

Menstrual Hygiene Management: A Comprehensive Review of Current Practices, Challenges, and Emerging Solutions

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ABSTRACT

Menstrual hygiene management (MHM) is a crucial aspect of women's health, encompassing the practices and resources employed by individuals to address their menstrual needs in a safe and dignified manner. The way women and girls manage their periods is influenced by a myriad of factors, including cultural norms, socio-economic conditions, and accessibility to menstrual products and facilities. According to a report by UNICEF, approximately 1.8 billion people of menstruating age lack access to adequate facilities for menstrual hygiene management in their workplaces. This staggering statistic emphasizes the need to address infrastructural gaps that hinder women and girls from managing their menstruation with dignity. Moreover, the World Health Organization (WHO) estimates that globally, 2.3 billion people lack basic sanitation services, adding a layer of complexity to menstrual hygiene management, especially in resource-constrained settings. As societies evolve, so too does the discourse around menstruation, pushing us to reevaluate traditional practices and embrace innovative approaches that promote not only physical well-being but also social equality and environmental sustainability. In this review, we embark on a journey to examine the multifaceted dimensions of menstrual hygiene management, recognizing its pivotal role in fostering a healthier and more inclusive world for women and girls.

Keywords: Menstrual hygiene management, Menstrual products, Sanitation services, Reproductive health.

1. INTRODUCTION

Menstrual hygiene management, or MHM, is an important part of women's health that impacts on many aspects of life, such as environmental sustainability, societal factors, and physical well-being. Menarcheal age is a key maturity indicator of female development and reflects population health. Knowledge of the timing of menarche is important as early pubertal development, in particular, has been linked with an increased risk of negative sequelae (e.g., Anderson et al., 2003; Siervogel et al., 2003; Mendle et al., 2007). This comprehensive review aims out to examine the MHM nature in detail with the goal of offering an in-depth awareness of present practices, obstacles, and the creation of innovative approaches. Menstruation is not just a biological event; it is also deeply connected to cultural norms, economic variables, and the availability of menstruation goods and services. We aim at clarifying all aspects of this essential aspect of reproductive health by navigating through the variety of MHM. We study the most common standards and decisions that women make during their menstrual cycles in the context of current practices. These habits are frequently shaped by cultural factors, which also have an impact on the goods used, the cleanliness techniques used, and the way society views menstruation. This story is not without difficulties, though. Ethnic discrimination, environmental concerns, cultural taboos, and stigma all add to the difficulty of properly managing menstruation. With the goal of resolving these obstacles, this review seeks to shed light on the global roadblocks to optimal MHM.

Need of the study: Menstruation practices around the world need to be improved, women's health has to be advanced, and studies on menstruation cups are essential to these goals. In order to assist people and communities, research in this field can help with product creation, policy decisions, and programmes for education. Studying menstrual cup usage among adolescent girls is imperative for several reasons. Firstly, it can shed light on the safety and efficacy of menstrual cups in this specific demographic, ensuring that their unique physiological and psychological needs are considered. Secondly, understanding the experiences and challenges faced by adolescent girls in adopting menstrual cups can help tailor educational programs to address any barriers to usage, contributing to improved menstrual hygiene practices. Investigating the impact of menstrual cup usage on school attendance, comfort, and overall well-being can inform strategies to enhance the menstrual health of adolescent girls, fostering a positive and empowering approach to managing menstruation during a crucial stage of development.

The Janoowalla Hannah study showed that self-reported "always" versus "never" pad users had lower odds of experiencing vulvovaginal discomfort. It demonstrates that menstruation pad users have a lower incidence of vulvovaginal complaints.

Based on the Boosey Robyn study, the girls were unable to appropriately handle their menstrual hygiene at school due to a lack of access to facilities, resources, and accurate information. They claimed that as a result, they frequently struggle academically or miss school when they are menstruating.

These studies underscore the importance of providing women with access to information and education on managing menstruation. The data can empower them to care for their health and wellbeing.

Aim of the study: The aim of this comprehensive review is to examine the current landscape of menstrual hygiene management, providing a thorough analysis of existing practices, challenges faced by individuals, and identifying emerging solutions. By synthesizing the latest research and insights.

2. MATERIALS AND METHODS

Search strategy methods: Articles searched from PubMed, Google scholar and Medline sources.

Manual searches of other relevant journals and reference list of initial search articles were referred.

Articles in English language only, were accepted.

Period focused: The review focused mainly from the period of 2014 to 2024.

Current practices in menstrual hygiene management (MHM)

Current practices in menstrual hygiene management (MHM) vary globally but are often shaped by cultural, economic, and social factors. In many regions, menstruation remains a taboo subject, leading to limited access to menstrual products, sanitation facilities, and education.

Some women and girls use traditional methods such as cloth, rags, or even leaves due to a lack of access to affordable and hygienic menstrual products. These improvised materials often pose health risks, including infections and skin irritation.

Disposable sanitary pads are commonly used in urban areas and among those who can afford them. However, their high cost makes them inaccessible to many, especially in low-income communities. Additionally, the environmental impact of disposable pads, which are non-biodegradable, raises concerns about sustainability.

Menstrual cups are gaining popularity as a sustainable alternative to pads and tampons. While they offer long-term cost savings and reduce environmental waste, their initial cost and cultural barriers may limit adoption, particularly in certain regions.

Access to sanitation facilities also plays a crucial role in MHM. Many schools and public spaces lack clean and private toilets equipped with water and disposal facilities, making it challenging for women and girls to manage their menstruation hygienically and with dignity.

Overall, current practices in menstrual hygiene management highlight the need for comprehensive solutions that address access to affordable products, sanitation infrastructure, education, and cultural norms. By addressing these challenges, we can ensure that all women and girls can manage their menstruation safely, hygienically, and with dignity.

Challenges:

Several factors contribute to the challenges faced in menstrual hygiene management:

1. **Stigma and Taboo:** Cultural taboos surrounding menstruation perpetuate shame, secrecy, and misinformation. This stigma can lead to embarrassment, social exclusion, and reluctance to seek information or support related to MHM.
2. **Limited Access to Menstrual Products:** Many women and girls, particularly those from marginalized communities, lack access to affordable and hygienic menstrual products such as sanitary pads, tampons, or menstrual cups. This can result in the use of unhygienic alternatives like cloth, rags, or even leaves, which pose

health risks such as infections and skin irritation.

3. **Inadequate Sanitation Facilities:** Access to clean and private toilets with water and disposal facilities is essential for hygienic MHM. However, many schools, workplaces, and public spaces lack proper sanitation infrastructure, making it challenging for women and girls to manage their menstruation safely and with dignity.
4. **Limited Education:** A lack of comprehensive menstrual hygiene education perpetuates myths and misconceptions about menstruation, further fueling stigma and inhibiting proper MHM practices. Many women and girls receive inadequate information about menstrual health, leading to confusion, embarrassment, and unhealthy practices.
5. **Environmental Impact:** Disposable menstrual products contribute to environmental pollution due to their non-biodegradable materials and improper disposal practices. This has significant implications for waste management and environmental sustainability, particularly in regions with limited waste infrastructure.
6. **Economic Barriers:** The cost of menstrual products, particularly disposable pads and tampons, can be prohibitive for women and girls, especially those living in poverty. This economic barrier limits access to essential menstrual products and exacerbates existing inequalities.

Addressing these challenges requires a holistic approach that involves governments, NGOs, healthcare providers, educators, and communities. Efforts to promote menstrual hygiene management should focus on increasing access to affordable and sustainable menstrual products, improving sanitation infrastructure, providing comprehensive education, challenging cultural taboos, and empowering women and girls to advocate for their menstrual health rights. By addressing these challenges, we can work towards ensuring that all women and girls can manage their menstruation safely, hygienically, and with dignity.

Emerging Solutions in Menstrual Hygiene Management-

Addressing the challenges of menstrual hygiene management requires a multi-faceted approach involving governments, NGOs, healthcare providers, educators, and communities. Some emerging solutions include:

Menstrual hygiene management (MHM) is a critical aspect of women's health and well-being, yet it continues to pose significant challenges for millions of women and girls worldwide. In response to these challenges, various emerging solutions are being implemented to improve access to menstrual products, sanitation facilities, education, and empowerment. This article explores some of these emerging solutions and their potential to address the complex issues surrounding MHM.

Improving Access to Menstrual Products:

One of the most pressing challenges in MHM is ensuring access to affordable and hygienic menstrual products. Several emerging solutions aim to address this issue:

1. **Subsidized Distribution Programs:** Governments and NGOs are implementing subsidized distribution programs to provide menstrual products at reduced or no cost to vulnerable populations. These programs help make menstrual products more accessible to low-income women and girls who may otherwise struggle to afford them.
2. **Community-Based Manufacturing:** Community-based manufacturing initiatives empower local communities to produce affordable and sustainable menstrual products, such as reusable pads or menstrual cups. By involving women in the production process, these initiatives create economic opportunities while addressing the need for accessible menstrual products.
3. **Donation Programs:** NGOs and charitable organizations run donation programs that provide menstrual products to communities in need, particularly in emergency situations or areas affected by natural disasters. These programs help bridge the gap in access to menstrual products during times of crisis.

Promoting Hygienic Practices and Education:

Comprehensive menstrual hygiene education is essential for dispelling myths, reducing stigma, and promoting hygienic practices. Emerging solutions in this area include:

1. **School-Based Education Programs:** Integrating menstrual hygiene education into school curricula helps educate girls about menstruation, hygiene practices, and reproductive health. By providing accurate information and creating a supportive environment, these programs empower girls to manage their menstruation confidently and with dignity.
2. **Community Workshops and Awareness Campaigns:** NGOs and community organizations conduct workshops and awareness campaigns to educate women, girls, and community members about menstruation, hygiene, and reproductive health. These initiatives promote open discussions, challenge cultural taboos, and empower individuals to advocate for their menstrual health rights.

Investing in Sanitation Infrastructure:

Access to clean and private sanitation facilities is essential for hygienic MHM. Emerging solutions to improve sanitation infrastructure include:

1. **Building and Renovating Toilets:** Governments and organizations are investing in building and renovating toilets in schools, workplaces, and public spaces to ensure they are clean, private, and equipped with water and disposal facilities. These efforts help create safe and dignified spaces for women and girls to manage their menstruation.
2. **Mobile Toilet Units:** In areas where permanent sanitation infrastructure is lacking, mobile toilet units provide temporary solutions for menstrual hygiene management. These units are particularly valuable in emergency situations or at large gatherings where access to toilets may be limited.

Encouraging Sustainable Alternatives:

Promoting sustainable menstrual products reduces environmental impact while ensuring hygienic MHM. Emerging solutions in this area include:

1. **Menstrual Cups:** Menstrual cups are gaining popularity as a reusable and eco-friendly alternative to disposable pads and tampons. Organizations promote menstrual cups through education and distribution programs, highlighting their cost-effectiveness, sustainability, and health benefits.
2. **Reusable Cloth Pads:** Reusable cloth pads are another sustainable alternative to disposable menstrual products. Community-based initiatives train women to sew their own cloth pads or establish local production units to manufacture and distribute them affordably.

Empowering Women and Girls:

Empowering women and girls to advocate for their menstrual health rights is crucial for fostering long-term change. Emerging solutions in this area include:

1. **Women's Leadership Programs:** Women's leadership programs provide training and support to women and girls to become advocates for menstrual health in their communities. These programs build leadership skills, confidence, and networks, enabling women to drive local initiatives and influence policy changes.
2. **Community Engagement and Participation:** Engaging communities in decision-making processes and involving women and girls in MHM programs foster ownership, sustainability, and cultural relevance. Community-driven approaches empower individuals to identify their needs, develop solutions, and advocate for their rights.

3. CONCLUSION

In conclusion, addressing the challenges of menstrual hygiene management requires a holistic and collaborative approach involving governments, NGOs, healthcare providers, educators, and communities. By prioritizing access to menstrual products, sanitation infrastructure, education, and empowerment, we can ensure that all women and girls can manage their menstruation safely, hygienically, and with dignity. It is time to break the silence and stigma surrounding menstruation and pave the way for a more inclusive, equitable, and sustainable future for all.

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