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Adolescent Girls Information Needs regarding Menstrual Hygiene Management: The Sindh Experience

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Summary

The onset of menstruation, or menarche, during puberty signals girls' transition into young adulthood and is associated with a range of physical, emotional and social changes. Although the physiological changes during menarche are experienced by all girls, the processes are understood in terms of the beliefs, values and practices embedded within the gender orders of societies girls are members of. For girls in Pakistan, their cultural context, which includes elements from the country's predominantly Islamic faith along with local traditions, imposes a number of dietary and behavioral restrictions. A considerable body of literature describes the ways reproductive health in Pakistan is influenced by cultural and religious values. Studies suggest that girls typically are not given information about menstruation until after menarche and their knowledge about menstrual hygiene management (MHM) practices may be inadequate, which has consequences for girls' physical and emotional health.

A growing body of literature indicates a need for adequate WASH facilities for girls in schools, as well as improved menstrual health and hygiene education in order to improve health and education-related outcomes of adolescent females. The work of Dr. Marni Sommer at the Mailman School of Public Health, Columbia University, in Tanzania, Ghana, Ethiopia and Cambodia has aimed to develop girls' puberty books that provide essential, culturally sensitive information on puberty and menstrual hygiene management (MHM) for 10-14 year-old girls. Her project is now working on developing a culturally contextualized puberty book for girls in Pakistan.

Qualitative research has been conducted to support the development of the Pakistan puberty book. The data include information on girls' experiences of menarche, aspects of the cultural values, beliefs and practices surrounding menstruation, and how the available WASH facilities impact girls' MHM during school. Earlier components of this research were conducted in Punjab and Baluchistan provinces in 2015-2016. To ensure Sindh's cultural beliefs and values are also represented in this national book, the study was repeated in Sindh in 2016-2017. This report focuses only on the findings from Sindh.

Methods

This study consisted of a comparative case study (rural vs. urban) in Sindh province from December 2016 to March 2017. Urban data were collected from a neighborhood in Hyderabad, District Hyderabad and rural data from village Babarloe, in Khairpur District. Both sites were selected by UNICEF, Pakistan. In each site, data were collected from both in-school and out-of-school girls.

Data collection involved three methods: 1) Participatory activities with groups of adolescent girls (n= 137); 2) observations of school water, sanitation and disposal facilities; and 3) in-depth interviews with key informants such as parents, teachers, and health workers.

Preliminary Results

The Sindh data revealed six key themes:

- 1) Menarche is generally experienced by girls as a traumatic event characterized by fear, distress and worry.
- 2) Menarche is associated with possibility of immediate marriage. Mothers and girls actively hide onset of menstrual periods from fathers and other male family members in order to avoid very early marriages.
- 3) Having prior knowledge about menarche normalized the process for some girls, leading to more positive experiences of the first menstrual period.
- 4) Girls' knowledge of puberty and menstrual practices was rooted in local, cultural epistemology. However, some were skeptical of this knowledge and questioned it.
- 5) There are significant information needs, specifically around physiology of puberty and menstruation; recognition and relief of menstrual symptoms; appropriate menstrual hygiene and management practices; and social, physical, religious and dietary restrictions.
- 6) Water, sanitation and hygiene facilities in schools are inadequate to meet menstruating girls' needs.
- 7) Participants identified a range of WASH and menstrual management resources to develop Girl-Friendly school facilities.

Recommendations

Based on the research findings, we recommend:

- 1) Development of an information resource, such as a book, pamphlet, animated video or web-based resource, to provide girls with knowledge of puberty, menarche and menstrual hygiene management. However, there is a need to remain sensitive to a desire for secrecy regarding onset of menarche, which appears to be based on protecting girls from very early marriages.
- 2) Development of a MHM health education module to be taught as part of girls' school curriculum.
- 3) Training for teachers in sensitive and objective delivery of MHM information.
- 4) Development of school WASH facilities to make available clean washrooms, running water and disposal facilities located in safe spaces.
- 5) Advocacy with provincial governments to create positions for cleaners to maintain girls' washroom facilities.
- 6) Development of menstruation support facilities, such as making available sanitary supplies in schools.
- 7) Conduct further research to understand factors impeding the improvement of MHM support and WASH facilities, such as why is there a reluctance to clean and a blindness toward dirty toilet facilities, what are appropriate mechanisms for menstrual waste disposal, teachers' reluctance to engage students around MHM issues.

Acronyms and Abbreviations

UNICEF	United Nations Children's Emergency Fund
MHM	Menstrual Hygiene Management
NGO	Non-Governmental Organization
WASH	Water, Sanitation and Hygiene
AB	Afshan Bhatti, National Research Manager, Real Medicine Foundation, Pakistan

Introduction and Background

The onset of menstruation, or menarche, during puberty signals girls' transition into young adulthood and is associated with a range of physical, emotional and social changes. Although the physiological changes during menarche are experienced by all girls, the processes are understood in terms of the beliefs, values and practices embedded within the gender orders of societies girls are members of. For girls in Pakistan, their cultural context, which includes elements from the country's predominantly Islamic faith along with local traditions, imposes a number of restrictions. These include dietary restrictions on the consumption of eggs, beef and fish, avoiding bathing during menstruation, and restrictions on prayer and contact with the Quran. ^{1,2}

A considerable body of literature describes the ways reproductive health in Pakistan is influenced by cultural and religious values. Studies suggest that girls typically are not given information about menstruation until after menarche³ and their knowledge about menstrual hygiene management (MHM) practices may be inadequate, which has consequences for girls' physical and emotional health. The highly patriarchal gender order in Pakistan is well documented and includes gender-based differentials in access to knowledge and resources, as well as seclusion of women. ^{4,5} Withholding information about MHM may be related to the desire to 'raise innocent daughters'. Within that view, it is believed that girls who are unaware of all knowledge related to reproduction, including knowledge of menstruation, sex and sexuality, are pure and their innocence is equated to chastity³. The gender order and ideas around purity also overlap with religious beliefs that define blood as an inherently polluting substance that must be kept separate from religious objects and rituals, which effectively excludes women from participation during menstruation. ⁶

Within this context, both women and men regard sexuality and reproduction as highly shameful, embarrassing topics, and actively avoid discussing them ^{1,3}. This avoidance extends to discussing sex, sexuality and menstruation with daughters ^{3,7}, and mothers are often reluctant to discuss such topics. Furthermore, mothers themselves often have little experience with conveying menstrual-related information and support³, since previous generations also avoided the topic. Even when information is shared, it is limited to practices around the management of bleeding, religious restrictions and instructions to maintain silence about topics related to sexuality and reproduction^{1, 3}.

A number of studies from a range of countries, including some studies from Pakistan, suggest that girls' knowledge about menstruation and hygiene practices may be inadequate ^{1, 2,8,9,10}. Girls' lack of knowledge about menstruation may result in traumatic experiences, which are associated with psychological and emotional distress^{10,11}. There is also emerging evidence that poor knowledge of menstruation is associated with poor management of pain, development of urinary infections and even infertility as a result of unsanitary management of post-partum bleeding, although further research is needed to determine causality ^{12,13,14,15}.

Current data on educational attainment in Pakistan indicate that the country has the highest number of female out-of-school children in South Asia and is not reducing the gender disparity¹⁶. There are also substantial differences in educational achievement based on wealth and regional differences,^{16,17} and poor girls in rural areas were sixteen times less likely to attend school compared to boys from the wealthiest households in urban areas.¹⁸ Current literature documents harsher restrictions on the mobility of girls in Pakistan once they reach sexual maturity¹⁷ and within this context, distance to schools, concerns about safety while travelling, lack of secure school infrastructure, and availability of female teachers are all factors which affect girls' educational attainment.^{16,17} Literature from Kenya, Tanzania, Uganda and Zimbabwe has identified the lack of WASH facilities at schools, unaffordability of sanitary pads, the risk of embarrassment of a menstrual leak, and the school absenteeism of girls when they are managing their menses as every-day challenges associated with menses.^{10,11,19,20,21,22} Similar challenges may be reflected in the experience of Pakistani girls.

Alongside attention to the MHM needs of girls in schools that lack adequate WASH facilities, there is a growing body of literature recommending improved menstrual health and hygiene education in order to improve health and education-related outcomes of adolescent females^{1,2,8,13,23}. Dr. Marni Sommer at the Mailman School of Public Health, Columbia University, is addressing this need by developing girls' puberty books that provide essential, culturally sensitive information on puberty and menstrual hygiene management (MHM) for 10-14 year old girls¹¹. Her previous work in Tanzania, Ghana, Ethiopia and Cambodia is now expanding into Pakistan with a plan to develop a culturally contextual puberty book for girls. In partnership with UNICEF, University of Alberta and Real Medicine Foundation, Pakistan, the project was launched by first collecting qualitative data around girls' experiences of menarche, cultural values, beliefs and practices surrounding menstruation, and how the available WASH facilities may negatively impact girl's management of menstruation in schools, and ability to participate in the classroom. Additional collaboration and information was sought from a range of key stakeholders working with adolescent girls in Pakistan, and the approval of the provincial Ministries of Education.

Research was conducted in the province of Punjab, Pakistan between February–August 2015, with additional qualitative data collected by a small number of NGOs working in Khyber Pakhtunkhwa. UNICEF commissioned the researchers to expand the research to Baluchistan and Sindh provinces in 2016-2017. This report focuses on the findings from Sindh only.

Methods

A comparative case study (rural vs. urban) was conducted in Sindh province from December 2016 to March 2017. Urban data were collected from Hyderabad, a city of 3.4 million and rural data from village Babarloe, in Khairpur district. In each site, data were collected from both in-school and out-of-school girls. In-school girls were recruited from one high school in each site after obtaining permission from the District Education Office and School administration. Out-of-school girls were identified with the help of teachers

(identifying school drop-outs) and community officers of HANDS, a UNICEF partner NGO working in Khairpur. See Table 1 for details of numbers of respondents in each site. Older adolescent girls, aged 16-19 years, (both in and out-of-school girls) were intentionally sampled in this study, as they would be more comfortable than younger girls when disclosing their menarche experiences, and sharing advice for girls yet to reach puberty.

Table 1: Participant Information

Site	In-school or Out-of-school Girls	Class	Number of Participants	Key Informant Interviews	
Urban site: Hyderabad City	In-school girls	7 and 8	16	4	
		9	15		
		10	20		
	Out-of-school girls	Not applicable	14		
Rural site: Babarloe village, district Khairpur	In-school girls	6, 7 & 8	17	4	
		8 and 9	22		
		10	18		
	Out-of-school girls	Not applicable	15		
Total Number of In-school and Out of school-girls					137
Total Number of Participants					145

The study utilized three methods of data collection: 1) Participatory activities with groups of adolescent girls, both in and out-of-school (n= 137); 2) observations of school water, sanitation and disposal facilities; and 3) in-depth interviews with key informants such as parents, teachers, lady health workers and a female local religious leader (N=8). Participatory approaches were used because our respondents were adolescent girls, a particularly sequestered group within Pakistan. Participatory methods allowed researchers and participants to engage in an equalizing and dynamic exchange, which in turn enabled development of a relationship of trust.²⁴ It further enabled collection of sensitive information from young girls.²⁴ The same research methodologies have been used by Dr. Sommer to collect data on MHM for developing the girl's puberty book in four other countries and in Punjab and Baluchistan by the Pakistani team.

The research team, consisting of Afshan Bhatti (AB) and two research assistants, collected the data. In each site, the team met with each group of respondents daily, over 7-8 days. Multiple participatory activities were conducted with girls, such as the writing

of menstrual stories, girls brainstorming on the improvement of WASH facilities in schools, and the development of a proposed puberty curriculum for girls aged 10-14.

To assess whether or not school infrastructure met girls' menstrual hygiene needs, WASH facilities in both schools were observed utilizing school focused checklists used in Dr. Sommer's previous studies. In addition, 4 key informant interviews were completed in both sites to capture adults' perspectives and understandings of girls' experiences of menstruation and schooling, and to contextualize the cultural practices and beliefs identified by the girls. These informants included mothers, teachers, school administrators, community health workers and a local female religious leader. All key informants were women as, culturally, menstruation is a female domain from which men are excluded. Not only is male involvement considered a taboo, involving men might have created issues that could potentially have terminated the research.

All data were collected in textual form in local languages, mostly Sindhi and Urdu. The data in Sindhi was translated into Urdu. All data were then transcribed in Urdu and then translated and transcribed into English. The data were coded inductively using Quirkos, a qualitative data management program, then analyzed using a latent content analysis approach. The codes were categorized to identify broader themes to abstract deeper meaning and to build an explanation for the findings.

Participatory Activities with school girls





Preliminary Results

Overall, our data identified six key themes that could broadly be understood as:

1. **Menarche as a traumatic event:** It was often associated with fear, worry and distress as the girls did not understand why they were bleeding.
2. **Culture of Silence:** Menarche was associated with the possibility of immediate marriage. Mothers and girls actively hid onset of menstrual periods from fathers and other family members in order to avoid the marriage.
3. **Prior knowledge normalized menarche:** Having knowledge about menarche prior to its onset normalized the process, alleviating fears and confusion and leading to positive experiences of the first menstrual period. Girls who had previous knowledge were also able to ask for assistance with menstrual hygiene management more easily.
4. **Cultural Information:** A large part of the understanding of puberty and pubertal changes stemmed from cultural information. Unlike girls in Punjab and even Baluchistan, the girls largely accepted and acted upon cultural customs associated with puberty.
5. **Information Needs and Concerns:** The girls' expressed questions and concerns around the physiology of puberty and menstruation, recognition and relief of menstrual symptoms, appropriate menstrual hygiene and management practices; and social, physical, religious and dietary restrictions.
6. **Quality of WASH facilities do not meet girls' menstrual hygiene needs:** Poor quality of WASH facilities, including dirty toilets, lack of waste disposal mechanisms, and lack of running water, served as barriers for girls' in maintaining their menstrual hygiene in school settings.
7. **Request for Girl-friendly School and WASH Facilities:** In order to meet their menstrual hygiene needs, the girls requested clean washroom facilities which are equipped with a working toilet, water, hand soap, towels and dustbins to dispose their soiled pads. Apart from these, the girls requested health education to be provided in schools to manage their menstruation with confidence as well infrastructural improvements.

1) Menarche as a traumatic event

A key theme emerging from the data was that our respondents' experience of menarche had been a traumatic event characterized by fear, distress and worry. Most of the girls reported they had been scared when they first saw the blood and did not understand what was happening to them. A few girls even thought they had developed a disease.

"When first time I had my periods I became very worried and afraid. It was so frightening for me that I fell ill and was feverish for the next three days. After three days I asked my mother if it is a disease" (*Grade 8, urban Hyderabad*).

While some girls immediately informed their mothers or elder sisters, most were too shy or did not know how to communicate that they were bleeding. In the end, most sought help from a family member, often the mother or an elder sister. However, a number of

them continued to keep their bleeding a secret until it was discovered by a family member who questioned their suspicious behavior or noticed spotting on their clothing. The girls' worries were only calmed after they were told that the bleeding was due to menses and that it was a natural process associated with maturing.

“The first time I had my periods I was in school. At break time, when I went to the washroom and saw the stains on my trousers, I thought they were the stains of red ink. I kept quiet and when I came home I went to the washroom to take a bath and I also washed my clothes. My mother was quite astonished at my behavior. That night when my mother saw my uniform she shared it with my aunt, who said that it must be my period. That is how I came to know what it is.” (*Out-of-school girl, urban Hyderabad*)

2) Culture of Silence

Our data suggest a key reason underlying the girls' lack of knowledge about the onset of menarche was a general 'culture of silence' around menstruation. The vast majority of girls (135 out of 137) reported having had no previous information about menarche or menstruation and its onset was met with astonishment and fear. Moreover, the same girls reported that their mothers/sisters had explicitly told them not to share with anybody the information that their menses started, and especially not to tell their fathers and brothers.

One reason for this 'culture of silence' may stem from the desire of mothers to protect girls from the possibility of marriage immediately following the onset of menarche. Our data show that menarche was locally understood as a sign of a girl's 'readiness for marriage' and that the girl's second menstrual period should not occur in her parent's house, but in her husband's house. Marriages may be quickly arranged to meet that ideal. To prevent such very early marriages, mothers actively withheld information that a girl's menstruation had started.

“I also shared this [that the menses started] with my mother who said that you have grown up now and you should not share it with your father otherwise he will marry you off. So I never shared it with my father. My mother also never shared it with my father.” (*School girl, Hyderabad*)

“My mother got very worried because that day my father and my brothers were at home. She cleaned me in the washroom and changed my clothes and asked me to lie down for a while. When my father and my brother left, then she told me about how to use the cloth. She also told me avoid going out during these days. She told me to stay at home and not to go the mosque or school so that no one should get an idea about it.” (*Out-of-school girl, Khairpur*)

One consequence of the need to maintain the secrecy surrounding menstruation was girls dropping out of school. The girls' desire to hide their menstrual status, together with cultural values that demanded they not leave the house, meant that girls frequently missed school following the onset of menarche. This often eventually led to girls leaving school altogether.

“My mother stopped me from going out. My aunt was living with us; she asked my mother what had happened to me. My mother told her that I was not feeling well. I kept on lying on my bed. I also skipped school during those days. Finally, I stopped going to school.” (*Out-of-school girl, Khairpur*).

3) Prior knowledge normalized menarche

While the majority of girls reflected on their first menstruation experiences in a negative light, a small minority (two) recalled it without any fear or stress. Both girls had previously been informed about menarche. As a result, they were easily able to tell their sisters and mothers when the bleeding started, or they were able to obtain supplies, such as pads, cloths and underwear, to manage their menstruation themselves.

“When first time I had my periods, I was not worried. I just told my mother. At the beginning I was a bit worried but then I calmed myself as I already knew about it. I want to tell younger girls that they should not worry about it. (*Hyderabad, Girl in 10th grade*)

A comparison between the menstrual experiences of girls with and without menarche information indicated the former had a positive experience compared to the trauma of the latter. Prior knowledge had normalized the process of menarche. The girls themselves recognized the importance of this knowledge and most of them recommended that all girls should have knowledge about what to expect at menarche to avoid unnecessary worry and stress.

“These things should always be told before time to the girls so that they should be able to handle them properly.” (*School girl, Hyderabad*)

4) Cultural Information

Another important theme emerging from our data was that girls’ knowledge of puberty and menstrual practices was rooted mainly in the local, cultural epistemology. Cultural information around puberty was available and dominant and played a large role in their understanding. While the girls sometimes describe pubertal changes in terms of onset of menstruation, such as increases in height, development of breasts, growth of pubic hair, appearance of acne, and emotional fragility, they placed greater emphasis on social changes they had to undergo. These included, amongst others, practicing *pardah* (seclusion) which greatly restricted their movements outside the house, and adhering to practices such as avoidance of water and bathing, eating or avoiding certain ‘hot’ and ‘cold’ foods as classified through traditional humoral understanding, and keeping hair tied up. Unlike girls in Punjab, and even Baluchistan, the girls in Sindh largely accepted and acted upon cultural customs associated with puberty.

However, a few urban girls questioned the validity of this cultural information. This emerged most clearly in the questions they asked:

Why is it dangerous to run during periods?

Why can't we have a bath on the first day of periods?

Why can't I have *achar* (pickles) during my periods?

Clearly, while it is important to acknowledge cultural information, our data suggests that it is not meeting the girls' information needs about what to expect during puberty, and how to manage their menstrual symptoms. The topics the girls asked about when questioning cultural information has, however, identified the girls' precise information needs, which are discussed in detail below.

5) Information Needs and Concerns

The girls' information needs can be grouped into four categories: Knowledge of the physiology of puberty and menstruation; recognition and relief of menstrual symptoms; appropriate menstrual hygiene and management practices; and social, physical, religious and dietary restrictions.

5.1 Physiology of puberty and menstruation

Our data suggests girls need information on the physiology of menstruation and its associated physical and emotional changes. Some girls wanted to know why women menstruate, why they developed breasts and grow pubic hair, why only women menstruated and not men, why very young girls or older women do not menstruate, and why girls start menstruating at different ages. While girls recognized menstruation as a change that occurs during puberty, they were unaware of the physiological causes behind the development changes they were experiencing.

Why do girls get periods? (*Hyderabad, Girl in 8th grade*)

Why do we have pain in the abdomen and back? (*Khairpur*)

The girls were not aware of the occurrence of biologically normal variation in the length of cycles, or the amount of bleeding, and they expressed concerns around differences in frequency of bleeding and amount of bleeding. Fluctuations in the length of the menstrual cycle were regarded as a sign of abnormality, as was 'little' bleeding and 'blood clots'. Some girls were also unclear about the 'color' of menstrual blood, expressing concerns that their bodies were somehow not normal.

I also had a lot of pain in my lower abdomen so went to sleep. I also used to have white discharge along the blood and I had no idea what it was. It has been three to four years since I have had menstruation but I have never taken any medicine. (*Out-of-school girl, Hyderabad*)

Nearly all our respondents recommended that all prepubescent ('before onset of menarche') girls should be informed about menstruation and the processes underlying the bleeding.

5.2 *Recognition and relief of menstrual symptoms*

Our data indicate girls need information on recognizing normal menstrual symptoms, the reasons underlying them and how to obtain relief. The most common concerns the girls identified included leg pain, headaches, backaches and stomachaches. The participants also wanted to know why they felt irritable, angry and aggressive while menstruating. Other questions related to overall concerns regarding acne, body pain, nausea, bloating, fatigue, weakness and overall discomfort.

During menses why do we have belly pain, waist pain and weakness?
Why are all these things happening?

In addition, a need was identified for information on pain management and remedies. The girls' poor understanding of and inconsistent use of pain medication was of particular concern. Many girls reported that they were restricted from using any medication to relieve pain while menstruating, although a few girls did report that they were allowed to use medicines and one had even sought medical attention for unbearable pain.

5.3 *Appropriate Menstrual Hygiene and Management Practices*

Another information need was around suitable menstrual hygiene and management practices. A common cultural practice identified in the data is the avoidance of water and bathing during menstruation. Local understanding of menstruation, located within *Yunani* humoral beliefs of health and disease, situates bleeding as an impure process. A menstruating woman is understood as being impure. This leads to a number of restrictions on menstruating girls including prohibitions on coming in contact with water and bathing. Bathing was believed to cause abdominal swelling and intensification 'of menstrual pain.

Our data, however, suggests these restrictions were questioned by the girls. They want to know if they really have to follow these restrictions and, if they do, what are the reasons underlying them.

Why it is barred to have bath on the first day [of menstruation]?
Can we have a bath on the first day or not?

Although the girls followed these practices, our data suggest a need to provide knowledge around practices for hygienic menstrual management. In addition, the girls specifically suggested that the puberty book should provide information on how to use pads and underwear, frequency of changing pads, and the importance of keeping these with them at all time, including school.

"I would advise young girls that they should keep all materials required during menstruation in their bags with them in the school." (*School girl, Hyderabad*)

5.4 Social, Physical, Religious and Dietary Restrictions

When girls were asked to list what information should be included in the puberty book, the list, paradoxically, included all cultural practices they also questioned. They suggested the following information should be covered in the book:

- a) Religious restrictions such as avoiding praying, fasting, sitting on the prayer mat, as well as touching or reciting the Quran.
- b) Physical restrictions including avoiding lifting heavy objects, not playing or dancing as well as riding bikes.
- c) Social restrictions such as not sitting with men and boys when menstruating, following the norms of *pardah* (*seclusion*) including not leaving the home and conducting themselves in a 'proper' manner.
- d) In terms of dietary restrictions, the girls wanted the book to contain information on what specific foods to eat and avoid.

6) Quality of WASH facilities do not meet girls' menstrual hygiene needs

Water, sanitation and hygiene facilities were observed in one high school in urban Hyderabad and one in rural area of Khairpur. Both schools were girls-only schools. Additional data related to the color of girls' uniforms, which consisted of blue *kameez*, white *shalwar* and a white *Dupatta*, which might readily show menstrual stains if girls are not able to change their menstrual materials adequately in school.

Table 2 lists the total number of students and toilets in each site. In all schools, one toilet was reserved for the headmistress and one for the teachers.

Table 2

Site	No of girls	No. of toilets	Ratio of girls : toilets
Hyderabad (urban)	809	4	202:1
Khairpur (rural)	262	6	43:1

The urban school toilets were nonfunctional because of lack of water supply and drainage system while the rural school had functional toilets with tap water supply from two overhead tanks. In both cases the toilets were located at a relatively safe location from the classrooms with easy access for the girls. However, the facilities were all very dirty. There was no mechanism for waste disposal, which was consequently scattered around the toilets. None of the schools had regular cleaners, with one school reporting its toilets were cleaned only once per year.

The poor quality of the WASH infrastructures and the dirty toilets acted as barriers for girls to access the facilities. While this was difficult on a day-to-day basis, it was a severe impediment when girls were menstruating and needed to maintain menstrual hygiene. The lack of running water meant that the girls could not wash up. The lack of a concealed disposal mechanism for their menstrual hygiene products (such as a closed dustbin) led

to girls not changing their pads for the duration of a school day. Not only is this uncomfortable, it has health consequences such as increased rashes.

As a result of this inadequacy of WASH facilities in school, girls were forced to obtain permission to go home to use toilets, and those who lived further tended to go to their nearby friends' homes. We observed girls leaving the schools during classes and not returning for up to an hour. Such behaviors have the potential to impact the girls' education.

“When my clothes became dirty I told my friend who then told the teacher. My teacher granted me a leave and I went back home.” (*School girl, Hyderabad*)

The photographs below capture the situation graphically.

Toilet facility (urban site)



7) Requests for Girl-friendly School and WASH Facilities

In order to create more girl-friendly schools, the participants identified the following areas of need for themselves and other adolescent girls:

7.1 Resources for Menstrual Management

The following resources were listed:

7.1.1) Washrooms: Identifying a lack of washrooms in school as problematic, the girls recommended that each school should have, at least, two to three clean

washroom facilities, which are equipped with toilet, water, hand soap, towels as well as dustbins or other methods to dispose soiled pads.

7.1.2) Health Education in Schools: In order to assist girls to feel supported during the experience of menarche and to understand how to manage their menstruation with confidence, there is a need for special health education in schools, led by specially trained teachers.

7.2 *Addressing Infrastructural and Utility Gaps*

Our respondents identified a long list of infrastructural needs they would address if they had a million rupees (the “million rupee” activity was one of the participatory activities used to solicit girls’ ideas). These included:

7.2.1) Improvements in schools’ infrastructure, including the need for functioning washrooms. The participants keenly felt their school should be kept clean. The participants stated they would invest in providing clean water to their school facilities, along with water tanks, water motors and filters to provide fresh clean water. They also specified the need for electricity, a gas supply and generators.

Recommendations

The objective of the present research was to understand experiences of menarche of girls’ in Sindh, and to explore cultural values, beliefs and practices surrounding menstruation, and how the lack of water, sanitation and disposal infrastructure may negatively impact their management of menstruation in schools, and ability to participate in schools. Similar data were collected from Punjab and Baluchistan by the same team and in KPK by International Rescue Committee. The Punjab and Baluchistan data is currently being analyzed. Overall, the findings from Sindh, preliminary findings from Punjab and Baluchistan, and a small study from KPK show a high degree of similarity, suggesting a commonality of experiences, cultural beliefs and practices across the country. The main point of difference in Sindh is greater emphasis on girls maintain secrecy about whether or not they have started menarche. This difference seems to be rooted in the cultural idea in Sindh that the onset of menstruation signals reaching ‘marriageable age’ and the expectation that girls may be pressured into immediate marriages.

Based on this research, we recommend:

1. Develop an information resource to provide girls knowledge of puberty, menarche and menstrual hygiene management. This information can be presented in a written form, as a book, or a pamphlet. It can also be presented as an animation video. At a later stage, a web-based resource can be developed for use by girls who have access to the internet.

2. Develop a MHM health education module to be taught as part of the school curriculum for girls aged 11-12.
3. Train teachers to deliver this health education module in a sensitive and objective manner.
4. Develop school WASH facilities. This includes making available clean washrooms with clean running water and disposal facilities. More importantly these washrooms should be located in safe spaces and be readily available for use by the girls.
5. There is also a need to create positions for cleaners to clean the washroom facilities. Moreover, these positions should be filled by people who will clean the facilities, which traditionally have been low-caste cleaners. Our previous research has shown that such posts are often filled by relatives of either the teachers, senior managements or even the local powerful elite. Such people draw the salary but do not perform their duties.
6. Develop menstruation support facilities. This includes making available sanitary supplies (at a cost), and a room for menstruating girls to rest in case of pain.
7. Conduct further research on following areas:
 1. Obtain a deeper understanding of meanings of menstruation and how these impact menstrual management including use of absorbent materials and their disposal. This information is important to understand further
 - a) Need and potential to develop a local, economically feasible mechanism to manufacture sanitary pads using local, cheap materials
 - b) Development of a culturally-acceptable mechanism for menstrual waste disposal.
 2. How men and boys understand menstruation and the impact of males on availability of resources for menstrual management.
 3. Why teachers remain reluctant to engage students around MHM issues?
 4. Why are toilet facilities in school so dirty? Why is there a social and cultural blindness to a dirty toilet? Why is there reluctance to clean toilet facilities?

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