



Impact of Mass Media on Menstrual Hygiene Management among Adolescent Girls in India: A Systematic Review

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Abstract

This systematic review explores the impact of mass media on menstrual hygiene management (MHM) among adolescent girls in India, relevant to its role in addressing health problems resulting from menstruation as well as cultural stigma. Menstrual hygiene has been an important aspect of adolescent and public health, deeply influencing physical, psychological, and social well-being. Even with recent development, myths, misconceptions, and restricted access to sanitary products remain obstacles to practical MHM, especially for rural and underserved adolescents. Mass media-coverage through television, radio, print, and digital has been effective in areas such as health awareness and behavior change, as observed and documented in other successful health intervention campaigns in India. This study systematically reviewed ten peer-reviewed papers on how the mass media impacts MHM practices, knowledge, and behaviors about adolescents. This research was able to identify increased knowledge, positive behavior change, and culturally sensitive messaging as some of the essential themes. This review highlights the requirement of media-driven, culturally adapted health communication strategies for promoting MHM and reducing the risks of menstrual-related health among Indian adolescents. Further studies are suggested to develop targeted media interventions to overcome cultural barriers while emphasizing sustainable MHM practices.

Keywords: Menstrual Hygiene Management; Mass Media; Adolescents; India

Introduction

Menstrual health is a crucial area of both adolescent health and public health in India today. Menstrual hygiene management is important for not only the physical but psychological and social well-being among adolescent girls. It usually has a great impact on school attendance, social relationship with others, and self-esteem [1]. However, still there are myths and misconceptions about menstruation in most parts of the country. Cultural attitudes have bred the silence and misinformation with the result that adolescents hardly acquire any formal education regarding such practices of

menstrual health [2]. The National Family Health Survey (NFHS-5) declares that more than half of the female population of India neither has sanitary materials nor some private space for managing menopause and this gap disproportionately affects the adolescents most of all [3].

The challenges that Indian adolescents, especially those from rural and disadvantaged backgrounds, face in managing their menstrual hygiene arise from an inappropriate facility, products, or education. In such cases, the lack of adequate infrastructure, such

as access to clean toilets, running water, and safe mechanisms of disposal in schools and other public places, only complicates the problem further. Adolescent girls without access to proper menstrual hygiene management (MHM) are at high risk of infection and discomfort and, therefore may miss time from school and suffer in their personal development [4].

Mass media is used broadly to refer to radio, television, newspapers, the internet, and, recently, social media. Mass media has been a key instrument for health education in India, reaching millions of people across socio-economic groups, age groups, and geographic locations. Adolescents are increasingly engaged with the different forms of media, particularly digital platforms such as social media and online streaming services. This makes media a promising tool for reliable health information, normalization of conversations around taboo subjects, and positive behaviors [5].

In India, mass media has played significant roles historically in promoting healthy living among people, such as the eradication of polio, awareness campaigns about COVID-19, and family planning campaigns with great success in altering people's perceptions and leading people to healthy practices [6]. In recent years, 'The Pad Project' and 'Touch the Pickle' have broken taboos around menstruation and ensured better hygiene. These campaigns have presented the power of media in terms of awareness creation, dispelling myths, and encouraging frank conversations related to menstruation in India. Given that media reaches a very significant segment of society and possesses high influence power, the impact of mass media on the MHM practice among adolescents is highly worth researching [7].

Menstrual hygiene and adolescents

MHM among adolescents has been one of the priority areas within public health with implications for both physical and mental well-being. Among the serious health risks is reproductive and urinary tract infections, besides mental health problems that range from shame and reduced self-esteem. Cultural stigma and limited availability of sanitary products and education on MHM exacerbate the situation of menstruation in India, mainly in rural settings [8]. According to Panchal, *et al.* (2024) in India, most adolescent girls lack access to safe menstrual products and adequate knowledge about menstruation. Majority of study participant don't know source of menstrual bleeding and cause of menstrual bleeding. Beside this, majority of participants don't know consequences of bad hygienic practice during menstruation [9].

Mass media and MHM

Mass media is a crucial area of current research wherein several studies started to consider the role of mass media and menstrual hygiene management potential, challenges. Mass media such as television, radio, print dailies, social and other online media can, as it has been highlighted earlier, be used efficiently in the promotion of public health because it provides broad outreach in the dissemination of information, influences social norms, and promotes large scale behavioral health. Media campaigns have been seen to reach the audience in remote and underserved areas in India [10].

The objective this systematic review is to find out the role of mass media on menstrual hygiene management among adolescents in India.

Methods

This review paper implemented systematic review in critically assessing the existing literature on how the mass media impacts menstrual hygiene management among adolescents in India.

Search strategy

This systematic review was performed according to the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) 2020 guidelines [11]. The articles were searched from electronic databases as PubMed, PubMed Central (PMC), Google Scholar and Scopus. Keyword strings were combined to obtain maximal retrieval of relevant literature. Keywords were 'Mass Media,' 'Menstrual Hygiene Management,' 'Adolescent girls,' 'India,' 'Impact of Media Media,' and 'Menstrual Health Education.' Boolean operators (AND, OR) were applied to filter search results. The search string used was: ('Mass Media' OR 'Impact of Media Media') AND ('Menstrual Hygiene Management' OR 'Menstrual Health') AND ('Adolescent girls' AND 'India').

The PRISMA diagram (Figure 1) illustrates the selection process and shows the reasons for exclusion. Out of 144, 10 full-text articles were selected for this systematic review and which reported necessary data on impact of mass media on menstrual hygiene management among Indian adolescents.

Criteria for inclusion and exclusion

For the purpose of ensuring that the literature is relevant and of good quality, certain inclusion and exclusion criteria were applied. Peer-reviewed original articles in English that focus on mass media's impact on MHM among adolescents in India, research pub-

lished in the last decade (January 2010 to December 2023). On the other hand, the exclusion criteria excluded articles not specifically addressing the relationship of mass media with MHM, studies focused on populations of adults only or out of India, and other non-peer-reviewed sources that are opinion pieces or blogs.

Data extraction

Systematic data extraction was performed to capture the key information from each selected study. A standardized data extraction form was used to collect the necessary details like name of author(s), year of publication, study design, sample size and characteristics (age, location, etc.), the key findings related to the impact of mass media on MHM, and recommendations for practice or further research, and the limitations identified by the authors.

For summarizing findings of included studies, data were compiled using narrative synthesis. Then thematic analysis identified patterns or common themes which were ascribed with respect to mass media impact upon MHM. ‘Awareness and Knowledge,’ ‘Behavioral Change,’ and ‘Cultural Influences’ were amongst some of those.

Ethical approval

As the study is a literature review, ethical approval is not required, but the review followed all principles of ethical research. Studies included in this review noted that appropriate ethical approval was obtained for that study.

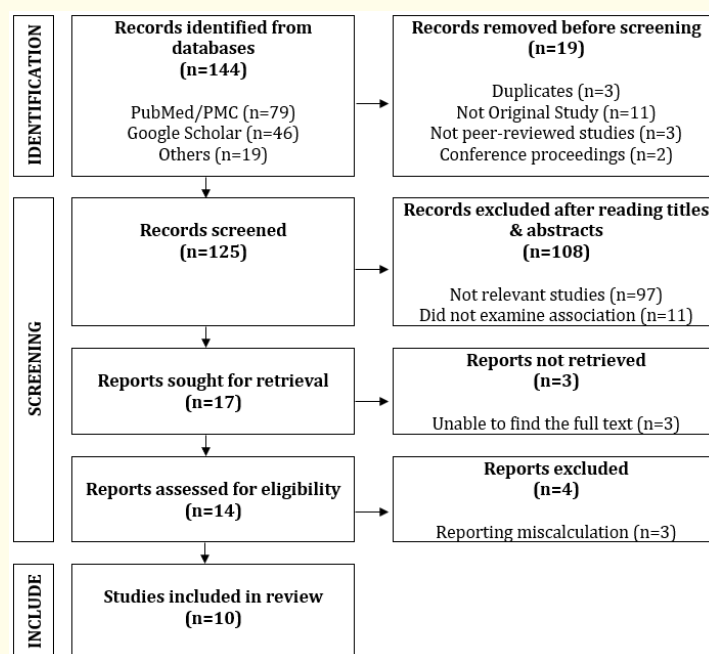


Figure 1: PRISMA diagram showing study selection for the impact of mass media on menstrual hygiene management among adolescent girls in India.

Results

The role of mass media in the management of menstrual hygiene among adolescents in India is a significant area that needs research, particularly against the backdrop of cultural taboos about menstruation and the need for adolescents to maintain proper hygiene. The findings of this systematic review are mentioned below in a tabular form (Table 1).

This review collates findings from various studies and discusses the implications of these findings on policy, practice, and further research.

Awareness and knowledge

From the literature review, key themes of the role mass media can play in elevating the awareness and knowledge about menstrual hygiene in the adolescents include how targeted media campaigns may help elevate awareness in matters related to menstrual health. Many studies show that adolescents who are exposed to educational content through television, radio, and social media have a high increase in knowledge about MHM, including learning the importance of using sanitary products and maintaining hygiene in the menstrual cycle [12,13,15,16,20]. Some studies also revealed that though mass media could carry the crucial messages, traditional

Authors (Year)	Studied Area	Key Findings
Sharma, <i>et al.</i> 2015 [12]	Dehradun, Uttarakhand	This study highlights the fact that educational television programs and aware parents can increase menstrual hygiene awareness among adolescents significantly, and thus mass media may be playing a significant role in providing information and improving the practice of menstrual hygiene management in India.
Tarhane, S. and Kasulkar, A., 2015 [13]	Nagpur, Maharashtra	This study shows educational television programs and school health personnel provide better knowledge regarding menstruation and hygiene practices among adolescent girls. This might prove to be mass media's role in improving menstrual hygiene management in India.
Ramaiya, <i>et al.</i> 2019 [14]	Pan India	This study examines the impacts of a social and behavioral change communication intervention-GARIMA-on knowledge, attitudes, and practices. This study also demonstrates that the adolescent girls in the high encoded exposure group had greater knowledge regarding puberty and the reproductive parts, positive attitudes toward gender, and more levels of some discussion and dialogue.
Gupta S., 2019 [15]	Sambhal, Uttar Pradesh	This study finds that mass media had significant effects on knowledge regarding menstruation and menstrual hygiene among the rural school girls. Generally, reading newspapers and health magazines had a positive relationship with better knowledge and attitudes toward menstrual hygiene management.
Swami, P.D. and Datia, G.M.C., 2019 [16]	Gwalior, Madhya Pradesh	This study highlights that electronic media can impart proper information regarding menstrual hygiene, thereby eradicating myths and taboos attached to it. Mass media coverage will facilitate better management of menstrual hygiene by adolescents in India.
Joshi, <i>et al.</i> 2021 [17]	Udham Singh Nagar, Uttarakhand	This study deals with the effectiveness of a video-assisted teaching program on knowledge regarding menstrual hygiene among adolescent girls.
Sood, <i>et al.</i> 2021 [18]	Uttar Pradesh	This study focuses on measuring the impact of communication programming on social norms related to menstrual health and hygiene management among adolescent girls in India, with a particular focus on the role of social and behavior change communication.
Kakwani, <i>et al.</i> 2021 [19]	Udaipur, Rajasthan	This study underlines the 'Chuppi Todo: Break the Silence' campaign, where multimedia tools were used to educate about menstrual health and eliminate myths, thus creating awareness among adolescents, with a positive impact on the menstrual hygiene management practices of the tribal district in India.
Sarkar, P., 2023 [20]	West Bengal	This study reveals that newspaper reading, television watching, and internet usage in the past three months have a highly significant ($p < 0.0001$) association with menstrual material uses among studied participants. Media (Television, Newspaper, social media, etc.) is a very powerful tool to bring changes in knowledge, attitude, beliefs, and practices for hygiene behaviors among Indian adolescent girls.
Block, <i>et al.</i> 2023 [21]	Uttar Pradesh	This study shows that mediated practical guidance made in social and behavior change communication could significantly enhance adolescent girls' knowledge, attitudes, and practices related to menstrual hygiene management when combined with interpersonal practical guidance, hence improving menstrual health outcomes.

Table 1: Key findings of systematically reviewed studies.

cultural beliefs act to discourage discussing the topic further. This cultural barrier can reduce the impact of media campaigns, perhaps requiring contextually appropriate messages that respect local norms and practices. Media campaigns will need to consider these cultural sensitivities to create a more accepting environment for discussions around menstrual health [13,15,17,19,20].

Behavioral change

This systematic literature review further indicates a tremendous positive association between media exposure and behavioral change in MHM. A crucial link that is often observed in health interventions from knowledge to actual actions is made through the mass media, thereby strengthening behaviors that are healthy through reading. Increased use of sanitary products and good hygiene practices among the adolescents in mass media campaigns demonstrate huge potential for health outcomes, such as a reduction in menstrual-related health issues [14,18,20,21].

Cultural influences

This study reveals a critical tension between information diffusion and the cultural context of menstruation in India. Mass media campaigns can very well be successful in terms of providing knowledge and encouraging positive behaviors, but persistence in cultural taboos and stigmas undermines this effort. Findings show that media campaigns have to be culturally sensitive and adapted to the local beliefs and practices of the target audience to be effective [14,16,18,20].

Discussion

The findings of this review underscore the important role mass media plays in shaping menstrual hygiene management among adolescents in India. This systematic review contributes to the growing body of literature advocating for innovative health communication strategies by highlighting the positive effects of mass media campaigns on awareness, knowledge, and behavioral change. Media, health education, and cultural sensitivity intersect as a crucial area for enhancing MHM practices among young people [3,21,22].

Increased awareness among the adolescents exposed to the campaigns implies that the programs might act as change agents by inducing the youth to take healthy behaviors. For example, the knowledge gap recorded on exposure to mass media demonstrates the possibility of using this form of media as a cheap education resource in India since it can supplement education without fully

covering the subject MHM because of its unacceptability in most traditional societies. Despite strong evidence that media campaigns result in behavioral change, though, the context in which those behaviors take place ought not to be ignored; in this case, culturally instilled norms and societal norms continue to shape the understanding of menstruation by an adolescent. Therefore, whilst mass media can educate or, rather, inform, change and transformation of the broader stigma surrounding menstruation calls for more than mere utilization of mass media. Proper creation of education and engagement that will create a discussion process about menstruation is integral for campaigns. Working with a local NGOs, health, and educational professionals can align any media messages with the importance of the community's norms and cultural concerns. Allowing adolescents be part of producing media can empower them toward the information being spread about [23,24].

Role of social media

The emergence of social media has revolutionized how health information is disseminated and shared among adolescents. Social media presents a space both for good and for evil in the promotion of MHM. On one hand, social media allows adolescents to share experiences and seek information, while on the other, it might spread misinformation and even fuel stigmas. The peer-to-peer nature of social media allows young people to form supportive communities where they can discuss menstruation without fear, which reduces feelings of isolation and shame. However, the fact that misleading or harmful content exists is a reminder of the need to be promoting accurate information and encouraging critical media literacy among teens. Health organizations and instructors need to employ social media by creating content that is educative and entertaining and which will help guide the teenager in how to evaluate information effectively. Health campaigns can work effectively with youth audiences when using popular social media sites through influencer collaborations [25,26].

Policy and practice implications

The implications of this systematic review reach policymakers, health educators, and practitioners. There is a pressing need for an integrated approach that integrates mass media strategies with community engagement and education. Policymakers should give priority funding and support for comprehensive media campaigns addressing MHM in culturally relevant and accessible ways for all adolescents, particularly those from underserved areas. This would further enhance the messages delivered by mass media and provide

a safe space for adolescents to learn and discuss menstrual health. It is, therefore, crucial to train educators on how to facilitate these discussions sensitively to foster a supportive environment [27,28].

Future research directions

A gap in the literature exists; several areas need to be further explored. A few studies conducted focused on rural populations, where access to information and other resources may be lacking, and thus, further study is needed in these underserved populations. Understanding the specific barriers that these communities face can help in developing interventions for them. Further longitudinal studies should be conducted to assess the long-term effects of media interventions on adolescents' knowledge, attitudes, and practices about menstrual hygiene. The effectiveness of different media formats and messages should also be examined to determine the most impactful strategies for promoting MHM among adolescents.

Conclusion

The impact of mass media on MHM among Indian adolescents is profound and multi-dimensional. This systematic review has pointed out the critical role that mass media plays in enhancing awareness, knowledge, and behavioral change regarding menstrual health. Reviewing existing literature indicates that targeted media campaigns can considerably improve adolescents' understanding of menstruation and promote healthier practices. Social media has also opened new avenues for opportunities and challenges in menstrual health communication among adolescents. In as much as social media provides adolescents with the means to share experiences and gather information, it can also develop incorrect pieces of information. It is, therefore important to ensure that young people access accurate health information and develop critical media literacy.

Future research will be directed towards long-term impacts of media interventions, which will be conducted in more underserved populations for the distribution of menstrual health education fairly. This can, therefore, be achieved when an environment is created allowing adolescents to discuss and better manage their menstrual health.

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