

Peer Ethnographic Study on Menstrual Health & Hygiene Management

Prepared by Population Services International, Nepal

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This Peer Ethnographic Study on Menstrual Health and Hygiene Management (MHM) in Nepal is the first of its kind in Nepal. In this study, adolescent girls interacted with peers to discuss and interpret their beliefs, attitudes and experiences around MHM. The study was landmark in the sense that as we collected data to help improve MHM in Nepal, many girls (recruited as researchers) were simultaneously empowered through the act of conducting research in their home villages.

This research was conducted as part of a three-pilot project in partnership with Cristina Ljungberg, a founding member of the Maverick Collective, a philanthropic and advocacy initiative of Population Services International, and Founder and Chairman of Giving Wings, a Swedish foundation focused on education and healthcare for women and girls with a specific interest in menstrual hygiene.

This project aims to identify the key influencers of adolescent girls and the key influencers' beliefs, roles and perceptions about menstrual health and hygiene management in Nepal. With this data, we seek to create the first girl-centered solutions to effectively address the barriers to improved MHM in Nepal.

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ABBREVIATIONS

FGD	Focus group discussion
IDI	In-depth interview
INGO	International non-governmental organization
KI	Key influencer
MHM	Menstrual health and hygiene management
MIRA	Mother and infant research activities
NGO	Non-governmental organization
VDC	Village development committee

EXECUTIVE SUMMARY

Menstruation signals a girl's entry into womanhood, sexual activity, and reproduction and as such, is a crucial time for adolescent girls to learn about their bodies and their health. Yet effective solutions to improve menstrual health are lacking, as evidenced by girls' lack of knowledge and unhealthy practices. In Nepal, less than half of adolescent girls have adequate knowledge about menstruation, and only one in ten practices good menstrual hygiene. Adolescent girls' inability to effectively manage menstrual hygiene affects their education, physical health, psychological and emotional well-being, and general quality of life.

Adolescent girls in Nepal face many sexual and reproductive health problems and challenges, amidst gender disparity and other discriminatory social norms in Nepali society. Child marriage is legally prohibited, yet 17% of women aged 15-19 begin childbearing (DHS 2016). The median age at first marriage is 17 years. The adolescent fertility rate is 71 per 1,000 women aged 15-19 years with wider differences in urban and rural settings (33% in urban and 80% in rural). During menstruation, a majority of girls (89%) also experienced some form of restrictions or exclusion. One extreme form of menstrual seclusion practice is called *chhaupadi*, a common social tradition in the far and mid-western hills and mountains that requires menstruating women to leave home and live in a *chhau goth* (cowshed or hut). Menstrual restrictions and traditional beliefs vary by ethnicity; for example, Hindu ethnic groups such as Brahmin, Chhetri, and Newar, have more restrictions than Janajatis (ethnic Nepalese).

There exists limited research on menstrual health and hygiene in Nepal, even though studies confirm that adolescent girls lack consistent access to education on sexual and reproductive health and menstrual health. With inadequate education, they lack even a basic understanding of the biological process of menstruation, such as knowing that the menstrual blood flows from the vagina. Poor sanitation facilities and unavailability of water supply has exacerbated poor menstrual hygiene among adolescent girls. Only 28% of public schools in Nepal have separate facilities with toilets for girls. In 2011, 38% of households did not have a toilet. In 2015, only 46% of the population in Nepal had access to improved sanitation facilities.

Safe and effective Menstrual Health Management (MHM) is a critical component of, and premise for, adolescent girls' sexual and reproductive health. When girls are more knowledgeable about their bodies and fertility, and able to effectively manage their menstrual hygiene, they may be more empowered and better equipped with the information, tools, and confidence necessary to manage their long term sexual and reproductive health, including family planning. Many girls experience fear, confusion, and concern at the time of menarche. In Nepal, 83% of the menstruating girls use cloth while only 15% use pads. Mothers are the immediate source for information, and they provide support during menstruation, followed by sisters and female friends.

To learn more about girls' experience of menarche and menstruation we employed a peer ethnography to examine and evaluate adolescent girls' experience of menstruation, their

attitudes about the experience, and the potential for making positive change in MHM. Peer ethnography enabled our research team to take an in-depth look not only at girls' lives but also at the role that family, friends, and institutions played in shaping their feelings and experience about menstruation.

The narratives that we collected from 12 districts across the country made it apparent that insufficient education and accurate information about menstruation for girls before their menarche is crucial to preventing later emotional and psychological difficulties in managing menstruation as an adult, and these emotions and psychological challenges are not limited to MHM-related issues. We found that restrictive attitudes and misinformation about menstruation carried over into other areas of girls' lives: school, family relations, and self-perceptions about their role and potential in society. Irrespective of the study site, most adolescents said they obtained information and knowledge on MHM primarily through their mothers, sisters and other female relatives. The secondary chain of informants consisted of grandmothers, aunts, sisters-in-law, and female friends.

Comparative analysis of the narratives indicated that, stricter cultural norms around menstruation correlated with settlements that were predominantly Hindu, whereas these norms and practices tended to be less restrictive and more flexible in communities populated by diverse groups, or primarily Janajati (ethnic people). Across study sites, however, nearly all girls had been taught to think of menstrual blood as "impure" or "dirty." While some girls reported that their menarche had been treated as an opportunity for celebration, future menstrual periods were characterized by restrictions about where girls could go, what they could touch, what they could eat, and where they could sleep. As a result, the experience of menstruation for many girls was dichotomized into a confused understanding of themselves as both pure and impure.

Barriers to improved MHM in the study sites centered around improved education and awareness, the availability of pads, and access to facilities where girls could employ menstrual health practices safely and securely. Apart from the significant misinformation about menstruation, and menstrual blood, many girls expressed a desire to use pads but said they were either unavailable in their communities or too expensive to use habitually. Furthermore, cultural restrictions at home and a lack of separate toilet facilities in many schools forced many girls to bathe and change pads away from both places (occasionally in the forest or at isolated spots near rivers where their physical safety would not be assured).

Despite these many challenges, most of the girls we talked to expressed a desire to see MHM improve, not just in terms of the materials available, but also in terms of the cultural beliefs and attitudes that serve to circumscribe females in a pre-ordained and inferior social position. They were able to express this desire for change as the need for more education and better facilities for girls, as well as the necessity to transform the institutions (e.g. schools, the state) that govern their lives.

1. BACKGROUND

Menstruation is a natural biological phenomenon. It symbolizes every healthy adolescent girl's way into womanhood and fertility. Each girl and woman menstruate approximately 3,000 days in her reproductive life and a quarter of them menstruate every month, starting between the ages of 11-16 years and ending between the ages of 45-50 years (Ahmed and Yesmin, 2008).

The social construction of beliefs, knowledge and attitudes about menstruation vary from place to place, largely dependent on the socio-economic and cultural history of the area (Carvalho, 1997; Gergen 2003). Schools in the West provide ready access to water, toilets and sanitary materials to accommodate menstruating girls and women. These services reflect attitudes that recognize the need for proactive menstrual health and hygiene.

However, in many parts of the world menstruation is shrouded in secrecy and misinformation that leads to girls and women not receiving adequate support and many times subjected to mistreatment and sanction that stigmatize this natural biological process (IRC, 2008; Sommer et al., 2016a; Sommer, Chandraratna et al., 2016b; Sommer et al., 2017; Mahon & Fernandes, 2010). For example, studies from Kenya and Tanzania found that menstruation marks a period in which girls face new restrictions on her mobility and the imposition of rules on her social presentation of self (McMahon, 2011). Our research in Nepal finds similar attitudes pervade thinking about menstrual health.

Improving menstrual health requires understanding the experiences of girls and women who are subjected to the norms and restrictions that often compromise their well-being (Santelli, 1997; Sommer, 2015). For this reason, we actively sought insights from girls and women to gather sensitive information that might serve to empower them in the long-term (Sommer, 2015). Hence, the present study was designed to explore adolescent girls' perspectives on menstruation health and its management and practices in Nepal to develop some possible paths for improving menstrual health and hygiene overall.

1.1 Purpose of the Study

The purpose of this study was to obtain in-depth insights on adolescent girls' understandings of menstruation (including their behavior, beliefs and practices), key influencing factors regarding these attitudes, and their knowledge about and access to Menstrual Hygiene Management products and services.

Our specific objectives:

- To explore adolescent girls' knowledge, behavior, beliefs, and practices related to MHM;
- To identify the key influencers of adolescent girls' knowledge about MHM and related practices; and

- To explore the barriers and opportunities for improving access to MHM products and services

2. METHODOLOGY

2.1 Study Design

In this study, we use ethnography as the primary research method, employing peers of adolescent girls to observe and interact with participants in their daily environment to capture the “lived” experience of MHM. Through this combination of participant observation (i.e., the central mode of ethnography) and in-depth interviews, we collected data that presents a more holistic and nuanced picture of MHM as an experience in Nepal.

2.2 Study Setting, Site Selection, and Sampling

We conducted this study in 24 villages in 12 districts of Nepal, representing both urban and rural settings in three different ecological regions (Mountain, Hill and Terai), five development regions, and six federal provinces of Nepal. These districts were selected to capture a diversity of religious, geographic, socioeconomic, and sociocultural contexts for different castes and ethnicities across the country (Table 1).

Table 1: Selected Districts, Caste/Ethnic Groups, and Sample Size

Province	Ecological Zone			Comment	IDIs	FGDs
	Mountain	Hill	Terai			
Eastern (Province 1)	-	Khotang (Rai/Kirat)	Jhapa (Rajbansi)		12	8
Central (Provinces 2 and 3)	Sindhupalchok (Tamang)	Bhaktapur (Newar)	Rautahat, Mahottari (Dalit/Madhese-Mithila)	Interviewed many urban poor in this area.	24	16
Western (Province 5)	-	-	Kapilvastu (Muslim)		6	4
Mid-Western (Provinces 5 and 6)	Mugu (Khas-Arya/Dalit)	Rolpa (Magar)	Dang (Tharu)	Chhaupadi is commonly practiced in these areas.	18	12
Far-Western (Province 7)	Baitadi (Khas-Arya/Dalit)	Achham (Khas-Arya/Dalit)	-	Chhaupadi is commonly practiced in these areas.	12	8
TOTAL					72	48

While selecting the study districts and caste/ethnic groups for our study, we also sought a representative sample of districts across a range of 2014 human development index scores (Table 2).

Table 2: HDI Value of the Sample Districts

HDI Value	Districts
<0.400	Achham, Mugu, Rolpa, Rautahat, Mohattari
0.400–0.449	Baitadi, Kapilbastu
0.450–0.499	Sindhupalchok, Khotang, Dang
500–0.549	Jhapa
>0.550	Bhaktapur

Source: Human Development Report 2014

We selected two study sites in each district and at each study site, three In-Depth Interviews (IDIs) were conducted. There were six IDIs conducted in each district. Altogether, 72 IDIs with adolescent girls were carried out. To complement and support the in-depth interview data, 48 participant observations were also conducted. Each peer researcher stayed close to at least one adolescent girl during her menses and observed her daily life and practices related to menstruation for at least 4 days. During the four days, the girls were asked to reflect on their experience of menstruation, including the norms and regulations surrounding the process. This participatory observation allows the girls (researcher and subject) to co-create the data and “make meaning” of the experiences that can inform MHM interventions in the future.

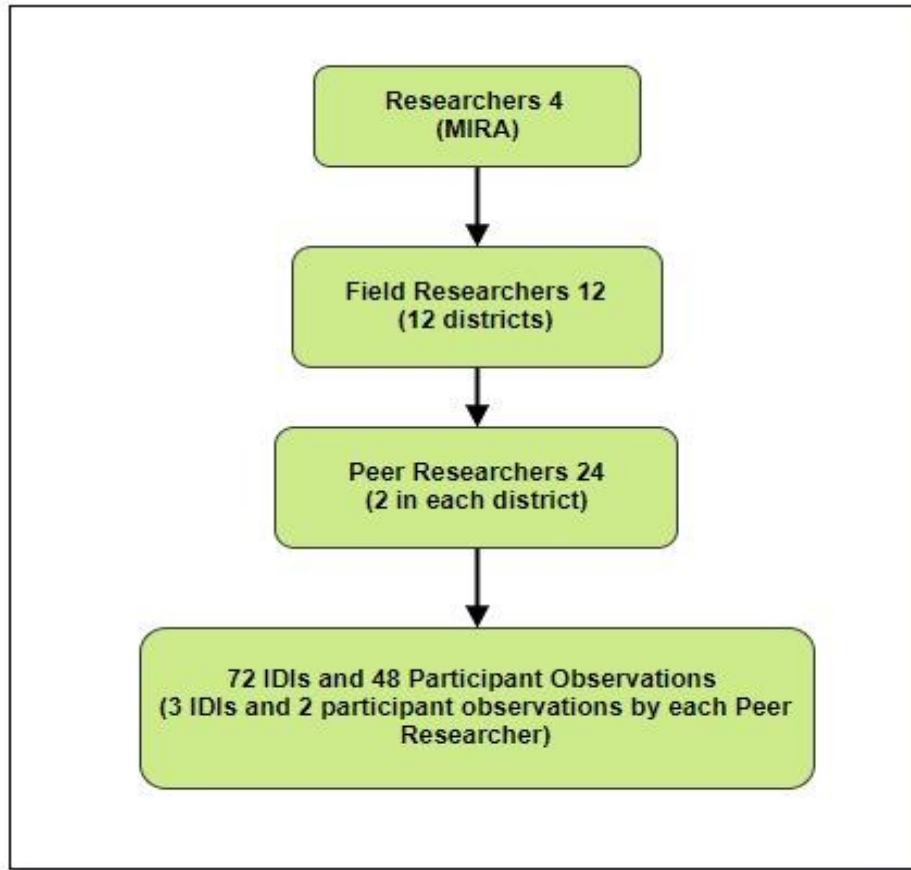


Figure 1. Flowchart of study methodology

Trained peer researchers with supervisory support from experienced field researchers recruited all the participants for the study. A team of trained field researchers collected data from 15 April to 20 May 2017.

2.3 Study Tools and Methodology

The data collection tools were developed in English by the PSI Nepal team using the ecological framework for MHM research (UNICEF & Emory University, 2013), and pre-tested in the field prior to finalization. The English interview guidelines and checklists were translated into Nepali by bilingual researchers and then translated back into English to check for accuracy.

We recruited 12 adult female researchers and provided intensive training in research ethics, interviewing skills, and ethnographic practice during a five-day workshop. Then the researchers undertook a two-day field practicum for pre-testing the research tools.

After the training, these field researchers returned to their respective sites and recruited adolescent girls who would serve as “peer” researchers for the study. These girls were locally trained for 5-7 days including practice research in the field. The girls were supervised by the adult researchers and they met regularly to discuss data collection.

Each in-depth interview lasted no less than one hour. In some cases, follow-up visits were made to complete the interviews and gather additional data. During the data collection process, PSI Nepal and its research partner, Mother and Infant Research Activities (MIRA), visited the districts to monitor the field researchers and provide support as required.

2.4 Community Access, Rapport Building and Recruitment of Peer Researchers

Prior to initiating the study, field researchers contacted relevant government officials at the District Public Health Office (DPHO) and District Administration Office (DAO) to gain their support for the study. We also contacted and spoke relevant local individuals and agencies for support in navigating the community and establishing rapport with local residents.

In this regard, we have many thanks to offer the following:

- Makalu Women's Cooperative for providing a hall for our training sessions in Jhapa.
- The district health post in Kapilvastu for providing space to conduct trainings.
- In all districts, school teachers, NGOs, youth clubs, and female community health volunteers and professional were instrumental in helping to recruit peer researchers.

Field researchers met with the parents of the peer researchers to explain the scope of the activities. After receiving consent from the parents, the field researchers conducted five-day trainings with the peer researchers with support from the MIRA research team, focusing on recruiting eligible participants and interviewing techniques.

Two peer researchers were recruited in each district (24 total), selected based on their educational status (minimum grade 10), age (15-19 years) and caste/ethnic background. Of the 24 peer researchers, two left during the initial training due to personal reasons and were replaced by two more girls.

2.5 Data Analysis

All the interviews were audio-recorded, transcribed into Nepali, and analyzed by the peer researchers with the support of field researchers during a synthesis workshop facilitated by MIRA. PSI staff studied the transcripts in both English and Nepali to develop an initial coding frame in consultation with MIRA. We revised the codes after review and then used in Dedoose 7.6.21 qualitative data software to organize the transcripts and generate a summary of the data. The analysis was then reviewed by the PSI research team to identify key themes and sub-themes.

2.6 Ethical Considerations

The study protocol was approved by the Nepal Health Research Council Ethical Review Board. At each site, we obtained permission from the respective District Administration Officer

(DAO) and District Health Officer (DHO). In each Village Development Committee (VDC), the Secretary and Health Facility Staff were informed about the study. Approximately 145 adolescent girls were approached from the 12 districts to take part in the study. Forty-four refused to participate in the study because of the sensitive nature of the topic. Eventually, 72 participants who agreed to participate and who fulfilled the inclusion criteria were selected to take part in this study.

Written and informed consent was obtained from all the participants. For participants under 18 years, we obtained written consent from a parent/guardian. All the field researchers received intensive training on research ethics.

No personal identifying details were recorded on interview transcripts. All the documents including consent forms, audio recordings, and transcripts were securely stored in locked filing cabinets and/or password-protected computers accessible only to authorized members of the research team.

2.7 Study Limitations

There were two primary limitations in this study:

1. *Language differences.* As Nepal is home to more than 100 ethnic groups, languages and dialects can pose occasional challenges. To minimize misinterpretation, participants were provided ample time to re-think and re-visit their answers and experiences.
2. *Data collection challenges.* The various commitments of young girls to home, school, and family meant they had limited availability, usually in midday or evenings only. Many young girls did not want to talk about menstruation, so questions had to be repeated and re-framed. We addressed this challenge by allowing respondents ample time to consider what they were being asked and re-visiting questions to ensure consistency.

3. FINDINGS AND ANALYSIS

3.1 Adolescent Girls' Individual Lived Experiences

In this section, we focus on adolescent girls' lived experiences of menstruation from menarche to young adulthood, focusing on their ideas and attitudes about the experience of menstruation, including their symptoms and coping strategies, product use and disposal, and MHM practices. Notably, adolescent girls' experiences will largely depend on their various individual identities and the prevailing attitudes within their families.

3.1.1 Adolescent Girls' Menarche (First Menstruation)

The subjective experience of menarche (first menstruation) is important for understanding adolescents' first-hand viewpoint and bodily response to the physiological changes that occur during menstruation. Most of the adolescent girls interviewed in this study expressed that they experienced their menarche between the ages 10 to 16 (average age 13.5 years). Irrespective of geography and cultural practice and background, all the respondents expressed similar physical and psychological responses to menarche as the following:

"I had a slight pain during my first menstruation. Nothing else apart from stomach pain. I was worried due to bleeding. I asked my sister and she explained it to me. When I had my first menstruation, I felt a little different. I felt warm and after the blood flow, I felt cold. That's it. I was not scared but I was not prepared for my periods. I didn't have pads with me at that time, so I was a little worried."
(Khotang, Rai)

"No one helped me as they didn't know about my menstruation. I was very young at that time and I was small, so I really felt shy. Well, I don't know about menstruation, but I was scared that people would say that I got my period at a very small age and they would start talking about me". (Rolpa, Magar)

Not only did respondents express these feelings of concern and embarrassment, but they also remarked that they had not been prepared for what would happen at menarche to their bodies. As the adolescent girl from Rolpa says, she was particularly concerned as she was younger than most of her peers and had not the benefit of even peer knowledge and risked self-stigmatization as a result. Few girls had been provided pads or other materials in anticipation of the event.

Other respondents expressed curiosity prior to menarche followed by disappointment and helplessness. A girl in Mugu said the initial blood shocked her and she wanted to cry. A Rajbansi girl from Jhapa said her period made her feel lazy and unmotivated to do anything. The sudden biological shock of menstruation triggered an emotional response that varied little among respondents.

Adolescents from other districts like Mahottari and Rautahat also experienced similar kinds of emotional and perceptual changes during menarche:

"I was coming from school in the evening with a severe backache. Never had it happened like that before. After suffering from severe backache, the next morning I got some relief. At around 4 pm, I had menses. At that time, I was scared not knowing where the blood came from. Due to fear, I didn't tell anybody. I felt much fear, next morning; I looked at my dress, felt so much shame, so I went and told my aunt. Then she taught me to keep clean cloths. I felt difficulty in keeping that cloth."

(Mahottari, Brahmin)

"I was at my home. I got up after sleeping and my mother told me about the stain at my back. I was scared and crying too. My mother consoled me saying that it happens to all the girls, not just me, and that it is not something bad. I was told if a girl doesn't menstruate then she cannot give birth to a baby, and it is one of the crucial part of a female life. I had many curiosities, like, why has it happened to me? At first, I didn't feel like sharing with others, my father knew about it too. But, I never told my father directly." (Rautahat, Madhesi)

Taken together, girls' experience of menarche is characterized by a lack of preparation that exacerbates feelings of shame and discomfort. Rather than harness their initial curiosity about menstruation that might be cultivated into a healthy regard for the phenomenon, their experience is often one of surprise, confusion, and solitude. We did find, however, that most girls would eventually share their experience with significant females in their lives – mothers, sisters, aunts, and friends.

3.1.2 Experiences with Menstruation

After menarche, we found that adolescent girls begin anticipating menstruation and trying to understand the various bio-physiological symptoms that accompany the process, such as body pain and mood alterations that influence psychosocial responses.

"During menstruation I have lower abdominal pain, lower back pain, headache, dizziness, vomiting and so on. I don't like to eat when there is a heavy flow of blood. Also, I don't like going outside. When there is blood, I feel dirty. I don't like doing household chores. I feel something different, like my body is heavy, with tingling sensations (aang thulo sirringa hunu). I feel the boys will make fun of me if they notice. I feel very uncomfortable to stand during the class hours due to the fear that there may be stains in my trousers." (Rolpa, Magar).

Because of experiences like these, girls develop various coping strategies to deal with the abdominal pain, headaches, and paranoid feelings about being observed or teased about menstruation.

“I usually stay at home when I have such problems. I tell my parents and they tell me to go to a doctor, but I don’t go. I take rest at home, my parents ask the healer to do some kind of rituals like chanting mantras and using rice and lighting incense (fukera faldinu huncha) and once my periods are over, I don’t have the pain anymore. I had abdominal pain, lower back pain. I felt relieved after taking the medicine given by the healer (dhami-jhakri).” (Rolpa, Magar)

An adolescent girl from Bhaktapur expressed concerns about blood leakage during menstruation, so she refrained from physical activities that she regularly enjoyed. An adolescent Rai girl in Khotang talked about walking more slowly to and from home in fear that blood would leak or that people might smell the blood flow. Many girls said that when it became known in school that they were menstruating, they would often be teased by boys, which would compound their feelings of discomfort. An adolescent girl in Dang described avoiding household work and going outside during menstruation, and in Rolpa, one adolescent girl described well the mix of emotions and physical pain that arrived with her period: anger, shyness, and loss of concentration. In Achham, a girl explained her experience of menstruation this way:

“I suffered a lot, I mostly have abdominal pain, back pain, and I don’t like to eat, talk or walk. I could not share my problem openly with my mother. I am so worried. I am not allowed to touch household materials. Sometimes I am hungry due to heavy bleeding, but I am left unfed at that time, it really feels bad to me. [While in seclusion] I reside miles away from my family and community and suffer a lot due to the fear of thieves and snakes.” (Achham, Dalit)

In some cases, we heard from girls in whom the combination of physical and emotional distress of menstruation, coupled with the lack of information and cultural practices surrounding menstruation, produced psychological effects such as worry, emotional detachment, and heightened fear and anxiety. Two adolescent girls – one from Jhapa, the other from Baitadi–said they felt excessive worry when their menstruations began, and they immediately wished for it to be over. A girl from Achham said she feared being bitten by insects and snakes, and even raped, when secluded during her menstruation. An adolescent girl from Mugu said,

“During the first menstruation, I didn’t like to speak, I stayed alone feeling ashamed, I like to stay inside without seeing anyone, I feel difficult, and I feel discomfort. In the beginning, I was fearful, had lower abdominal pain, backache and heavy bleeding. I wished I shouldn’t be menstruating. Once it started, I felt bored and now I wish that I was not bleeding. I do not like to eat, and I feel laziness.” (Mugu, Chhetri)

Due to these physical and emotional stressors, combined with a lack of support, girls experience (sometimes intense) social detachment, often missing school and avoiding important cultural events in their communities. In Table 3, we summarize the range of menstrual-related effects adolescent girls in our study reported experiencing.

Table 3: Menstrual /Related Problems and Symptoms Experienced by Adolescent Girls

Type of problem	Symptoms experienced during menstruation
Physical	Lower abdominal pain, backache, headache, leg pain, breast and waist pain, heavy bleeding, scanty or irregular bleeding, irregular or missing periods, uneasy walking and carrying loads, nausea, stomach gas, vomiting, and body odor
Emotional, mental, or psychological	Lethargy, anger, irritation, anxiety, nausea, loneliness, depression and embarrassment.
Personal security and dignity	Fear of snakes, insects and other wild animals; subject to teasing by boys
Sociocultural	Exiled and excluded from social and cultural activities
Practical and daily routine	Avoid indoor work, eat fewer calories, and avoid eating <i>goras</i> (dairy products)

Many families bring their daughters in the study to faith healers instead of trained medical professionals when they experience problems during menstruation. This choice has often led to additional complications and confusion for adolescent girls. An adolescent Rai girl from Khotang said she visited faith healers to relieve some abdominal pain, but the visit was unsuccessful. Later she visited the district medical clinic where they were able to provide some relief, but not until her discomfort had been extended by several days. A few adolescent girls mentioned they feared that allopathic medicines could result in infertility, so they preferred to visit faith healers. One adolescent girl in Bhaktapur described a teacher who told girls that if they took unnecessary medicine during menstruation, they could become infertile in the future. An adolescent girl from Rautahat said,

"Women from our community keep saying that we should not take medicines during periods. Our menstruation becomes disordered. Blood does not come out properly. Some months I don't get periods. Even while having abdominal pain I don't take medicine. It is said that after taking medicine [one will get] blood clots in the abdomen. I don't go to faith healers also. If we take medicines during periods, it won't be good. We won't have a baby later. Medicines can harm us; we can even become infertile." (Rautahat, Mallaha)

As we see in this case, some adolescent girls feel that no option for relief is a good one when menstruating. One girl in Mugu said she grabs a shawl and goes to the forest when she feels menstrual pains at home. Rather than taking medicine to ease her cramps, an adolescent girl in

Baitadi said she wraps clothes tightly around her waist (*patuki bandhne*) and eats specific foods to relieve the discomfort.

In some cases, the decision to visit a faith healer rather than a clinic may be an economic one, but more often, these decisions are made in line with prevailing ideas about the proper way to control the potential “effects” of menstruation on the adolescent girl, on her family, and on society.

In summary, girls’ experience of menarche and menstruation tends to be a rather lonely and misinformed one, as they experience the onset of physical and, ultimately, psychological discomfort without having proper support to understand these bio-physiological changes.

3.2 Adolescent Girls’ Experience as Shaped by Others

Adolescent girls, of course, do not experience menarche and menstruation in solitude. Their experiences are greatly shaped by the people closest to them – family, friends, and relatives. In this section, we explore what adolescent girls learn from others regarding menstruation, from whom they learn it, and how their own understandings of menstruation mesh or differ from the beliefs of others. In all cases, we find that adolescent girls’ personal identities (in terms of ability, ethnicity, and class) play a strong role in negotiating these complex interactions.

3.2.1 Knowledge

What a young girl knows about MHM determines her capacity for understanding and adapting in a healthy manner. Our findings demonstrate that adolescents from all the districts have a certain level of knowledge and information in terms of menstruation with equal parts misinformation. An adolescent girl from the Chhetri community of Achham said she understands menstruation as a natural process, and because she has attended trainings on menstruation, she knows how to maintain nutrition and hygiene during her period. However, girls such as she were the exception, not the rule. More common were responses like this from an adolescent girl from Sindhupalchok,

"Adolescent girls who reach reproductive phase and who start bleeding from the vagina is called menstruation. After the initiation of menstruation, girls should not walk with boys. I think menstrual blood is impure. If it were pure, it would have remained inside our body. As the blood is impure, it flows out. Impure blood harms us. My friend said that...during menstruation, we need to use talo (piece of cloth)."
(Sindhupalchok, Tamang)

The use of the words “impurity” and “harmful” indicate that this girl has already inculcated some negative ideas about menstruation. Other adolescent girls described menstrual blood as “dirty” and “bad blood” and thus justified their isolation. Terms like these were commonly employed in all the districts we surveyed.

An adolescent girl from Mugu said,

"During menstruation, my blood produces foul smell, so it is impure. It smells while eating too so I do not like to eat. Should the menstruation occur regularly at the same time with the same amount of blood, no heavy bleeding, no abdominal pain, no dizziness, it is regarded a good sign of menstruation. If there is severe pain, heavy bleeding, I understand it as a bad menstruation. Without menses, life of a woman is nothing. However, I feel bored during menses; I feel 5 days are equal to 5 years. I feel strange. I have also heard that menstruation cures eye sightlessness because impurities of the body even come out of the eyes." (Mugu, Chhetri)

The odor present in menstrual blood creates a perception of that blood as impure (*kharab ragat*). Some respondents explained that is why the body expelled that blood monthly.

However, not all perceptions of menstrual blood were strictly negative. A Brahmin girl told us,

"I think menstruation is a gift of god. The process of monthly bleeding in girls that occur in every 28 days and one that lasts for 7 days is called 'Mahinawaari, 'menses' or 'Rajaswalla' also. It occurs between the ages of 11-45 years. Similar to my daily routine activities like eating, sleeping, it has also become a part of my life. It is neither good nor bad. I feel good because bad blood comes out of my body and later on there won't be chances of becoming infertile. I think if menstruation does not occur; what would the society say to such woman?" (Mahottari, Maithili Brahmin)

A Madhesi girl from Rautahat echoed these sentiments,

"Menstruation is a compliment from God. After reaching a certain age, menstruation occurs among adolescent girls and women. Menstruation is good, if we do not menstruate, how [could] we have a 'batiya' (pregnancy) and a baby. If periods become disordered, then there won't be a baby. It is about bleeding from the vagina and bad blood coming out of the body. It is a sign of maturity." (Rautahat, Mallaha)

These passages indicate that some adolescent girls perceive the process of menstruation in a dichotomized reality of pleasure and pain. In both communities, adolescents perceive that menstruation is a healthy process and a matter of pride, but they also fear becoming infertile and stigmatized in case they do not menstruate.

This knowledge about menstruation – factual and otherwise – is nearly wholly dependent on the sources of information. In the next section, we listen to adolescent girls explain how they learn about menstruation and from whom.

3.2.2 Sources of Information

In the previous section, we learned that most adolescent girls in our study had little support for acquiring proper MHM knowledge and support after passing menarche. However, support systems in the form of friends and family play a large role in shaping a girl's orientation to MHM more generally. An adolescent Brahmin girl from Mahottari said,

“Menstruation occurs to every girl so there’s nothing bad about it. My sister is not nearby. My friends are not nearby, and so I do not talk openly with anyone. Whatever I share, I share with my sister-in-law. Mother says that it happens to her as well, it happens to everyone, so I feel the same”. (Mahottari, Mallaha).

An adolescent girl from Mugu told us,

“Now I do share with my mother and close friends. I didn't tell even my mother during my first menstruation due to shyness. I shared with my close friends. My friends suggested me to use pad, use panty, trouser, and I changed it three times in a day.” (Mugu_Chhetri).

Another girl from Mugu said she spoke to her mother about menstruation because her mother would not share that information with anyone else. An adolescent girl in Khotang said she went to her sister and learned that menstruation was normal.

An adolescent girl from Baitadi added,

“First of all, I knew about it at school, then from my family. My sisters are like my friends, I used to hear my sisters talking about menses. However, I didn’t know about my menstruation. When I started menstruating for the first time, I had stains on my clothes then my mother told me ‘your blood has also stained my clothes’. It was as if my mother was menstruating. But I was unaware about my menses. My mother then washed my clothes. Then I went to school and at school the bench also got stained and then I came to know about my menses.” (Baitadi, Brahmin)

With few exceptions across districts, we learned that female family members and friends are the primary source of information and support to girls about MHM. The rare exceptions said they learned some from menstrual health discussions at school.

However, despite these sources of information, we found that sufficient and accurate knowledge about MHM was not present in these communities. These misunderstandings and gaps in knowledge we would find persist in to early adulthood. We explore these beliefs and attitudes in the next section.

3.2.3 Others’ Beliefs and Common Practices Regarding Menstruation

Having relatively little agency and experience, adolescent girls’ attitudes and beliefs about menstruation are largely shaped by other people in their lives, whose mental investment in the existing beliefs and practices surrounding menstruation powerfully determine future attitudes about health and reproduction. Perhaps not surprisingly, we found high levels of cultural tradition and rigid adherence to culture to correspond with high levels of menstrual restrictions, and that low levels of cultural rigidity corresponded with low menstrual restrictions.

Generation to generation

Across districts we found that restrictions during menstruation were common and always the result of ideas passed down over generations through family and important cultural figures, such as priests and shamans. Many adolescent girls said they were told that if they violated these restrictions, they would face the consequence of *dharma nash* (losing all religious merit) by angering Hindu gods and goddesses. An adolescent girl from Achham told us,

"It is believed that we may die or get sick. I have heard so. People still continue in that blind faith. Nowadays some girls even reside within their own house, but still many people stay in a hut or shelter tents. In our family they say that during menses girls should stay out of their house otherwise god might cause misfortune."

(Achham, Dalit)

An adolescent girl from Mugu told us she heard one of her sisters could not have a child because she had touched a temple as a teenager while menstruating. Some girls told us that during menstruation they were forbidden to see other people's faces. One adolescent girl from Baitadi said,

"My elder sister confirmed that I was menstruating. She told me to stay outside and work. I was also told not to see faces of other people, especially the male members."

(Baitadi, Dalit)

Another girl from Bhaktapur said her parents forbid her to be away for the night, even at a friend's house, during menstruation. Concerns like these reflect fears that a premarital pregnancy may negatively affect a family's reputation.

Over time, it is more than significant to note these attitudes taking root in adolescent girls' perceptions of responsibility regarding their biophysical processes. They are becoming self-policing, not just on a personal level, but in a sense where they believe their behavior could affect their family. An adolescent girl from Baitadi told us,

"While menstruating we do not go inside the house and we do not touch anything. We live outside in a cowshed. If someone gets a convulsion (kamne), it is believed that she disobeyed the restrictions and got the problem, which scares us. We should not eat rice. If we marry and have babies, we may not lactate properly. We keep the tradition, as people believe in God, and we are fatalistic. We feel that we should stay separately, and if we do not follow the practices, we would be sick (deuta lagne). It will bring bad luck, the gods will punish us, and we will suffer from convulsion (kamne). All the people believe the same." (Baitadi, Brahmin)

Seclusion

The most commonly used form of restriction for menstruating adolescent girls and women is seclusion. This practice is most pervasive in the far-western regions of Nepal (e.g., Mugu,

Achham, and Baitadi). Forced seclusion during menstruation is referred to as *chhaupadi*, as women are confined to cowsheds or *chhau* (menstrual huts) for the duration of their period.

One adolescent girl we spoke to had been sitting in *chhaupadi* when we arrived at her house. The hut was far from the house, and she was sitting inside a thin blanket. The hut had no windows, and only a straw roof and a small door. When we arrived, we could smell menstrual blood. The girl looked disheveled – her hair uncombed and her body void of any jewelry, which would have been customary. In a sad voice, she told us about her abdominal pain. She had only a single pad to catch the blood flow and was having to wash that pad and her body with dirty water. Her parents gave her only *chapatti* (flat bread) to eat, and this was not enough to sustain her energy carrying loads for the family. She would have liked to drink some milk or curd, she told us, but that was forbidden during menstruation in fear of angering the gods.

An adolescent girl from Mugu described her experience of *chhaupadi* this way,

“I had menstruation at an early age; I was small, so I was scared. I stayed outside close to my house. My parents gave me a handmade blanket to cover and I used a straw mat as a bed. I was scared of bites from insects and snakes and also terrified by the risk of getting raped by bad boys.” (Mugu_Chhetri)

An adolescent girl from Achham echoed these fears,

“I menstruated on the month of Shrawan-Bhadra for the first time. I stayed outside in a hut, it was raining heavily, and my hut was full of water. I suffered a lot and had many problems. I had to stay alone, and I was in fear the whole time. I was even afraid of being raped by bad boys. It was raining heavily outside and the cowshed was all wet. I spent the whole night crying.” (Achham, Brahmin)

It is important to note, however, that there are levels of severity of menstrual restrictions that depend on family attitudes. In Mugu, we met an adolescent girl who was staying outside during menstruation in compliance with her in-law’s wishes. However, her husband brought her food in the evening and gave her soap for bathing in a nearby stream. On the way to the stream, she stopped at a store to buy some shampoo (and notably, the storeowner was careful not to touch the woman as they made the transaction). She then proceeded to bathe herself and wash her clothes.

Another adolescent girl we met in Baitadi had strongly internalized the family’s restrictions for menstruating females. She slept 50 meters from the house. When the adolescent girl’s sister’s daughter accidentally touched the menstruating girl, the sister sprinkled water on her to “wash the impurity” away. The menstruating girl would not touch plants or livestock around the house.

Many girls expressed regret that during menstruation they were forbidden to go to temple or attend festivals, even the weddings of close friends. They were told their presence might jeopardize the purpose and significance of the event. Dietary restrictions during menstruation

also present a unique type of hardship as adolescent girls and women are often forbidden to eat the very kinds of nutritious food that menstruating women should have – iron and protein rich foods. In Jhapa, an adolescent girl we met was limited to eating rice and potato soup. She was forbidden to eat anything spicy or salty. After the meals, the utensils and plates of menstruating women are washed separately and not taken back into the house until they are completely dry for fear water droplets may contain some impurities.

We note that restrictions during menstruation were not consistent in form or level of enforcement from place to place. To illustrate the differences, we have compiled a full list of restrictions (x) and permission (√) placed on menstruating girls by topic in Table 4.

Table 4: Practices and Restrictions Surrounding MHM by District

Restriction from	District											
	SI	BH	KA	JH	KH	MA	RA	DA	AC	BA	MU	RO
Entering worshipping room, worshipping god	x	x	x	x	x	x	x	x	x	x	x	x
Touching holy books and scriptures		x	x	x		x	x	x	x		x	
Touching people who worship (priest, faith healers)		x	x	x	x			x		x	x	x
Participating in rituals (eating blessed food, touch holy basil plant)		x		x	x	x		x	x	x		
Entering kitchen	√	x	√	√	√ x	√	√	√	x	x	x	√

Cooking food	√	x	√	√	√ x	√	√ x	√	x	x	x	√
Touching growing fruits and vegetables	√ x			√	√			x	x	x	x	√
Performing heavy work	x				x	x	x	x	√		√	x
Sleeping in the same bed with other family members	√	√	x			√		√	x	x	x	√
Touching livestock				√			x		x	x	x	
Staying in the same house with other members of family		√					√		x	x	x	
Using common eating utensils		√				√	√		x	x	x	
Touching male members of the family									x	x	x	
Using same sources of water for drinking, bathing or washing		√						√	x	x	x	√
Wearing tika and nail polish						x	x				x	

Looking in the mirror to comb hair or use cosmetics									x	x	x	
Consuming dairy products		√		√		√		√	x	x	x	
Drying pads or cloths used during menstruation				x								x
Touching or eating pickles			x				x					
Eating spicy food				x		x		√				
Going to school		√	x	√					√	x		√
Using toilet		√								x	x	
Wearing usual clothes	√	√						√	x			
Using soap or toothpaste											x	
Touching new crops					x							
Climbing trees					x							

SI-Sindhupalchok, BH-Bhaktapur, KA-Kapilvastu, JH-Jhapa, KH-Khotang, MA-Mahottari, RA-Rautahat, DA-Dang, AC-Achham, BA-Baitadi, MU-Mugu, RO-Rolpa

It is important to note, however, that these restrictions were not enforced among families in many places we studied, including Khotang (Rai), Rolpa (Magar), Sindhupalchowk (Tamang), Dang (Tharu), Madhesi (Mahottari), Jhapa (Rajbansi), and Kapilbastu (Muslim). On the contrary, our research has demonstrated that adolescents from other districts like *Rai*

(Khotang), *Magar* (Rolpa), *Tamang* (Sindhupalchok), *Tharu* (Dang), *Madhesi* (Mahottari, Rautahat), *Rajbansi* (Jhapa), and *Muslim* communities (Kapilbastu) do not follow such kinds of restrictions. One adolescent Rai girl from Khotang said,

“We don’t have these kinds of practices and strict restrictions in our community. We don’t follow these practices and my parents also didn’t follow those practices, so I also don’t follow.” (Khotang, Rai/Kirat)

Studying these families in which menstrual restrictions are not enforced to and the reasons why they refrain from these cultural practices that are otherwise so common in rural areas of Nepal is significant, as these families and individuals can provide the key insights to designing more effective interventions to improve MHM nationally.

Signs of Change

As briefly discussed at the end of the previous section, despite having layers of sociocultural restrictions and coercions, some individuals and families have rejected or sought to change the coercive practices around menstruation. In this section, we highlight some examples.

From our research, we note some general awareness among adolescent girls that what their parents and grandparents did or believed may not necessarily be important to the adolescent girls themselves. Some girls understand how they live differently from their elders and express some level of satisfaction of with this distinction. One adolescent girl in Achham told us,

“During the time of my grandmother and my mother, they stayed in a cowshed. Earlier we were kept in a menstrual hut for 7 days, now we live in our own room and enter the house too, so certain changes have taken place. In my case I cut grasses and feed my cattle, I cook food, even while menstruating however, nothing has happened to me. I don’t know whether it is considered a sin or not. Previously, women who stayed inside a cow shed used to have pneumonia due to cold and some of them were raped, and some others died, but slowly time is changing.”
(Achham, Chhetri)

An adolescent girl from Rolpa said,

“In our community people say that we are not supposed to worship but we do. During the time of our senior citizens generation, it was considered a sin if they show the rugged cloth (talo) to their brothers. They used to hide them by covering with some other clothes and they dried them in some dark places. Many things have changed now. In the past people considered touching the water vessel during periods as a sin, feeding the cattle during periods was also a sin, cooking was not allowed but at present such beliefs are hardly practiced.” (Rolpa, Magar)

An adolescent girl from Baitadi detailed how her life was different from her grandparents,

"We were supposed to stay in a cowshed and chhui-kuti (menstrual hut) during menstruation, these days we sleep in our own room. Previously we were not supposed to eat rice, these days we eat rice daily and attend school too. We were not supposed to take a shower, and clean our hair but we do our hair too these days. We use the same toilet inside our home. Earlier, we used to go to the rivers, but now we have a bathroom. People believed that the gods would be unhappy, if menstruating girls should attend school, they believed we would have a convulsion. However, it was just a traditional belief, I don't believe in. However, my grandmother keeps repeating about ancient rituals I should follow. We can't do things anymore that our mothers used to do. We touch the books, but my friends do not. I do not follow untouchability. I touch my brother, but nothing had happened to him." (Baitadi, Brahmin)

Some girls were quick to note that while restrictions were still in place, they had been lessened and modified in important ways. An adolescent girl in Mugu told us she was secluded only for 2-3 days (as opposed to seven) and stayed in a separate room rather than outside in the elements. She also told us about her friends who had begun wearing trousers and underwear during menstruation, as opposed to earlier times when girls would go without undergarments. An adolescent Tamang girl in Sindhupalchok said she used pads and visited the health clinic when she experienced extreme menstrual cramps.

The changes we witnessed taking place were not only evident in the hill communities (where cultural restrictions tend to be less rigorous) but also in the southern plains, where Hinduism and other faiths take more rigid forms. An adolescent girl in Mahottari told us,

"My previous generation used to follow many restrictions; but now it is very different. Many people even worship during their period and some practice everything without any restrictions. It's not that we can't stay close to other people; everyone allows us to sit with them. Menstruation means blood coming out of our own body. Why should I feel bad about it and how can it create something bad for others? Previously, girls were not allowed to eat together and sleep together, they had negative beliefs about menses. But now things are changing." (Mahottari, Maithili Brahmin)

As these examples illustrate, some adolescent girls – whether through mass media, education, or awareness-raising programs – are becoming conscious of the arbitrary nature of many of these menstrual restrictions. While they may continue to observe these restrictions to satisfy family expectations, the reflections they shared about these restrictions indicate a welcome potential for promoting improved and secularized MHM practices.

3.3 Adolescent Girls' and Menstrual Hygiene Management (MHM) and MHM Products

Apart from these attitudes and beliefs that form the foundation of menstrual practices in Nepal today, there are also many practical considerations to be made regarding established practices,

the availability of products, means for proper disposal of products, and the promotion and maintenance of proper MHM in schools. We explore these issues in this section.

3.3.1 Menstrual Health and Hygiene – Common Practices

To derive a baseline from which to understand the level of MHM currently in Nepal, we asked adolescent girls about common practices regarding cleaning, washing and drying. Cleaning rituals around menstruation are strongly encouraged: adolescent girls are taught that they must bathe on the 4th or 5th day of their period.

On the topic of personal hygiene, nearly all the girls we talked to understand the need for good hygiene around menstruation, but the level of practice varied widely. An adolescent girl from Khotang told us,

“At present, we may feel that menstruation is a minor issue and that nothing will happen if we don’t maintain hygiene but, in the future, it may lead to problems and we may get serious illnesses. I maintain my hygiene by taking a bath regularly, frequently changing the cloths and washing them. Yes, I go to the riverside to take a bath. When I swim in the river the dirt from my body cleanses and doesn’t take much time. When time permits, I also take shower and I clean my private areas after urinating.”
(Khotang, Rai)

One adolescent girl from Mahottari said,

“During menstruation, I bath, sometimes once or twice in a day. If I don’t take a bath, I feel uncomfortable. During menstruation, one should take bath every day and the bleeding area should be kept clean. The used pads should not be thrown away but should be burnt at a place. For the management of menstruation hygiene, there is V-WASH available in the market. It is used for cleaning vaginal area; it is better than soap, it maintains PH of that area. The PH of that area (vagina) should be maintained to 3.5, which is slightly acidic. However, lack of cleanliness will fluctuate that PH value and can cause irritation.” (Mahottari, Kayastha)

One adolescent girl from Bhaktapur told us she bathes daily because she feels “dirty, uncomfortable, and smells badly” during her menstruation. Another adolescent girl from Khotang said she is unable to bathe daily, but at least makes an effort to wash her genitals between changing her pads to minimize the likelihood of infection.

Availability of Water, Facilities and Materials

This last example from Khotang raises the important issue of available water, facilities, and materials for maintaining proper MHM. While many adolescent girls reported having water taps at home, a majority of girls had to travel away from home (if only 10 minutes) to access clean water for bathing. In Achham, adolescent girls talked about having to walk long distances to a stream or river to clean themselves and their clothes. Adolescent Dalit girls in Mugu, where caste discrimination is high, had to walk ever further, being careful to use water sources that

were not the domain of higher caste families. Some adolescent girls were not permitted to use water sources near their homes and were forced to walk long distances to find useable water sources.

Some adolescent girls in our study were deprived of materials to maintain health MHM. In Bhaktapur we met an adolescent girl who did not have a separate dress to wear during menses. When using a cloth for menstrual blood she would wash them in the bathroom. If she had an opportunity use a pad, she would burn it after use. In Achham and Jhapa, we met adolescent girls who wore old and torn clothing during menstruation for fear of staining new clothes. These clothes would signal to family and friends – much to the girl’s embarrassment – that she was menstruating.

These availability issues can trigger cascade developmental effects in adolescent girls’ lives. Many girls we spoke to mentioned skipping school during menstruation because the school did not have proper water sources, or facilities where girls could change or clean pads in privacy. Other adolescent girls talked about staying away from temples during menstruation for fear of upsetting other people who may know the girl is menstruating – either by her clothes or by smell. These examples apart, we noted a general “positive fear” among adolescent girls on the topic of hygiene, which indicates potential room for growth and advancement on MHM more generally.

3.3.2 MHM Product Use

In this section, we explore adolescent girls’ use of MHM products.

Differences between Cloths and Pads

Many adolescent girls in our study expressed satisfaction with using cloths, even when they knew about pads. This is likely due to lack of experience with pads or a tendency toward conventional means and familiarity with how to handle cloth pads during menstruation. However, despite the preference for cloths, many adolescent girls expressed dissatisfaction with cloths either in terms of inconvenience or discomfort.

We noted one adolescent girl in Rolpa who washed her cloth pad nervously and took great pains to hide it when her brother came into view. Many adolescent girls complained about the inconvenience of having to wash menstrual cloths along with concerns about hygiene from improper cleaning. Another adolescent girl from Mahottari said she used cotton cloths for years but found the material irritated her vagina and was not as reliable as a pad for preventing leakage. She now uses pads. Adolescent girls from Mugu, who often have to walk long distances for work and school, said that cloths abraded their vaginas, which would intensify on days of heavy bleeding. An adolescent Magar girl from Rolpa said,

“I use handkerchief, cotton handkerchief, torn cloths after washing them properly. They are made of pieces of torn cloths like my salwar kurtha, waist wrapper (patuka), cloths which are in good condition and which we can use again after washing. A

handkerchief (rumal) has a good absorbing capacity and is comfortable for my vulvar area. It doesn't scratch as well. Using a pad is easy as we don't have to wash them but even cloth is good as it is made up of cotton and we can reuse it after washing. Actually, I didn't know about pads and I used handkerchiefs. Once I came to know about pads, I started bringing it into practice because it doesn't scratch the vulva, doesn't leak so I like using them." (Rolpa, Magar)

As these examples indicate, the desire for pads is increasing. An adolescent girl from Khotang told us,

"Previously, I used to feel embarrassed even with my husband, so I used to give other reasons while purchasing pads but now I don't feel embarrassed anymore. I wish there were enough pads available in the market so that we don't have to bear the shortages. In addition, it would be better if we didn't have to travel long distances during our periods. I prefer using pads during my periods. I use pads when I have to travel long distances. I use pads and cloth interchangeably. I prefer using pads as I feel very comfortable using pads." (Khotang, Rai)

Some girls said they preferred pads because it allowed them to stay in school. If they used cloths, they often had to leave school to change or wash their menstrual cloths. However, the disposability of pads meant they could change pads at school. Like this example, and many others, adolescent girls expressed a preference for pads for reasons of convenience and an improved sense of security in terms of hygiene and social discretion.

Barriers to Product Use – Availability, Affordability, and Parental Approval

Despite these changing attitudes toward pads for MHM, adolescent girls in this study said changing to pads was difficult for three reasons: lack of availability, lack of affordability, and lack of parental approval.

Adolescent girls in rural hill districts of Mugu, Achham, and Rolpa said they preferred to use pads, but they were often not available in local pharmacies. An adolescent Brahmin girl in Baitadi said she had to walk 3-4 hours to find the nearest outlet selling pads. For this reason, she used cloths far more often, in spite of her concerns about doing so.

Many adolescent girls cited the high cost of pads as a major impediment to using them regularly. In Jhapa, adolescent girls said while they preferred pads, their families could not afford to use them every month. An adolescent girl in Achham said,

"We all use home made available cotton cloths. We cannot afford sanitary pads available in the market. We have never used those pads, we are habituated using pieces of cloth and we like using them. Cotton cloths are comfortable to use. We have never used pads available in the market. We use homemade cloth pad; sanitary pads are expensive and not available locally. My friends and I use pieces of cloth and soap to manage our menses. We all have common problems. I use pieces of cloths after

washing them or without washing when urgent. But once I used torn cotton cloths to manage my menses and I had irritation and allergy all over my body".
(Achham, Chhetri)

An adolescent girl from Mugu told us,

"I do not have sufficient money. Even my parents do not give me money to buy pads; we need to ask for money for other purposes because I feel embarrassed in asking for money for sanitary materials. I have to save the money from my snacks to buy panty and cloths for pad. I wish it were made freely available, because we cannot afford to buy expensive pads. Usually I like the pads available at medical stores, which are plain and absorb blood, but cloth pads are rough. I use homemade pad whenever I have no money. I like the pads from the market but I do not always have the money, so I use cloth pad as well." (Mugu, Chhetri)

This second quotation indicates the third barrier to using pads more regularly: parental approval. Whether for cultural or economic reasons, many adolescent girls told us their parents expressed opposition to pads over cloths, in spite of the possible benefits.

These narratives about girls' desire to use pads and their understanding about the importance of improved MHM are particularly significant to appreciating how affordability and availability play a large role in creating long-term habits that can result in a paradigm shift about proper menstrual health.

An adolescent girl from Mahottari expressed this idea perfectly,

"We should use pads, but it should be of good quality. I have never seen pads causing allergic reactions. But I have seen cloths causing irritations. Instead of using cheap and low-quality pads, it is better to use reusable cloths. I prefer pads that can absorb heavy flow because then I can be outside or can attend any exams. If I use low-quality pads, then my focus will be on my bleeding only. With regard to the use of cloths, there is a fear of shifting, staining and infection too. Previously there were no pads, so I used cloths but now pads are available then why should anyone use cloths? In the case of foul blood discharge, pads can seal the smell. My mother told me that dirty cloths may lead to allergy." (Mahattori, Maithili)

Through her thoughtful words, this adolescent girl captures the moment at hand in Nepal regarding MHM. There is a rising awareness of the benefits of pads, along with an enhanced concern for menstrual health more generally.

3.3.3 Disposal of Menstrual Products

A final obstacle to increase pad use among menstruating girls is the issue of disposing pads (cloth or disposable), a topic worth examining separately.

Adolescent girls in Rautahat and Kapilbastu told us there were strict regulations on disposing used cloths or pads. A girl from Rautahat said,

"I don't wash used cloths; instead I dig a pit and bury them under the soil. I use cloths for 1-2 months, when it is torn, I bury it. I don't incinerate it. If we incinerate cloths used during period, something bad will happen. If we spit and incinerate, nothing will happen. If witches or demons find those used cloths or pads we won't have baby. I have heard that used cloths are usually taken by witches." (Rautahat_Mallaha)

This narrative illustrates how societies develop their own mechanism for discarding used MHM materials in a covert way that adheres to traditional regulations.

While many adolescent girls expressed a desire for pads, particularly for convenience and hygienic reasons, the issue of proper disposal was still an issue for some due to cultural concerns. An adolescent Rai girl from Khotang told us,

"People living in my community, my grandparents and the older generation say that if we dispose used pads or cloths outside, without boiling and burning then it will affect our health. It is said that other people shouldn't see used pads or cloths otherwise period would be painful and other complications would arise. Therefore, I think it would be easier to dispose in toilet only. We should not throw them in an open space as people in our community say that if any other people see blood stained pads, clothes etc., our periods will stop, and we would not menstruate anymore, and it would harm our body and health." (Khotang, Rai)

Due to fears such as these, adolescent girls in many study sites said they would dig pits and bury used pads or burn them in the forest. However, some adolescent girls said they feared that burying their pads would attract wild animals and insects. Others questioned the environmental impact of throwing pads away.

From these various narratives, we can see that entrenched value systems influence the disposal of MHM materials and indicate insufficient awareness in terms of reproductive health and MHM. The messages conveyed through these restrictions on product disposal inspire fear and anxiety in adolescent girls regarding menstruation.

3.3.4 Maintenance of Menstrual Health and Hygiene in School

Because adolescent girls spend considerable time in school and because school is instrumental to their personal development, in this section, we examine adolescent girls' attitudes about maintaining proper MHM in the school setting. We also wanted to understand what messages about MHM were being transmitted in school – either directly or indirectly.

We found tremendous variance among adolescent girls' experiences from district to district, but this adolescent's reflection from Mahottari seems most representative,

"We never got pads at school; there is no facility for us. If someone menstruates in school, the person has to maintain that herself quietly. Once, I had menstruation at school, I stayed quietly in a corner of the class and could not even talk properly. Though it is painful, I never left school. How can I leave my study each month? Until now, I have never left school during my period, some of my friends used to leave school due to pain. As there is nothing available to manage menstruation at school, those who attend the school during their period have a constant fear that something could go wrong. Not all the students are from the nearby areas; some of the students are located far away from the school. So, it is uncomfortable and problematic for them to go home during lunch break and get or change pads." (Mahottari, Kayastha)

In this kind of environment, it becomes near impossible for adolescent girls not to experience regular interruptions in their education. For adolescent girls who live far from their school, this environment discourages attendance altogether during menstruation. Additionally, adolescent girls who are menstruating or nearing menstruation while in school have significant difficulty concentrating on the material due to these overriding concerns of embarrassment. Other adolescent girls described how their schools were underequipped to provide menstruating adolescents with proper accommodations. An adolescent girl from Rautahat told us,

"During our period we do not have any facility or any product to maintain cleanliness in school. At school, where should we wash? There is only one toilet for everybody and even teachers go there. There is no sufficient water. When there are boys around the toilet, girls don't go. When girls are in the toilet, they change the cloths. However, soap, detergent powder is required to wash hands, face or to clean the cloth. A bucket should also be made available. In our school no cloths or pads are available. If period occurs in school, they would send us home immediately. When girls are having their periods, it takes 5 minutes or 10 minutes to pee or to poop, therefore separate toilets should be available, however it is not there" (Rautahat, Madheshi)

For many schools, menstruating girls create layers of managerial challenges that schools are unable or unwilling to manage. The lack of separate toilets and soap creates a situation where adolescent girls are left to manage their menstruation at the cost of their personal education. In this way, gender discrimination is structurally embedded in the physical presence of the school.

Moreover, many adolescent girls said that even when their schools did provide a separate toilet, they would not use it for fear of being discovered as menstruating by their friends. One adolescent girl from Khotang said she was concerned about being labeled as "dirty" if someone smelled her menstrual blood. So, she found it easier to stay home during menstruation. An adolescent girl from Mugu expressed a similar feeling,

"There is a temple in front of the school, so I do not go to school while menstruating. The senior people and in-laws had suggested me not to go to school and I do not go to school during menstruation. I don't even have a panty. If there is excessive bleeding, all my friends would know. They (teachers) asked me to use panty and pads and

suggested not to attend school if I don't have panty and pad. The blood stains the bench during menstruation. I keep papers on the bench and throw it in the toilet later. In the case of severe abdominal pain, I talk to madam and go home. In high school, shirt and pants is the uniform. It is tight and hard to manage blood; I wish if we were wearing skirts, we could hide the blood easily. These days, I started going to school with pads. There are two toilets, one for girls and the other for boys. There is water and a jug. I secretly take out pads and then change them in the toilet."
(Mugu, Chhetri)

In some locales, we did find examples of adolescent girls supporting other girls or teachers who provided assistance. An adolescent Tharu girl from Dang said she borrows money from friends to buy pads if she starts menstruating at school. An adolescent Madhesi girl in Rautahat said her teachers were helpful, but could only do so much to lessen their embarrassment:

"If periods occur at school then we can borrow pads from our female teachers. If we are bleeding heavily at school, we go to a teacher to request for pads. At school, it would be great if we had separate toilets for females, pad-changing rooms and a proper place to dispose used pads and sufficient water facility. If they throw the pads in the toilet, there will be blockage, which worsens the condition further. I wish boys treated the girls like their own sister and changed the way they looked at us. Boys tease us by repeating the things they studied on menstruation in the class. They tease us by saying that they have enjoyed the lesson." (Sindhupalchok, Tamang)

Giving out pads to adolescent girls is an easy and welcome step, but as we can see in this quotation, the larger issues have to do with available facilities and the need to provide more education and awareness about menstrual health and hygiene among girls and boys. Conversely, awareness raising will not be sufficient if materials and facilities are not available.

The issues we learned about adolescent girls' schools underscore the role of cultural values in determining MHM. While adolescent girls prefer pads and understand their value for improved MHM, they are still bound by the complex web of attitudes and beliefs that shroud female menstruation in a negative light. Rather than understanding menstruation as meaningful and positive step toward adulthood, most adolescent girls emerge into this phase of life battling shame and embarrassment (e.g., hiding pads; avoiding school) concerning these natural biological changes.

3.4 Desire for Change

In spite of the range of cultural restrictions on and stigma levied at menstruation, our peer ethnographers also uncovered a consistent desire for changing these norms and attitudes. An adolescent Dalit girl from Achham told us,

"I think during menses girls should stay at their own house and maintain sanitation and hygiene. I wish to stay at home, take rest and avoid heavy works. I want to eat

proper diets at the time of mensuration. I wish to drink milk and yoghurt, and enjoy good facility during my menses. All other members of family consume milk and yoghurt and I have to rely on dry and grained foods. I feel sad. Why are we kept isolated? Why do we have to reside outdoors? Why is the behavior towards us like animals? I want this discrimination to be stopped because I want change. I want transformation. I want to say that awareness must be created to abolish the system of chhaupadi. If this system would be eradicated, then it will be good for all of us and then slowly death from snakebites and rapes may be decrease. Elderly people should be advised that girls should not be isolated at cowshed; they should stay together with other family members. If soap, water and pads is made available, it would be more than enough for us." (Achham, Dalit)

Like this adolescent girl, we encountered more and more adolescents who were raising important questions about the restrictions around menstruation and connecting these ideas with the ability to challenge existing patterns of discrimination and exclusion. An adolescent girl from Mugu said,

"I like staying inside the house. I am scared of staying outside. It is good if everyone has separate rooms, tap for menstruation and awareness on menstruation. Since menstruation is unavoidable, I wish not to be treated in a bad way by the society. I also wish the abolishment of practices such as not allowing milk or entering into the kitchen, and restrictions from touching faith healers and parents. I like to go inside for cooking and I would like to live in a clean house. I get angry because of these traditions and restrictions. I also wish to organize the rally, protest for the elimination of 'Chhaupadi' (menstrual hut). I wish that our parents would send us to school, and not always ask us to do agricultural work. I wish to attend training and an awareness raising program in school, like separate toilets for girls with water supply, soap and distribution of sanitary pads and I also wish to see training of faith healers on menstruation." (Mugu_Chhetri)

Not only are many adolescent girls asking for change, but they are also expressing a keen understanding on how change can be achieved – by making change in the traditional channels of power. This adolescent girl from Sindhupalchok believes the media and government need to do more for MHM,

"I wish the Nepal government should supply pads, soap, water, taps and toilets for females. I also wish that radio and television provided sufficient information regarding menstruation. I want this old culture of menstruation to be abolished. I wish that adolescents of the 21st century fight for these changes. I want to see each and every individual becoming aware on MHM. I wish to have a dustbin and a pit to dispose used pads. Since girls and women have to do all the hard work during menstruation, I wish there should be support mechanism where they do not have to do

a lot of hard work during menstruation. It is good to inform people and to eliminate this harmful tradition. (Sindhupalchok, Tamang)

Other adolescent girls expressed particular desires to see change in their worlds – in Rolpa (medicine for menstrual pains), in Mahottari (separate facilities for menstruating girls), and in Rautahat (improved education about MHM). The ideas that many adolescent girls expressed suggest that with appropriate external support, transformative change against retrograde taboos and beliefs is possible with regard to MHM in Nepal.

These adolescent girls' desire for change takes place in the context of larger social forces and micro-level interactions (Figure 2). To develop effective and sustainable MHM programs for adolescent girls and women in Nepal, we must consider the context in which individuals encounter and practice MHM. At the broader societal level, culture is comprised of many factors, including religion, education, and other social institutions, such as the family, the economy, and the political economy of the country. These macro structures strongly influence (and, in some cases, determine) how interactions and socialization processes take place at the micro-level. These interactions and processes directly affect adolescent girls' MHM knowledge as well as set into motion belief and compliance with the restrictions imposed on menstruating girls and women. However, when we ground our analyses in the specific socio-cultural context of the adolescent girls themselves, we are then better equipped to understand the landscape and design more effective and user-centered solutions to improve MHM for all Nepali females.

Therefore, when devising MHM plans and programs, adolescent girls and their individual experiences should be at the forefront of the related advocacy and research. When adolescent girls have access to tools, knowledge, and opportunities to manage their menstrual health and hygiene, they come to know more about their bodies and reproduction. Empowered with this knowledge, they are far more likely to practice safe and positive sexual and reproductive health; to be more actively engaged in the healthcare system through products, services and information; and to make more informed choices about pregnancy and contraception.

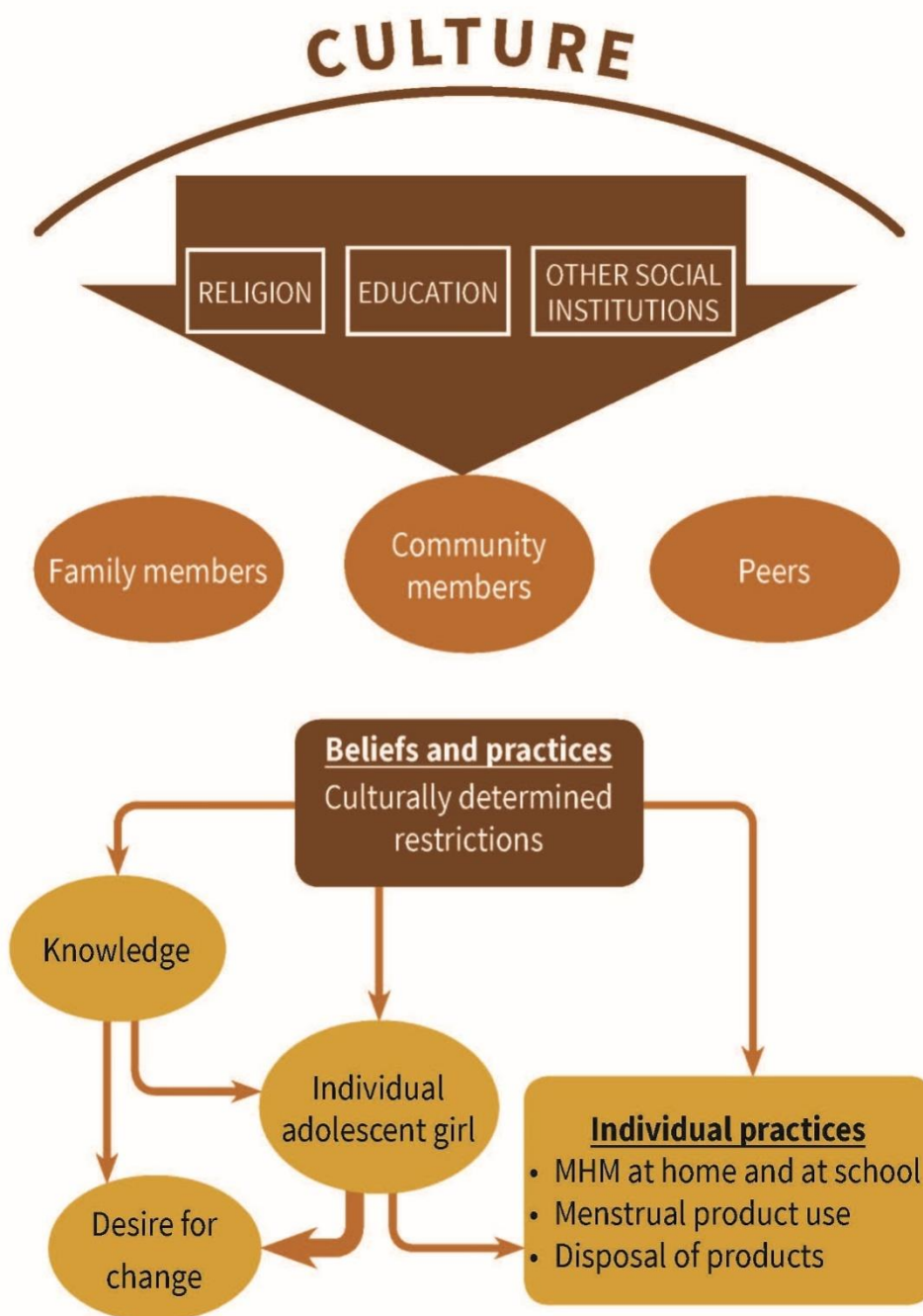


Figure 2: Conceptual framework regarding MHM knowledge and influence

4. CONCLUSIONS

In conclusion, we focus on nine key points:

1. ***The current state of menstrual health and hygiene management constrains adolescent girls in Nepal in more than just physical ways.*** Narratives from all three ecological zones and 12 districts reflect that the physical separation imposed upon menstruating adolescent girls also generates significant psychological burdens extending from embarrassment in front of peers to shame and an overriding sense of being responsible for the family by managing menstrual blood properly. As a result, we noted adolescent girls developing various coping mechanisms such as skipping school and avoiding habits that would actually improve her health (such as physical activity and a protein-rich diet).
2. ***A general lack of awareness and education characterizes the current state of MHM in Nepal.*** In very few cases did we meet adolescent girls who had an accurate and sufficiently developed knowledge of menstruation (e.g., the psychological changes that accompany the physical ones) and MHM.
3. ***The role of parents and other key influencers cannot be underestimated when analyzing MHM practices and the capacity for improving those practices.*** Most information about MHM comes through family by word-of-mouth. In their less powerful role as daughters, most adolescent girls we interviewed had internalized many of the attitudes and beliefs about menstruation that were common across study sites. Therefore, improving MHM will require a more careful understanding of the role of family in transmitting information, plus ideas for educating these influencers as well.
4. ***Restrictions around MHM were more intense and more rigid in locations where Hindu castes dominate.*** In large Hindu settlements like Mugu, Achham, and Baitadi, we found the attitudes and beliefs about proper menstrual management were more pervasive, and more misinformed. Differently, in other settlements that were diverse or heavily populated by ethnic groups (Janajati), we found menstrual health restrictions to be more flexible and less demanding.
5. ***Most adolescent girls we interviewed believed menstruation and menstrual blood to be “impure” and “dirty.”*** While some adolescent girls reported understanding their menarche to be a “compliment from god” and cause for celebration, these initial positive interpretations were soon replaced by more traditional ideas about “bad blood” and the need to police fertile women.
6. ***The limited availability of pads and separate facilities for adolescent girls is a major impediment to improving MHM.*** Across study sites, adolescent girls expressed a desire to use pads with the understanding they were superior in terms of hygiene and allowing greater discretion during menstruation. However, most were forced to travel away from home to find water to bathe during menstruation, and, while in school, to change pads during the school day. In other cases, the high price of pads is another important barrier.

7. ***While pads are not readily available and separate facilities for adolescent girls equally scarce, the awareness of the need for pads and facilities is equally high, which is promising.*** Many adolescent girls were able to express the disadvantages they faced in terms of maintaining good MHM in an environment that did not provide for their needs. This positive awareness can be tapped to inspire change.
8. ***Should pad use increase, proper disposal will remain a lingering challenge to overcome.*** Because of persisting superstitions about menstrual blood and the lack of proper disposal facilities, many adolescent girls may shy away from pads because they fear being unable to find proper means for disposal.
9. ***Many adolescent girls expressed a strong desire to see coercive MHM practices and attitudes changed in their society.*** Adolescent girls were able to express this desire not only in terms of their menstrual health, but also in terms of their access to education, and the need for state agencies to provide support to MHM initiatives.

REFERENCES

- Ahmed, R., and Yesmin, K. (2008). Menstrual hygiene: breaking the silence. *Beyond construction: Use by all. A collection of case studies from sanitation and hygiene promotion practitioners in South Asia*. London: WaterAid, 283-287.
- Carvalho, N. S. (1997). The social construction of menstruation, a historical study of menstrual product advertising.
- Gergen, K. J., & Gergen, M. (Eds.). (2003). *Social construction: A reader*. Sage.
- IRC International Water and Sanitation Centre. (2008). *Beyond Construction: Use by All -- A collection of case studies from sanitation and hygiene promotion practitioners in South Asia*
- Mahon, T., & Fernandes, M. (2010). Menstrual hygiene in South Asia: a neglected issue for WASH (water, sanitation and hygiene) programmes. *Gender & Development*, 18(1), 99-113.
- McMahon, S. A., Winch, P. J., Caruso, B. A., Obure, A. F., Ogutu, E. A., Ochari, I. A., & Rheingans, R. D. (2011). 'The girl with her period is the one to hang her head' Reflections on menstrual management among schoolgirls in rural Kenya. *BMC international health and human rights*, 11(1), 7.
- Santelli, J. (1997). Human subjects protection and parental permission in adolescent health research. *Journal of Adolescent Health*, 21(6), 384-387.
- Sommer, M. (2009). Ideologies of sexuality, menstruation and risk: girls' experiences of puberty and schooling in northern Tanzania. *Culture, health & sexuality*, 11(4), 383-398.
- Sommer, M., Caruso, B. A., Sahin, M., Calderon, T., Cavill, S., Mahon, T., & Phillips-Howard, P. A. (2016). A time for global action: addressing girls' menstrual hygiene management needs in schools. *PLoS medicine*, 13(2), e1001962.
- Sommer, M., Chandraratna, S., Cavill, S., Mahon, T., & Phillips-Howard, P. (2016). Managing menstruation in the workplace: an overlooked issue in low-and middle-income countries. *International journal for equity in health*, 15(1), 86.
- Sommer, M., Phillips-Howard, P. A., Mahon, T., Zients, S., Jones, M., & Caruso, B. A. (2017). Beyond menstrual hygiene: addressing vaginal bleeding throughout the life course in low and middle-income countries. *BMJ global health*, 2(2), e000405.
- Sommer, M., Vasquez, E., Worthington, N., & Sahin, M. (2013). WASH in schools empowers girls' education: proceedings of the menstrual hygiene management in schools virtual conference 2012. *New York: United Nations Children's Fund and Columbia University*.
https://www.unicef.org/wash/schools/files/WASH_in_Schools_Empowers_Girls_Education_Proceedings_of_Virtual_MHM_conference.pdf

Annex 1 – Personnel Associated with the Peer Ethnography Study

Peer researchers and their field supervisors

Peer researcher	District	Assigned VDC	Assigned field researcher
Shanti Kumari Jaigadi	Achham	Kuntibandali	Deuma Kumari Bhat
Tripti Kumari Thapa		Basti	
Mobina Khatun	Kapilvastu	Maharajganj	Durga Sapkota
ApsanaNaau		Sisawa	
Amisha Karna	Mahottari	Matihani	Shweta Karna
Roshani Chaudhary		ParsaPataili	
Puja Sah	Rautahat	Dharampur	Rita Shrestha
Anjana Sahani		Bariyarpur	
Ambika Rajbansi	Jhapa	Panchgachhi	Mamita Ghising
Reema Rajbansi		Korobari	
Rukmini Pun Magar	Rolpa	Ares	PabitraThapa Magar
Yamuna Pun Magar		Tebang	
Mohan Devi Bhandari	Mugu	Karkibada	LalitaBashyal
Dhana Devi Sejuwal		Rowa	
Dilsara Chaudhary	Dang	Materiya	Beenita Chaudhary

Dibya Chaudhary		Gangadi	
Maya Bista	Baitadi	Bhumeswor	TulashiShoti
Nirmala Ter		Gurukhola	
Roman Rai	Khotang	Baksila	Goma Rai
Bhawana Rai		Sungdel	
SarahanaSuwal	Bhaktapur	Jhoukhel	Parbati Lamichhane
ShitalDhungana		Manohara Slum	
Samjhana Tamang	Sindhupalchok	Bhotenamlang	Manju Gurung
Bimala Tamang		Lagarche	

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Dr. D.S. Manandhar - Executive Director

Mr. Jyoti Raj Shrestha – Program Coordinator

Mr. Bidur Thapa – Finance and Logistics Officer

Annex 2 – Full list of quotations by theme

Experiences with Menstruation

"I had a slight pain during my first menstruation. Nothing else apart from stomach pain. I was worried due to bleeding. I asked my sister and she explained it to me. When I had my first menstruation, I felt a little different. I felt warm and after the blood flow I felt cold. That's it. I was not scared but I was not prepared for my periods. I didn't have pads with me at that time, so I was a little worried." (Khotang, Rai)

"No one helped me as they didn't know about my menstruation. I was very young at that time and I was small, so I really felt shy. Well, I don't know about menstruation, but I was scared that people would say that I got my period at a very small age and they would start talking about me." (Rolpa, Magar)

"I was coming from school in the evening with a severe backache. Never had it happened like that before. After suffering from severe backache, the next morning I got some relief. At around 4 pm, I had menses. At that time, I was scared not knowing where the blood came from. Due to fear I didn't tell anybody. I felt much fear, next morning, I looked at my dress, felt so much shame, so I went and told my aunt. Then she taught me to keep clean cloths. I felt difficulty in keeping that cloth." (Mahottari, Brahmin)

"I was at my home. I got up after sleeping and my mother told me about the stain at my back. I was scared and was crying too. My mother consoled me saying that it happens to all the girls, not just me, and that it is not something bad. I was told if a girl doesn't menstruate then she cannot give birth to a baby, and it is one of the crucial part of a female life. I had lots of curiosities, like, why has it happened to me? At first, I didn't feel like sharing with others, my father knew about it too. But, I never told my father directly." (Rautahat, Madhesi)

"During menstruation I have lower abdominal pain, lower back pain, headache, dizziness, vomiting and so on. I don't like to eat when there is a heavy flow of blood. Also, I don't like going outside. When there is blood, I feel dirty. I don't like doing household chores. I feel something different, like my body is heavy, with tingling sensations (aangthulosirringahunu). I feel the boys will make fun of me if they notice. I feel very uncomfortable to stand during the class hours due to the fear that there may be stains in my trousers." (Rolpa, Magar).

"I usually stay at home when I have such problems. I tell my parents and they tell me to go to a doctor but I don't go. I take rest at home, my parents ask the healer to do some kind of rituals like chanting mantras and using rice and lighting incense (fukerafaldinuhuncha) and once my periods are over, I don't have the pain anymore. I had abdominal pain, lower back pain. I felt relieved after taking the medicine given by the healer (dhami-jhakri)." (Rolpa, Magar)

"I suffered a lot, I mostly have abdominal pain, back pain, I don't like to eat, talk or walk. I could not share my problem openly with my mother. I am so worried. I am not allowed to touch household materials. Sometimes I am hungry due to heavy bleeding, but I am left unfed at that time, it really feels bad to me. [While in seclusion] I reside miles away from my family and community and suffer a lot due to the fear of thieves and snakes." (Achham, Dalit)

"During the first menstruation, I didn't like to speak, I stayed alone feeling ashamed, I like to stay inside without seeing anyone, I feel difficult, I feel discomfort. In the beginning, I was fearful, had lower abdominal pain, backache and heavy bleeding. I wished I shouldn't be menstruating. Once it started, I felt bored and now I wish that I was not bleeding. I do not like to eat, and I feel laziness." (Mugu, Chhetri)

"Women from our community keep saying that we should not take medicines during periods. Our menstruation gets disordered. Blood does not come out properly. Some months I don't get periods. Even while having abdominal pain I don't take medicine. It is said that after taking medicine [one will get] blood clots in the abdomen. I don't go to faith healers also. If we take medicines during periods, it won't be good. We won't have a baby later. Medicines can harm us; we can even become infertile." (Rautahat, Mallaha)

"During our first menstruation we are not allowed to enter the kitchen. I did not mention to anyone else because I was afraid, and I said to my mother that the blood was flowing from between my legs. Then my mom came with undergarments and asked me to put on cotton cloths and I followed her instructions." (Kapilbastu, Muslim)

"I had my menstruation at the age of 12. I was collecting fodder, I felt warm then shared with a friend. She had already experienced menstruation, so she told me not to enter the house, not to fetch water, not to touch bull, calf and faith healers. I had menstruation at an early age; I was small, so I was scared. I stayed outside close to my house. My parents gave me a handmade blanket to cover and I used a straw mat as a bed. I was scared of bites from insects and snakes, and also terrified by the risk of getting raped by bad boys." (Mugu_Chhetri)

Beliefs, Perceptions and Knowledge

"Adolescent girls who reach reproductive phase and who start bleeding from the vagina is called menstruation. After the initiation of menstruation, girls should not walk with boys. I think menstrual blood is impure. If it was pure, it would have remained inside our body. As the blood is impure, it flows out. Impure blood harms us. My friend said that...during menstruation, we need to use talo (piece of cloth)." (Sindhupalchok, Tamang)

"During menstruation, my blood produces foul smell, so it is impure. It smells while eating too so I do not like to eat. Should the menstruation occur regularly at the same time with the same amount of blood, no heavy bleeding, no abdominal pain, no dizziness, it is regarded a good sign of menstruation. If there is severe pain, heavy bleeding, I understand it as a bad menstruation. Without menses life of a women is nothing. But I feel bored during menses; I feel 5 days are equal to 5 years. I feel strange. I have also heard that menstruation cures eye sightlessness because impurities of the body even come out of the eyes." (Mugu, Chhetri)

"I think menstruation is a gift of god. The process of monthly bleeding in girls that occur in every 28 days and one that lasts for 7 days is called 'Mahinawaari, 'menses' or 'Rajaswalla' also. It occurs between the ages of 11-45 years. Similar to my daily routine activities like eating, sleeping, it has also become a part of my life. It is neither good nor bad. I feel good because bad blood comes out of my body and later on there won't be chances of becoming infertile. I think if menstruation does not occur; what would the society say to such woman?" (Mahottari, Maithili Brahmin)

"Menstruation is a compliment from God. After reaching a certain age, menstruation occurs among adolescent girls and women. Menstruation is good, if we do not menstruate, how [could] we have a 'batiya' (pregnancy) and a baby. If periods get disordered, then there won't be a baby. It is about bleeding from the vagina and bad blood coming out of the body. It is a sign of maturity." (Rautahat, Mallaha)

"Menstruation occurs to every girl so there's nothing bad about it. My sister is not nearby. My friends are not nearby, and so I do not talk openly with anyone. Whatever I share, I share with my sister-in-law. Mother says that it happens to her as well, it happens to everyone, so I feel the same." (Mahottari, Mallaha).

"Now I do share with my mother and close friends. I didn't tell even my mother during my first menstruation due to shyness. I shared with my close friends. My friends suggested me to use pad, use panty, trouser, and I changed it three times in a day." (Mugu_Chhetri).

"First of all, I knew about it at school, then from my family. My sisters are like my friends, I used to hear my sisters talking about menses. But I didn't know about my menstruation. When I started menstruating for the first time, I had stains on my clothes then my mother told me 'your blood has also stained my clothes.' It was as if my mother was menstruating. But I was unaware about my menses. My mother then washed my clothes. Then I went to school and at school the bench also got stained then I came to know about my menses." (Baitadi, Brahmin)

"It is believed that we may die or get sick. I have heard so. People still continue in that blind faith. Nowadays some girls even reside within their own house, but still many people stay in a hut or shelter tents. In our family they say that during menses girls should stay out of their house otherwise god might cause misfortune." (Achham, Dalit)

"My elder sister confirmed that I was menstruating. She told me to stay outside and work. I was also told not to see faces of other people, especially the male members." (Baitadi, Dalit)

"While menstruating we do not go inside the house and we do not touch anything. We live outside in a cowshed. If someone gets a convulsion (kamne), it is believed that she disobeyed the restrictions and got the problem, which scares us. We should not eat rice. If we marry and have babies, we may not lactate properly. We keep the tradition, as people believe in God, and we are fatalistic. We feel that we should stay separately, and if we do not follow the practices, we would be sick (deutalagne). It will bring bad luck, the gods will punish us, and we will suffer from convulsion (kamne). All the people believe the same." (Baitadi, Brahmin)

"I had menstruation at an early age; I was small, so I was scared. I stayed outside close to my house. My parents gave me a handmade blanket to cover and I used a straw mat as a bed. I was scared of bites from insects and snakes, and also terrified by the risk of getting raped by bad boys." (Mugu_Chhetri)

"I menstruated on the month of Shrawan-Bhadra for the first time. I stayed outside in a hut, it was raining heavily, and my hut was full of water. I suffered a lot and had a lot of problems. I had to stay alone and I was in fear the whole time. I was even afraid of being raped by bad

boys. It was raining heavily outside and the cowshed was all wet. I spent the whole night crying." (Achham, Brahmin)

"We don't have these kinds of practices and strict restrictions in our community. We don't follow these practices and my parents also didn't follow those practices, so I also don't follow." (Khotang, Rai/Kirat)

"During the time of my grandmother and my mother, they stayed in a cowshed. Earlier we were kept in a menstrual hut for 7 days, now we live in our own room and enter the house too, so certain changes have taken place. In my case I cut grasses and feed my cattles, I cook food, even while menstruating however nothing has happened to me. I don't know whether it is considered a sin or not. Previously, women who stayed inside a cow shed used to have pneumonia due to cold and some of them were raped, and some others died, but slowly time is changing." (Achham, Chhetri)

"In our community people say that we are not supposed to worship but we do. During the time of our senior citizens generation, it was considered a sin if they show the rugged cloth (talo) to their brothers. They used to hide them by covering with some other clothes and they dried them in some dark places. Many things have changed now. In the past people considered touching the water vessel during periods as a sin, feeding the cattles during periods was also a sin, cooking was not allowed but at present such beliefs are hardly practiced." (Rolpa, Magar)

"We were supposed to stay in a cowshed and chhui-kuti (menstrual hut) during menstruation, these days we sleep in our own room. Previously we were not supposed to eat rice, these days we eat rice daily and attend school too. We were not supposed to take a shower, and clean our hair but we do our hair too these days. We use the same toilet inside our home. Earlier, we used to go to the rivers, now-a-days we have a bathroom. People believed that the gods would be unhappy, if menstruating girls should attend school, they believed we would have a convulsion. However, it was just a traditional belief, I don't believe in. But my grandmother keeps repeating about ancient rituals I should follow. We can't do things anymore that our mothers used to do. We touch the books, but my friends do not. I do not follow untouchability. I touch my brother, but nothing had happened to him." (Baitadi, Brahmin)

"My previous generation used to follow many restrictions; but now it is very different. Many people even worship during their period and some practice everything without any restrictions. It's not that we can't stay close to other people; everyone allows us to sit with them. Menstruation means blood coming out of our own body. Why should I feel bad about it and how can it create something bad for others? Previously, girls were not allowed to eat together and sleep together, they had negative beliefs about menses. But now things are changing." (Mahottari, Maithili Brahmin)

"I don't think there are any changes. I think people have the same attitude they had before. People are not open about this topic. They keep all their feelings within and feel very shy to speak in an open space. So, I think there are no changes in people's attitudes." (Khotang, Rai)

Common Practices

"At present, we may feel that menstruation is a minor issue and that nothing will happen if we don't maintain hygiene but in the future, it may lead to problems and we may get serious illnesses. I maintain my hygiene by taking a bath regularly, frequently changing the cloths and washing them. Yes, I go to the river side to take a bath. When I swim in the river the dirt from my body cleanses and doesn't take much time. When time permits, I also take shower and I clean my private areas after urinating." (Khotang, Rai)

"During menstruation, I bath, sometimes once or twice in a day. If I don't take a bath I feel uncomfortable. During menstruation, one should take bath every day and the bleeding area should be kept clean. The used pads should not be thrown away but should be burnt at a place. For the management of menstruation hygiene, there is V-WASH available in the market. It is used for cleaning vaginal area; it is better than soap, it maintains PH of that area. The PH of that area (vagina) should be maintained to 3.5, which is slightly acidic. But, lack of cleanliness will fluctuate that PH value and can cause irritation." (Mahottari, Kayastha)

"Previously I used to change 2-3 panties in a day because I used to bleed heavily. I used to change clothes within a few hours. I used to come back home during school break and change the cloths. Unlike cloths that require frequent change; pads absorb the discharge and can be used for 12 hours. While travelling in a night bus, I change whenever I have access to the bathroom. Normally, I change my pad before going to the school from 10 to 4 pm. During school hours, I do not get heavy bleeding. I change pads regularly. I use 3 pads in a day. My flow is not heavy so, I change it twice a day." (Mahaottari, Kayastha)

Perspectives on MHM Products and Barriers to Use

"I use handkerchief, cotton handkerchief, torn cloths after washing them properly. They are made of pieces of torn cloths like my salwar kurtha, waist wrapper (patuka), cloths which are in good condition and which we can use again after washing. A handkerchief (rumal), has a good absorbing capacity and is comfortable for my vulvar area. It doesn't scratch as well. Using a pad is easy as we don't have to wash them but even cloth is good as it is made up of cotton and we can reuse it after washing. Actually, I didnt know about pads and I used handkerchiefs. Once I came to know about pads, I started bringing it into practice because it doesn't scratch the vulva, doesn't leak so I like using them." (Rolpa, Magar)

"Previously, I used to feel embarrassed even with my husband, so I used to give other reasons while purchasing pads but now I don't feel embarrassed anymore. I wish there were enough pads available in the market so that we don't have to bear the shortages. Also, it would be better if we didn't have to travel long distances during our periods. I prefer using pads during my periods. I use pads when I have to travel long distances. I use pads and cloth interchangeably. I prefer using pads as I feel very comfortable using pads." (Khotang, Rai)

"We all use home made available cotton cloths. We cannot afford sanitary pads available in the market. We have never used those pads, we are habituated using pieces of cloth and we like using them. Cotton cloths are comfortable to use. We have never used pads available in the market. We use homemade cloth pad; sanitary pads are expensive and not available

locally. My friends and I use pieces of cloth and soap to manage our menses. We all have common problems. I use pieces of cloths after washing them or without washing when urgent. But once I used torn cotton cloths to manage my menses and I had irritation and allergy all over my body." (Achham, Chhetri)

"I do not have sufficient money. Even my parents do not give me money to buy pads, we need to ask for money for other purposes because I feel embarrassed in asking for money for sanitary materials. I have to save the money from my snacks to buy panty and cloths for pad. I wish it was made freely available, because we cannot afford to buy expensive pads. Usually I like the pads available at medical stores which is plain, and it absorbs blood, but cloth pads are rough. I use homemade pad whenever I have no money. I like the pads from the market but I do not always have the money, so I use cloth pad as well." (Mugu, Chhetri)

"We should use pads, but it should be of good quality. I have never seen pads causing allergic reactions. But I have seen cloths causing irritations. Instead of using cheap and low-quality pads, it is better to use reusable cloths. I prefer pads that can absorb heavy flow because then I can be outside or can attend any exams. If I use low-quality pads, then my focus will be on my bleeding only. With regard to the use of cloths, there is a fear of shifting, staining and infection too. Previously there were no pads, so I used cloths but now pads are available then why should anyone use cloths? In the case of foul blood discharge, pads can seal the smell. My mother told me that dirty cloths may lead to allergy." (Mahattori, Maithili)

"We all use home made available cotton clothes. We cannot afford sanitary pads available in the market. We have never used those pads, we are habituated using pieces of clothes and we like using them. Cotton clothes are comfortable to use. We have never used pads available in the market. We use homemade cloth pad; sanitary pads are expensive and not available locally. My friends and i use pieces of clothes and soap to manage our menses. We all have common problems. I use pieces of clothes after washing them or without washing when urgent. But once I used torn cotton clothes to manage my menses and I had irritation and allergy all over my body." (Achham, Chhetri)

"I maintain hygiene by taking a body shower whereas I wash my hair on alternate days. At present, we may feel that menstruation is a minor issue and that nothing will happen if we don't maintain hygiene but, in the future, it may lead to problems and we may get serious illnesses. I maintain my hygiene by taking a bath regularly, frequently changing the clothes and washing them. Yes, I go to the river side to take a bath. When I swim in the river the dirt from my body cleanses and doesn't take much time. When time permits, I also take shower and I clean my private areas after urinating." (Khotang, Rai)

Product Disposal and Need for Facilities

"...Those who do not have children think it is dangerous for them. They suppose that one cannot have a child. If I am sterile and I take your cloths, burn it and eat that, then I will have a child, but you don't..." (Female_IDI_Rauthat_Madhese_Hindu)

"I think untouchability during menstruation should be removed from the society. But throwing things carelessly, here and there in roads where everyone can see and walking with

a foul smell of menstruation that does not add to dignity..."
(Male_IDI_Bhatapur_Brahmin_Hindu)

"... We collect them in polythene every 4-5 days. And we dispose them either in the jungle or ponds, even in farms and fields where dogs and cats cannot feed on them..."
(Male_IDI_Kapilbastu_Muslim)

"...When the girls of 14-15 years leave the school without informing Maulana, we will understand immediately, and other students also will also know that they left due to menstruation. We have toilets, but the houses of girls are nearby Madrasa, so they go to their home immediately after the initiation of their period..." (Female_IDI_Kapilvastu_Muslim).

"I don't wash used cloths, instead I dig a pit and bury them under the soil. I use cloths for 1-2 months, when it gets torn I bury it. I don't incinerate it. If we incinerate cloths used during period, something bad will happen. If we spit and incinerate, nothing will happen. If witches or demons find those used cloths or pads we won't have baby. I have heard that used cloths are usually taken by witches." (Rautahat_Mallaha)

"People living in my community, my grandparents and the older generation say that if we dispose used pads or cloths outside, without boiling and burning then it will affect our health. It is said that other people shouldn't see used pads or cloths otherwise period would be painful and other complications would arise. So, I think it would be easier to dispose in toilet only. We should not throw them in an open space as people in our community say that if any other people see blood stained pads, clothes etc., our periods will stop, and we would not menstruate anymore, and it would harm our body and health." (Khotang, Rai)

"We never got pads at school, there is no facility for us. If someone menstruates in school, the person has to maintain that herself quietly. Once, I had menstruation at school, I stayed quietly in a corner of the class and could not even talk properly. Though it is painful, I never left school. How can I leave my study each month? Until now, I have never left school during my period, some of my friends used to leave school due to pain. As there is nothing available to manage menstruation at school, those who attend the school during their period have a constant fear that something could go wrong. All the students are not from the nearby areas; some of the students are located far away from the school. So, it is uncomfortable and problematic for them to go home during lunch break and get or change pads."
(Mahottari, Kayastha)

"During our period we do not have any facility or any product to maintain cleanliness in school. At school, where should we wash? There is only one toilet for everybody and even teachers go there. There is no sufficient water. When there are boys around the toilet, girls don't go. When girls are in the toilet they change the cloths. However, soap, detergent powder is required to wash hands, face or to clean the cloth. A bucket should also be made available. In our school no cloths or pads are available. If period occurs in school, they would send us home immediately. When girls are having their periods, it takes 5 minutes or 10 minutes to pee or to poop, therefore separate toilets should be available, however it is not there." (Rautahat, Madheshi)

"There is a temple in front of the school, so I do not go to school while menstruating. The senior people and in-laws had suggested me not to go to school and I do not go to school during menstruation. I don't even have a panty. If there is excessive bleeding, all my friends would know. They (teachers) asked me to use panty and pads and suggested not to attend school if I don't have panty and pad. The blood stains the bench during menstruation. I keep papers on the bench and throw it in the toilet later. In the case of severe abdominal pain, I talk to madam and go home. In high school, shirt and pants is the uniform. It is tight and hard to manage blood; I wish if we were wearing skirts, we could hide the blood easily. These days, I started going to school with pads. There are two toilets, one for girls and the other for boys. There is water and a jug. I secretly take out pads and then change them in the toilet." (Mugu, Chhetri)

"If periods occur at school then we can borrow pads from our female teachers. If we are bleeding heavily at school, we go to a teacher to request for pads. At school, it would be great if we had separate toilets for females, pad changing rooms and a proper place to dispose used pads and sufficient water facility. If they throw the pads in the toilet, there will be blockage, which worsens the condition further. I wish boys treated the girls like their own sister and changed the way they looked at us. Boys tease us by repeating the things they studied on menstruation in the class. They tease us by saying that they have enjoyed the lesson." (Sindhupalchok, Tamang)

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Desire for Change

"I think during menses girls should stay at their own house and maintain sanitation and hygiene. I wish to stay at home, take rest and avoid heavy works. I want to eat proper diets at the time of mensuration. I wish to drink milk and yoghurt and enjoy good facility during my menses. All other members of family consume milk and yoghurt and I must rely on dry and grained foods. I feel sad. Why are we kept isolated? Why do we have to reside outdoors? Why is the behavior towards us like animals? I want this discrimination to be stopped because I want change, I want transformation. I want to say that awareness must be created to abolish the system of Chhaupad. If this system would be eradicated, then it will be good for all of us and then slowly death from snake bites and rapes may be decrease. Elderly people should be advised that girls should not be isolated at cowshed; they should stay together with other family members. If soap, water and pads is made available, it would be more than enough for us." (Achham, Dalit)

"I like staying inside the house. I am scared of staying outside. It is good if everyone has separate rooms, tap for menstruation and awareness on menstruation. Since menstruation is

unavoidable, I wish not to be treated in a bad way by the society. I also wish the abolishment of practices such as not allowing milk or entering into the kitchen, and restrictions from touching faith healers and parents. I like to go inside for cooking and I would like to live in a clean house. I get angry because of these traditions and restrictions. I also wish to organize the rally, protest for the elimination of 'Chhaupadi' (menstrual hut). I wish that our parents would send us to school, and not always ask us to do agricultural work. I wish to attend training and an awareness raising program in school, like separate toilets for girls with water supply, soap and distribution of sanitary pads and I also wish to see training of faith healers on menstruation." (Mugu_Chhetri)

"I wish the Nepal government should supply pads, soap, water, taps and toilets for females. I also wish that radio, television also provided sufficient information regarding menstruation. I want this old culture of menstruation to be abolished. I wish that adolescents of the 21st century fight for these changes. I want to see each and every individual becoming aware on MHM. I wish to have a dustbin and a pit to dispose used pads. Since girls and women have to do all the hard work during menstruation, I wish there should be support mechanism where they do not have to do a lot of hard work during menstruation. It is good to inform people and to eliminate this harmful tradition." (Sindhupalchok_Tamang)

"We are not prohibited from anything. And we don't have such restrictions (barne challan chhaina)." (Rolpa, Magar)

"We don't have these kinds of practices and strict restrictions in our community. We don't follow these practices and my parents also didn't follow those practices, so I also don't follow." (Khotang, Rai/Kirat)