Learning, acting, and learning (LAL) research on schools' menstrual hygiene management (MHM): Pakistan

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UNICEF Pakistan adopted a conceptual framework for global qualitative research to advance their ongoing exploratory research work on menstrual hygiene management (MHM) in 2013–14. The findings of qualitative research informed the design of certain interventions in schools to improve MHM. These interventions were implemented as action research so that the benefits of these interventions can be studied. Qualitative research gave an in-depth understanding of girls' needs and their preferences to address MHM-related issues. Data analysis of qualitative research helped a team of sanitation practitioners and social scientists in understanding different factors influencing MHM in girls' schools. A few simple and focused interventions were hence designed and implemented. Six weeks after the implementation of hard and soft activities on the ground the results were studied. Results showed significant improvement in MHM conditions in girls' schools. Girls and teachers welcomed the initiatives and there were indicators for future sustainability. Areas of improvement were also noted by UNICEF before taking these interventions to scale. This research was documented as 'learning, acting, and learning' (LAL: literally meaning 'Red' in the local language, Urdu) research.

Keywords: MHM, rural sanitation, school, WASH, UNICEF-Pakistan

PAKISTAN HAS A VERY LOW literacy rate among girls. Net attendance drops from 62.3 per cent at primary school to 28.9 per cent at secondary school. Cultural beliefs make it difficult for women to seek education even if they were initially enrolled in primary schools. UNICEF Pakistan commissioned a research study to identify menstrual hygiene management (MHM)-related issues in girls' public schools and to design and pilot test school-specific MHM interventions. Building upon existing exploratory research in 20 schools, this advanced research was conducted from July 2013 to April 2014 in three phases: 1) collection and analysis of the primary data, leading to the design of school-specific MHM interventions; 2) implementation of the proposed MHM interventions; and 3) evaluation after six weeks of implementation.

This article will briefly cover the conceptual framework of the advanced MHM study, with commentary on various factors influencing MHM studied in the sample population, the set of interventions designed and implemented to reduce the influence of those studied factors, and notes from post implementation evaluation.

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Conceptual framework, methodology, and sample

This study sought to understand MHM and school behaviours from multiple levels of influence. Conforming to the conceptual framework of similar studies undertaken by UNICEF in other countries, it was assumed that societal and cultural norms, environmental and social influences, personal perceptions, and personal biology all determine how girls experience and manage menstruation. Studies by UNICEF using the same framework have been published in countries such as Sierra Leone, Bolivia, Philippines, and Rwanda and are available online. These factors of influence were studied by researchers to inform a set of interventions for improving MHM in school. A major component of the research was to design and implement the informed set of MHM interventions. Therefore, environmental factors and personal perceptions were granted a particular emphasis.

It was also assumed that an in-depth study of girls' experiences and practices can help a multidisciplinary team of social scientists, engineers, and educationists in developing appropriate interventions for a sustainable mechanism for MHM at school. The study was designed to include implementation of suggested interventions and feedback from school girls and teachers where such interventions were physically implemented.

A qualitative research approach was used to conduct this study. The sample used for the study was purposively qualitative. A total of six government girls' high schools, three each from two culturally varied districts in two different provinces of Pakistan, were selected. Three qualitative research methods – focus group discussions (FGDs), in-depth interviews (IDIs), and observation checklists – were used to collect data. The respondents for the two rounds of data collection along with the research methods used are listed in Table 1.

Table 1 FGD and IDI respondents

Respondents	*FGDs*		*IDIs*	
	Phase 1	*Phase 2*	*Phase 1*	*Phase 2*
School-going adolescent girls from grades 6 to 9 who had reached menarche	82	42		
Mothers of school-going adolescent girls residing in the vicinity of the selected schools	23	0		
Teachers and head teachers of the schools participating in the research study			13	14
Sanitary workers from the selected schools			4	6
Representatives of the district education department, such as the district executive officers (EDOs) education (male and female) and other relevant officials			6	0
Members of SMCs (male and female) of the schools selected for the study			7	0
Implementing partners (IPs)			0	2
Total	105	42	30	22

Note: Observation checklists had been completed for all six of the schools selected for this study

Commentary on factors of influence

Societal factors

The menstruation process is always mentioned in very vague and undefined terms and never spoken of directly. This is done to grant menstruating girls some measure of privacy but as a result girls hesitate in asking for help. It also prevents accurate information from being conveyed to the girls, making them rely on outdated beliefs instead.

None of the existing national policies on health, education, youth, and sanitation addresses MHM in any manner. Lady health workers (LHWs), the largest group of community-based healthcare providers in Pakistan, have not been trained to provide information to adolescent girls or their mothers regarding any aspect of MHM.

The government education department officials interviewed were unanimous in their opinion that this topic had never been discussed in any of their planning meetings, throughout the extent of their careers. They had many misconceptions about menstruation and tended to underestimate the need for the provision of MHM facilities. The reasons for their indifference included: considering MHM way below their level of professional expertise; lack of knowledge about the type of facilities required for MHM; and the fact that no policy document has ever referred to provision for MHM facilities.

Environmental factors

Schools in the study had a functional water system but two schools reported a water shortage problem. The ratio of students to toilets on average ranged from 63 to 131, while that of the teachers was six on average. The students' toilets were all found to be extremely dirty. The condition of the teachers' toilets was somewhat better. Handwashing stations close to toilets were available but availability of soap and broken taps was a major concern. There was no information, education, and communication (IEC) material on WASH or MHM available at any of the schools.

Almost all of the girls reported that availability of sanitary napkins at schools and disposal facilities for the used sanitary napkins were absent. They reported resorting to: wrapping and throwing used sanitary napkins in the jungle adjacent to school or in the corner of the school grounds; leaving them lying on the latrine floor; and taking the used napkins home in a plastic bag and then burning or throwing them away. Informal mechanisms for the availability of sanitary napkins included: girls bringing sanitary napkins from home; taking the day off and going home; teachers donating their personal sanitary napkins to the girls in need; teachers getting them from the market; and friends giving theirs to a girl in need.

Pain-relieving medicines were not available but in cases where the girls complained of severe pain the teachers mostly sent them home or sometimes gave them their own painkillers and never charged the girls. In one school, the girls were sent to a health facility situated in the vicinity. Few girls said that the teachers gave them herbal tea or hot milk for pain relief.

Interpersonal factors

Support from the family. Most girls said that their mothers provided them with information on precautionary measures and management of menstruation along with underpants and cloth and showed them the proper way to use them. The mothers also urged the girls to keep their supplies hidden where no one could see them. Mothers gave physical support in a number of ways: by taking care of their food intake; reducing their chores (physical activity); giving *takor* (hot patch treatment); and the provision of medicines. A few girls reported that their mothers provided them with psychological support as well.

Support from teachers. It was revealed that the girls received very little support from their teachers. Almost all of the girls reported that they do not feel comfortable talking to the teachers about MHM-related issues because of the respectful distance maintained between the students and the teachers. According to teachers, handling menstruation was expected to be done by girls themselves, as it was a very personal and private matter. Teachers only know that a girl is menstruating mostly from a close friend of the girl; if she is in severe pain and needs help to avoid the chores/tasks set by the teacher. The majority reported that usually they would consider appealing for help to teachers who are friendly to them. Teachers are more sympathetic to girls who are menstruating for the first time.

Support from peers. Most of the girls reported that their peers do not know about their menstruation but only their close friends or the girl sitting next to them. The girls did report helping each other by giving spare pieces of cloth (kept for cleaning shoes), asking other girls for sanitary material, accompanying them to the toilet, conveying the girl's predicament to the teacher, and volunteering to take on her share of the chores. The attitude of the other classmates and peers has been reported as negative. Instead of extending help, they would ridicule menstruating girls, making them the centre of attention and a target for derision by the other girls because of a blood stain for example. A few girls said that they do not admit their menstruation even to their close friends believing that this is very private.

Personal factors

Feelings associated with menstruation. The five dominant feelings about menstruation expressed by girls were those of stress/anxiety, physical discomfort, impurity/feeling dirty, shame, and sadness. Stress was reported owing to the fear of having a stained dress and dropping the sanitary napkin. Some of the girls said that they were afraid that others would find out about their menstruation because of an unpleasant smell. A few girls also felt dirty because they believed that they would emanate a bad smell. Some girls felt restricted, as they could not jump around and play during menstruation. They also felt that they are in an impure state and cannot perform their daily prayers and recitations. Many girls feel dirty because they considered menstrual blood extremely dirty and they did not like to be associated with it. The expressions used by the girls illustrated their sense of feeling impure in a very

expressive manner. The other feelings associated with menstruation, of shame and sadness, were less frequently expressed.

Skills to manage menstrual hygiene. A dominant majority reported using old cotton cloth as a sanitary napkin. It is folded in many layers and then placed inside the underpants or is tied with a *nala* (a traditional woven string). Almost all of the girls reported reusing this cloth, after washing and drying it. The girls reported maintaining a high level of conscientiousness during washing, drying, storing for reuse, and the eventual disposal of the sanitary napkins. Cloth is washed at home when male members of the family are away. A few of the younger girls, whose periods had started recently, reported that their mothers washed the cloth for them. In one area girls washed their sanitary cloth first and then burned it for disposal. Others reported wrapping the cloth after washing before throwing it away in the water ways or garbage dumps.

Some girls (around one-fifth of the total) reported using commercially produced sanitary napkins. They found these pads were more absorbent and convenient for managing a heavy blood flow. Most of these girls reported using commercial napkins during the first couple of days, especially during school hours.

More than half of the girls changed their sanitary napkin twice a day. A third of them changed three times a day for the first two days and later once or twice a day. A significant number of the girls reported changing sanitary napkins once in 24 hours, during the last days of their periods. Only a few of the girls said that they kept the underpants and sanitary cloth in their bags a few days before the expected date.

A majority of the girls said that they remembered the date of their menstruation. However most of them acknowledged that the date changes every month and the periods may start few days earlier or later than their last cycle. More than half of the girls reported relying on physical symptoms such as pain to predict the date. Remembering the date was not found to be a struggle for a significant number of the girls. A few of the girls wrote it on a wall in a corner of the house or in a notebook. Only a few of the girls interviewed did not remember the date and two of the younger girls said that their mothers remembered the dates for them.

A significant number of girls reported that their mothers advised them not to bathe at all or use or touch water for cleaning during menstruation, especially during winter, while some girls did bathe on the third or fourth day.

Impact on studies. Almost all the younger girls and a majority of the older girls said that their education is affected negatively during menstruation because of decreased attention and missing school days, mainly due to the fear of staining their clothes or dropping the sanitary napkin but also due to feeling tired and lethargic during their periods. Attending school was difficult mostly because of physical pain, especially for girls who had to walk further, for 15 minutes or more. The reasons for not missing school during menstruation included not missing their lessons or boredom at home. Few younger girls reported taking the first day of menstruation off from school due to heavy bleeding. A few girls said that they cannot miss school because telling their fathers the reason is not possible.

Knowledge of MHM. Most of the girls had very limited knowledge on the various aspects of MHM. Over one-third of the girls said that their mother gave them the required preliminary information when they started menstruating. Other providers of information, at the onset of menarche, were the elder sisters, grandmothers, aunts, and friends. The instructions mostly include: do not tell anyone and always keep it a secret; bathing during menstruation can increase the menstrual pain; washing with water can cause swelling; no mandatory prayers and no touching the Holy books; hot food (e.g. chillies) could increase the blood flow; cold foods can hinder the flow of blood and can increase the pain; and that sour foods increase blood flow.

Identified information needs. The majority of students wanted to know the reason for the occurrence of menstruation, the physiological aspects of the process, and whether the precautionary practices told to them by their mothers had any medical basis or not. Other information needs of girls included: reducing pain, appropriate material for a sanitary napkin, irregularity in periods, too heavy or too little bleeding, and earlier menarche.

The majority wanted someone from outside their immediate circle or someone from a clinic located nearby or a teacher to provide them with information. Many girls also indicated discomfort with teachers. Younger girls were uncomfortable with receiving information from the senior girls in school and preferred friends instead. Some girls made an interesting suggestion, that information on MHM could be provided to mothers by LHWs and the mothers could then tell their daughters.

Most of the girls wanted information to be conveyed to them verbally, as well as in written form. The young girls wanted the information to be presented in the form of a booklet with lots of pictures of humans, flowers, and other illustrations. Concerns about both forms of education were also raised. A large number of the girls raised concerns about maintaining the secrecy of the written material given to them. Most of the girls expressed clearly that they would like to have a face-to-face interaction with the person providing information on MHM along with written material.

Biological factors

The age of menarche for the girls who participated in the research study, ranged from 11 to 15 years. More than half (54/82) had reached menarche when they were 12 to 13 years old.

All of the girls reported suffering from various kinds of aches and pains during menstruation, most commonly in the lower abdomen, legs, and back. Other physical problems reported by a smaller number of girls were: feeling dizzy, nauseous, vomiting, lethargy, and general weakness. The girls from one region reported experiencing more intense physical pains than the other region.

A majority of the girls reported suffering from rashes during their periods. The perceived causes of the rashes were: usage of thick cloth material as a sanitary napkin, hot weather, and having to walk a long distance to school. It is noteworthy that girls did see the obvious link between their lack of hygiene and rashes.

Interventions after learning from phase I of study

- *Formation of WASH clubs*. Institutionalizing a teacher–student club to look after MHM mechanisms in schools including availability of MHM supplies, dissemination of information, and operation and maintenance of WASH facilities. WASH clubs also provided information on multiple aspects of MHM.
- *Development and distribution of behaviour change communication materials on MHM*. An information booklet for adolescent girls in schools, a poster for teachers motivating them to be supportive towards students, and a sticker to be posted on hand washing facilities.
- *Development and strengthening of the mechanism for distribution of MHM supplies*. Supplying school management with MHM packs (sanitary napkins, underpants, brown bags, soaps) which were sold to students facing a MHM emergency and stock was replenished through the money raised.
- *Improved WASH facilities*. Improved availability of water for personal cleaning; functioning hand wash stations; provision of *lotas* (traditional water container/cleaning utensil) and dustbins; and arrangements for the provision of soap, adequate light, functioning locks, and full-length mirrors in the toilets.

Post-intervention data collection and analysis

After the interventions data collection and analysis showed that the girls felt the interventions were helpful for them in dealing with MHM problems. A few of the girls felt that the general cleanliness of the school had improved; toilets and water tanks were cleaner than before the interventions. However, none of the students mentioned the availability of soap in the toilets. According to the principal of one of the schools, 'the teachers wanted the mirror to be taken away because the girls spend the whole day looking at themselves in it'.

Girls from all the schools reported that they were informed about the availability of MHM materials in the morning assembly sessions and in the classroom, and were encouraged to contact the teachers designated for providing MHM supplies. All the girls affirmed that the school management is providing underwear and sanitary napkins in a brown paper bag to the girls who require it through the most popular teacher.

All the teachers reported that they had already sold MHM supplies. The prices charged varied from Rs.40 to 60. Some teachers had adopted a methodical approach by keeping a log of the sale of each item. Other teachers kept the money collected in a separate bottle or in envelope or in the school cupboards. Since the MHM supplies are sold at subsidized rates in many schools, various ways to sustain the supplies were reported. In some schools, teachers run a tuck shop and they use the profits from the tuck shop to buy MHM supplies. In other schools, where the full cost price is charged, the supplies are regularly replenished.

The girls believed that the changes had had a positive impact. They felt more comfortable going to the toilet owing to the increased cleanliness, reduced smell, and decreased danger of catching germs.

MHM poster

Figure 1 MHM poster shows a teacher with text in Urdu, 'We look after our girls at school'

All those who had seen the MHM poster (shown in Figure 1) liked the message conveyed by it. They also liked the picture displayed and particularly appreciated the message about girls being looked after by their teachers.

When asked if they had observed any change in the attitude of the teachers since the posters were put up, half of the girls who had seen it said that they had not noticed any change. But the other half found teachers to be more lenient and understanding. Almost all teachers from one region and the head teachers from the other region understood the message of the poster: they had to be supportive towards the girls in their time of MHM need.

MHM booklets for students and teachers

All the girls were asked about which message they liked the most from the booklet developed after LAL research. The most well-liked messages were: encouragement provided to the girls about not making fun of each other during menses and looking out for each other; and advice on *takor* (heat pack treatment) to decrease menstrual pain. Information that menstrual blood is not dirty blood and emphasis on washing hands with soap was provided. Other messages such as the purpose of menses, keeping an MHM pack at all times, discussing the issue with friends, mothers, and teachers, staying away from cold drinks, and disposing of the pads in brown paper were also picked up by some students as favourites.

All the girls and teachers were asked to identify the picture that they had liked the most in the booklet. The picture of the mother putting MHM packs in school bags was the most popular. This photograph reflects the belief that it is the mothers' responsibility to send the girls to school fully prepared for any MHM emergency. Three other pictures which were equally popular among the students and the teachers were:

- the picture of a girl throwing a sanitary napkin in the dustbin in the toilet;
- the picture of two girls washing their hands;
- the picture of two girls in the school sick from menses, with one drinking hot tea and one treating herself with a hot water bottle, while being comforted by the teacher.

The majority of the girls had shown the booklets to their mothers or elder sisters. Elder sisters were also found to take the initiative to read the booklets themselves. In cases where the girls had no elder sisters, they were willing to share the booklet with their cousins (girls). In one urban school girls were far more open to the idea of sharing the booklet with their mothers.

MHM calendar

Figure 2 MHM calendar for girls to remember the days of their menstrual cycle

All girls from one region revealed that they had used the MHM calendar (shown in Figure 2). Almost half of them had placed the calendar in their school bags and the other half had placed it in their cupboards at home. Schools in the other region were not given the calendar but it was shown to girls during the interviews. They were then asked about where they would keep the calendars, if given to them. Just as in the first region, half the girls revealed a preference for school bags and the other half for a cupboard at home.

All the teachers expressed approval of the MHM calendars. Most found the size quite appropriate and the colours very pleasant. Some teachers said that they themselves were also using these calendars.

Conclusion

LAL research helped in learning from ground realities in two provinces of Pakistan, designing interventions with participation of school girls, teachers, and education department officials, implementing those designed interventions, and receiving feedback. This approach is being used in upscaling UNICEF's sanitation programme in communities and in WASH in Schools (WinS) programmes throughout the country. The research developed a tool kit for monitoring MHM facilities in schools for the government's education department. LAL research has been presented for advocacy with policymakers and it is contributing to policy reforms. LAL research manuals have been used to train teachers who are conducting WinS activities as part of UNICEF programmes.