



Menstrual Health of Adolescent Females Living in Urban Slums in Delhi

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Abstract: Pubescent girls living in the slums of the city encounter numerous difficulties for retaining their menstrual hygiene in part due to the unavailability of clean menstrual products, in part to the lack of access to adequate sanitation facilities, and also the multiple social taboos that surround the subject, making a menstruation a psychologically charged event in during their adolescence. This study was carried out to investigate the experiences of menstrual health and its psychological impact in adolescent girls living in the slums of Delhi. The sample consisted of ten adolescent females (age 12–18 years) who were selected by purposive sampling. The data were obtained through administration of semi-structured interview guide on menstrual practices, beliefs, emotional experienced and social reactions to menstruation. Thematic analysis was conducted to analyze the data and identify patterns and themes. Results showed that inadequate resources to manage menstruation and being stigmatised for menstruating was related to heightened stress, anxiety and shame, and lowered self-esteem, which consequently impacted on emotional regulation and engagement in everyday and school activities. Simultaneously, a supportive family and peers were identified as well-being factors and thus were interpreted as evidence of some youth's resilience. Taken together, these themes suggest that menstrual health for adolescent girls living in the slums is intertwined with their psychological well-being, identity, and social performance, indicating that there is now a need to develop integrated interventions with menstrual education, basic sanitation provision, and psychosocial support in marginalized urban areas.

Keywords: *Menstrual Health, Adolescent Females, Urban Slums*

1. Introduction

Adolescence is a biology-driven developmental window of rapid growth and identity development imbued with strong emotion. In this stage of life, significant changes take place in youth's bodies, thoughts, and feelings as well as in their peer and family relationships, all of which inform their ideas about self, how they manage emotions, and who they spend time with socially (Steinberg, 2014). For adolescent girls, one of the most striking achievements of this phase is menarche, a sign of reproductive maturity. While the process of menstruation is biological and universal, it is also confusing, distressing, and emotionally overpowering for many girls for whom the process is least understood or who are inadequately prepared (Sommer et al., 2015; Chandra-Mouli & Patel, 2017).

Periods aren't a purely physical occurrence, they're an intimate and embedded socio-cultural experience – influenced by norms, beliefs, and gendered expectations. Menstruation is often shrouded in silence, stigma, and misconceptions in many cultures, and linked to ideas of uncleanness and shame (Mahon & Fernandes, 2010; Bobel, 2010). These perceptions inhibit dialogue, perpetuate secrecy, and lead to negative emotional reactions, such as shame, fear, and internalized stigma (Chrisler et al., 2016; Roberts et al., 2002). Studies indicate that girls who have not been educated about menarche before they experience it often feel panic, disorientation, and distress, and that this can negatively impact how they feel about their bodies and how they see themselves emotionally (Sommer et al., 2016; Thakre et al., 2011).

These challenges are exacerbated in poor and disenfranchised communities where structural deprivation and cultural stigma compound the challenges. Poverty, overcrowding and lack of basic facilities in urban slums mean that girls and women can rarely manage menstruation in a way that is dignified and safe (UNICEF, 2019; Sommer et al., 2015). Financial constraints limit availability of commercial sanitary products, and many girls are using reuseable cloth or other unhygienic materials (Garg & Anand, 2015; Van Eijk et al., 2016). While the use of cloth is not necessarily unsafe, the inadequate access to privacy, water, sanitation and hygiene facilities may lead to poor practices of washing, drying and storing the cloth, which can be a source of infections (Sumpter & Torondel, 2013; Das et al., 2015).

In addition to the physical health risk, poor menstrual hygiene management engenders detrimental psychological and social effects. Anxiety about leaking, staining and smell is behind the continual state of worry, hypervigilance and self-awareness known as “menstrual vigilance” (Hennegan et al., 2019). Jasper et al. (2012) found that the absence of private, clean facilities, especially in schools, raises tension and worry considerably for girls who menstruate. Similar results were found by Sivakami et al. (2019) who reported that poor

menstrual hygiene management in slums is related with increased anxiety and poor self-esteem. Negative experiences in menstruation have also been associated with depressive symptoms, poor self-esteem and lower emotional well-being (Naeem et al., 2021).

Education Participation and social functioning among girls is also influenced by menstruation.. School absenteeism associated with menstruation has been well documented in low- and middle-income countries and is related to pain and fear of staining, as well as to lack of adequate sanitation facilities and menstrual related stigma (Montgomery et al., 2016; Van Eijk et al., 2016). This pattern of absence from class and declining engagement may also impact the quality of girls' academic performance as well as their self-esteem and long-term aspirations for education (UNESCO, 2014; UNICEF, 2019) and thus contribute to the perpetuation of gendered inequities in education.

Menstrual health has received growing attention around the world but much of the research has remained quantitative and has focused mainly on hygiene practices and school absenteeism in India. There is a dearth of qualitative studies that capture the lived experiences, emotional meanings and psychological impact of menstruation on adolescent girls especially in urban slum contexts (Sommer et, al 2015; Patkar et al 2021). Qualitative research is necessary to explore how girls make sense of menstruation, and how stigma and other social responses influence their feelings about menstruation, as well as the types of coping mechanisms used within restricted contexts to adapting seen behaviorsverses.

In this regard, the current qualitative study examines menstrual health and its psychosocial determinants in adolescent girls from slum communities in New Delhi. This study seeks to elicit a holistic view of menstrual knowledge, hygiene practices, emotional outcome and socio-cultural factors related to menstruation. By placing emphasis on girls' voices and narratives, the results are intended to contribute to the provision of culturally and psychologically informed interventions in menstrual education, sanitation provision, stigma reduction, and psychosocial support that target adolescent girls in urban marginalized contexts.

2. Review of Literature

Findings from the minority of studies that document this among adolescent girls point to a multi-faceted experience influenced by the biological realities of the menstrual cycle, socio-cultural constructions, lived material realities and girls' psychological well-being. Studies from low resource and marginalized settings consistently report that poor knowledge,

stigma and lack of access to resources for managing menstruation have a significant influence on menstrual experiences and associated mental health outcomes.

There is a considerable literature that suggests that a large proportion of adolescent girls are unprepared for menarche. Sommer et al.(2015) in their study of menstrual knowledge among adolescent girls living in poor households reported that 50–70% of the respondents were not informed about menstruation prior to menarche, with menarche being experienced with terror, confusion and anxiety. Likewise, 36% of Indian adolescent girls had information prior to menstruation (Thakur et al. Many aspects of mental health and well-being are considered to be influenced by menstruation (Seiberth and Tauscher 1994, ESHRE Capri Workshop Group 2012). Mothers were the most common source of information but conversations were described as limited and partners in misinformation. Chandra-Mouli and Patel (2017) also illustrated that poor menstrual education leads to psychological distress, perpetuating anxiety, shame, and negative body image in adolescent girls.

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The adolescent experiences of menstruation have been consistently associated with various psychological outcomes. Montgomery et al. (2016), who reported that 20–30% of school-going adolescent girls miss school because of menstruation (pain, fear of leakage and lack of facilities) and that this has profound effects on their academic performance and self-

confidence. Naeem et al. (2021) demonstrated that negative menstruation experiences were positively associated with poor self-esteem and depressive symptoms. Van Eijk et al. (2016) they concluded emotional and social support are crucial protective factors and that menstrual girls who do not have family or peer support experience heightened psychological distress and poorer mental health outcomes.

In summary, the reviewed literature highlights that menstrual health is not about managing hygiene but a multi-layered challenge including knowledge, cultural norms and the availability of material resources as well as psychological aspects. Although much of the existing literature reports on poor menstrual practices and associated health hazards through quantitative methods, there is an urgent need to fill the gap in qualitative studies exploring lived experiences and emotional meanings of menstruation for adolescent girls in urban slum. In addition, less is known about protective factors such as family and peer support as contributors to resilience. In this context, this qualitative study has been designed to bridge the knowledge gap and explore how adolescent females living in urban slums in Delhi experience their menstrual health and the psychological ramifications of the same.

2.1 Research Gap

The review of the literature shows that adolescent girls' menstrual health is affected by various factors such as knowledge related to menstruation, socio-cultural beliefs, availability of hygiene materials, access to sanitation facilities and social support. Adolescent girls have long been reported to practice poor menstrual hygiene, suffer from menstrual stigma, lack awareness prior to menarche, and miss school, particularly in low resource settings (Sommer et al., 2015; Van Eijk et al., 2016; Sivakami et al., 2019). In addition, negative menstrual experiences have been linked with poor psychological outcomes, including anxiety, shame, low self-esteem and emotional distress (Naeem et al., 2021; Hennegan et al., 2019).

Yet, even with an increasing amount of literature on menstrual health, there are still crucial lacunae to fill. Most of the research conducted in India so far have been mainly quantitative in nature and have concentrated on practices of menstrual hygiene, use of products and absenteeism from school. There are relatively few studies that have investigated adolescent girls' subjective experiences and emotional attachments to menstruation. In particular, qualitative studies are sparse on how adolescents in urban slum areas of the world perceive menstruation, relate to menstrual issues, and how they view such challenges. And although earlier studies have shown that stigma, a scarcity of resources, and unhygienic conditions act as obstacles to menstrual health, there has been a lack of focus on how these issues impact girls' self-esteem, emotional health, social engagement, and coping mechanisms. SMB

Existing literature is limited in terms of understanding how family support, peer relationships, and resilience might protect adolescent girls facing menstrual challenges in resource-poor settings. Hence, an examination of the menstrual health and hygiene experiences of adolescent girls living in urban slums using qualitative methods is warranted. This study aims to fill the gap by exploring the experiences of adolescent females from background of urban slums of Delhi with menstruation in terms of their lived reality, emotional responses, socio-cultural milieu and coping strategies. Giving priority to participants' voices and individual stories, this research seeks to develop more nuanced understandings of the psychological aspects of menstrual health and to extend the potential for holistic and culture-sensitive interventions.

2.2 Rationale of the study

Although there is increased knowledge on menstrual hygiene management in India, adolescent girls in urban slums still menstruate in a fearful and stigmatized manner. Most of the existing research has addressed quantitative aspects such as hygiene practices, type and frequency of products used, school absenteeism, and to a limited extent, the assessment of the quality of life of girls who menstruate, underestimating the role of the subjective experiences and social psychology of menstruation. This information is important for informing interventions that are not only medically effective, but also psychologically supportive and culturally appropriate, as it sheds light on the ways in which adolescent girls make sense of menstruation, manage negative emotions and respond to social reactions.

In addition the ongoing stigmatization of menstruation, lack of sanitation facilities and high cost of menstrual products in urban slums calls for a more nuanced understanding of how these structural limitations impinge on women's emotional well-being, self-worth and social relations. A qualitative methodology is particularly suitable for elucidating such complex experiences, as it can highlight both risk and protection factors related to menstrual health.

3. Objectives

The present study was undertaken with the following objectives:

1. To explore menstrual practices, perceptions, and beliefs among adolescent females living in urban slums in Delhi.
2. To examine the psychological and emotional responses associated with menstruation, including experiences of stress, anxiety, shame, and self-esteem.
3. To understand the role of socio-cultural norms and stigma in shaping menstrual experiences and social interactions.

4. To identify coping mechanisms and support systems, including family and peer support, used by adolescent girls in navigating menstrual challenges.
5. To generate qualitative insights that can inform integrated interventions addressing menstrual education, hygiene management, and psychosocial support in marginalized urban settings.

4. Research Methodology

4.1 Research Design

The current research was a qualitative inquiry, aimed at understanding the menstrual health experiences and its effects on mental health among adolescent girls in urban slums. A qualitative method was deemed suitable because it facilitates a deeper exploration of participants' subjective experiences, perceptions, feelings and the social connotations of menstruation.

The researchers chose semi-structured interviews as the tool of data collection because it allowed for flexibility in investigating sensitive issues and at the same time ensured the essential information related to meaning of menstruation, practices, feelings, coping mechanisms and barriers could be obtained. What this design allowed the researcher to do was to elicit rich narratives and situated reports of menstruation from adolescent girls in marginalized urban areas.

4.2 Sample

The sample consisted of ten adolescent girls aged 10–17 years living in a slum area of Dwarka, New Delhi. To make the sample more heterogeneous in terms of menstrual experiences, age, and socio-cultural background, purposive sampling was used to select members of the participants group. For an exploratory qualitative study, this sampling procedure was considered appropriate as it allows for the identification of information-rich cases that can offer in-depth understanding of the phenomena under study.

Menstruating adolescents All the participants had menarche and were satisfied to talk about their experiences with menstruation. "A diversity in age and schooling status was deliberately sought in order to reflect a wider range of perspectives on menstrual health (MH) and its emotional effects."

4.3 Data Collection

Data were collected through in-depth, semi-structured interviews conducted by the researcher in a private and comfortable setting within the participants' community to ensure

confidentiality and minimize discomfort. An interview schedule guided the conversations and covered the following domains:

- Knowledge and awareness about menstruation prior to menarche
- Attitudes and beliefs related to menstruation
- Menstrual hygiene practices and access to sanitary products
- Emotional and psychological responses during menstruation
- Experiences of stigma, restrictions, and social responses
- Coping mechanisms and sources of support

The semi-structured format allowed participants to freely express their thoughts and feelings while enabling the researcher to ask follow-up questions for clarification and depth. Each interview lasted approximately 30–45 minutes. With participants' consent, interviews were audio-recorded and later transcribed verbatim for analysis.

4.4 Data Analysis

The interview data were analyzed using thematic analysis following the six-step framework proposed by Braun and Clarke (2006). This systematic approach facilitated the identification, analysis, and reporting of patterns and themes within the qualitative data. The six phases included:

1. Familiarization with the data through repeated reading of transcripts
2. Generation of initial codes capturing meaningful units of data
3. Searching for potential themes by collating related codes
4. Reviewing themes to ensure coherence and consistency with the dataset
5. Defining and naming themes to reflect their core meanings
6. Producing the final report by integrating themes with illustrative quotes

This method enabled the researcher to move beyond surface descriptions and develop interpretative insights into the psychological and social dimensions of menstrual experiences among adolescent girls.

4.5 Ethical Considerations

Ethical principles were strictly adhered to throughout the research process. Informed consent was obtained from participants and their guardians prior to data collection. Participants were informed about the purpose of the study, the voluntary nature of participation, their right to withdraw at any time, and the confidentiality of their responses.

Given the sensitive nature of the topic and the involvement of minors, particular care was taken to ensure emotional safety and privacy during interviews. Pseudonyms were used to protect participants' identities, and all audio recordings and transcripts were stored securely.

Participants who appeared distressed were provided reassurance and the option to pause or terminate the interview.

5. Results

The interview data were analyzed using thematic analysis following the framework proposed by Braun and Clarke (2006). Analysis of the transcripts resulted in the identification of five major themes and fourteen subthemes that captured the menstrual health experiences and psychological implications of menstruation among adolescent girls living in urban slums in Delhi.

Table 1. *Summary of Themes and Subthemes*

Themes	Subthemes
Knowledge and Awareness	Lack of awareness before menarche; Sources of information; Limited scientific understanding
Menstrual Hygiene Practices	Limited access to sanitary products; Disposal practices; Poor sanitation facilities; Variability in cloth hygiene
Emotional and Psychological Responses	Fear and distress; Shame and secrecy; Anxiety over staining; Frustration and resentment
Social and Cultural Norms	Menstruation as a sign of maturity; Family silence; Religious restrictions
Impact on Daily Life	School absenteeism; Pain management; Lack of institutional support; Limited long-term knowledge

As shown in Table 1, five major themes emerged from the analysis, highlighting the complex interaction between menstrual experiences, socio-cultural influences, and psychological well-being.

Theme 1: Knowledge and Awareness

A dominant theme emerging from the interviews was the lack of awareness and preparedness regarding menstruation before menarche. Most participants reported that they had little or no knowledge about menstruation before experiencing their first menstrual cycle. As a result, menarche was often described as confusing, frightening, and emotionally distressing.

One participant stated:

“Mujhe mahina shuru hone se pehle iske baare mein kuch nahi pata tha.”

Another participant reported:

“Jab pehli baar hua to mujhe laga ki mujhe koi bimari ho gayi hai.”

Participants commonly identified mothers and female peers as their primary sources of information. However, the information received was generally limited to practical instructions rather than scientific explanations. Consequently, many participants demonstrated only a basic understanding of menstruation and were unable to explain the biological processes underlying it.

These findings indicate that menstrual knowledge among participants remained fragmented and largely dependent on informal family-based communication.

Theme 2: Menstrual Hygiene Practices

The second theme reflected the challenges associated with menstrual hygiene management within urban slum environments. Financial constraints significantly influenced the choice of menstrual products, with many participants relying on reusable cloth rather than commercial sanitary pads.

One participant explained:

“Main sooti kapda lagati hoon kyunki pad khareedne ke liye paise nahi hain.”

Participants also described difficulties associated with maintaining hygiene due to inadequate sanitation infrastructure. Shared toilets, lack of running water, and limited privacy emerged as common concerns.

A participant reported:

“Sabka ek hi bathroom hai aur paani ki bhi dikkat hoti hai.”

Disposal practices were often improvised due to the absence of formal waste disposal systems. These experiences indicate that menstrual hygiene management was strongly influenced by environmental and economic constraints rather than personal preference alone.

Theme 3: Emotional and Psychological Responses

The most emotionally significant theme involved participants' psychological reactions to menstruation. Fear, shame, embarrassment, anxiety, and frustration emerged repeatedly across interviews.

Many participants described their first menstrual experience as frightening:

“Jab mujhe pehli baar hua to main bahut darr gayi thi aur rone lagi.”

Fear of staining clothes and being noticed by others represented a persistent source of anxiety. One participant stated:

“Mujhe hamesha darr rehta hai ki kapdon pe daag na lag jaaye.”

Several participants also reported feelings of shame and reluctance to discuss menstruation openly.

“Humare yahan is baare mein baat karne mein bahut sharmate hain.”

These narratives suggest that menstruation was frequently associated with emotional distress and heightened self-consciousness.

Theme 4: Social and Cultural Norms

Participants' menstrual experiences were strongly shaped by cultural beliefs and family expectations. Menstruation was commonly viewed as a private topic that should not be discussed openly.

One participant reported:

“Ghar mein is baare mein baat nahi karte.”

Several participants described being discouraged from participating in religious activities during menstruation.

“Mahine ke time mandir nahi jaati.”

Some participants also reported that menstruation was interpreted by family members as a sign of readiness for marriage.

“Meri maa bolti hain ki ab shaadi ke layak ho gayi ho.”

These findings indicate that menstrual experiences were embedded within broader cultural narratives regarding femininity, purity, and social roles.

Theme 5: Impact on Daily Life

The final theme reflected the influence of menstruation on education, daily functioning, and social participation. School absenteeism emerged as a common experience, particularly during periods accompanied by pain or fear of leakage.

One participant stated:

“Mahine ke dard ki wajah se school nahi jaati.”

Participants also highlighted the absence of menstrual education and support within schools.

“Humare school mein is baare mein kuch nahi bataya jaata.”

Many girls reported relying on home remedies and informal advice to manage menstrual discomfort. These findings suggest that menstruation affects not only physical health but also educational participation, confidence, and social engagement.

Overall, the thematic analysis demonstrates that menstrual health experiences among adolescent girls living in urban slums are shaped by a combination of limited knowledge, material deprivation, emotional challenges, socio-cultural restrictions, and inadequate institutional support. The themes collectively highlight the close relationship between menstrual health and psychological well-being

6. Discussion

The present study explored menstrual health experiences and their psychological implications among adolescent girls living in urban slums in Delhi. The findings revealed that menstruation was experienced not merely as a biological event but as a complex psychosocial phenomenon shaped by inadequate knowledge, poverty, social stigma, cultural restrictions, and limited institutional support. The thematic analysis generated five major themes, namely Knowledge and Awareness, Menstrual Hygiene Practices, Emotional and Psychological Responses, Social and Cultural Norms, and Impact on Daily Life. Together, these themes demonstrate that menstrual health is closely linked to psychological well-being, self-concept, and social participation among adolescent girls.

A prominent finding of the study was the widespread lack of awareness regarding menstruation before menarche. Most participants reported receiving little or no information before their first menstrual experience and described menarche as frightening, confusing, and emotionally distressing. This finding supports previous studies by Sommer et al. (2015) and Thakur et al. (2014), which found that many adolescent girls enter menarche without adequate preparation. The absence of menstrual education contributes not only to misinformation but also to heightened emotional distress and uncertainty. From a developmental perspective, adolescence is a period during which young people construct their identity and body image. When a major biological transition occurs without preparation, it can undermine feelings of control and increase vulnerability to anxiety and fear. The findings therefore suggest that menstrual education should be viewed not only as a health intervention but also as a psychological protective factor.

The second theme highlighted the challenges associated with menstrual hygiene management. Participants frequently reported using cloth instead of sanitary pads due to financial limitations and described difficulties associated with inadequate sanitation facilities. Shared toilets, lack of privacy, and insufficient water supply created barriers to maintaining menstrual hygiene with dignity. These findings are consistent with research conducted by Garg and Anand (2015), Das et al. (2021), and UNICEF (2019), which identified economic hardship and infrastructural inadequacies as major barriers to effective menstrual management among girls living in disadvantaged settings. Importantly, the findings demonstrate that menstrual hygiene is not solely an individual responsibility but is strongly influenced by environmental and structural factors. Poor menstrual management conditions contributed to persistent worry, discomfort, and fear, indicating that physical and psychological aspects of menstrual health are deeply interconnected.

One of the most significant findings of the study concerned the emotional and psychological impact of menstruation. Participants described experiences of fear, shame, embarrassment, anxiety about staining, and frustration associated with menstruation. Such reactions reflect the internalization of negative societal attitudes toward menstruation. The findings support Hennegan et al. (2019), who described menstrual experiences as involving continuous vigilance and emotional monitoring. Fear of leakage and public embarrassment emerged as recurring concerns, particularly in school environments. According to Objectification Theory (Roberts et al., 2002), girls who perceive their bodies as subject to social scrutiny may become increasingly self-conscious and anxious. The present findings suggest that menstruation-related stigma may contribute to this process by increasing awareness of bodily appearance and fear of negative evaluation. Consequently, menstrual experiences may influence self-esteem, emotional regulation, and overall psychological well-being.

The study also highlighted the powerful influence of socio-cultural norms on menstrual experiences. Menstruation was often treated as a private or taboo topic within families, and many participants reported restrictions related to religious practices and social interactions. Such findings are consistent with Mahon and Fernandes (2010) and Sivakami et al. (2019), who reported that menstrual stigma continues to shape the experiences of adolescent girls across many cultural settings. The association of menstruation with impurity, secrecy, and social restriction reinforces feelings of shame and discourages open communication. Furthermore, the tendency to link menstruation with readiness for marriage reflects broader gender norms that prioritize reproductive roles over individual development. These cultural messages may influence girls' self-perception and contribute to internalized stigma.

Finally, menstruation significantly affected participants' daily functioning and educational participation. School absenteeism due to pain, fear of leakage, and inadequate facilities was commonly reported. Participants also highlighted the lack of menstrual education and support within educational institutions. These findings align with studies by Montgomery et al. (2016) and Van Eijk et al. (2016), which demonstrated that menstruation can become a barrier to educational engagement. Beyond academic consequences, repeated absenteeism may affect self-confidence, peer relationships, and long-term educational aspirations. The findings therefore indicate that menstrual health should be recognized as both a public health and educational equity issue.

Overall, the study demonstrates that menstrual health among adolescent girls living in urban slums extends far beyond hygiene management. Menstruation is embedded within broader social, cultural, economic, and psychological contexts that influence girls' emotional

well-being, self-esteem, educational participation, and social functioning. The findings highlight the need for integrated interventions that combine menstrual education, access to hygienic products, improved sanitation facilities, stigma reduction initiatives, and psychosocial support. Addressing these interconnected factors may contribute significantly to improving both menstrual health and overall quality of life among adolescent girls living in marginalized communities.

7. Conclusion

This qualitative study provides a nuanced understanding of menstrual health experiences among adolescent girls living in urban slums of Delhi. The findings indicate that menstruation is embedded within a complex interplay of biological processes, socio-cultural norms, economic deprivation, infrastructural limitations, and psychological vulnerability.

Consistent with prior research (Sommer et al., 2015; UNICEF, 2019), girls entered menarche with minimal knowledge, relied on fragmented and informal information sources, and managed menstruation under conditions of scarcity and stigma. Emotional distress—manifested as fear, shame, anxiety, and resentment—emerged as a central feature of menstrual experiences and was intensified by secrecy, taboos, and lack of institutional support (Hennegan et al., 2019; Chrisler et al., 2016).

Menstruation also functioned as a barrier to education, contributing to school absenteeism and reduced academic engagement (Van Eijk et al., 2016). Such disruptions carry long-term implications for psychosocial development, self-esteem, and gender equity.

Overall, the study underscores the urgent need for a holistic, rights-based approach to menstrual health that integrates biological education, hygiene resources, sanitation infrastructure, emotional support, and cultural transformation. Addressing menstrual health is not merely a matter of hygiene management but a critical step toward promoting adolescent mental health, educational inclusion, and social justice.

7.1 Limitations

The present study has certain limitations that should be considered while interpreting the findings. The study was conducted on a small sample of ten adolescent girls from urban slums in Delhi, which may limit the generalizability of the results. The use of self-reported interviews may have been influenced by social desirability and recall bias. Additionally, only the perspectives of adolescent girls were included, while views of parents, teachers, and healthcare providers were not explored. The cross-sectional nature of the study also limited the understanding of changes in menstrual experiences over time.

7.2 Future Implications and Recommendations

Future research should include larger and more diverse samples from different socio-cultural settings to enhance understanding of menstrual health experiences. Studies may also explore the perspectives of parents, teachers, and healthcare professionals. Schools and communities should implement comprehensive menstrual education programs, improve access to sanitary products and sanitation facilities, and provide emotional support services. Such initiatives may help reduce menstrual stigma, improve psychological well-being, and promote healthier menstrual experiences among adolescent girls.

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