse of old cloth, infrequent changing of absorbents, inadequate handwashing, unsafe disposal methods, and improper drying of reusable materials—are largely influenced by structural inequalities and sociocultural stigma rather than personal choice (Thapa *et al.*, 2019; Afiaz & Biswas, 2021; Asumah *et al.*, 2022). These challenges have been linked with reproductive tract symptoms, genital irritation, menstrual discomfort, psychological stress, and reduced participation in education, employment, and social activities (Juyal *et al.*, 2014; Rastogi *et al.*, 2019; Nwimo *et al.*, 2022). Although much of the available evidence is based on cross-sectional studies and causal relationships remain complex, the overall findings suggest that poor menstrual hygiene contributes to preventable reproductive health problems and deepens existing gender and health inequalities (Hennegan *et al.*, 2019; Tembo *et al.*, 2023). This narrative review summarises existing evidence on menstrual hygiene practices among low-income women, explores their implications for reproductive health, and emphasises the need for multi-level interventions including affordable menstrual products, improved WASH facilities, stigma reduction, and stronger integration into healthcare systems and public policy.

**KEYWORDS:** Economically backward women, Low-income, Menstrual Hygiene, Psychological stress, Reproductive health, Reproductive tract infection, Sanitation, Women's health equity, WASH.

## INTRODUCTION

According to the WHO (World Health Organisation, 1996), women aged 10-19 years are considered adolescents. In young girls, this period of changes is characterised by rapid physical, hormonal, physiological, biological and social changes. Menstruation is the monthly shedding of the inner lining (endometrium) of the uterus. It is also known by several different terms, such as menses, periods, menstrual cycle, and menstrual blood. Menstruation plays an important role in females' lives, characterised by different stages of transformation

from the initiation of menstruation or menarche until menopause (Amaya *et al.*, 2020). Menstruation is a difficult transition phase, which is discouraged in society due to religious stigma, strong traditional beliefs and cultural norms (McMahon *et al.*, 2011). Due to a lack of knowledge on menstruation management and the shyness of not expressing the situation due to embarrassment, the condition of girls gets worse and even critical for the economically backward class (Nagar & Aimol, 2017). Hence, due to less information about menstrual blood

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management and also traditional beliefs, the girls often engage in unsafe practices, which leads to different types of problems (Samant & Mishra, 2024). Some of the serious problems related to unhealthy menstrual practices are dysmenorrhea (painful menstruation), heavy bleeding, and abdominal cramps. In contrast, psychological problems include fear of leakage, stress, embarrassment, and anxiety (Austrian *et al.*, 2021).

Menstrual Health Hygiene (MHH) can be defined as practices, well-being, empowerment of women, the availability of resources, and socio-cultural conditions that enable females to manage their menstruation safely, hygienically and with dignity. MHH includes clean menstrual products (including sanitary pads, tampons, menstrual cups, etc.), availability of clean water and soap for washing and sanitation facilities, and sufficient knowledge about the menstrual cycle (United Nations Children's Fund, 2019). When all these supports and facilities are neglected or not provided, women depend on reused cloth, improvised material, delayed changing, or unsafe washing and drying practices. These practices are not often chosen freely, mainly by economically backward class women, but are imposed by poverty and environmental limitation (Thapa *et al.*, 2019; Talpur *et al.*, 2024).

Menstrual hygiene is a fundamental human right of every woman, irrespective of gender inequality, yet it remains a neglected issue in many parts of the world, particularly among economically backwards-class women. MHH practices are a major concern in female day-to-day life, as it has serious health impacts if neglected, such as shock syndrome, reproductive tract infections (RTI), and different vaginal diseases (Khanna *et al.*, 2005; Narayan *et al.*, 2001 & Rajaretnam & Hallad, 2010). Menstrual Health Hygiene is, therefore, not a matter of personal cleanliness, but a problem of systematic justice (Evans *et al.*, 2022; Shah *et al.*, 2024). In 2014, WASH United initiated the Menstrual Hygiene Day (MH Day) campaign to raise awareness about menstrual issues.

Most adolescent girls are unaware, uneducated, ill-informed and not well prepared for menarche (the stage of puberty that indicates the onset of menstruation). For economically backward class women, Menstruation is often managed under various conditions of scarcity, such as limited income for the household, insufficient availability of sanitation napkins or products, poor water availability and restricted privacy. Reliance on old and torn clothes during menstruation is a common practice among women in rural areas (Acharya *et al.*, 2006). The use

of torn or unhygienic cloths to manage the menstrual blood absorbents may cause infection, as they are often not washed properly and often dried in isolated places where direct sunlight is not available (Mahon & Fernandes, 2010; Mudey *et al.*, 2010). 1% of women in India, surprisingly, don't use anything at all during menstruation (IIPS, 2010). These various types of problems complicate menstrual hygiene management and also affect both the physical and psychosocial well-being of women (Afiaz & Biswas, 2021; Asumah *et al.*, 2022).

The main objective of this review was to summarise the common menstrual hygiene practices among economically backward class women, the reproductive health effects associated with poor or improper menstrual hygiene, the social and cultural determinants of menstrual hygiene inequality and various types of policies or awareness campaigns related to improvement for menstrual health.

### 1. Menstrual Hygiene Practices Among Economically Backward Class Women:

Menstrual hygiene practices are best understood through a multi-level framework, such as the individual level, household level, community level, and structural level. This framework is supported by various studies showing that menstrual practices can be improved by education and supportive practices by society and the environment, along with access to clean sanitary materials.

➤ **Use of clean clothes and other improvised materials** – Many findings done by various researchers have shown that across low-income countries or rural areas, the regular use of reusable or old clothes, tissues, rags or other improvised materials is due to the unavailability or unaffordability of commercial sanitary pads.

A study done in a rural village (Barshi Taki village), Maharashtra, India, reported that none of the adolescent girls aged 13 and 19 had the scientific knowledge about menstruation and was isolated during the time of menses. They used clothes or homemade sanitary materials and were at risk of infections (Aggarwal *et al.*, 2021).

In the East African community, many women and girls use unsanitary materials to absorb or collect menses, such as old fabrics, toilet paper, newspaper, mattress stuffing leaves, mud, etc. and don't practice proper washing habits (Hennegan *et al.*, 2016).

In Bangladesh, only 24.3% of women used modern menstrual absorbents, while the majority of them depend on traditional practices (Afiaz & Biswas, 2021).

Similarly, in rural Pakistan, the use of commercial sanitary pads, tampons, etc., remained limited due to financial or cost barriers, leading to the dependency of most women on reusable cloths or alternative materials (Talpur et al., 2024).

➤ **Inadequate changing and cleaning practices –**

In some places where women use sanitary pads, hygiene conditions are unsatisfactory due to delayed changing, limited resources, improper washing, and incomplete drying of reusable materials.

The findings in the public high school of Ghana showed that less than half of the girls were able to change their pads twice or daily or more (Abor, 2022). A study conducted in the rural areas of the Dehradun district of Uttarakhand resulted in reproductive morbidities in adolescent girls because of poor menstrual hygiene behaviors (Juyal et al., 2014).

➤ **Limited access to water, soap, privacy, and disposable facilities –** The availability of WASH (water, sanitation, and hygiene) resources plays a vital role in menstrual behaviour.

A study conducted in the West Gonja Municipality, Ghana, reported that only 38.5% of schools had water, 61.5% lacked waste disposal, and only 30.8% of schools had places for changing menstrual materials. Also, not a single school in the Ghana municipality had emergency materials for menstrual hygiene supply (Asumah et al., 2022).

A study was conducted in six government schools in Uganda, where all girls' school toilets experienced inadequate light facilities, a lack of cleanliness, soap, water, and waste bins (Crofts & Fisher, 2012).

In three different provinces of Pakistan, schools have poor WASH facilities, and gender-insensitive design created major barriers to dignified menstrual management (Z Mumtaz et al., 2019).

➤ **Unsafe disposal practices of menstrual products –** Proper disposal of menstrual products is a serious public health and environmental issue that remains a neglected aspect of menstrual hygiene.

Research from different countries reported that disposable sanitary products contribute to large amounts of global waste.

A study conducted in Accra, Ghana, reported the lack of toilet facilities and inadequate privacy measures at public schools, defective doors, etc., that force girls to go home to change their pads or to wash their dresses (Sommer et al., 2015).

In India, studies showed that due to inadequate waste management systems, menstrual products are often burnt in open areas, discarded in unsafe places, causing environmental and sanitation concerns, pollution and health risks (Biju, 2023).

Similar findings were also reported in the countries of Cambodia and Ethiopia, where adolescent girls had limited disposal options, leading them to wrap and discard material in general waste or unsafe areas, often clogging sanitation systems (Sommer et al., 2015).

**2. The Reproductive Health Effects Associated with Poor Menstrual Hygiene:**

Poor menstrual hygiene can have different serious reproductive health consequences in females. Below are some of the reproductive health problems related to poor Menstrual hygiene in women.

➤ **Reproductive Tract Infection (RTIs) and Genital Symptoms –** The most common problem that is part of the discussion is associated with poor menstrual hygiene and reproductive tract infection.

Poor menstrual hygiene, such as using unclean cloths, not changing sanitary pads regularly or delayed changing of sanitary products or washing with contaminated water, can lead to infection in the reproductive tract. Poor menstrual hygiene can cause RTIs, toxic shock syndrome, different vaginal diseases, distress, cervical cancer, school dropout, genitourinary infections, odour problems, and guilt.

In India, a study conducted in two different inter-colleges of the district Dehradun, Uttarakhand state - one rural and one urban, by Juyal et al., (2014) reported that approximately 65% of girls had dysmenorrhea, 19% of girls had a history of excessive vaginal discharge with or without abdominal discomfort, showing that unhygienic menstrual practices have a strong association with the reproductive tract Infection (RTIs). Desai & Patel (2011) reported that in Orissa state, 35.2% of women aged 15-44 years had reproductive tract infections, including bacterial vaginosis (BV), Trichomonas vaginalis (TV), vulvovaginal candidiasis (VVC), and sexually transmitted infections.

In many low and middle-income countries, a study reported that less availability of clean sanitation materials and absorbents increases the risk of pathogens, leading to risk of bacterial exposure, abnormal discharge and long-term reproductive complications (Roy et al., 2024).

➤ **Pelvic and Chronic Reproductive Morbidity-** Untreated infection, recurrent genital infection

and poor hygiene practices during menstruation can lead to broader reproductive health problems in females, affecting the female reproductive organs. Pelvic and chronic morbidity includes continuous problems or discomfort in the ovaries, fallopian tubes, and surrounding structures.

A recent study reported that chronic pelvic pain globally affects approximately 26% of women, showing a substantial risk on the public health system (Lamvu *et al.*, 2021).

A study conducted in urban and rural government schools of Bangladesh reported 64.5% of girls aged 10-19 years from urban and rural areas having one or more reproductive morbidity (Rehman *et al.*, 2004).

A study conducted in five urban slum area of Nagpur, India reported that out of 244 girls who attained menarche, 146 (65.18%) girls having one or more reproductive morbidity, 53.60% of adolescent girls were having dysmenorrhea, 41.52% of girls have second common morbidity namely backache during mensuration, other common morbidities were menorrhagia (16.07%), irregular cycle (11.16%), very few have excessive white discharge (5.35%) (Kulkarni & Durge, 2011).

- **Menstrual pain and distress** – Menstrual pain can be defined as lower abdominal pain associated with menstruation. Menstrual distress is not only about physical symptoms, but also linked closely to hygiene and infrastructure problems with women of reproductive age worldwide.

Girls or women having limited access to sanitary pads, clean toilets, or water may increase the pain, leading to an increase in fatigue, irritability, anxiety, embarrassment, reduced quality of life, etc. Using the same absorbent material for long periods can also worsen discomfort, making the experience of menstrual pain more intense (de Arruda *et al.*, 2026).

A study conducted in a secondary school in Nigeria reported that poor menstrual hygiene management practices were significantly associated with high menstrual distress (Nwimo *et al.*, 2022).

- **Psychosocial health and dignity** – Psychosocial health refers to the interconnection between psychosocial and social well-being. Menstrual difficulties often produce feelings of shame, social exclusion, anxiety, lack of confidence and embarrassment among women and adolescent girls.

In Zimbabwe study reported that **cultural taboos** (traditional beliefs or social pressure), **social stigma** (considering menstruation as dirty or impure, restriction in religious places, discrimination against menstruating women or girls etc.), and **poor living conditions, environmental limitations** (as lack of clean toilets, extreme weather affecting hygiene access, overcrowded living condition with limited privacy) affects how people understand and manage menstrual health. These factors are interconnected and influence each other, not separately (Tembo *et al.*, 2023)

A study of Jordan refugee camps reported that worse menstrual hygiene practices are related to poor health conditions. Also, people with higher income tend to have better menstrual hygiene conditions as compared to people with low or medium income (Muhaidat *et al.*, 2024). This underscores that menstrual health is closely related to emotional well-being and social inclusion.

- **Attendance disruption at school and work** – Poor menstrual hygiene is an important factor that can result in girls and women remaining absent from school, work and daily activities during their menstrual period, creating stress for them. School and work absenteeism is a common issue that affects academic performance, productivity and overall well-being.

In India, a study was done in the Anganwadi centre of an urban slum of Madhya Pradesh that reported among 384 adolescent girls, about half (50.6%) miss school during menstruation due to fear/shame of leakage, lack of sanitary facilities and painful menstruation (Bali *et al.*, 2020). Similar findings were reported in a rural school in West Bengal (Bankura district), where adolescent girls, especially among tribal communities, menstrual hygiene practices affected attendance and comfort in school (Ganguly *et al.*, 2025).

A study conducted in a Nepalese school by Sharma *et al.* (2022) reported that lack of regular water supply, private space for adolescent girls, and separate toilets for girls were the major reasons for adolescent girls' absenteeism during menses.

### 3. Social and Cultural Determinants of Menstrual Hygiene Inequality:

Menstrual hygiene is shaped by different social and structural factors that affect how girls and women manage menstruation safely and with dignity. These determinants vary across countries and communities, but the same broad pattern

appears when girls and women lack resources, are constrained by strict norms, and live in places with poor infrastructure, menstruation becomes harder to manage and with dignity (Ejik *et al.*, 2016; Mumtaz *et al.*, 2019; Tembo *et al.*, 2023)

➤ **Social Determinants** – Menstrual Hygiene practices are widely influenced by social determinants such as family income, awareness, and educational level.

**A. Poverty and menstrual affordability-** In many low and medium-income households, girls and women often face barriers that affect their ability to manage menstrual hygiene. Due to the unaffordability of sanitary pads or materials, women are forced to use reusable cloths, absorbents for longer than recommended, cheaper ones or less preferred materials.

In India, a large survey done by the Indian National Family and Health Survey (NFHS) reported that low income, absence of school, absence of toilets, limited media exposure, and rural residence are dependent on clothes as menstrual absorbents or different household materials instead of sanitary pads (Zode *et al.*, 2025).

A study conducted by Hassan *et al.* (2023) in the West Bank, where many university students reported that they were not informed about menstruation before menarche, and sometimes they used toilet paper, nappies, reusable cloths, etc., as menstrual hygiene products are expensive. Many of them also reported using menstrual products for a longer time because of inadequate washing facilities at the university campus.

**B. Education and menstrual literacy-** In Bangladesh, the Multiple Indicator Cluster survey showed that the use of modern absorbent materials was most common among girls and women with mobile phones and regular media access. Further, an educated woman living in an urban household was also found to be using modern sanitation or absorbent materials (Afiaz & Biswas, 2021).

A similar pattern was reported in Northeast Ethiopia, where the girls with educated mothers and families with higher incomes had a higher chance of using sanitary napkins. Girls from low-income families, with poor parental education, often cannot afford sanitary pads, which is strongly associated with poor menstrual hygiene management (Tegegne & Sisay, 2014).

➤ **Cultural Determinants** – Cultural determinants of menstrual hygiene are primarily the social

norms, beliefs, traditions, taboos, and gendered expectations that shape how girls and women manage and understand menstruation.

**A. Cultural norms, stigma and restriction** - In the rural area of Tamil Nadu, India, the quantitative interview reported that in adolescent girls, menarche not only introduces a biological transition but also cultural codes and norms. Girls are often expected to follow gender norms, social rules, stigma (shameful or secret) and menstrual restrictions at school and at home (Gold-Watts *et al.*, 2020)

In far Western Nepal, Chhaupadi (Menstrual exile) is the long-standing traditional practice of untouchability by restricting women and girls to a shed or outside their home during menses. They deeply believed that women and girls are impure while menstruating, and so if they touched any object during that period, it would also become impure (Amatya *et al.*, 2018).

Similar findings were reported in Pakistan, where menstruating girls faced social taboos, such as placing them in alternate places and restricting them from daily routines. Also, limited formal education and poor WASH facilities in schools make them dependent on alternative sources (Shahnawaz *et al.*, 2026).

#### 4. Various Types of Policies or Awareness Campaigns Related to Improvement for Menstrual Health –

Menstrual health refers to the complete physical, mental and social well-being of girls and women during the time period of the menstrual cycle. Globally, around 1.8 billion women and girls menstruate, yet they lack regular access to menstrual products, sanitation facilities, gender equity, human rights, and education (UNICEF, 2026). Menstrual fear or shame remains a major gap in many societies, affecting school and workplace attendance, self-confidence and health outcomes (WHO, 2022). Below are several policies and awareness campaigns related to the improvement of menstrual health.

➤ **Free or subsidised menstrual products schemes** – The simplest way to reduce period poverty is by giving menstrual sanitary products at low cost or free. Reports have shown evidence that improved access to sanitary products reduces stress and anxiety, improves comfort and helps girls to attend school, workplace and college regularly (Kansiime *et al.*, 2020; Garg *et al.*, 2022).

In India, a free pad distribution scheme, such as UDDAN (for school-going adolescent girls) and for girls who dropped out of school, received pads

from their local ASHAs at subsidised cost (Garg *et al.*, 2022).

Scotland took a landmark step in addressing period poverty by passing the Period Products (Free Provision) (Scotland) Act 2021 (the Act), legally making menstrual products free nationwide, becoming the first country to make menstrual products free at schools, universities, and public places (Scottish Government, 2022).

In England, similar steps were taken, such as the free availability of menstrual products in all state-funded primary and secondary schools, with education and guidance in menstrual well-being (Bowen-Viner *et al.*, 2022).

Similar steps were reported in Uganda, where menstrual kits with reusable pads and cups were provided. These practices helped adolescent girls learn better hygiene practices, attend school regularly, improve their knowledge and feel more comfortable (Kansiime *et al.*, 2022; Kansiime *et al.*, 2020).

- **Menstrual hygiene management in WASH policies** – Menstrual hygiene management is mainly linked to the water, sanitation and hygiene system. For safe management of menstrual hygiene practices, regular access to toilets, sanitation, water, waste bins, and proper disposal facilities is required.

In India, the government started the Swachh Bharat Mission and the Menstrual Hygiene Scheme (MHS) initiatives that focus on separate toilets for girls, sanitary pad distribution, awareness campaigns, and disposal facilities at schools, colleges, and workplaces (Eijk *et al.*, 2016).

Similar WASH programmes implementation supported by UNICEF has been reported in Bangladesh and Ghana, which improved regular gender-friendly toilets, handwash facilities, and menstrual education. These efforts reduce absenteeism and discomfort among school girls during menstruation (Asumah *et al.*, 2022).

UNICEF WASH in school programme was introduced at the international level that supports menstrual hygiene by regular access to clean water, sanitary products, separate toilet facilities for boys and girls and an awareness campaign in schools worldwide. This program focuses mainly on a safe and supportive school environment are necessary for girls' education and well-being (UNICEF, 2023).

## CONCLUSION

Menstrual Hygiene Practices among economically backward class women are deeply shaped by limited sanitation facilities, unaffordable sanitary products, lack of safe water, low menstrual education and socio-cultural taboos. These challenges increase many different problems, among women and adolescent girls, such as reproductive tract infections, psychosocial stress, urinary tract infections, and other long-term gynaecological problems (Junyal *et al.*, 2014; Rastogi *et al.*, 2019; Nwimo *et al.*, 2022).

The review highlights that menstrual hygiene improvement is not only related to individual behaviour, but is also closely related to structural determinants such as WASH infrastructure, low-cost sanitary products, health system improvement, menstrual hygiene education and awareness, which can ultimately reduce the health risk and increase life expectancy for women. Improvement of these problems requires multidimensional approaches involving various governmental policies, community participation, and non-governmental organisation support. Hence, improving and prioritising menstrual hygiene is important for advancing reproductive health equity, empowerment, dignity and social justice among the economically backward women population.

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