

Perspective of students & teachers of middle school on MHM in the state of Bihar

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Abstract: Menstrual Hygiene Management (MHM) is an active component of Adolescent health initiative of the Rashtriya Kishori Swasthya Karyakram (RKSK) of the National Health Mission (NHM) of all the 18 Empowered Action Group states where NHM is operational since the introduction of National Rural Health Mission (NRHM) in 2005 (GoI, 2014). The current study relates to the state of Bihar where the MHM is operational through the NHM. After a year of RKSK, the MHM guidelines of India was developed in 2015 (GoI, 2015).

MHM is defined as 'women & adolescent girls are using clean menstrual management materials to absorb or collect blood that can be changed in privacy as often as necessary for the duration of the menstrual period, using soap & water for washing the body as required & having access to facilities to dispose of used menstrual management materials (WHO/UNICEF JMP, 2012).

Globally, at least 500 million women & girls lack proper access to menstrual hygiene facilities. Several factors influence difficult experiences with menstruation, including inadequate facilities & materials, menstrual pain, fear of disclosure & inadequate knowledge about the menstrual cycle (World Bank, 2018).

Women & girls typically wash & change menstrual materials at home. They use sanitation facilities that are not safe, clean or private & frequently lack water or soap that relatively few facilities meet all these criteria. Access to appropriate materials & the type of material used also varies widely across countries (WHO & UNICEF, 2019).

The global MHM day started in 2014 when the German based NGO WASH united co-ordinated the menstrual hygiene day as the overall global co-ordinator. The global day was decided to be the 28th of May every year as the menstrual cycle is of 28-day duration & usually lasts for 5 days. That's how it is 28th day of the 5th month of every year (Wikipedia, 2014). Similarly, on these lines, the RKSK program was also launched in India in the year 2014 (GoI, 2014).

The objective of the current study was to collect & aggregate qualitative data through involvement of stakeholders like schools & community of Gaya, Purnia & Sitamarhi districts of the state of Bihar to reflect on issues of MHM. The study was a step towards the process of developing a roll out map of MHM related issues at the state & district level.

Focus Group Discussions (FGD) were held for community members & school students for Sitamarhi district where they had come to the district level for the discussions. Similarly, FGDs were conducted at school level & community level stakeholders of Gaya & Purnia districts. FGD protocols were used as research tools to conduct FGDs for the participants of the purposively selected schools & community.

About MHH & related vocabularies (UNICEF, 2019)

Menstrual Health & Hygiene (MHH) encompasses both MHM & the broader systemic factors that link menstruation with health, well-being, gender equality, education, equity, empowerment & rights. These symptomatic factors have been summarized by United Nations Educational Scientific & Cultural Organisation (UNESCO) as accurate & timely knowledge, available, safe & affordable materials, informed & comfortable professionals, referral & access to health services, sanitation & washing facilities, positive social norms, safe & hygienic disposal, advocacy & policy.

A menstruator is a person who menstruates & therefore has menstrual health & hygiene needs. These persons are girls, women, transgender & non-binary persons.

Menstrual hygiene materials are the products used to catch menstrual flow such as pads, cloths, tampons or cups.

Menstrual supplies are other supportive items needed for MHH such as body, laundry soap, underwear & pain relief items.

Menstrual facilities are those facilities most associated with a safe & dignified menstruation such as toilets & water infrastructure.

Menstrual waste refers to blood & used & discarded menstrual absorbents including cloth, disposable sanitary napkins, tampons & other substances or materials that girls & women use to soak up or hold blood during menstruation (MoDWS, MHM Alliance India, UNICEF, 2015).

The Menstrual waste is defined as a solid waste & sanitary waste as per Solid Waste Rules, 2016 (MoEFCC, 2016).

I. Introduction

Hypatia, a philosopher, mathematician, teacher & inventor of Alexandria, Egypt, who lived from 350-370 Christian Era (CE) to 415 CE threw her used menstrual pad at an admirer in an attempt to get rid of him (Femme International, 2013). This is the first recorded use of sanitary pads in the global history. Commercially, Johnson & Johnson developed their own version of sanitary pads in 1896 called Listor's Towel or sanitary towels for Ladies (Femme International, 2013).

With passing time, the issue of menstruation got more complex in each nation along with India where the social, cultural & religious factors influence the issue. MHM is a three-word issue. The first two words relate to the individual, house-hold & social institutions around which the hygiene factors revolve around. The third word is management that includes the manufacturing of pads, supply chain of pads & the disposal method of the used sanitary pads.

The above-mentioned paragraph is substantiated by a study in 2018. The study elicited that menstruation & menstrual practices still face many social, cultural, religious restrictions which are a big barrier in the path of MHM. Awareness is to be created to promote use of reusable sanitary products or the natural sanitary products made from materials like Banana & Bamboo fibres, Sea

sponges & Water Hyacinth (Kaur R et.al, 2018). Another study mentions that due to cultural norms & stigmas, menstruating women are not allowed to use water & impure (Water Aid, 2009).

Restrictions on movement & normal life are forced upon menstruators globally (Jewitt& Ryley, 2014). Nightingale in a study reports that these restrictions range from living in cow-sheds to not entering kitchens & not being allowed to wash their hair (Nightingale, 2011). These restrictions even go to the extent of inhumane treatment thus abusing & violating human rights of menstruators (WSSCC, 2013).

Basically, the issue of MHM has an integral intimate component as the menstruator is an individual. There is need for a greater scrutiny of the intimate as a social issue & its regulation by explicit & implicit power relations (Tilley et.al, 2013:305). As health concerns rarely stimulate demand for sanitation facilities, there is a need to prioritize user-based preferences for comfort, convenience, privacy, safety, dignity & accessibility of existing gaps between official & user-based conceptions of improved sanitation technologies are to be bridged (Jenkins & Sugden, 2006: Peal et.al, 2010). This is the premise on which the current study is based as the administrators as well as the community members have participated in giving their feedback towards MHM roll out in the state of Bihar.

Another study cites that the inclusion of additional functions & monitoring mechanisms to address gendered sanitation priorities could help to improve MHM provision & address broader concerns about WASH related Gender Based Violence (Jewitt S & Ryley H, 2015). The issue of gender has been dealt in detail through the feedback of the various stakeholders on the issue of MHM.

Studies have been done to understand the effective strategies to deal with the above-mentioned issues. A study done in 2014 mentions that to roll out MHM related initiatives, the most effective strategies include engaging community members, training of key stakeholders & to cultivate peer leaders. It also mentions that the state of Tamil Nadu is the first to recognize MHM as an issue to be addressed through its sanitation policies & programs. It also mentions the role of media while mentioning that Indian media reports on MHM actively (Dasra, 2014). The study by Water Aid also indicated that key areas on MHM should be relationship between menarche & school drop-out, relationship between MHM & other health outcomes, to increase awareness of MHM among household decision makers including husbands, fathers & in-laws (Water Aid, 2009).

One of the resource materials to help girls & women understand menstruation is the menstrual wheel as an information tool. The menstrual wheel helps answer the 'how' of the menstrual cycle, enabling participants to visualize the monthly cycle. It helps answer questions on pain, blood, tissue or uterine wall discharge & provides a link to talking about conception (WSSCC, 2013). Another Information, Education & Communication (IEC) material on MHM is the 'as we grow up' flip book on MHM. Images in the flip book allow participants to visualize the changes in the body from childhood to adulthood. The book eases the participants into the topic of menstruation (WSSCC, 2013).

For the use of the public health system of the states, a Training of Trainers (ToT) manual has also been developed to train all the institutional & outreach health workers so that MHM is rolled out effectively at all the state levels that includes the state of Bihar as well (WSSCC, 2013).

The figure below shows how MHM is cross sectoral involving education, reproductive health, gender & Water Sanitation & Hygiene (WASH) to reach all girls. There are four Sustainable Development Goals & two goals of Global Partnership for Education strategy (GPE) that are related to MHM. Hygiene & specific needs of women of MHM is related to SDG 6, gender sensitive infrastructure of MHM is related to SDG 4, reproductive health of MHM is related to SDG 3, ending all forms of discrimination & empower all girls of MHM is related to SDG 5 (UN,2015). Similarly, the two goals of GPES as mentioned in the figure are related to addressing the components of MHM (GPE, 2020). India is grouped under Central Asia & Southern Asia under regional groupings for SDGs which

shows that the region has very high inequalities for WASH related services even after the roll out of the Millenium Development Goals (JMP, 2015: WHO, 2017: UNICEF & WHO, 2019)



Figure 1

Current situation of MHM in India

One of the key stakeholders in this article is the selected Government schools in the three districts. The latest report of the Annual Status of Education Report (ASER) i.e. the 13th report mentions that 22.8% of rural schools surveyed have usable toilets & 11.5% of rural schools have no separate toilets for girls. While some schools had separate toilet for girls, 10.5% of these were locked & 11.7% were locked & unusable (ASER, 2019).

A direct link exists between menstruation & school drop outs in girls studying in higher primary & secondary education schools (Muralidharan et.al, 2015: Sommer et.al, 2016). Another study mentions that not only menstruation but also puberty in girls also leads to school drop-out (Sommer, 2010). The effects of all these lead to girls lagging behind boys in higher education, forced to marry early, menstruation forces them to stay at home leading to further school drop outs (TEN, 2007: Jewitt & Ryley, 2014). Thereafter, the whole process leads to unequal opportunities among boys & girls (TEN, 2007). This is the basic reason for the existing inequalities among boys & girls in India.

Across the nation, women & girls face three types of toilet insecurities. The first one is the material reality that they do not have access to a toilet. The second is even if they have access to a public toilet, the toilet is unusable (e.g. filthy), unsafe (e.g. insufficient lighting). The third is that they accept the risk of going for open defecation (Reilly O K, 2016). All these insecurities are a big obstacle for MHM in India.

The context of rural area & MHM has been dealt through a study in rural Odisha, a state in India. The study mentions that at different stages of life in rural areas, India have a multitude of unaddressed urination, defecation & menstruation concerns. This means in addition to the toilet insecurity, the sanitation insecurity concerns is also critical & these concerns falls in to four domains. These are socio-cultural context, physical environment, social environment & personal constraints. These are also influenced by season, time of day, life stage, toilet ownership which were linked with an array of adaptations (i.e. suppression, withholding food & water) & consequences (i.e. scolding, shame, fear) (Caruso B A et.al, 2018). Thus, it is seen that the issue of MHM operates in a socio-cultural complex that are contextual to our life stages.

It is significant to note here that the state of Odisha has an annual festival known as 'Raja' festival. The term Raja comes from the word Rajaswala which means a menstruating woman. It is a 4-day

festival that is celebrated in the mid-June (14th, 15th, 16th, 17th usually) every year. It signifies that mother earth menstruates just like women do & during this period the menstruation of mother earth is celebrated. Menstruation symbolizes fertility & creativity. The traditional knowledge on agriculture supports the belief that during this period, the earth is most fertile & it is the best time for germination of seeds. Hence, Raja festival marks the onset of sowing season after a long dry spell. On the 4th day of the 4-day festival, mother earth is given a ceremonial bath (Panda R, Oxfam India, 2020). Hence, it is seen how culturally menstruation is embedded in the agrarian society.

The Water Supply & Sanitation Collaborative Council mentions that among 747 girls across India, 70% had no idea about menstruation at the onset of menarche (WSSCC, 2013). The 2005-2006 study of Indian Council of Medical Research (ICMR) mentions that 70% of mothers consider menstruation dirty & polluting with many teachers & Front-Line Health Workers (FLW) echoing this sentiment thus perpetuating a culture of silence, shame & misinformation to the next generation (ICMR, 2005-06).

Another study in India mentions four important aspects of MHM. The first aspect informs that 88% menstruating women use old fabric, rags or sand. The second aspect mentions that Reproductive Tract Infections (RTI) are 70% more common among women who use unhygienic materials. The third aspect deals with schools where it says that girls are typically absent for 20% of school year due to menstruation, the second reason after household work. The last deals with Self Help Groups (SHG) where it stresses that despite the growing number of local SHGs producing sanitary pads, they often face limited economic viability (A C Nielsen & Plan India, 2010).

The large-scale sample survey of India mentions that 130 million of India's households lack toilets, leaving particularly women & girls with many challenges to manage their menstruation in privacy while maintaining hygiene (NSSO, 2012). The issue of MHM & all its related modalities are discussed in a nut shell in the 2016 Global MHM day celebration document for India (MHM day, India fact sheet, 2016).

MHM in India as per NFHS 4

The AC Nielsen study done in 2010 & mentioned below is the first large scale study on MHM in India. The next large-scale study that included MHM is the National Family Health Survey (NFHS) 4th round. As per NFHS 4, at the country level, use of cloth & other materials by MHM users are categorised under using unhygienic methods. Similarly, the hygienic methods are like locally prepared sanitary napkins, other sanitary napkins & tampons. The table below gives both these hygienic & unhygienic methods with the names of the states & the percentage of users in these states under these two categories separately.

Table 1 – States & the users of Hygienic & Unhygienic methods of MHM (Source-NFHS 4, 2015-16)

Users of Hygienic methods of MHM in percentages in Indian states	Users of Unhygienic methods of MHM in percentages in Indian states
Mizoram- 93% Tamilnadu- 91% Kerala- 90% Goa- 89% Sikkim- 85% Maharashtra-50% Karnataka-56% Andhra- 43%	Bihar-82% Chattisgarh-81% Uttar Pradesh-81% Uttarakhand-55%

It is seen that largely the smaller states have more hygienic users than the larger states. Further analysis in the survey reflects that among the hygienic users, 42% use sanitary napkins, 16% use locally prepared napkins. Among those surveyed, 48% in rural area use sanitary napkins & 78% of those surveyed in urban areas use sanitary napkins.

The survey also establishes a link between education & wealth for the use of hygienic protection. The survey mentions that women with 12+ years of schooling use 4 times more than non-schooling. Women with highest wealth quintile use 4 times more than the lowest wealth quintile.

The survey mentions 'JaunsarBawar' region of Uttarakhand state filled with cultural taboos. This issue has been dealt in detail in this article. Regarding opinion of users, the survey tells us that low cost pads are not given regularly & young girls are shy to ask for pads. It suggests that a local depot holder can be set up at the community level to keep pads. This suggestion was given in the survey report written in 2015-16 & as a result of that, the Suvidha pads & the modalities to upscale the use of pads was strategized by the Governments as mentioned in this article.

It also cites that eight states account for 70% of cloth users in the country. Regarding number of users, it is seen that the state of Bihar has 6.5 million users whereas the state of Uttar Pradesh has 15.6 million users. The report also mentions that only 55% of young girls in the nation think the menstrual cycle as natural while only 23% knew that the blood comes out of the uterus.

However, NFHS 4 is limited to adolescent girls and young women in the age group of 15-24 years of age and it does not mention about the frequency of use (PSI,2018).

MHM in Bihar

A study done in Vaishali & Nalanda districts on knowledge, attitude, practices & norms related to adolescent girls revealed that 83% of girls were completely unprepared for menarche. It showed their first experience of menstruation is of shame, fear, horror, agony or sin. Out of all the girls surveyed, 96% of girls use cloth that is not washed properly & not dried in sunlight resulting in repeated infections. Further, 59% of girls missed their schools on account of menstruation (IDF, UNICEF, 2013). As mentioned above, as per NFHS 4, at the country level, 62% of young women still use cloth for MHM where as 82% in Bihar use cloth and all these users are categorised under using unhygienic methods. NFHS 4 further states that Bihar is among the eight states that account for 70% cloth users and there are 6.5 million users in the state. The mean for these eight states was 43.5% with Bihar being the worst at 31%.

Keeping this background in mind, to roll out MHM in the state of Bihar, the article looks at the efforts of the stakeholders such as schools & community members of Bihar. It is significant to note that Flagship programs like MukhyamantriKanyaUtthan Yojana are being implemented in Bihar since 2014 (Down to earth, GoBihar, 2015). The program involves conditional cash benefit transfer of ₹ 300 directly in to the account of each of the school going adolescent girls per year to enable them to buy sanitary pads through the Direct Benefit Transfer (DBT) mechanism. The condition to get the benefit for the girls is that they need to have 75% attendance in the schools in the current year to avail the benefit. The adolescent cell of the Government of Bihar operates the yojana. The Government of Bihar spends about ₹ 80 crores per year to roll out the yojana (Down to earth, GoBihar, 2015).

Following this, the Government of Bihar involved all the stakeholders & in collaboration with UNICEF developed the MHM guidelines for the state in 2019 on the lines of the MHM guidelines of GoI of 2015 (GoI, MHM, 2015: Go Bihar, MHM Guidelines, 2019). A study done in Assam on sanitation also can be related to Bihar as both the states face flooding every year. It talks of sanitation

stacking (simultaneous use of a range of sanitation systems) also occurs due to a preference for open defaecation coupled with high demand for existing latrines, especially during seasonal flooding (Jewitt S et.al, 2018).

II. Research Methodology

The sampling technique used in the study is 'Purposive' sampling technique. There are five stages of sampling used in the study. The first stage was to select 13 districts out of 38 districts using the aspirational district list of NITI Ayog for the state of Bihar. In the second stage, three districts of Bihar were selected purposefully from the list of aspirational districts of Bihar as per the list of National Institution for Transforming India (NITI)& these districts were Gaya,Purnia& Sitamarhi. There are 13 aspirational districts in the state of Bihar & out of 13, 3 districts were chosen for the study (GoI, Ministry of Planning, NITI Ayog, 2018).

The third stage of sampling was selecting the blocks. Here also, depending on the feasibility & availability of man power, one block was purposively selected in Gaya district & two blocks were selected in Purnia district. At Sitamarhi, the stakeholders were requested to come to the district level as per the modality provided by the district administration.

The fourth stage of sampling was selecting the school & the community in these blocks. Depending on the feasibility & manpower, purposively the schools & the villages in these blocks were selected.

The fifth stage of sampling was to choose the students, teachers & the community members. Since the issue was on MHM, students of class 8th& their teachers were purposively selected.

Participatory process was followed with the girls & teachers using meta-cards that were developed on the subject of menstruation. The details are given in the sub-section given below where the contents of the meta-cards along with the steps followed with the participants are described.

Focus Group Discussions (FGD) were held to elicit information from the girls&teachers. Through these FGDs, qualitative data on MHM were elicited from the participants. The following table gives the name of districts, the selected blocks & the number of participants in the discussions.

Table 1

Names of the districts	Names of the blocks selected purposively	Number of participants at school & community selected purposively
Gaya	Sherghati	6 girls & 4 teachers of middle & upper middle school, Nakrupa village.
Purnia	Jalalgarh	12 girls & 5 teachers of middle & upper middle school, Jalalgrah.
Sitamarhi	District level	5 adolescent girls, 5 teachers

Research Tool

The research tool used for the study were the two Focus Group Discussions (FGD) protocols where one tool was for the school level & the other for the community level. The flow of the

tool was such that it covered seven aspects of MHM. The seven aspects were the myths & misconceptions, School attendance (for the school level), use of sanitary pads & services, availability & feasibility of sanitary pads, about the Mukhya Mantri Kanya Utthan Yojana of Bihar government, Male involvement in MHM & disposal of used menstrual material.

Participatory Process Adopted with the Groups of girls & teachers

There are five headings under which the meta cards were grouped & the contents of the cards along with the dialogue points with the group used by the facilitators is given in detail. Ms. Shagun & Ms. Shweta who are the co-authors of this article were the facilitators. Each of the steps of the participatory process is given in separate boxes.

This session helped the participants to learn about the problem and how they could address all these issues.

Box 1- Ice Breaking

The facilitators started with a question to the group for initiating the discussions. The question was whether they have heard about MHM or not. All the participants shared their experiences when they had their menarche. The next session was on the myths and misconceptions.

Box 2- Myths and Misconceptions

The facilitators used 4 meta cards to initiate this session. The meta cards were about four behaviours. These were behaviours during the MC periods. The meta cards were shown to the participants.

Whether you can

Bathe or not? Play or not? Cook or not? Eat together or not?

Following this discussion, the participants also wrote their myths on cards given to them and pasted the cards on the chart for reflecting at the larger group level. The next session was on hygiene behaviours during MC days.

Box 3- Hygiene behaviours during MC days

The facilitators asked about the behaviours to the participants and showed the related meta cards thereafter to the participants asking them if they follow these behaviours or not? There were 3 meta cards on these behaviours. These were

Whether they

Dry the cloth in sun? Drying the inner garments in sun? Hand wash after cleaning or touching or handling pads?

Box 4- Disposal

There were 6 meta cards related to the disposal that included both good and bad methods of disposal. The cards had the following methods of disposal.

- Throwing the used pads in water bodies
- Throwing in open space
- Burying the pads in a pit
- Street dogs carrying the pads in their mouth and wander about
- Throw the pads in garbage
- Burn the used pads

Through this exercise the participants knew about the right and wrong methods of disposal. The last session was on the discomforts during MC days.

Box 5- Health problems during MC

The facilitators had 4 questions for the participants in this session. These were

- Pain in lower abdomen and back
- Headache and colic
- Chest pain and heaviness
- Clots during bleeding

To this, the participants added two more questions. These were

- Eating rice and sweet increases discomfort
- Vomiting and nausea during MC days

III. Data Analysis

As already mentioned above in the section on research tool, there were seven aspects of MHM on which the group discussions were held & qualitative data were collected through the response of the participants on these components of MHM. The data was categorized into district wise and group wise. Based upon the responses, sub areas were decided on MHM and these responses were clubbed under these subareas that are related to issues of MHM. The subareas under which the qualitative responses are clubbed are 13 areas in total. These are myths & misconceptions, menarche, local names of menarche, use of menstrual materials & practices, support of family members, Knowledge on menstruation, seeking care, health problems during menstrual cycle, effects of poor MHM, availability & feasibility of materials, disposal of used menstrual materials, Mukhya Mantri Kanya Utthan Yojana & suggestions of the groups. The categorization along with the number of respondents for the responses are given in the tables mentioned below. Summary of each of the table is given below each of the table that reflects the qualitative data elicited from the group.

The qualitative data captures the verbatims, colloquial language & the exact responses as given by the respondents. All these responses are linked to the academic studies mentioned in this article through the issues of MHM in schools & the community where the school is an active component of the community.

Reflections from the group at Sitamarhi district

The group comprised of adolescent girls & teachers of secondary school and facilitators Ms. Shweta Singh and Ms. Shagun Tripathi (co-authors of the current article) of Vatsalya, the consulting NGO on MHM on behalf of UNICEF, Bihar office hired to do the consultation process at the three districts selected for the study.

Participatory processes were adopted to elicit feedback from the group where chart paper and meta cards on MHM were used as tools for the participatory process. The details are given in the section on research tool. The first aspect dealt during the process was on the dos and do-nots that the community adheres to during the menstrual cycle days. The process also brought out experiences by the girls & teachers. The table below gives the details of the group discussions.

Table 2 (N=10)- Sitamarhi district

Thematic area of MHM	Number of respondents	Qualitative data
Myths & Misconceptions	10 females (5 teachers & 5 adolescent girls)	<p>No visit to kitchen, no meeting with males and were told by senior ladies in the family that you are now a grown-up girl.</p> <p>Not to touch pickles, not to go to temples, use and touch less water because body is hot and if we put water, it squeezes the uterus and it leads to difficulty in child birth, asked to eat less and no significant help is extended.</p> <p>The general advice is to avoid all sour food items.</p> <p>On burning the used sanitary pads/cloth, the lady or girl might become infertile.</p> <p>If the used pads are soaked in lochia and if someone walks over such discarded pads, it leads to infertility in the said women/girl.</p> <p>Generally menstrual blood is considered dirty.</p> <p>MC is considered as a flower that leads to fruits synonymous with fertility.</p> <p>Some of the other practices related to MHM are not to play during MC, not to eat together, not to cook together, not to eat milk, egg as these are considered to be warm foods for the body, no curds as it is sour to the body. Girls in homes are asked not to sleep</p>

		<p>on cots where the boys lie down.</p> <p>The myths and misconceptions on MHM are too deeply grounded as there is a religious connotation to the issues.</p>
Menarche	10	<p>When they had the first MC, they started crying and seeing them others also cried as it was considered to be a disease and they felt emotional.</p>
Local names of menarche	10	<p>Some of the anecdotes used by the community to describe the menstrual cycle are 'chuagaya', 'Lalji a gaye', 'Mehman a Gaye', 'Bal dhone wale a gaye'.</p>
Use of Menstrual Materials & practices	10	<p>No open drying of cloths, hands not to be washed</p> <p>The usual practice is that the use of pads is very low in the district, old cotton cloths are used, rewashed and dried in shades in privacy and not in sun.</p> <p>There are some females who never like to use pads or sanitary cloth. They resort to using old cotton cloths during MC days.</p>
Support of Family Members	10	<p>The adolescent girls present in the group said that mothers do not discuss MHM issues with the daughters.</p> <p>The male members did not discuss with their wives clearly to get superstitions regarding MHM.</p>
Knowledge on Menstruation	10	<p>The female members opined</p>

		that they hardly knew about menstrual cycle and management of the cycle when they were growing up.
Seeking Care	10	Even if there is pain in abdomen, doctors are not consulted till the situation warrants visit of a doctor. Heavy menstrual bleeding is also not considered a disease.
Health Problems	10	The myths leading to segregation of the lady from day to day activities leads to irritability in the adolescents and they refuse to eat during the MC days. They also keep themselves locked in a room as they are refused to participate in daily activities thus leading to frustration, anger and depression. Infections/RTI related to MHM are not at all a priority. No one in the group could relate infections under MHM issues. Some usual complaints like itching, urine infection could not be attributed to MHM issues by the group.
Effects of poor MHM	5	School going is prohibited as it is thought that sitting with boys in the class will lead to pregnancy and also staining was a major issue. During MC days, girls think that if they go to school, it will lead to harassment and fear. That's why they get stressed and fearful 2 days before their MC is due.

<p>Availability & Feasibility of Materials</p>	<p>10</p>	<p>Pads are not available in villages; the girls also do not buy them from local shops. These are also not available with the FLWs like the ASHAs and AWWs.</p> <p>There is no accessibility in rural areas and hence even if the family has money say through CBT, they cannot buy for their lady folks.</p> <p>Schools in rural areas also do not have pads and only some of the girls' school or women's college has this provision. It is quite a challenge to ensure availability in co-ed schools.</p> <p>Non-school going girls can get the pads through ASHAs under the umbrella of RKSK.</p> <p>Jeevika members informed that in the districts of Nalanda, Muzaffarpur and Samastipur, in some of the selected blocks this initiative is in place currently.</p>
<p>Disposal of used menstrual material</p>	<p>10</p>	<p>Regarding methods of disposal, the responses were wrapping up in polythene and papers, throwing in nala (stream), talab (pond) and garbage places which points to open disposal. Very few bury the used pads in soil.</p> <p>Dustbins are the only disposal tools in schools but these are kept in class rooms and not in toilets.</p> <p>Hence, the girls cannot dispose the used pads/cloth properly and freely.</p>
<p>MukhyaMantri KanyaUtthan Yojana (Chief Minister Girl Upliftment Program)</p>	<p>10</p>	<p>The group also reflected that Direct Benefit Transfer (DBT) for pads is not helpful as the girls are largely unaware of the proper use of the money. The</p>

		<p>guardians know but not the users. Even if the users know, they would not or do not buy the pads because of hesitation.</p> <p>The other issue is that the cash benefit don't reach the beneficiaries on time.</p>
Suggestions of the group	10	<p>One suggestion was to have intensive IPC with the adolescent girls to get rid of these myths.</p> <p>There was a need for an enabling environment in schools. The problem is that teachers hesitate to teach students on MC. They just pass on the topic in the class. If there is a male teacher teaching the subject in the class, he just leaves the chapter and asks the students to read the chapter on their own.</p> <p>One way can be to put up stalls for selling pads in schools by agencies where the schools only provide a space and facilitate the process.</p> <p>Stalls in schools can be the vehicles to promote the use of sanitary pads.</p>

Table 3- Gaya district

The details of school level discussion with adolescent girls and teachers at middle and upper middle school, Nakrupa Village, Sherghati, Gaya district is given below. There were six girls and four teachers during the group discussion. The girls were from class 8th onwards. The reflections are given below in separate headings as per table 2.

Thematic area of MHM	Number of participants	Qualitative data
Myths & Misconceptions	10 (6 girls & 4 teachers)	Only one girl replied that she does not bathe during the MC for a period of 3 days as the

		<p>belief is that bathing would lead to more bleeding.</p> <p>They do not have head bathe during MC so they have head bathe before the period is due.</p> <p>Sour things and pickle are advised to be avoided, asked not to play but can eat together.</p> <p>Most of the girls are advised not to bathe but they bathe.</p> <p>Some girls said they can go to the kitchen.</p> <p>The girls are advised not to read religious books and one girl told that she is advised not to read Urdu books as well.</p> <p>They are asked not to go to the field and touch holy plants like Basil or Tulsi during MC days.</p> <p>One girl replied that they are given tea without milk and eggs to eat during her MC days.</p> <p>The girls agreed that burning is not the right method of disposal and if they burn it will lead to sterility.</p>
Menarche	6	<p>She feared and told mother who gave her cloth, asked to keep it secret and was told that the bleeding will come every month.</p> <p>Did not talk to anyone in the first two hours and feared to talk to any male member.</p> <p>During tuition, people saw the happening, she feared and went home. Her mother gave cloth and told her to keep it as a secret. On her way back, she felt embarrassed.</p> <p>Mother told to use cloth and even now she fears that</p>

		<p>bleeding will be more.</p> <p>She had at school and felt ashamed but she is not shameful at home.</p> <p>She felt irritated and frustrated as she learnt that the process will be every month.</p> <p>One girl had clots but she was told that it is normal.</p> <p>All the girls agreed that the young ones should know beforehand.</p>
Use of menstrual materials & practices	6	<p>All the girls informed that they use cloth</p> <p>The girls use cloth according to need and pads for 12 hours as claimed by 'Stayfree' brand in their promotion.</p> <p>No one prepares for the cloth to be used and the clothes are used randomly. They use cloth kept in almirah and they use pads when bleeding is more.</p>
Disposal of used menstrual materials	10	<p>The girls agreed that burning is not the right method of disposal and if they burn it will lead to sterility. They also believed that burning will lead to air pollution.</p> <p>They dispose the cloth in the garbage and ponds.</p> <p>Used pads are also thrown in the garbage and ponds.</p> <p>They also bury the pads.</p>
Effects of poor MHM	6	<p>The girls informed that there is no facility in school to deal with MHM and they do not come to school for 2 days if MC starts. If the MC starts while attending school, then they leave school.</p>

		<p>Usually, girls complain abdominal pain and they leave school thereafter.</p> <p>One girl replied that she does not come to school on all days of MC.</p> <p>In spite of the fact that the school had separate toilets, they all go home during periods as the toilet has insufficient water and the girls feel shame of being noticed.</p>
Availability & feasibility of menstrual materials	6	<p>They cannot purchase pads from a shop on their own near by the school/village.</p> <p>Sometimes mother goes to buy pads and none of the girls had talked to their brother to get the pads from the market.</p>
Mukhya Mantri Kanya Utthan Yojana (Chief Minister Girl Upliftment Program)	10	<p>Each of the girls has bank account but no one had checked the balance that is transferred for buying pads.</p> <p>They are not aware about receiving the DBT on sanitary pads.</p> <p>Some girls talked about the money they had received to buy cycles.</p> <p>After some probing, one girl informed about receiving Rs295/- in the account but it was used for HH expenses.</p>
Role of teachers	4	<p>In one incident, the mid-day meal cook saw something unusual in one girl and informed the teachers about her menarche and the girl was sent back home without any support provided to her.</p> <p>The teachers informed that on a study tour, they carried</p>

		<p>sanitary pads for emergency use but none of the girls asked for the pads because of hesitation.</p> <p>There was no session conducted by the teachers or others on MHM and they do not talk about MHM with the girls in the school.</p> <p>The teachers replied that they send names as per 75% attendance and tell the girls about the purpose of money in their account.</p> <p>If students ask for pads, they can provide them sanitary pads.</p> <p>No girl comes to them to talk about MC but the girls ask for leave.</p> <p>They also follow some of the myths shared by the girls.</p>
Knowledge on menstruation	6	<p>Menstruation happens to give birth.</p> <p>They replied that MC happens for 'Suddhikaran' purposes of the body.</p>
Seeking care	1	<p>One girl replied that she gets severe pain in abdomen during her MC days and she has not talked to any family member or has consulted any doctor yet.</p>
Health problems	3	<p>One girl had secondary amenorrhoea since last 4 months but has told no one about it yet.</p> <p>One girl complained of burning sensation when she used pads for long hours.</p> <p>Another complained of rashes on the thighs, foul smell and</p>

		burning sensation during periods.
Support of family members	6	<p>One girl replied that she informed her mother about the menarche and she was encouraged by the mother to talk to her. Her mother told her that this is a monthly phenomenon and told her not to talk about it to anyone.</p> <p>None of the girls had talked about MHM to her brother or any other male teacher in the school.</p> <p>In some months, the girls get money from family members to buy pads but in most cases, they use cloths.</p>

Table 4- Purnia district

The discussion was held with adolescent girls and teachers at middle and upper middle school, Jalalgrah block, Purnia district of the state of Bihar. There were twelve girls and five teachers during the discussion. The girls were from class 6th to 8th. The reflections are mentioned below in separate headings in the table given below. Ms. Shagun of NGO Vatsalya, who is also a co-author of the current article moderated the discussion.

Thematic area of MHM	Number of participants	Qualitative data
Myths and Misconceptions	17	<p>Most of the girls are advised not to touch sour things, no religious activity and no make up to be done.</p> <p>Burning the used pads will lead to infertility.</p> <p>The girls are advised not to have head bath for 3 days.</p> <p>One teacher replied that Marwaris residing in the area keep separate beds, plates</p>

		<p>during MC days for the girls thus isolating them.</p> <p>Teachers also do not do religious rituals during the MC days.</p> <p>The girls are asked not to play during MC days.</p>
Menarche	12	<p>When they had the first MC, they started worrying and seeing them others also tense as it was considered to be a disease. They felt emotionally disturbed.</p>
Use of menstrual materials	17	<p>All the girls informed that they use cloth and stayfree brand of sanitary pads and when stayfree is not available, they use cloth.</p> <p>The girls use cloth given to them by mothers when the mother tore one old saree. according to need and pads for 6 hours.</p> <p>One teacher's daughter could manage her MC in a private school in Purnia and she also discusses with her mother if her dates get advanced.</p> <p>Teachers change pads in schools but not the girls.</p> <p>Washing hands during and after using the pads is not done by students.</p>
Support of family members		<p>One girl informed about menarche to her mother and elder sister.</p> <p>The mother and elder sister</p>

		<p>told her to keep it as a secret.</p> <p>None of the girls had talked about MHM to their grandmother.</p> <p>One girl replied that she informed her younger brother and not elder brother.</p> <p>They tell their elder sister or younger brother to purchase pads from a shop on their own near by the school/village.</p> <p>Sometimes mother goes to buy pads and none of the girls had talked to their elder brother to get the pads from the market.</p>
<p>Knowledge on menstruation</p>	<p>17</p>	<p>5 girls did not know about MC.</p> <p>Dirty blood comes out during MC.</p> <p>No group discussions take place on MC among students.</p> <p>The two girls who had menarche were also hesitant to talk about MC.</p> <p>Teachers had informed students about MC only once.</p> <p>Girls agreed that they need to know and talk about MC.</p> <p>Teachers had received no training on MHM.</p> <p>The girls informed that they can use Meena Manch platforms to discuss on MC.</p> <p>Girls knew about Jeevika members and one girl told about KishoriSakhi program for 10-18 years old girls. Issues are discussed in group on Sundays in a meeting in the village. The program is only</p>

		operational in Jalalgarh and Kasba block of Purnia district with the support of Swabhimanproject of UNICEF.
Seeking care	0	None in the group mentioned about seeking care as circumstances did not allow them to do so.
Health problems	17	One teacher takes leave during her MC days as the MC period is painful and she takes rest.
Effects of poor MHM	12	The girls informed that they do not talk to teachers and leave for home during MC days. The bathroom in the school has dustbins but students have not used the bins for disposing the pads. Because of this practice, they leave school.
Availability & feasibility of materials	12	Although teachers keep napkins in schools, students do not ask for it and leave for home. Teachers keep pads for use from their own resource. They buy 8 pads for INR 30 and they get money most of the times to buy pads.
Disposal of used menstrual materials	17	Used pads are also thrown in the garbage. They also bury the pads. They wrap the stayfree brand of sanitary pads in a cloth and bury the pads in the soil. They bury the pads at any time of the day. They cannot bury the pads in open field as the fields are far away.

<p>Mukhya Mantri KanyaUtthan Yojana (Chief Minister Girl Upliftment Program)</p>	<p>17</p>	<p>Only one girl knew about the DBT and the purpose.</p> <p>6 students in the group knew about the money.</p> <p>Some girls talked about receiving the money in cash 2 to 3 years ago.</p> <p>None of the students have told the teachers about using the money.</p> <p>Teachers had told about the money to family members who had come to meet them.</p> <p>Teachers opined that Pads should not be attached to 75% attendance and every girl has the right to use pads.</p>
<p>Role of teachers</p>	<p>5</p>	<p>There was no session conducted by the teachers or others on MHM and they do not talk about MHM with the girls in the school.</p> <p>If students ask for pads, they can provide them sanitary pads.</p> <p>No girl comes to them to talk about MC but the girls ask for leave.</p> <p>They also follow some of the myths shared by the girls.</p>
<p>Suggestions</p>	<p>5</p>	<p>One session on MC per week to be held in the school including the PTM where one session can be held on a periodic basis to increase male involvement.</p> <p>The teachers replied that they send names as per 75% attendance and tell the girls about the purpose of money in their account.</p>

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IV. Results & Discussions

The qualitative data of the three districts shows that across the three districts, myths & misconceptions exist not only among girls but also teachers. Their knowledge on menstruation is very poor & the myths are deep rooted in their religious & cultural aspects of life. All these aspects are substantiated academically at global, national & state level through various studies. As MHM is related to sanitation of the individual & community as well, the theories of toilet insecurity & poor support from all the related stakeholders especially for the adolescent girls contributes to poor MHM practices perennially. Among the entire year, the monsoons are the most difficult times for women & adolescent girls of the state of Bihar. This aspect is also attributed in an academic study done in the state of Assam which also suffers from inundations every year like Bihar. The concept of sanitation stacking in a study of the current article only entails the practice of open defaecation in Bihar there by making MHM further difficult.

Seeking care & addressing health problems during MHM is also a critical area that needs focus. The socio-cultural rooted obstacles in MHM are not addressed there by contributing to poor behaviour in seeking care to address health problems. The discussions also brought out the poor practice of using materials while the ever-present issues of availability, feasibility & access of materials of MHM becomes a huge obstacle in the process of roll out of MHM.

The practices of MHM & the poor quality of the menstrual materials further aggravates the poor sanitation related to MHM leading to health problems in menstruators as replied by the respondents. The availability of sanitary pads by outreach workers & the Jan Ausadhi Kendras needs to be enhanced at a large scale to ensure its benefit reaches all intended participants. Needless to say, the state has to go miles before addressing the issue of disposal of used menstrual materials as the current method is simply dumping.

The issues of MMKUY again reflects the poor roll out of the program. The responses clearly reflect that huge communication gaps exist between the stakeholders of the program. The program has a dual function & a dual objective. As the roll out of the program is poor, the effects of poor MHM leads to school drop-out & all other multiple obstacles in the MHM way that are difficult to get rid of since these are embedded in the socio-cultural milieu.

The suggestion of the group aims at increasing role of teachers & family members to support the adolescent girls at homes & schools. The horrific & painful experiences told by the girls during their menarche is because of the factor of poor support. Here, the education materials developed on MHM by WSSCC can be handy. These materials can be used by teachers & outreach workers to orient students & family members on MHM.

V. Conclusions

MHM is both an individual & community level issue. One can address the first two words of MHM but for the third word, the community has to step in as management is beyond the scope of the individual.

One only hopes that the MHM guideline of Bihar that has encompassed all the modalities as brought out in the study through the response of the stakeholders is rolled out as envisaged.

Limitation of the study

The numbers of girls in the groups in each of the schools was not uniform. The levels at which discussions were held were different for the three districts. At Sitamarhi district, the discussions were held at district level & in the other two at school level. The number of participants were also too few to be represented for the entire state of Bihar. The sampling was low as the study was a part of the process of development of MHM guidelines for the state of Bihar. UNICEF, Bihar office hired the services of NGO, Vatsalya of Lucknow as the NGO has experience of working on MHM. The lead author was a part of the Vatsalya group for the said study on which the current article is based.

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