

# Menstrual Hygiene Management

POLICY BRIEF

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Women and children in Odisha, India. Credit: Belen Torondel

## Summary

This policy brief summarises previous research on menstrual hygiene management (MHM) and highlights the Sanitation and Hygiene Applied Research for Equity (SHARE) Consortium's contribution to this important topic. It then defines knowledge gaps which still exist and sets out clear recommendations for improving policy and programmes globally. The paper advocates for further research on the topic and highlights the importance of integrating MHM in sanitation programming and the need to provide access to absorbent sanitary materials for women and girls in low and middle income countries (LMIC).

## Definition of MHM

Women and adolescent girls using a clean menstrual management material to absorb or collect blood that can be changed in privacy as often as necessary for the duration of the menstruation period, using soap and water for washing the body as required, and having access to facilities to dispose of used menstrual management material (UNICEF and WHO, 2014)

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## Background

Menstrual hygiene management is an emerging topic of interest in the water, sanitation and hygiene (WASH) sector. While it has previously been under-researched there is now increasing momentum and focus on this important topic.

Although approximately 52% of the female population is of reproductive age and are likely to menstruate each month, menstruation has often been overlooked in research and in policy (House et al., 2012). The UN Special Rapporteur on the human right to safe drinking water and sanitation has stated that:

*“Menstruation is an integral and normal part of human life, indeed of human existence, and menstrual hygiene is fundamental to the dignity and wellbeing of women and girls and an important part of the basic hygiene, sanitation and reproductive health services to which every women and girl has a right. (House et al., 2012).”*

Effective MHM is essential to meet the basic human rights of women and girls around the world yet it remains a taboo topic in many contexts and is often associated with behaviour restrictions. Previous qualitative research has documented some of these restrictions and the barriers they create, especially in relation to education, the workplace and social settings.

Research on this topic can further our understanding of the connections between MHM and health and social outcomes. However, there is also a more intrinsic motive to understand this topic; MHM impacts the dignity and wellbeing of women and girls around the world. Safe MHM is part of the human right to water and sanitation, and Sustainable Development Goal (SDG) 6 prioritises adequate and equitable access to WASH infrastructure and services, noting the particular needs of women and girls. The human rights perspective to MHM must be taken into account when considering the contributions that research can make.

Several social outcomes have been associated with poor MHM practices; these include school absenteeism or drop-out from school and cultural implications such as taboos around discussing the topic and exclusion from daily activities during menstruation in various contexts.

Health related outcomes that are believed to be linked with poor MHM may include urogenital infections including reproductive tract and urinary tract infections. Reports are widespread of the use of unsanitary absorbents and poor practices around washing and drying reusable absorbents (Sumpter and Torondel, 2013). There is evidence which suggests that girls' participation in education has

an impact on health outcomes suggesting that there are societal and economic benefits of educating girls (Sperling and Herz, 2004). Exploring whether poor menstrual hygiene management limits girls' attendance in school in low-income contexts may contribute towards this connection (Sommer et al., 2015).

Although MHM has not always been comprehensively included in WASH policies or practice, recent research has generated enough high quality evidence to advocate for increased policy and programmatic attention to MHM (Esteves Mills and Cumming, 2016). This research has begun to generate evidence on the links between health and social outcomes and MHM, but a stronger evidence base built on robust research is needed in order to put MHM firmly on the global agenda (Sommer et al., 2016). Recent initiatives such as MHM in Ten (which aims to map out a global 10 year plan for overcoming MHM barriers in schools) have pushed forward this policy agenda and sought to unite global stakeholders on the issue (Sommer et al., 2016).

## Narrowing the evidence gap

MHM is an important topic which cuts across the WASH, education and reproductive health sectors. SHARE's research has contributed to broadening the evidence base and strengthening the rigour of research on this neglected topic. SHARE has funded a range of projects that have helped advance the knowledge base around MHM and have impacted the practice of WASH and gender practitioners globally.

### MHM systematic reviews

SHARE's first engagement with the topics was funding a systematic review to collate, summarise and critically appraise the existing state of evidence relating to MHM in low income settings (Sumpter and Torondel, 2013). The systematic review was the first of its kind and it highlighted the challenge of reviewing existing evidence due to evidence quality and advocated for more rigorous research methods to meet this challenge.

The paper assessed the existing body of peer-reviewed published literature relating to associations of poor MHM and social and health outcomes. It clarified research gaps and opened opportunities to fill these gaps and advance research on the neglected topic of MHM. The systematic review concluded that generally 'menstruation is poorly understood and poorly researched' (Sumpter and Torondel, 2013: 13). The study showed that management of menstruation presents significant challenges for women in lower income settings.

The review noted that existing studies usually focused on understandings of menstruation practices and beliefs in different contexts. It uncovered a weak evidence of the effect of MHM on health outcomes for women of reproductive age. It is biologically plausible that unhygienic MHM practices can affect the reproductive tract but the specific infections, the strength of effect, and the route of transmission, remain unclear.

Existing research also indicated a link between MHM and social outcomes, suggesting that education programmes can improve the menstrual knowledge and management in groups of girls who are already in education. Although there was good evidence that educational interventions can improve MHM practices and reduce social restrictions there was no quantitative evidence that improvements in management methods reduce school absenteeism. It was also challenging to identify whether there was transferability of findings across contexts. High quality research on the relationship between MHM and school drop-out rates and retention was scarce and the limited evidence available could not point towards any conclusive association.

Restrictions during menstruation such as non-participation in tasks such as cooking, cleaning and touching water in different contexts were characterised in the existing body of research, but there was little evidence available as to whether there are differing MHM characteristics between women and girls who do and do not practice restrictions.

While the review found a body of good qualitative evidence on challenges and barriers, it noted the lack of published quantitative evidence on whether improving menstrual practices improved health and social outcomes (such as women's reproductive health or girls' attendance at school).

A second systematic review was published by the University of Oxford in 2016 which builds upon the findings in SHARE's paper (Hennegan and Montgomery, 2016). This review included two new studies published since 2013 as well as grey literature, and focused only on educational and social outcomes (not including health outcomes) (Hennegan and Montgomery, 2016). The review found tentative links between education and psycho-social outcomes as well as between education and improved knowledge of MHM; however the reviewers noted that various study biases mean these results should not be read as a strong association (Hennegan and Montgomery, 2016) The review noted that previous trials around MHM were potentially under-powered and highlighted that a lack of specific and agreed MHM outcome measures limits the ability of researchers to draw conclusions. It recommended scaling up Cluster Randomised Control Trials (RCTs) to better understand which interventions work and echoed Sumpter and Torondel's (2013) call for more high quality quantitative studies.

### Menstrual Hygiene Matters

This project brought together practical examples of good practice in MHM from across the WASH, health, education and gender sectors in a first-of-a-kind manual co-published with 18 leading WASH agencies based on work in Bangladesh and Tanzania. It also produced an accompanying training guide for practitioners.

The manual aimed to break the silence around MHM and to provide context specific examples to improve MHM practices for women and girls in lower and middle-income countries. The manual includes checklists, examples and other resources for practitioners (House et

al., 2012). The guide has been used by multiple INGOs for training and capacity development, for policy and advocacy work globally, to inform programme design and to develop research tools.

### Menstrual Hygiene Management in Malawi

This research sought to characterise and understand the challenges and barriers related to menstrual hygiene management for school girls in Malawi. The qualitative research investigated reasons for non-use of school toilets and days of school missed due to menstruation. The research quantified that girls in Malawi could be absent from school 12 - 36 days per year due to MHM issues and articulated some of the barriers that led to school absenteeism.

The research findings cover three thematic areas:

- **Sanitation infrastructure and facilities:** The research found that there were poor sanitation facilities and infrastructure in almost all schools in the study; girls did not want to use these facilities while menstruating and reported a lack of privacy for washing or changing menstrual cloths as well as issues around disposal of pads.
- **Cultural beliefs around menstruation:** Cultural beliefs and practices played an important role including secrecy about menstruation, associations with being ready for marriage and restrictions on washing and socialising. Additionally, girls were concerned about the potential for others using their menstrual blood or used cloths to do acts of witchcraft against them.
- **Knowledge and education around menstruation:** The report identified challenges around delivering quality sexual education, verbal and physical bullying from boys about menstruation and issues around receiving appropriate information and pastoral support (Piper Pillitteri, 2011)

The findings were shared at a national forum in Malawi in 2012 which was opened by the Ministry of Gender. Findings were also adopted into the Menstrual Hygiene Matters toolkit as a useful resource for other practitioners (House et al., 2012). The research has strong parallels with other pieces of qualitative research in sub-Saharan Africa and elsewhere. It adds to the growing body of evidence that while myths and cultural beliefs about menstruation vary significantly, many contexts do share 'persistent negative attitudes towards menstruation, insufficient provision of menstrual guidance and challenges in managing menses at school' (Sommer et al., 2015: 604)

### MHM and urogenital infections in India

SHARE's MHM research in India began to address the weak evidence base identified in the systematic reviews relating to associations between MHM and health outcomes. This project was one component of a broader set of SHARE projects on Women and Sanitation in India.

SHARE funded an [innovative case-control study](#) to look for linkages

between MHM practices and urogenital tract infections. This study showed that women who used reusable absorbent pads were more likely to report symptoms of urogenital infection or to be diagnosed with at least one urogenital infection (bacterial vaginosis [BV] or urinary tract infection [UTI]) than women who used disposable pads. The case-control study concluded that the interventions that ensure women have access to private sanitation facilities with a water supply, and educate women about safer, low-cost MHM materials could reduce urogenital disease among women (Das et al., 2015).

This study made a unique contribution to the evidence base through using both reported symptoms and laboratory diagnosed outcomes to explore the relationship between MHM and urogenital disease and found that re-using pads is likely to have a negative impact on women's health (Das et al., 2015). It also highlighted that interventions should not only focus on the absorbent material but also on an enabling environment that promotes healthy and comfortable management of menstruation. This is an important area for further research given that studies across Africa, South East Asia, South America and the Middle East have shown that the use of reusable absorbents for managing menstruation are common, and additionally that unhygienic practices are often used to clean these pads.

The first study focused only on BV and UTIs but these results did not include a significant proportion of women who reported vaginal symptoms (indicative of another type of infection). A second study was therefore conducted to measure *Candida* and *Trichomonas Vaginalis* infections and to better understand their associations with different MHM practices. This study also found an association between diagnoses of *Candida* infection or one other infection and those women who reused absorbent materials. In addition, among women who reuse absorbent materials, *Candida* infection was more frequent in those women who dried their pads inside their houses and who stored the material near or around the toilet. The study also found that other hygiene practices were associated with reproductive infections; these included lower frequency of personal washing, lower frequency of absorbent change and changing absorbents outside household toilets (Torondel and Das, 2016).

### MHM and psycho-social stress

As noted earlier, SHARE funded a series of five projects on Women and Sanitation in India. One of these focused on analysing sanitation-related psychosocial stresses across the life stage and made contributions to discussions on MHM and psychosocial stress.

SHARE's research in India looked into sanitation behaviours and activities across the life course for women living in rural and urban areas, including MHM. This research characterised the disproportionate impact of poor sanitation infrastructure on women and girls both physically and psychologically. Sahoo et al. (2015) argued that definitions of sanitation which focus only on urination and defecation are too narrow to reflect the reality of sanitation in women's lives, and that it is important to understand urination and defecation within their relationship with other behaviours (which

may vary across contexts) such as MHM, post-defecation cleaning, bathing, changing clothes and fetching water. In identifying different types of stressor on sanitation behaviours and differing risk profiles for women across the life course, the paper made a strong case for policy makers 'to view sanitation as extending beyond the four walls of a latrine' (Sahoo et al., 2015: 88).

SHARE's research in India also demonstrated for the first time that factors beyond the type of pad are important including those related to privacy and comfort such as the protective effect of changing in a toilet (Das et al., 2015). While the protective effect of changing in a toilet was not a significant finding, it has opened up new questions about the importance of women having a comfortable place to change and carry out sanitation activities without stress. Other SHARE research identified MHM as a high stress activity for women in India, in particular it was likely to be ranked as most stressful among women in rural and traditional tribal areas (Hulland et al., 2015).

Previous research has largely focused on MHM among adolescent or school-age girls without in-depth examination of MHM impacts on women at other life stages in the life course. Hulland et al. (2015) identified a strong association between menstruation and high stress in newly married and pregnant women (Hulland et al., 2015). Women in these two groups highlighted challenges around behavioural restrictions during menstruation and discomfort around discussing MHM issues with their new husbands and in-laws. Menstruation behaviours and strategies from adolescence may need to change in order to adapt to the new situation of married life.

## Remaining research gaps - what we still don't know

- **Links between MHM and specific urogenital infections:** Recent research has demonstrated a link between inadequate MHM and urogenital infections but further evidence is required on the prevalence and transmission of specific infections (Sumpter and Torondel, 2013) . Additionally, further studies to explore other pathogenic reproductive tract infections are needed (Das et al., 2015). Following on from SHARE's important work in India, LSHTM and the Asian School of Public Health are collaborating on a comprehensive new mixed-methods study in India on different menstrual hygienic practices and their association with various urogenital infections; this study will generate new knowledge on specific infections and MHM.
- **Strength of the effect:** In order to inform advocacy and to guide future interventions, a greater understanding of the strength of the effect of inadequate WASH infrastructure on MHM is needed as well as its effects on the health and social environment for women and girls. Further research is also needed to better understand the impact of poor MHM in different contexts and which interventions are appropriate and effective. This includes emergency settings and the differentiated needs of vulnerable groups such as minorities or women with disabilities (Esteves

Mills and Cumming, 2016).

- **Understanding what works in schools:** Further formative research and impact studies of actual interventions on the ground are required to better understand what constitutes an effective WASH in Schools (WinS) intervention that meets the needs of women and girls (Esteves Mills and Cumming, 2016). Further research is also needed on reasons for school absenteeism outside MHM. A deeper understanding of cost effective and sustainable interventions is required, including the appropriate provision of absorbents (Sumpter and Torondel, 2013).
- **Exploring hardware and software interventions:** There is a particular gap in the evidence base for randomised intervention studies that combine both hardware (i.e providing pads or other absorbents, or improving sanitation facilities) and software interventions (i.e. providing information or education on menstruation and MHM) for both health and social outcomes (Sumpter and Torondel, 2013). There is also need to conduct larger studies to explore the effect of specific practices for hygienic management of reusable pads especially in relation to washing, drying and storage of pads. These should be linked to health outcomes such as infections (Das et al., 2015).
- **Creating an appropriate environment for MHM:** Further research is needed to investigate which factors could help women to adopt more hygienic menstrual practices with comfort, dignity and privacy. (Das et al., 2015)
- **Measuring and monitoring ‘good’ MHM:** MHM has recently been defined but universal agreement is still required in order to define outcome measures, such as targets to indicate successful implementation (Esteves Mills and Cumming, 2016). This practical step could support practitioners globally and enable stronger advocacy on the topic.



## Recommendations

**1**

**Policies should promote the adoption and use of sanitation facilities in a way that is sensitive to the unique needs of women as they transition through the life course.**

Policy makers should understand MHM as part of a broader set of sanitation activities and behaviours in order to design sanitation systems that better meet the needs of all users. MHM should be considered within policies to end open defecation and to increase sanitation coverage. Relevant policy actions could include the provision of separate, private toilets with a functioning water supply for women in professional and educational institutions (Mishra, 2015).

**2**

**Policies should address challenges about absorbent materials.**

Policy actions could include educating women about safer low-cost MHM materials, subsidizing the costs of sanitary napkins for economically deprived groups and removing or reducing taxes on menstrual absorbents.

**3**

**Health care practitioners should provide guidance about safe MHM practices when counselling women with urogenital tract infections.**

This guidance should seek to ensure local community level advocacy and outreach is available to the poorest women who may not seek treatment for urogenital infections (Mishra, 2015).

**4**

**MHM in schools should be addressed with clear guidelines and policies.**

Policy makers should develop and disseminate context specific guidelines and policies for MHM in schools with minimum standards, indicators, and illustrative strategies for adaptation, adoption, and implementation at national and subnational levels (Sommer et al., 2016). Public and school-based education campaigns (inclusive of boys and men) should be used to raise awareness of hygienic MHM practices (Mishra, 2015)

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## Building knowledge. Improving the WASH sector.

The Sanitation and Hygiene Applied Research for Equity (SHARE) consortium seeks to contribute to achieving universal access to effective, sustainable and equitable sanitation and hygiene by generating, synthesising and translating evidence to improve policy and practice worldwide. Working with partners in sub-Saharan Africa and Asia, two regions with historically low levels of sanitation, SHARE conducts high-quality and rigorous research and places great emphasis on capacity development and research uptake.

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### Partners



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