CHILD RIGHTS AND YOU

LET'S TALK ABOUT IT. PERIOD

A CRY KAP Study to understand the stigma and shame around menstruation

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FOREWORD

Discrimination against menstruating women and adolescent girls is widespread in India, where periods have long been considered a taboo and associated with impurities. The age-old culture of silence, fuelled by the patriarchal socio-cultural construct, has traditionally shrouded any open discussion about menstruation. As a result, there are many misconceptions and lack of awareness among them which, in turn, inevitably leads to poor management of menstrual health and hygiene.

An estimated 52% of adolescent girls in India are unaware of menstruation until they get it themselves (Van Eijk, et al. 2016). Almost half of the girls (49%) within 15-19 years still use cloth during menstruation which is not a hygienic practice (NFHS-5, IIPS 2019-21). And a whopping 77% of the girls face restrictions on visiting places of worship and touching religious items or praying during menstruation (Dasra 2019). Common experiences tell us that, from an early age, girls learn to live with the pain and fear and seldom do we see girls seeking help when in physical or mental discomfort due to periods – thanks to the aura of embarrassment that surrounds the topic.

Child Rights and You (CRY) has always strived to bridge the gap between systems and communities through its programming activities, advocacy dialogues, and efforts in ensuring a safe and healthy childhood for all children. We are committed to changing the way children experience childhood and adolescence by being strategic in our choice of issues, approaches and utilisation of resources to maximise the impact on children.

In our journey towards making it a better place for girls – i.e., ensuring them a social space free of taboos and stigmas around periods and an environment that empowers them to talk freely about it – a few months back CRY launched a pan-India campaign ***Let's Talk About It! Period!*** The campaign came with powerful message and was supported with components of research, advocacy and action, focusing on adolescent girls of 10-17 years of age, to address the gaps related to knowledge, policy, and behavioural practice for safeguarding menstrual health and hygiene of these girls.

To strengthen the campaign with strong evidence gathered from the ground – a KAP (Knowledge, Attitude and Practice) survey was designed and conducted with girls across different regions of CRY's project areas in India. A critical part of the campaign – the survey covered girls aged 10-17 years – was to get an in-depth understanding about the challenges faced by them and perceptions they have regarding menstruation. I am pleased to share with you the study that aimed to document the lived experiences of adolescent girls in India.

I am sure that the findings of the study and the insights gathered from the voices of adolescent girls will go a long way in triggering the right conversations and help creating a conducive social space for them. Given that CRY, as a brand, stands for all children and also works on menstrual hygiene for underprivileged children, speaking on the topic presents a unique opportunity to be heard loud and clear among adults. Many other civil society organisations have tried addressing the topic in various big and small ways, and I am sure that their efforts, accentuated by ours, will be able to cut a mark in our social discourses. The knowledge gained from the study will certainly play a big part in encouraging such conversations around menstruation.

With faith and hope,

Puja Marwaha
Chief Executive,
Child Rights and You (CRY)

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We would like to take this opportunity to express appreciation to all the people and organisations without whom this study would not have been possible.

First and foremost, our sincerest gratitude to all the children who participated in the study and offered us invaluable insights into the knowledge, attitude and practices with regard to menstruation. Their willingness to participate has helped us bring the voices of children across India to the forefront. We would also like to thank their guardians for encouraging their children's participation.

We also wish to thank all the CRY volunteers and CRY project partners who collected and recorded the research data, as well as aided us with the analysis process. This study came to fruition due to their wholehearted efforts and commitment.

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Abbreviations

AP	Andhra Pradesh
ANM	Auxiliary Nurse and Midwife
ASHA	Accredited Social Health Activist
AWC	Anganwadi Centre
AWW	Anganwadi Worker
IEC	Information, Education and Communication
KAP	Knowledge, Attitude and Practice
MHH	Menstrual Health and Hygiene
MHM	Menstrual Health Management
NGO	Non-Governmental Organisation
NFHS	National Family Health Survey
OBC	Other Backward Class
REC	Research Ethics Committee
RTI	Reproductive Tract Infection
SC	Scheduled Caste
SHG	Self-Help Group
ST	Scheduled Tribe
UP	Uttar Pradesh
UTI	Urinary Tract Infection
WCD	Women and Child Development

EXECUTIVE SUMMARY

Background

Menstruation is a biological function of the body that impacts the lives of girls and women. Its social implications are manifold. Girls enter into puberty with information gaps and misconceptions related to menstruation, and it may lead to unsafe hygienic practices that increase their health risks. Many restrictions are imposed on girls during menstrual cycles such as on entering kitchen and temple, worshipping, bathing, cooking and eating or touching pickle. These restrictions are due to several religious and cultural traditions, myths and misconceptions related to menstruation existing across India, which also impact on girls' and women's psycho-social, emotional and most importantly, health. The purpose of this study was to assess the knowledge, attitude and practices of menstrual hygiene among girls aged 10-17 years both in schools and community so as to address these gaps through scheduled `Period Shame Campaign' and advocacy.

Methodology

A descriptive cross-sectional quantitative study was carried out to assess the knowledge, attitude and practices (KAP) regarding menstrual health and hygiene and taboos around periods among the girls aged 10-17 years. A sample of 4,000 girls were selected using convenience sampling method both from schools as well as from the community in eight CRY intervention States covering all the four regions in India. Government and private schools were covered in both rural and urban areas, including urban slums. The survey was carried out with the help of local CRY partner NGOs and volunteers. Prior to the survey, written and verbal consent was obtained from the teachers, parents and students.

Key Findings

- Of the 3,964 girls who participated in the study, 97% were studying in school. The percentage of urban respondents was higher (66.1%) compared to rural respondents (30.2%) with 3.7% of the respondents belonging to urban slums. About three-fourth (77.8%) of the girls were studying in government schools whereas one-fourth (22.2%) girls were in private schools. Mean age of the respondents was 14.8 years. About half of the participant girls of the study were from the marginalised communities.

- Education of parents especially mothers' education played an important role in transferring correct information on menstruation. Mothers of about two-third (61.3%) of respondents were either illiterate or with basic reading and writing skills, followed by primary and upper primary (16.2%), middle (11.6%), secondary (6.9%), and higher secondary and above (4.0%). Similarly, fathers of about half (48.4%) of the respondents were either illiterate or with only basic reading and writing skills, followed by primary and upper primary (19.7%), middle (15.6%), secondary (9.1%), and higher secondary and above (7.3%).

- About 95% of the girls aged 10-17 years who participated in the study, had already experienced menstruation before the survey. The study depicted that more than half (51.8%) of the girls did not have information regarding menstruation prior to menarche. The highest percentage of girls (27.7%) reported that their mother was the main source of information on menstruation followed by friend (22.8%), elder sister (15.9%), and NGO worker (8.8%). Similar response was found when it came to the credible source of information on menstruation. About 80% of the respondents mentioned 'mother' as the most credible source of information. However, television and YouTube were the most preferred sources of information on menstruation through media and social media, opted by 49.2% and 21.6% of the girls respectively.

- As per the findings of the study, 84% of the girls were knowledgeable about the cause of menstruation and said that it is a biological process whereas 11.3% of the girls did not know the correct cause of menstruation

and said that it is a curse from god or caused by disease. About 4.6% of the girls were not at all aware about the cause of menstruation.

- The study also examined the attitude and perception on menstruation of respondents and people around them. The study has found that 61.4% of girls have accepted that a sense of embarrassment existed in the society with regard to period. Regarding awareness on restrictions imposed by the family and society, girls knew the restrictions on worshipping (27.3%), eating/touching pickle (20.1%), taking bath regularly (14.6%), entering kitchen (9.6%), playing outside (7.5%), staying/sleeping with others (7.4%), drying undergarments/washable pads in the open (4.4%), and going to school (4.2%). Further, 58.3% of the respondents reported that they had faced/observed embarrassment/hesitancy due to periods. With regard to the type of embarrassment or restriction faced/observed during menstruation, 18.1% of respondents reported purchasing pad in front of boys/men, followed by talking about periods to elders (16.4%), purchasing and carrying pads (14.7%), and carrying or changing pad in school during menstruation (14.1%). About 9.4% of the respondents reported stain/fear of staining in cloth/not travelling/not attending event, followed by embarrassment at home (7.5%), can't walk freely/pain/back pain (7.4%), restrictions with regard to movement in house/event/relative's house/kitchen (3.2%), not being allowed to go to temple/worship (2.7%), and hesitation to take permission from teacher to change the pads (1.1%).

- With regard to practices on menstrual management, it was found that 53.8% respondents reported use of sanitary pads, and 1.4% used washable sanitary pads available in the market, while 44.5% used homemade absorbents or cloth. Majority (57.8%) of girls reported that sanitary napkins were expensive, and this could be related to the socio-economic status of the girls. Hesitation or shyness to purchase pads from the shop (13.8%), difficulty in disposing of pads (13%), not available nearby (11.3%), and no knowledge of pads (4%) were the other reasons for not using the sanitary pads by the respondents. The findings of the study show that one-third (32%) girls reported procuring of sanitary pads from provision store or general store followed by chemist shop (22.7%), NGOs (14.9%), health worker (13.8%), school (11.5%), and Anganwadi Centre (4.8%). About 42.8% of the respondents reported disposing of sanitary pads through routine waste disposal system after wrapping in the paper while about one-fifth (20.6%) did the same without wrapping in paper. About one-sixth (17.2%) of the respondents revealed that they threw their used sanitary pads in deserted areas followed by flushing in latrine (12.1%), burning (4.1%), and burying in the soil (0.9%).

- The findings of the study revealed that three-fourth of the girls (74%) did not face any health problems due to poor menstruation hygiene. However, only one-fifth (20.3%) girls said that they faced health issues. Most common health problems faced by respondents during menstruation was abdominal pain/back/body pain/tiredness/weakness/cramp (68.3%) followed by itching in genital area (7.5%). More than one-third girls (39.1%) missed their school at least on one day due to periods, and the average number of school days missed by them was two. The most common reason reported by them was fear of staining clothes (20.4%), followed by pain caused by periods (19.5%), discomfort and tiredness due to periods (15.3%), fear of others making fun (10.9%), non-functional toilets (9.9%), absence of any place to dispose of the sanitary products (8.1%), not having sanitary pads (7.9%), and absence of any place to change pad at school (7.9%).

Conclusions

The study established that, overall, girls are not well-informed and prepared for menarche. Level of information of the girls on menstruation and menstrual hygiene was not satisfactory. Information on menstruation was primarily obtained from mothers and other female family members. This study revealed that the girls had in general negative attitude due to stigma, myth, misconception and shame towards periods as they exist in the family, school and society. Overall, menstrual hygiene practices of the girls was

found to be low. There is unmet need of menstrual hygiene management which requires to be addressed properly.

Recommendations

The study highlighted that the information on menstruation among the students was not sufficient, and the disparities between their knowledge, attitude and practice was evident. Imparting knowledge regarding menstruation should not be limited to one-time sessions or programmes, but must focus on behavioural change programmes. Therefore, school authorities should regularly organise sessions on the issues related to MHH.

NGOs can work closely with the schools and other relevant stakeholders to comply with the School Health and Wellness programme (part of the Health and Wellness component of Ayushman Bharat Programme). They can also take initiatives to promote and train a core team of girls in schools and communities to impart information on MHM and ensure participation of all stakeholders – girls, teachers, women, men, boys, SHGs, ANMs, ASHAs, Anganwadi workers, etc. ¬– in spreading awareness and dispelling myths and misconceptions. Further, peer groups or adolescent clubs (including both boys and girls) can be formed who would discuss different components related to MHH practices, myths and stigmas. Through these, champions can be created in the communities who would work on creating awareness on MHH-related information and knowledge. Additionally, IEC materials on MHM can be developed and widely disseminated in schools and communities.

The Education Department should ensure that schools have separate functional toilet facility for girls, and dustbins/incinerators for safe disposal of used menstrual materials. Involvement of community members may be sought in the provisioning and management of WASH facilities in schools to ensure sustainability. The government should work towards ensuring the availability and accessibility of MHM products for school girls at affordable price.

Further, there is need for the convergence of various departments – education, health, WCD, etc. – to 'break the silence and talk about periods', and to ensure MHH among girls and women.

CHAPTER 1: INTRODUCTION

1.1. Background

Menstruation is a biological process that occurs in adolescent girls and women. It starts with menarche and stops at menopause. This monthly process (cycles) starts in the lives of girls approximately at the age of 11 years and continues till the age of 45-55 years. The process of menstruation is something noble and sublime for it facilitates human reproduction/procreation and perpetuation of human species. Unfortunately, such a noble process is shrouded in a culture of silence, shame and stigma; of myths, misconceptions and misunderstandings; of ignorance, impurity and inauspiciousness; and of superstitions, taboos and restrictions. In many parts of India, both rural and urban, girls are not aware and are not prepared to face menarche, the onset of menstruation. In a study conducted among school going girls in Navi Mumbai, only 16% of the girls were aware about menstruation before menarche (Nemade, et al. 2009). An estimated 52% of adolescent girls in India were unaware of menarche until they got it themselves, and only 48% had premenarcheal awareness (van Eijk, et al. 2016:4).

Discrimination against menstruating girls/women is widespread in India. In some communities, menstruating girls/women are not allowed to enter the kitchen, touch anybody or anything and are not permitted to enter a temple or places of worship (Kumar and Srivastava 2011). In some other communities, they are socially segregated from other family members, and face restrictions in cooking, household work, moving in and out of the house and attending school during menstruation. Girls/women themselves have internalised these sociocultural notions, beliefs and practices. They feel ashamed, remain silent and adhere to such practices.

Due to the influence and internalisation of the socio-cultural beliefs and practices, menstrual health and hygiene (MHH) among adolescent girls/women is seriously affected. From an early age, girls learn to live with pain and fear and silently endure the psychological trauma and physical discomfort due to menstruation. A study conducted in 2014 by Centre for World Solidarity (CWS) along with its 22 partner organisations in 17 districts out of 23 in the undivided State of Andhra Pradesh, covering a sample of 68,000 girls/women (2,000 girls and 2,000 women per district), revealed that 68% of girls/women used old cotton cloth and 25% sanitary napkins to absorb their menstrual flow. A meta-analysis on the status of menstrual hygiene among adolescent girls in India found that a quarter of the girls (i.e. 25%) did not attend school during menstruation because of the lack of adequate toilets (van Eijk, et al. 2016:6). According to another study, 88% of menstruating women in India use fabric, rags, ash, straw or wood shavings to absorb their menstrual discharge (McCarthy and Dutt 2020). Among girls/women aged 15-24 years, about 50% still use cloth during menstruation (NFHS-5 {2019-21} 2022:115).

Girls and women are often made to feel ashamed or embarrassed simply because they menstruate. In India, where periods have long been a taboo, they are considered impure during menstruation. Many forms of restrictions based on social taboos, myths and misconceptions are imposed on them during menstruation. This can have an adverse impact on their psycho-social, emotional and physical health.

Menstrual hygiene, which is defined as the effective management of menstrual bleeding by females, is a principal aspect of reproductive health; if not handled properly this could lead to infections of the urinary tract, vaginal thrush and pelvic inflammatory diseases, along with bad odour, unclean garments and extreme shame, causing infringement on the dignity of girls (Oche, et al. 2012). For about 23% of the adolescent girls in rural areas of India, having their periods is one of the reasons to quit school. Nonetheless, not much attention is paid to the specific health needs of the girls (Nagar, et al. 2011). Poor menstrual hygiene management in schools has been found to cause school age girls humiliation and worries that contributes to

monthly school absenteeism leading to poor performance among girls in schools (Patle, et al. 2014).

The prevailing social and political attitudes towards menstruation have long-term economic impacts both on the woman's family and on the country. Each time a young girl is unable to go to school during menstruation because the school lacks the services or infrastructure to allow her to care for her menstruation, her future and the future of the country is impacted. Missing 3-4 days of school every month amounts to a total of nearly 30 days absence each academic year. These absences will not only affect her ability to be a productive and financially independent individual but will also affect the country as it loses out on her potential to be a contributing citizen. Additionally, the reproductive health morbidities associated with sub-standard menstrual hygiene will consume a sizeable portion of the family's financial resources.

1.2. Context

Since the dawn of the new Millennium, issues concerning menstruation and MHH became issues of the dignity of girls/women and of development. In other words, access to proper sanitation and MHH is important for realisation of girls'/women's rights and thus came to be prioritised as a development agenda.

1.2.1. Global Perspective

UN Sustainable Development Goals (SDGs)

MHH is a component of SDG 6 - `Access to Clean Water and Sanitation'. SDG 6.2 acknowledges the right to MHH, with specific aim, "By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations". Without considering needs for safe and dignified menstruation, the world cannot achieve the vision for sanitation and hygiene under Goal 6.

Girls'/women's access to MHH is also central to achieving other SDGs. The lack of awareness and knowledge about menarche and menstruation can contribute to early and unwanted pregnancy; the stress and shame associated with menstruation can negatively impact mental health; and unhygienic sanitation products may make girls susceptible to reproductive tract infections – all affecting SDG 3 – `Good Health and Well-Being'. Girls may dropout or remain absent or be less attentive in school during menstruation due to a lack of water, sanitation and health (WASH) facilities or support from the school community, affecting Goal 4 – `Quality Education'. When taboos, myths and misconceptions prevent menstruating girls/women from full participation in society, Goal 5 – `Gender Equality' cannot be achieved. When there is hindrance for menstruating girls'/women's participation at work and other economic activities, Goal 8- `Decent Work and Economic Growth' cannot be attained. Failure to develop markets for quality menstrual materials can impact on Goal 12 – `Responsible Consumption and Production. The complex and interrelated MHH challenges require a comprehensive, collaborative and intergenerational approach that engages all partners – governments, civil society, private sector, communities, men and women and boys and girls. These partnerships must address all key menstrual health management (MHM) issues, Goal 17 – `Partnerships for the Goals' (UNICEF 2019:15).

UN Human Rights Council (HRC)

The first time MHM was explicitly included in resolution A/HRC/RES/27/7 in 2014. Human Rights Council resolution A/HRC/ RES/ 39/8, which was adopted by a broad majority on 21 September 2018, now includes significant new language on MHM. Paragraph 7 (e) calls upon states to "address the widespread stigma and shame surrounding menstruation and menstrual hygiene by ensuring access to factual information thereon, addressing the negative social norms around the issue and ensuring universal access to hygienic products and gender-sensitive facilities, including disposal options for menstrual products."

UNICEF and World Bank

UNICEF has brought out a publication `Guidance on Menstrual Health and Hygiene (MHH) in 2019 and is playing an important role in increasing awareness, addressing behaviour change, improving the capacity of the frontline community workers, sensitising key stakeholders and establishing wash facilities. UNICEF along with WHO defined MHM as "Women and adolescent girls are using a clean menstrual management material to absorb or collect menstrual blood, that can be changed in privacy as often as necessary, using soap and water for washing the body as required, and having access to safe and convenient facilities to dispose of used menstrual management materials. They understand the basic facts linked to the menstrual cycle and how to manage it with dignity and without discomfort or fear."

World Bank has taken a multi-sectoral, holistic approach in working to improve MHH in its operations across the world focusing on education, health, gender equality, economy and environment.

1.2.2. National Responses

The Government of India incorporated MHM into national policies and programmes as part of initiatives to improve the health, well-being and nutritional status of adolescent girls and women, as well as to reduce adolescent girls' school absenteeism.

The Ministry of Health and Family Welfare introduced a scheme for the Promotion of Menstrual Hygiene among Adolescent Girls (10-19 years) in Rural Areas. The major objectives of the scheme are:

- To increase awareness among adolescent girls on Menstrual Hygiene.
- To increase access to and use of high quality sanitary napkins to adolescent girls in rural areas.
- To ensure safe disposal of sanitary napkins in an environmentally friendly manner.

The scheme was initially implemented in 2011 in 107 selected districts in 17 States wherein a pack of six sanitary napkins called "Freedays" was provided to rural adolescent girls for Rs. 6. From 2014 onwards, funds are being provided to States/Union Territories (UTs) under National Health Mission for decentralised procurement of sanitary napkins packs for provision to rural adolescent girls at a subsidised rate of Rs. 6 for a pack of six napkins. The Accredited Social Health Activist (ASHA) will continue to be responsible for distribution, receiving an incentive @ Re. 1 per pack sold and a free pack of napkins every month for her own personal use. She will convene monthly meetings at the Anganwadi Centres or other such platforms for adolescent girls to focus on issues of menstrual hygiene and also serve as a platform to discuss other relevant Sexual and Reproductive Health (SRH) issues. A range of IEC material has been developed around MHS, using a 360 degree approach to create awareness among adolescent girls about safe and hygienic menstrual health practices which includes audio, video and reading materials for adolescent girls and job-aids for ASHAs and other field-level functionaries for communicating with adolescent girls.

Also, in 2011, the SABLA Scheme was launched by the Ministry of Women and Child Development which incorporated awareness generation on MHM as an important initiative to improve health, nutrition, life skills education and empowerment for adolescent girls (11-18 years).

In 2014, Swachh Bharat Swachh Vidyalaya (SBSV) initiative was launched by the Department of School Education and Literacy under the Ministry of Education to ensure that all schools in India have access to separate functional toilets for boys and girls. This programme was started to guarantee that every school in India has a set of functional and well-maintained WASH facilities, such as soap, private changing room, appropriate water for washing, and disposal facilities for used menstrual absorbents.

The Ministry of Drinking Water and Sanitation under Swachh Bharat Abhiyan developed the National Guidelines on MHM in 2015 for creating awareness on MHH in rural areas as part of its overall interventions related to behaviour change on sanitation hygiene aspect. Further, to ensure access to sanitary napkins and good quality medicines at affordable price, Department of Pharmaceuticals under Ministry of Chemicals and Fertilisers implements the Pradhan Mantri Bharatiya Janausadhi Pariyojna (PMBJP), an important step in ensuring the health security for women. Under the project, over 8,700 Janaushidhi Kendras have been set up across the country that provides Oxo-biodegradable sanitary napkins named `Suvidha' at Re. 1 per pad.

1.3. Objectives of the Study

The objectives of the study was to evaluate the level of knowledge, attitude and practice (KAP) and taboos around menstrual health and hygiene management in the intervention areas of Child Rights and You (CRY). Along with the above mentioned objectives, the study also aimed at the following:

- To assess the awareness (knowledge) about menstruation and sources of information on the same before menarche among girls aged 10-17 years;
- To assess the myths, misconceptions and restrictions practised by girls during menstruation;
- To find out the prevailing practices for menstrual hygiene among girls aged 10-17 years;
- To understand the availability and accessibility of menstrual health and hygiene products and services;
- To find out the average number of school days missed by the girls due to lack of functional infrastructure and facility at school for menstrual health and hygiene management.

1.4. Methodology

1.4.1. Respondents of the Study

The survey tools were administered to the selected respondents of girls aged 10-17 years. Respondents were selected from both schools (both private and government schools) as well as from the communities.

1.4.2. Study Area

The study was conducted in eight States – two States each from the four intervention regions of CRY i.e., east, north, south and west. Accordingly, the study was conducted in West Bengal and Assam (east), Uttar Pradesh and Madhya Pradesh (north), Tamil Nadu and Andhra Pradesh (south), and Maharashtra and Chhattisgarh (west) (see Table 1 below).

Table 1: List of States

S. No.	Regions	States
1	East	West Bengal and Assam
2	West	Maharashtra and Chhattisgarh
3	North	Uttar Pradesh and Madhya Pradesh
4	South	Tamil Nadu and Andhra Pradesh

The respondents in the age group of 10-17 years were selected in such a way that covered girls in schools as well as those who had dropped out from schools.

1.4.3. Sampling Design

The sample size was calculated based on the assumption that 48% of girls have knowledge on menstruation prior to menarche at 95% confidence level with a 5% acceptable margin of error using the following formula:

N=t^2*P (1-P)/m^2
N=required sample size

t=confidence interval (95%) i.e., 1.96
P=estimated prevalence
m=margin of error (5% or S value 0.05)

Based on the above formula, the total sample size was estimated to be 384 per State. Factoring a non-response of 5%, the total sample size was 403 per State. Hence, information from approximately 500 eligible girls aged 10-17 years were collected from each State which is more than the required number of sample size per State for the study. Thus, the total sample size for the study was 4,000.

1.4.4. Sample Selection and Coverage

The respondents i.e., girls aged 10-17 years available in both schools and community in the study area were selected based on convenience sampling method. A commonplace in both schools and the community were arranged, and selected participants were requested to gather and learn about the study. Enough distance were maintained at the venue between each of the participants to ensure privacy and prevent biasness of their responses. Table 2 below shows the distribution of the estimated samples and sample achieved in each State.

Table 2: State-wise sample distribution

Regions	States	Estimated Sample	Achieved Sample
East	Assam	500	460
	West Bengal	500	479
West	Maharashtra	500	500
	Chhattisgarh	500	500
North	Uttar Pradesh	500	547
	Madhya Pradesh	500	478
South	Andhra Pradesh	500	500
	Tamil Nadu	500	500
Total Sample Size		**4,000**	**3,964**

A total of 3,964 girls aged 10-17 years participated in the study across the regions against the initial planned sample size of 4,000.

1.4.5 Survey Tools

Questionnaire was developed with multiple-choice options to assess the knowledge, attitude and practices on menstruation and menstrual hygiene of the respondents. Some background characteristics-related questions such as age and educational level of survey participants, level of education and occupational status of parents of respondents, place of residence and social categories were included in the questionnaire.

The tools, questionnaires and guidelines were translated into regional languages viz., Hindi, Bengali, Assamese, Telugu, Marathi, Tamil and Kannada, followed by their verification for consistency and validity with the English tools.

1.4.6. Analysis of Data

Rigorous data cleaning process was followed by the research team for consistency and range checks, before the analysis of data started. Irrelevant and Incomplete data set were removed from the analysis. Descriptive statistical analysis for all the questions was done using SPSS 22.0 software.

1.5. Ethical Considerations

In order to safeguard the best interests of the respondents, three external experts were involved in the national Research Ethics Committee (REC) of CRY to provide technical guidance to this study. Ethical clearance for the study was obtained from the REC members. Participants' involvement in the study was purely on a voluntary basis. Informed consent was sought from every respondent before conducting the survey. The respondents were informed about the objective of the study, time duration required in administering the questionnaire and privacy. The participants had the option of withdrawing anytime during the survey. The respondents were informed about the confidentiality of their responses. The final data sets were hence devoid of any personal identifiers. Written consent was also obtained from both the school administration and parents of the girls before administering the questionnaire to them.

1.6. Limitations of the Study

This study was carried out exclusively in selected schools and community where CRY is implementing its programmes with the support of grassroots' level NGO partners. Hence, the study may not be representative of the entire districts/States/regions in India. Secondly, since this study has been conducted with the help of outreach workers and community volunteers, it would have been difficult for them to follow the random sampling selection protocols. Hence, convenience sampling technique was used in the study. Thirdly, the cross-sectional nature of the study design might not show the cause and effect relationships between the study variables. Lastly, since this study adopted quantitative method of data collection, data triangulation could not be done.

CHAPTER 2: SOCIO-DEMOGRAPHIC & ECONOMIC PROFILES

The following section details out the socio-demographic and economic characteristics of the respondents. The interview questionnaire was administered to girls in the age group of 10-17 years. The attitude and practices related to menstruation is determined by a variety of reasons which can include factors such as religion, social category, place of residence, age, and educational status. Education level and occupation status can play important roles in influencing the change in attitude, practices and behaviours of girls with regard to menstruation.

Table 3 below indicates the demographic profile of the total number of girls aged 10-17 years who participated in the study from the selected regions. The majority of the girls (97%) were studying in the school. The highest number of girls (1,025) participated in the study were from the north region followed by south and west regions (1,000 each) and east (939). In this study, the proportion of urban respondents was about two-third (66.1%) as compared to the percentage of rural respondents (30.2%), and those belonging to urban slums (3.7%). About three-fourth (77.8%) of the respondents were studying in government schools; and about one-fourth (22.2%) girls were studying in private schools.

Table 3: Socio-demographic profile of the respondents

S. No.		Estimated Sample	Percentage
1	**No. of Respondents**		
	East	939	23.7
	North	1,025	25.9
	West	1,000	25.2
	South	1,000	25.2
2	**Place of Residence**		
	Rural	1,199	30.2
	Urban	2,620	66.1
	Urban Slum	145	3.7
3	**School Type**		
	Government	2,991	77.8
	Private	853	22.2
4	**Age Range**		
	10-12 years	369	9.3
	13-15 years	1,278	32.2
	16-17 years	2,317	58.5
5	Mean age of respondents	3,964	14.8
6	**School Grade Range**		
	Below 6th	151	3.9
	6th to 8th	1,321	33.8
	9th to 10th	1,468	37.5
	11th to 12th	971	24.8
7	**Social Categories**		
	General	772	19.5
	Other Backward Class (OBC)	994	25.1
	Scheduled Caste (SC)	1269	32.0
	Scheduled Tribe (ST)	791	20.0
	Others	110	2.8

More than half of the surveyed girls belonged to the age group of 16-17 years (58.5%), followed by those belonging to the age 13-15 years (32.2%), and 10-12 years (9.3%). Mean age of the respondents was 14.8 years.

About 37.5% of the girls who participated in the study were studying in grades ninth and tenth, followed by those in grades sixth to eighth (33.8%), eleventh and twelfth (24.8%), and below sixth (3.9%). In terms of social category of the participant girls, highest percentage of the girls (32.0%) belonged to Scheduled Castes (SCs), followed by other backward classes (25.1%), Scheduled Tribes (STs) (20.0%) and general category (19.5%). About 2.8% of the girls are entered as `others'. This is because they could be from other religions such as Islam, Christianity, etc. as they don't include themselves into the four social categories.

Table 4: Educational and occupational profiles of the parents of the respondents

S. No.	Background Characteristics	Percentage
1	**Mother's Educational Status**	
	Illiterate	35.3
	Read and write	26.0
	Primary/Upper Primary	16.2
	Middle	11.6
	Secondary	6.9
	Higher Secondary and above	4.0
2	**Mother's Occupational Status**	
	Housewife	50.9
	Private Employee	3.8
	Government Employee	2.0
	Owning Business/Shop	1.9
	Farmer/Engaged in Agriculture	10.1
	Daily Wage Labourer	29.4
	Others	2.0
3	**Father's Educational Status**	
	Illiterate	23.5
	Read and write	24.9
	Primary/Upper Primary	19.7
	Middle	15.6
	Secondary	9.1
	Higher Secondary and above	7.3
4	**Father's Occupational Status**	
	Government Employee	2.3
	Private Employee	6.8
	Daily Wage Labourer	48.2
	Owning Business/Shop	7.6
	Farmer/Engaged in Agriculture	30.5
	Others	4.7

As far as the mothers' educational status of the respondents is concerned, Table 4 above indicates that the majority (61.3%) of the mothers were either illiterate or had basic reading and writing skills, followed by

education level up to primary and upper primary (16.2%), middle (11.6%), secondary (6.9%) and higher secondary and above (4%). The fathers' educational status was slightly better than that of mothers'. About half (48.4%) of the respondent's fathers were either illiterate or with only basic reading and writing skills, followed by education level up to primary and upper primary (19.7%), middle (15.6%), secondary (9.1%) and higher secondary and above (7.3%).

More than half (50.9%) of the mothers were housewives, followed by daily wage labourers (29.4%), engagements in agricultural activities (10.1%), private jobs (3.8%), government jobs (2.0%), and owning business/shop (1.9%). The majority (48.2%) of the respondents' fathers were daily wage labourers followed by those engaged in agricultural activities (30.5%), owning business/shop (7.6%), private employee (6.8%), and government employee (2.3%).

CHAPTER 3: SOURCE OF INFORMATION ON MENSTRUATION

This chapter presents the results of the study on information (including sources) and awareness of respondents on mensuration.

Several research studies have revealed that a large number of girls possess insufficient or wrong information on menstruation. A study of Indian adolescent secondary school girls found out that girls are generally not told anything about menstruation not until they experience it (Khanna, et al. 2015). Adolescent girls have reported receiving insufficient guidance prior to their first menstrual period thus experiencing shame, fear and embarrassment managing menstruation, especially while at school (Carlson, et al. 2011). The limited knowledge available has been passed down informally from mothers, who themselves lack knowledge of reproductive health and hygiene because of lower literacy levels and socio-economic status (Dasgupta and Sarkar 2008).

3.1. Awareness of Menstruation

Table 5 below reveals that the majority of the respondents (95.0%) have experienced menstruation, whereas 4% of girls have not yet started menstruating. About 1% of girls said that they don't know whether they have menstruation or not.

There are regional variations in terms of percentage of girls experiencing menstruation. The findings show that the respondents experiencing menstruation were highest in the east region (97.9%) and lowest in the south region (89%).

Table 5: Girls experiencing menstruation

	East (N-873)	North (N-1,025)	West (N-1,000)	South (N-971)	Total (N-3,869)
During this month or before	89.0%	89.0%	89.0%	89.0%	95.0%
Not yet started	11.0%	11.0%	11.0%	11.0%	4.0%
Don't know	0.0%	0.0%	0.0%	0.0%	1.0%

3.2. Source of information on Menstruation

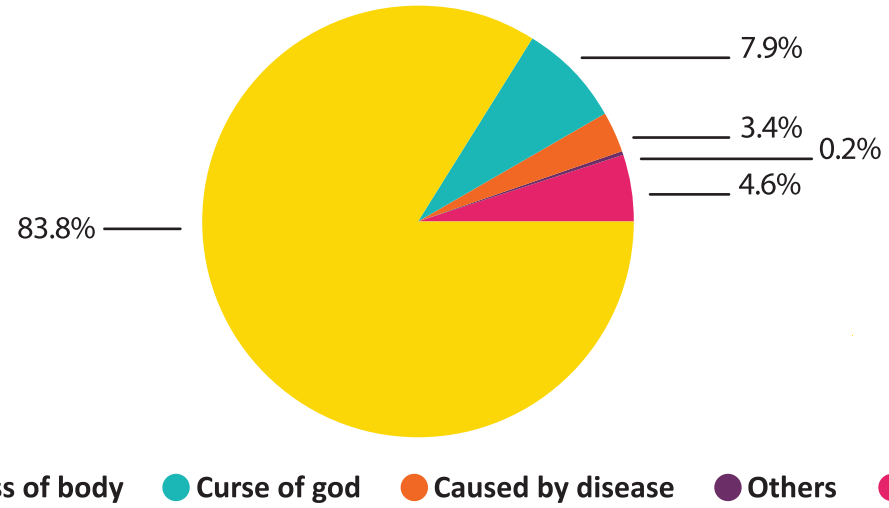
Table 6 below indicates the awareness levels of girls on menstruation when they had experienced the onset of menstruation. About half (48.2%) of the girls were aware about menstruation when it came to information on menstruation before menarche. However, 51.8% girls revealed that they didn't have premenarcheal information. There is substantial variation in premenarcheal information on menstruation, and the data revealed that the highest percentage of girls were aware in the east region (61.5%) followed by south (52.7%), west (42.7%), and north (39%).

Table 6: Premenarcheal information on menstruation

	East (N-814)	North (N-995)	West (N-1,000)	South (N-864)	Total (N-3,673)
Yes	61.5%	39.0%	42.7%	52.7%	48.2%
No	38.5%	61.0%	57.3%	47.3%	51.8%

Figure 1 below shows that 84% of the respondents had the knowledge on what causes menstruation and mentioned that it was a biological process, whereas 11.3% girls did not know the correct cause of menstruation and mentioned that it was either 'a curse of god' or 'caused by disease'. About 4.6% girls were not at all aware about the cause of menstruation.

Figure 1: Information on causes of menstruation



There is a slight regional variation in terms of correct information on causes of menstruation (biological process) reported by the respondents. It ranged from 81.3% for south to 85.7% for east (see Table 7 below). Incorrect information on cause of menstruation (caused by disease/curse of god) constituted about 15.2% for north and south regions.

Table 7: Information on causes of menstruation

	East (N-939)	North (N-1,025)	West (N-1,000)	South (N-989)	Total (N-3,953)
Biological process	85.7%	84.5%	83.7%	81.3%	83.8%
Caused by disease/Curse of god	5.3%	15.2%	9.2%	15.2%	11.3%
Others	0.0%	0.3%	0.1%	0.5%	0.2%
Don't Know	8.9%	0.0%	7.0%	2.9%	4.6%

Figure 2 and Table 8 below show that the main source of information on menstruation was the mother for more than one-fourth (27.7%) of the participant girls, with the rest reporting friends (22.8%), elder sister (15.9%), NGO workers (8.8%), other family members (6.7%), school teacher (5.2%), health professional (4.7%), media/social media (2.9%), father (2.5%), and school text book (2.2%).

Figure 2: Main source of information on menstruation

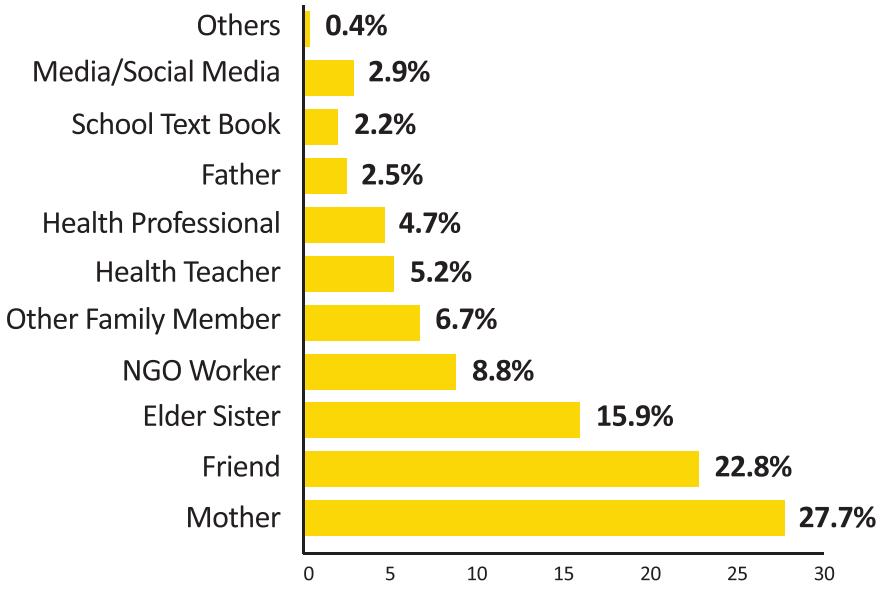


Table 8: Main source of information on menstruation*

	East	North	West	South	Total
Mother	40.6%	31.3%	2.4%	30.1%	27.7%
Friend	22.2%	14.5%	46.6%	19.2%	22.8%
Elder Sister	18.3%	38.2%	17.0%	26.5%	15.9%
NGO Worker	4.2%	12.7%	3.0%	10.6%	8.8%
School Teacher	1.5%	4.6%	5.1%	8.3%	5.2%
Other Family Members	10.7%	39.7%	17.9%	31.6%	6.7%
Health Professional	2.8%	7.0%	0.8%	5.4%	4.7%
Father	0.5%	0.3%	13.1%	0.4%	2.5%
School Text Book	1.3%	1.3%	4.1%	2.8%	2.2%
Media/Social Media	7.4%	2.0%	2.0%	1.6%	2.9%
Others	0.0%	1.1%	0.0%	0.1%	0.4%

*Multiple responses recorded, therefore the total is not provided.

Table 8 above indicates the regional variation in main source of information on menstruation. The majority of girls (27.7%) had reported that the mother is the main source of information. However, there was wide variation from 2.4% to 40.6% in this across the four regions. Similarly, friend was reported to be the second main source, and it varies from 14.5% to 46.6% across regions.

When girls were asked about their credible source of information on menstruation, the majority of the participant girls (81.5%) answered that their mothers were the most credible source of information followed by friend (7.5%), elder sister (6.2%), NGO worker (1.3%), and other family members (1.2%) (see Table 9 below).

Table 9: Credible source of information on menstruation

	East (N-723)	North (N-812)	West (N-797)	South (N-757)	Total (N-3,089)
Mother	89.7%	80.6%	78.8%	78.6%	81.5%
Friend	6.5%	4.3%	5.3%	13.9%	7.5%
Elder Sister	2.5%	9.0%	9.1%	3.3%	6.2%
NGO Worker	0.2%	2.4%	1.5%	0.8%	1.3%
Other Family Members (excluding father)	0.1%	1.5%	1.7%	1.1%	1.2%
Others	1.0%	2.2%	3.6%	2.3%	2.3%

The above indicates that in Indian culture, menstruation is considered as a woman's issue, and hence girls usually feel comfortable discussing about the same with their mother and sister rather than discussing with the male members of their households.

Table 10 below provides the preferred source of information on menstruation through media and social media. Overall, close to half (49.2%) of the girls responded that television is the most preferred source of information followed by YouTube (21.6%), WhatsApp (6.8%) newspaper/magazine (6.0%), and remaining 26.3% sources comes under others. Further girls were asked about how often you get information on these sources, and the majority (71.2%) of them said that once in a month.

Across the regions, television was found to be the most preferred source of information on menstruation among media and social media platforms especially in the north (59.0%), followed by east (50.7%), south (50.3%), and west (38.4%). You Tube was the second most preferred source of information for the west region (35.0%), followed by east (23.0%), north (13.6%), and south (9.3%).

Table 10: Preferred source of information on menstruation through media and social media

	East (N-852)	North (N-909)	West (N-998)	South (N-602)	Total (N-3,361)
Radio	0.9%	3.9%	1.1%	4.3%	2.4%
Television	50.7%	59.0%	38.4%	50.3%	49.2%
Newspaper/Magazine	8.0%	5.9%	6.4%	2.8%	6.0%
WhatsApp	8.2%	1.5%	8.5%	10.0%	6.8%
Facebook	3.6%	1.7%	1.0%	0.3%	1.7%
Instagram	1.5%	0.2%	0.5%	0.8%	0.7%
YouTube	23.0%	13.6%	35.0%	9.3%	21.6%
Twitter	0.8%	0.2%	0.2%	0.2%	0.4%
Others	3.2%	14.0%	8.9%	21.9%	11.2%

CHAPTER 4: ATTITUDES & PERCEPTIONS ON MENSTRUATION

A variety of factors are known to influence the perception and attitude of girls such as culture, and religion belief. Discussing about personal subjects like periods (menstruation) can make parents and girls feel a little uncomfortable. But girls need to get reliable information before menarche. The manner in which girls usually learn or get information about menstruation and its associated changes may have an impact on her response to the event of menarche. Literature suggests that many cultural and religious beliefs are followed by people regarding menstruation. These norms were the barriers in the path of good menstrual hygiene practices. Many women experience restrictions on cooking, work activities, sexual intercourse, bathing, worshipping and eating certain food items (Drakshayani, et al. 1994). These restrictions were due to the overall perception of the people regarding menstruation as they consider it dirty and polluting (Jogdand, et al. 2011).

4.1. Myths and misconceptions on Menstruation

The present study revealed that myths related to menstrual cycle still exist. Table 11 and Figure 3 below show the response of respondents on prevailing embarrassment/hesitancy in the society during menstruation. The study has found that 61.4% of girls had accepted that a sense of embarrassment/hesitancy exists in the society on menstruation. However, it is encouraging that 38.6% of the girls mentioned that there was no embarrassment/hesitancy existing in the society on menstruation. Region-wise disaggregation shows that highest percentage (76.3%) of the participants of the south region had reported that embarrassment/hesitancy on menstruation prevails in the society followed by north (69.8%), west (57.2%) and east (39.9%).

Table 11: Respondents' view on general embarrassment/hesitancy on menstruation

	East (N-854)	North (N-1,025)	West (N-986)	South (N-933)	Total (N-3,798)
Yes	39.9%	69.8%	57.2%	76.3%	61.4%
No	60.1%	30.2%	42.8%	23.7%	38.6%

Figure 3: General embarrassment/hesitancy on menstruation

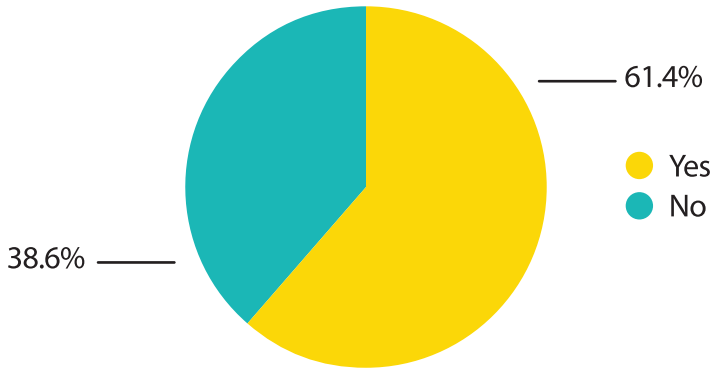


Table 12 below shows the region-wise type of restrictions prevailing during menstruation. The majority (57.5%) of participants from the north region accepted that restrictions on worship during menstruation was common as opposed to only 3.5% for participants of the south region. Contrarily, highest percentage (32.1%) of participants from south region reported restrictions related to eating or touching pickle in sharp contrast to related response of participants from north region (1.1%). Similar regional variations have been observed for remaining forms of restrictions as highlighted in Table 12. This implies that lack of factual information aggravated the prevalence of myths among them.

Table 12: Awareness on type of restrictions prevailing during menstruation in the society*

	East	North	West	South	Total
Worshipping	42.2%	57.6%	25.3%	3.5%	27.3%
Eating/touching pickle	20.6%	1.1%	18.8%	32.1%	20.1%
Taking bath regularly	6.4%	3.3%	36.4%	6.2%	14.6%
Entering kitchen	15.8%	0.8%	10.3%	10.9%	9.6%
Playing outside	5.8%	10.5%	2.3%	11.3%	7.5%
Staying/sleeping with others	1.3%	11.5%	5.2%	10.2%	7.4%
Drying undergarments/ washable sanitary pad in open	2.3%	0.1%	1.0%	11.0%	4.4%
Going to school	23.2%	69.7%	0.3%	6.8%	4.2%
Others	0.0%	0.0%	0.7%	14.0%	4.8%

*Multiple responses recorded, therefore the total is not provided.

At the aggregate level, highest percentage of girls were aware of restrictions on worshipping (27.3%), followed by eating/touching pickle (20.1%), taking bath regularly (14.6%), entering kitchen (9.6%), playing outside (7.5%), staying/sleeping with others (7.4%), drying undergarments/washable pads in the open (4.4%), and going to school (4.2%).

Further, question related to ever experienced/observed embarrassment due to menstruation was asked. To this, 58.3% of the respondents reported that they had faced/observed embarrassment/hesitancy due to periods (see Figure 4 below). Region-wise disaggregation shows that the highest percent (63.2%) was for respondents of west region, followed by north (63.1%), south (56.6%) and east (43.6%), with regard to having faced embarrassment due to menstruation (see Table 13 below).

Figure 4: Restrictions and embarrassment observed/faced during menstruation

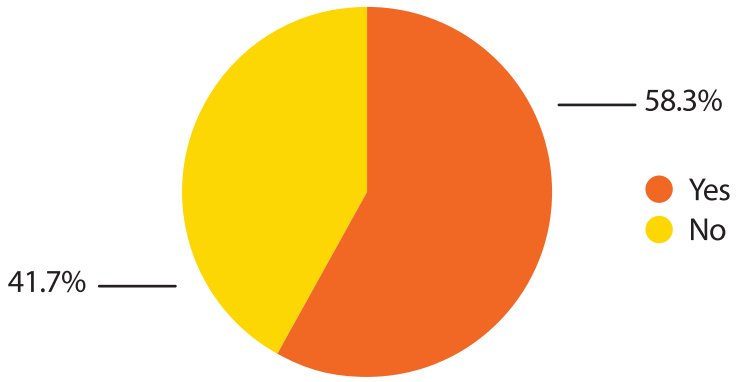


Table 13: Restrictions and embarrassment observed/faced during menstruation

	East (N-335)	North (N-715)	West (N-562)	South (N-705)	Total (N-2,317)
Yes	43.6%	63.1%	63.2%	56.6%	58.3%
No	56.4%	36.9%	36.8%	43.4%	41.7%

The participants who said that they had faced/observed restrictions/embarrassment were further asked about the type of restrictions imposed/embarrassment faced during menstruation. Table 14 below reveals that among the participants, 18.1% reported purchasing pad in front of boys/men followed by talking about periods to elders (16.4%), purchasing and carrying pads (14.7%), and carrying or changing pad in school (14.1%). About 9.4% of respondents reported stain/fear of staining in cloth/not travelling/not attending event, followed by embarrassment at home (7.5%), can't walk freely/pain/back pain (7.4%), restriction on movement in house/event/relative's house/kitchen (3.2%), not being allowed to go to temple/worship (2.7%), and hesitation to take permission from teacher to change the pad (1.1%).

Table 14: Type of restrictions and embarrassment observed/faced during menstruation*

	East	North	West	South	Total
Purchasing pad in front of men/boys	6.2%	4.6%	34.4%	22.6%	18.1%
Hesitation in talking about periods to elders	5.2%	38.3%	3.5%	1.3%	16.4%
Purchasing and carrying pads	0.0%	32.6%	3.0%	4.9%	14.7%
Embarrassment in school due to periods carrying/changing pads	8.2%	1.4%	19.8%	28.1%	14.1%
Stain/Fear of staining in cloth/ not travelling/not attending event	24.7%	7.1%	8.8%	9.6%	9.4%
Embarrassment at home	4.1%	11.3%	5.6%	4.9%	7.5%
Pain/back pain/can't walk freely	40.2%	0.2%	14.7%	1.8%	7.4%
Restriction on movement in house/ event/relatives' house/kitchen	5.2%	0.5%	0.9%	9.4%	3.2%
Not allowed to go to temple/worship	0.0%	1.1%	1.6%	7.0%	2.7%
Hesitation to take permission from teacher to change pads	0.0%	0.0%	0.0%	4.2%	1.1%
Others	6.2%	3.0%	7.7%	6.2%	5.4%

*Multiple responses recorded, therefore the total is not provided.

4.2. Attitude of respondents on Menstruation

Tables 15, 16 and 17 below discuss about responses of the respondents related to openness about discussing the menstruation. Participant girls were asked about their comfort regarding openly talking about periods, and the result was encouraging. About two-third (65.4%) of the girls responded that they were comfortable in openly talking about periods. On further probing those who had responded in the affirmative, it was found that 42.8% girls felt comfortable to discuss on menstruation with their mothers whereas 24.0% were comfortable discussing with elder sisters. About one-fifth (19.6%) respondents were comfortable with discussing with their friends followed by teacher (5.3%), other family members (5.3%), and father (1.5%).

Table 15: Comfortable in openly talking about periods (Respondents' View)

	East	North	West	South	Total
Yes	66.7%	68.1%	73.4%	53.4%	65.4%
No	33.3%	31.9%	26.6%	46.6%	34.6%

Table 16: Comfortable with whom to openly talk about periods (Respondents' View)

	East	North	West	South	Total
Mother	51.0%	35.0%	53.1%	35.3%	42.8%
Elder Sister	16.9%	23.3%	33.6%	24.0%	24.0%
Friend	21.4%	24.9%	1.1%	27.3%	19.6%
Father	2.9%	1.3%	0.2%	1.5%	1.5%
Teacher	3.8%	5.3%	9.6%	4.9%	5.7%
Other Family Members	3.9%	7.3%	2.5%	6.6%	5.3%
Other	0.2%	2.9%	0.0%	0.4%	1.0%

All those girls who said they are not comfortable in discussing on menstruation openly, were further asked about the reasons for the same. Nearly 90% of them in the agreement that either it is shameful or it is kept as secret. Regional variations in response has been observed with 50.3%) respondents of west region reporting that it was shameful whereas the response rate was lowest for south (20.3%). On the contrary, majority of respondents (49.3%) from south region were in agreement with both the statements that it was shameful and it was kept as secret compared to west region (17.3%). There was not much region-wise variation with regard to the response on the statement "it is kept as a secret".

Table 17: Reasons for not feeling comfortable to openly talk about periods

	East	North	West	South	Total
It is shameful	35.1%	44.3%	50.3%	20.3%	35.9%
It is kept as a secret	32.0%	35.8%	32.3%	29.5%	32.2%
All (1&2)	29.4%	18.7%	17.3%	49.3%	30.7%
Other	3.5%	1.2%	0.0%	0.9%	1.2%

CHAPTER 5: MENSTRUAL HYGIENE MATERIALS: USAGE AND DISPOSAL

Proper management of menstrual periods is important for girls and women during her entire reproductive life. The areas of concern among them during periods include choice of the best period protection material, how often and when to change the sanitary protection, and cleaning external genitalia. The choice of protection material is based on personal choice, cultural acceptability, economic status, and availability in the local market. In rural areas, the most preferred absorbents are cotton and reusable cloth pads, whereas in urban areas, girls and women prefer to use commercial sanitary pads, but it varies based on their economic status.

Access to menstrual hygiene materials is not enough; there is a parallel need for safe, hygienic and private spaces to change menstrual hygiene materials. Basic requirements such as soap and safe water to wash hands before and after changing or disposing of used materials for hygiene and privacy are often not available in schools (Kirk, et al. 2014). Poor menstrual hygiene management in schools has been found to contribute to monthly school absenteeism leading to poor performance among girls in schools (Patle, et al. 2014).

5.1. Accessibility and use of menstrual materials

As shown in Table 18 and Figure 5 below, 53.8% respondents have reported the use of sanitary pads to manage menstruation, and 1.4% used washable sanitary pads available in the market, while 44.5% used homemade absorbents or cloth. At the regional disaggregation level, use of sanitary pads was highest (81.2%) in south compared to east (56.5%), north (66%) and west (21.1%) regions.

Figure 5: Materials used in management of menstruation

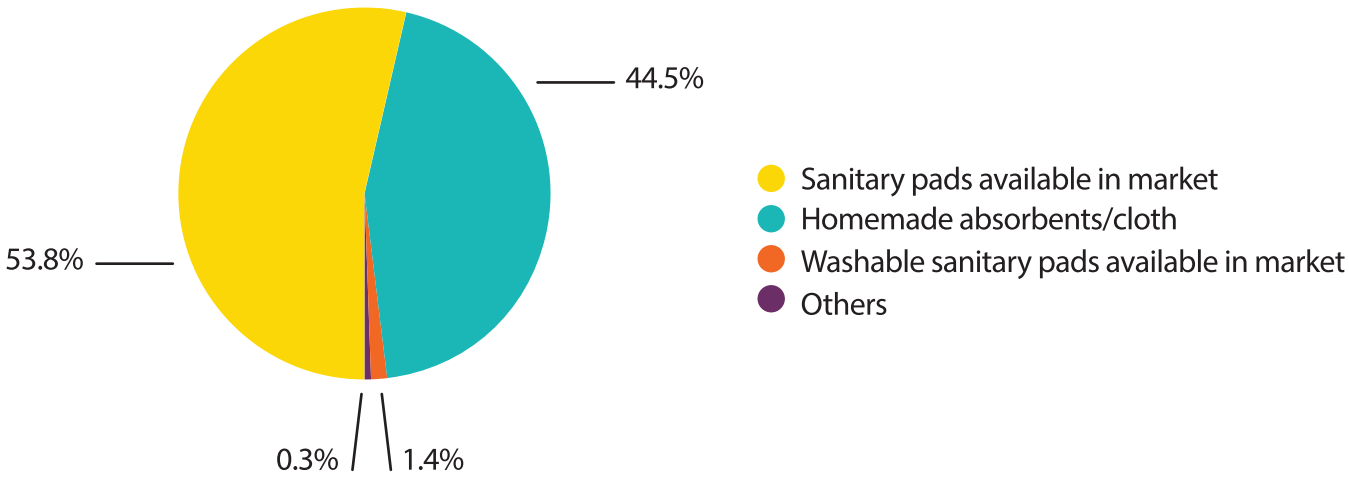


Table 18: Materials used in management of menstruation*

	East	North	West	South	Total
Sanitary pads available in market	56.5%	66.0%	21.1%	81.2%	53.8%
Homemade absorbents/cloth	41.9%	31.7%	78.6%	15.8%	44.5%
Washable sanitary pads available in market	1.6%	1.3%	0.2%	3.0%	1.4%
Others	0.0%	1.0%	0.0%	0.1%	0.3%

*Multiple responses recorded, therefore the total is not provided.

All those respondents who were not using sanitary pads were asked about why they are not using pads, and the majority (57.8%) of girls had a perception that sanitary napkins is expensive. This could be related to the socio-economic status of the girls. Other reasons for not using sanitary pads were hesitation or shyness (13.8%) to purchase the same from the shop, difficulty in disposal of pads (13%), not available nearby (11.3%), and no knowledge of pads (4%).

Table 19: Reasons for not using sanitary pads*

	East	North	West	South	Total
Cost	46.1%	66.8%	68.8%	55.9%	57.8%
Not available	11.9%	0.3%	18.6%	16.8%	11.3%
Difficulty in disposal	18.2%	15.9%	1.8%	11.9%	13.0%
No Knowledge	8.4%	2.4%	0.0%	0.7%	4.0%
Shyness	15.3%	14.2%	10.9%	13.3%	13.8%
Others	0.0%	0.3%	0.0%	1.4%	0.3%

*Multiple responses recorded, therefore the total is not provided.

Further analysis of data by place of residence (see Table 20 below) revealed that the majority (92.1%) of girls of urban slums and rural areas (72.9%) had reported that the cost of the sanitary pads was the main barrier to purchasing of sanitary pads for menstrual management. Accessibility or availability of sanitary pads was the second most common reason for not using pads by the study participants from rural areas and urban slums.

Table 20: Reasons for not using sanitary pads by place of residence*

	Rural	Urban	Urban Slum	Total
Cost	72.9%	51.6%	51.6%	57.8%
Not available	16.1%	10.0%	10.0%	11.3%
Difficult in disposal	5.9%	15.7%	15.7%	13.0%
No Knowledge	1.1%	5.1%	5.1%	4.0%
Shyness	4.0%	17.2%	17.2%	13.8%
Others	0.0%	0.3%	0.3%	0.3%

*Multiple responses recorded, therefore the total is not provided.

Further, findings of the study show that about one-third (32%) of the girls procured sanitary pads from provision or general stores followed by chemist shop (22.7%), NGOs (14.9%), health worker (13.8%), school (11.5%), and Anganwadi Centre (4.8%) (see Table 21 below). There are wide variations in procuring sanitary pads from chemist shops across the different regions, with east as high as 48.3% and north as low as 2.5%. Similar, variation across the regions has been found in the case of procuring sanitary pads from provision or general stores.

Table 21: Source of getting sanitary pads*

	East	North	West	South	Total
Chemist Shop	48.3%	2.5%	21.3%	21.3%	22.7%
Provision/General Store	38.9%	55.9%	0.7%	36.4%	32.0%
Anganwadi Centre (AWC)	1.7%	5.7%	2.4%	9.0%	4.8%

Health Worker	3.2%	2.2%	43.7%	3.1%	13.8%
NGOs	6.0%	22.2%	29.8%	1.4%	14.9%
School	1.9%	11.0%	2.0%	28.7%	11.5%
Others	0.0%	0.5%	0.0%	0.2%	0.2%

*Multiple responses recorded, therefore the total is not provided.

5.2. Disposal practices of sanitary pads

Proper knowledge on disposal of used menstrual material is still lacking among majority of the girls. Proper disposal mechanism of used menstrual material is missing in both home and school. In schools, due to lack of sanitary facilities, girls throw their pads in toilets. In some cases, girls threw away their used menstrual clothes without washing them. Also many were reported being absent from school due to lack of disposal system, broken lock/doors of toilets, lack of water tap, bucket and poor water supply (Jasper, et al. 2012).

All sanitary pad users were asked how they dispose their menstrual pads. The findings in Table 22 indicate that 41.8% of the respondents disposed of the menstrual materials waste through routine waste disposal system after wrapping in paper and about one-fifth (20.6%) did the same without wrapping in paper. About one-sixth (17.2%) of the respondents revealed that they threw their used sanitary pads in deserted areas followed by flushing in latrine (12.1%), burning (4.1%), and burying in the soil (0.9%). Disposal practices of sanitary pads varied across regions as well, possibly shaped by socio-cultural norms. There were striking differences in disposal of used pads through routine waste disposal system after wrapping in paper by regions. More than half of the girls used this method in the east (55.8%) and west (55.3%) regions as compared to north where only 10.4% girls used this method. Throwing the used sanitary pads in deserted open areas was the most common method of disposal of sanitary pads for about two-third (61.6%) of the girls in north region.

Table 22: Disposal of sanitary pads

	East (N-758)	North (N-709)	West (N-932)	South (N-829)	Total (N-3,228)
Routine waste disposal system	15.6%	19.5%	11.3%	36.7%	20.6%
Routine waste disposal system after wrapping in paper	55.8%	10.4%	55.3%	40.5%	41.8%
Throwing in deserted open areas	4.4%	61.6%	3.9%	6.0%	17.2%
Flushing in latrine	22.0%	2.4%	17.0%	5.8%	12.1%
Burning	0.0%	1.0%	4.0%	10.6%	4.1%
Burying in the soil	0.0%	0.3%	3.0%	0.0%	0.9%
Others	2.2%	4.8%	5.7%	0.4%	3.3%

5.3. Impact of poor menstrual hygiene on health

Poor menstrual hygiene is associated with reproductive tract infection (RTI). Girls have reported to suffer from various reproductive health problems associated with menstruation. Table 23 and Figure 6 discuss the findings on health issues faced by girls due to poor menstruation hygiene. Findings of the study revealed that most of the girls (74%) did not face any health problems due to poor menstruation hygiene. Only one-fifth (20.3%) girls mentioned that they faced health issues.

Figure 6: Ever faced health issues due to poor menstrual hygiene

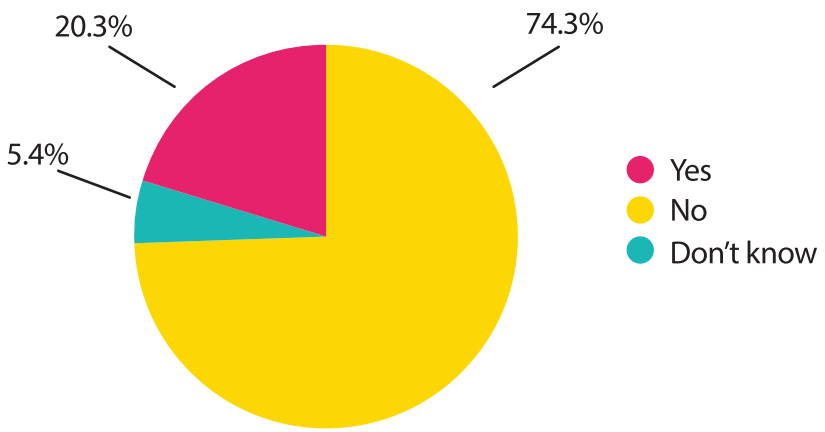


Table 23: Ever faced health issues due to poor menstrual hygiene

	East (N-854)	North (N-972)	West (N-1,000)	South (N-864)	Total (N-3,690)
Yes	14.6%	16.7%	21.9%	28.2%	20.3%
No	85.4%	77.2%	68.6%	66.8%	74.3%
Don't Know	0.0%	6.2%	9.5%	5.0%	5.4%

Table 24 shows that the most common health problem (68.3%) faced during menstruation was abdominal pain/back pain/body pain/tiredness/weakness/cramp [similar pattern was noticed in region-disaggregated data – west (72.2%), north (71.7%), south (68.1%), and east (58.3%)] followed by itching in genital area (7.5%). Other complaints reported by the respondents were RTI/UTI/foul smelling/white discharge (6.2%), excess bleeding/irregular period/quick period (5.6%), burning sensation during urinating/urine infection (4.3%), blistering in genital area/infection (2.4%) and irritating/mood swing (1.6%).

Table 24: Type of health issues faced*

	East	North	West	South	Total
Abdominal pain/back pain/body pain/ tiredness/ weakness/cramp	58.3%	71.7%	72.2%	68.1%	68.3%
Burning sensation during urinating/urine infection	0.0%	17.5%	0.5%	0.8%	4.3%
Itching in genital area	3.1%	0.6%	16.0%	7.6%	7.5%
Blistering in genital area/infection	0.0%	1.8%	4.6%	2.4%	2.4%
RTI/UTI/Foul smelling/White discharge	31.5%	3.0%	0.0%	0.4%	6.2%
Irritating/mood swing	0.0%	0.0%	1.0%	4.0%	1.6%
Excess bleeding/irregular period/quick period	1.6%	3.6%	0.0%	13.1%	5.6%
Others	5.5%	1.8%	5.7%	3.6%	4.1%

*Multiple responses recorded, therefore the total is not provided.

CHAPTER 6: MENSTRUATION AND SCHOOL ABSENTEEISM

This chapter discusses about the menstrual management and its influence on school attendance of the girls participating in the study. School-absenteeism is a common problem among girls, especially those who reside in rural areas. Girls face a lot of challenges in menstrual hygiene management in school due to inadequate facilities to change absorbents, dispose of absorbents, availability of soap and water to clean hands, and lack of privacy. Several qualitative studies found that many school-age girls do not attend school during menstruation (Tegegne, et al. 2014) due to shame, fear of having visible stains on their clothing and absence of a private place to manage menstruation or dysmenorrhea (Dambhare, et al. 2011). More than half of the schools in low-income countries lack sufficient latrines for girls or have latrines that are not very clean (Oster, et al. 2011). Evidence suggests that adolescent girls can miss up to four consecutive days (10–20% of school time) of school every month because of their menstrual periods, which severely impacts their academic achievement (Vashisht, et al. 2018).

Table 25 below reveals that more than one-third girls (39.1%) missed their school at least one day during every menstrual period. Average number of school days missed by girls during each menstrual period was two days. There was not much variation in percentage of girls missing schools during periods across the regions. However, highest number of schooling days missed by girls was in the north region followed east, west and south.

Table 25: Missing schools due to periods

Number of days missed school	East (N-840)	North (N-927)	West (N-991)	South (N-820)	Total (N-3,578)
0	54.2%	57.1%	64.2%	59.5%	58.9%
1	31.1%	13.7%	10.7%	22.4%	18.9%
2	13.9%	9.8%	13.9%	9.9%	11.9%
3	0.8%	6.6%	5.9%	7.6%	5.3%
4	0.0%	3.7%	1.6%	0.1%	1.4%
5 and more	0.0%	9.2%	3.7%	0.5%	3.5%

Further, participant girls were asked to provide the key reasons for missing the schools during periods, and the common reason (20.4%) reported by them was fear of staining clothes followed by pain caused by periods (19.5%), feeling of discomfort or tiredness (15.3%), afraid of others making fun (10.9%), non-functional toilets (9.9%), no place to dispose of the sanitary products (8.1%), not having sanitary pads (7.9%) and absence of any place to change pad at school (7.9%). From Table 26 below, it gets reflected that there is not much variation in the reasons for missing school across regions.

Table 26: Reasons for missing schools during periods*

	East	North	West	South	Total
Fear of staining clothes	24.2%	21.8%	18.2%	17.9%	20.4%
Pain caused by periods	20.3%	17.1%	20.1%	21.5%	19.5%
Feeling of discomfort or tiredness	14.6%	11.4%	15.7%	20.4%	15.3%
Afraid of others making fun	11.3%	10.2%	11.1%	11.4%	10.9%
Non-functional toilets	7.9%	12.3%	10.1%	7.9%	9.9%
No place to dispose of sanitary products	8.0%	8.5%	8.9%	7.0%	8.1%
Not having sanitary pads	7.1%	9.7%	6.8%	7.4%	7.9%
No place to change pad at school	6.5%	9.0%	9.1%	6.6%	7.9%

*Multiple responses recorded, therefore the total is not provided.

CHAPTER 7: CONCLUSION

Key Findings

- Of the 3,964 girls who participated in the study, 97% were studying in school. The percentage of urban respondents was higher (66.1%) compared to rural respondents (30.2%) with 3.7% of the respondents belonging to urban slums. About three-fourth (77.8%) of the girls were studying in government schools whereas one-fourth (22.2%) girls were in private schools. Mean age of the respondents was 14.8 years. About half of the participant girls of the study were from the marginalised communities.

- Education of parents especially mothers' education played an important role in transferring correct information on menstruation. Mothers of about two-third (61.3%) of respondents were either illiterate or with basic reading and writing skills, followed by primary and upper primary (16.2%), middle (11.6%), secondary (6.9%), and higher secondary and above (4.0%). Similarly, fathers of about half (48.4%) of the respondents were either illiterate or with only basic reading and writing skills, followed by primary and upper primary (19.7%), middle (15.6%), secondary (9.1%), and higher secondary and above (7.3%).

- About 95% of the girls aged 10-17 years who participated in the study, had already experienced menstruation before the survey. The study depicted that more than half (51.8%) of the girls did not have information regarding menstruation prior to menarche. The highest percentage of girls (27.7%) reported that their mother was the main source of information on menstruation followed by friend (22.8%), elder sister (15.9%), and NGO workers (8.8%). Similar response was found when it came to the credible source of information on menstruation. About 80% of the respondents mentioned 'mother' as the most credible source of information. However, television and YouTube were the most preferred sources of information on menstruation through media and social media, opted by 49.2% and 21.6% of the girls respectively.

- As per the findings of the study, 84% of the girls were knowledgeable about the cause of menstruation and said that it is a biological process whereas 11.3% of the girls did not know the correct cause of menstruation and said that it is a curse from god or caused by disease. About 4.6% of the girls were not at all aware about the cause of menstruation.

- The study also examined the attitude and perception on menstruation of respondents and people around them. The study has found that 61.4% of girls have accepted that a sense of embarrassment existed in the society with regard to period. Regarding awareness on restrictions imposed by the family and society, girls knew the restrictions on worshipping (27.3%), eating/touching pickle (20.1%), taking bath regularly (14.6%), entering kitchen (9.6%), playing outside (7.5%), staying/sleeping with others (7.4%), drying undergarments/washable pads in the open (4.4%), and going to school (4.2%). Further, 58.3% of the respondents reported that they had faced/observed embarrassment/hesitancy due to periods. With regard to the type of embarrassment or restriction faced/observed during menstruation, 18.1% of respondents reported purchasing pad in front of boys/men, followed by talking about periods to elders (16.4%), purchasing and carrying pads (14.7%), and carrying or changing pad in school during menstruation (14.1%). About 9.4% of the respondents reported stain/fear of staining in cloth/not travelling/not attending event, followed by embarrassment at home (7.5%), can't walk freely/pain/back pain (7.4%), restrictions with regard to movement in house/event/relative's house/kitchen (3.2%), not being allowed to go to temple/worship (2.7%), and hesitation to take permission from teacher to change the pads (1.1%).

- With regard to practices on menstrual management, it was found that 53.8% respondents reported use of

sanitary pads, and 1.4% used washable sanitary pads available in the market, while 44.5% used homemade absorbents or cloth. Majority (57.8%) of girls reported that sanitary napkins were expensive, and this could be related to the socio-economic status of the girls. Hesitation or shyness to purchase pads from the shop (13.8%), difficulty in disposing of pads (13%), not available nearby (11.3%), and no knowledge of pads (4%) were the other reasons for not using the sanitary pads by the respondents. The findings of the study show that one-third (32%) girls reported procuring of sanitary pads from provision store or general store followed by chemist shop (22.7%), NGOs (14.9%), health worker (13.8%), school (11.5%) and Anganwadi Centre (4.8%). About 42.8% of the respondents reported disposing of sanitary pads through routine waste disposal system after wrapping in the paper while about one-fifth (20.6%) did the same without wrapping in paper. About one-sixth (17.2%) of the respondents revealed that they threw their used sanitary pads in deserted areas followed by flushing in latrine (12.1%), burning (4.1%), and burying in the soil (0.9%).

- The findings of the study revealed that three-fourth of the girls (74%) did not face any health problems due to poor menstruation hygiene. However, only one-fifth (20.3%) girls said that they faced health issues. Most common health problems faced by respondents during menstruation was abdominal pain/back/body pain/tiredness/weakness/cramp (68.3%) followed by itching in genital area (7.5%). More than one-third girls (39.1%) missed their school at least on one day due to periods, and the average number of school days missed by them was two. The most common reason reported by them was fear of staining clothes (20.4%), followed by pain caused by periods (19.5%), discomfort and tiredness due to periods (15.3%), fear of others making fun (10.9%), non-functional toilets (9.9%), absence of any place to dispose of the sanitary products (8.1%), not having sanitary pads (7.9%), and absence of any place to change pad at school (7.9%).

Conclusions

The study established that, overall, girls are not well-informed and prepared for menarche. It is found that 51.8% of the girls were unaware and did not have the information/knowledge on menstruation prior to menarche, and only 48.2% had prior awareness/knowledge. This is in line with a study conducted in 2016 – `Menstrual hygiene management among adolescent girls in India: a systematic review and meta-analysis'. This is a systematic review and meta-analysis of all the studies prior to 2016. This study also found that an estimated 52% of adolescent girls in India were unaware of menarche until they get it themselves, and only 48% had premenarcheal awareness (van Eijk, et al. 2016:4). Today, in 2023, the awareness level remains more or less the same, and practically, there is no improvement. Further, the information/knowledge on menstruation was primarily obtained from mothers and other female family members.

Along with the lack of information/knowledge, 61.4% of the girls feel general embarrassment during menstruation; they have to abide by certain restrictions; and they agree that there are certain myths, misconceptions and taboos associated with menstruation. This study reveals that adolescent girls have in general negative attitude due to stigma, myth, misconception and shame towards periods as they exist in the family, school and society.

Another aspect of concern is the disposal of used menstrual material. About 62.4% use the routine waste disposal system to dispose the menstrual material. Menstrual hygiene practices of the adolescent girls was found to be low. This is an area of concern as it is directly linked to MHH which is essential to the well-being and empowerment of girls/women. The ability to regulate menstruation hygienically is critical to women's dignity and well-being. To effectively manage their menstruation, girls/women require access to WASH facilities, affordable and appropriate menstrual hygiene materials, information on good practices and a supportive environment where they can manage menstruation without embarrassment or stigma.

On the other hand, 95% of the girls in the sample for this study have already experienced menstruation, and as a result, 84% of the respondents had the knowledge on what causes menstruation and mentioned that it is a biological process. This is a positive development. Also, more adolescent girls use sanitary pads (53.8%) to absorb the menstrual flow as against 44.5% who use homemade absorbents/cloth. Further, 74% of the girls did not have any health issues, and only 20.3% had minor health problems.

Recommendations

In accordance with the Supreme Court Order, dated 10th April 2023 in Dr. Jaya Thakur versus Government Of India & Ors, there is a need for a uniform national policy on menstrual hygiene by the Union Government in engagement with State governments. The Union and State Governments, as directed by the Supreme Court, must ensure low-cost sanitary napkins, vending machines, and safe disposal mechanisms of sanitary napkins are available in schools/school complexes in upper primary, secondary and higher secondary classes (Supreme Court 2023). Further, all States and UTs have been directed to submit their MHM strategies and plans which are being executed either with the help of funds provided by the Union Government or through their own funds to the Mission Steering Group of the National Health Mission within a period of four weeks. Apart from the above directions, the States and UTs shall also indicate to the Mission Steering Group the appropriate ratio of female toilets for residential and non-residential schools for their respective territories. All States and UTs shall also indicate the steps which have been taken to provide for the availability of low-cost sanitary pads and vending machines in schools and for appropriate disposal mechanisms. Lastly, the Mission Steering Group is directed to re-evaluate the national guidelines based on the experiential learning of the previous decade(s).

The current study showed that the information on menstruation among the students was not sufficient, and the disparities between their knowledge, attitude and practice was evident. Imparting knowledge regarding menstruation should not be limited to one-time sessions or programmes, but must focus on behavioural change programmes. Therefore, school authorities should regularly organise sessions on the issues related to MHH. Special sessions need to be organised on the day of parents-teacher meeting involving mothers of adolescent girls. School teachers should address some of the related issues in class and also inform the students about good and reputable sources which they should access for correct information on menstruation.

NGOs can work closely with the schools and other relevant stakeholders to comply with the School Health and Wellness programme (part of the Health and Wellness component of Ayushman Bharat Programme). They can also take initiatives to promote and train a core team of girls in schools and communities to impart information on MHM and ensure participation of all stakeholders – girls, teachers, women, men, boys, SHGs, ANMs, ASHAs, Anganwadi workers, etc. ¬– in spreading awareness and dispelling myths and misconceptions. Further, peer groups or adolescent clubs (including both boys and girls) can be formed who would discuss different components related to MHH practices, myths and stigmas. Through these, champions can be created in the communities who would work on creating awareness on MHH-related information and knowledge. Additionally, IEC materials on MHM can be developed and widely disseminated in schools and communities. All of the above, will go a long way towards sensitising the communities on changing the negative socio-cultural practices that stigmatise menstruation.

The Education Department should ensure that schools have separate functional toilet facility for girls, and dustbins/incinerators for safe disposal of used menstrual materials. Involvement of community members may be sought in the provisioning and management of WASH facilities in schools to ensure sustainability. The government should work towards ensuring the availability and accessibility of MHM products for school girls at affordable price.

Further, there is need for the convergence of various departments – education, health, WCD, etc. – to **'break the silence and talk about periods',** and to ensure MHH among girls and women.

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Annexures

Annexure 1: Questionnaire for KAP Study on Period Shame Campaign

Identification Details	Code
Region:	☐
State :	☐☐
City:	☐☐☐

Informed Consent (Read out)

My name is _____, and I am from _____ working in collaboration with CRY – Child Rights and You, an Indian NGO that works towards ensuring a happy, healthy and creative child whose rights are protected and honoured in a society that is built on respect for dignity, justice and equity for all. We are conducting a research to understand the knowledge, attitude and practice (KAP) on Periods among girls aged 10-17 years. As part of this survey, we would be interviewing you for about 15 minutes.

The same set of questions will be asked from all those who voluntarily participate in this process and willingly share the information. We shall not share any personal information you provide with anyone, and participating in this study will not adversely affect you in any way. We assure you the strict confidentiality of your responses and your name will not come in any format in this research report. The information provided by you will be used for this research purpose, devise CRY intervention strategies along with engagement with the policy-makers and duty bearers.

You can stop the interview at any time or refuse to answer any of the questions if preferred. The participation in the process will not provide any monetary benefit/gain to the participant, but it will help CRY and similar organisations and authorities understand children's concerns.

The findings of this survey will facilitate CRY team in devising the implementation strategy for menstrual health and hygiene practices for adolescent girls. It will also be shared with the local authorities in your community who are the stewards for providing services to children.

If there are questions you wish to ask later or if you have any problem, you are welcome to contact me at _____. We hope that you will take part in this study. Do you have any question/concern/query at this stage?

Are they willing to participate in the study?

☐ No - Thank the respondent for their time and leave.

☐ Yes - Proceed to get signed consent below and administer the survey.

I, the undersigned have understood the consent form above and am willingly agreeable to participate in the study.

Signature of the respondent
(Thumb impression if can't write)

Name of the respondent: **Date:**
(In case of an illiterate/differently-abled respondent, signature from a non-minor witness should be obtained below)

I have witnessed the accurate reading of the consent form to the potential respondent and the individual has had the opportunity to ask questions. I confirm that the individual has given consent freely.

Signature of the witness:
Name of the witness:
Date:

Thumb print of the respondent

I have accurately explained the above information sheet to the respondent. I also confirm that they were given an opportunity to ask questions about this study, and all the questions asked by him/her have been answered correctly and to the best of my ability.

Signature of the interviewer:
Name of the interviewer: Date:
Contact Number of the interviewer:

(Note: One copy of this consent sheet is to be left with the parent/ guardian and one copy should be filed with the researcher).

KAP STUDY QUESTIONNAIRE

S. No.	Questions	Possible Answers	Skip
	Socio-Demographic Profile		
01.	Are you currently studying? ***(Only applicable while doing survey in community)***	1) Yes 2) No	If No, Skip to Q3
02.	What is the type of school you are studying in?	1) Government 2) Private	
03.	What grade are you currently studying in?	1) Below 6th 2) 6th 3) 7th 4) 8th 5) 9th 6) 10th 7) 11th 8) 12th	
04.	What is your age in completed years?	_____	
05.	What is your social category?	1) General 2) OBC 3) SC 4) ST 5) Other (Specify) _____	
06.	What is the area of your residence? ***(Note down the name of the place)***	1) Urban 2) Rural 3) Urban Slum Name of the place: _____	
07.	What is your Mother's educational status?	1) Illiterate 2) Read and write 3) Primary/Upper Primary 4) Middle 5) Secondary 6) Higher Secondary and above	
08.	What is your Father's educational status?	1) Illiterate 2) Read and write 3) Primary/Upper Primary 4) Middle 5) Secondary 6) Higher Secondary and above	

S. No.	Questions	Possible Answers	Skip
09.	What is your Mother's occupational status?	1) Housewife 2) Private organisation employee 3) Governmental employee 4) Business/Shop 5) Farmer/Engaged in Agriculture 6) Daily labourer 7) Other (specify) _____	
10.	What is your Father's occupational status?	1) Government Employee 2) Private Employee 3) Daily Labourer 4) Business/Shop 5) Farmer/Engaged in Agriculture 6) Other (specify) _____	
Knowledge and awareness about menstruation			
11.	What is menstruation/period? ***(Probe – use always local term of Mensuration/Period)***	1) Normal process of body 2) Caused by disease 3) Curse from god 4) Other (specify) _____ 5) Don't know	If 5, stop interview
12.	When did you have your last period?	1) During this month or before 2) Not yet started	If 2, skip to Q14
13.	Were you aware about menstruation/period by the time you had your first period?	1) Yes 2) No	
14.	What was your main source of information about periods? ***(Multiple answers possible)***	1) Mother 2) Friend 3) Elder sisters 4) Father 5) Other family members 6) School text book 7) School Teacher 8) Radio 9) Television 10) Social Media 11) Newspaper/Magazine 12) Health professional/AWW/ASHA 13) NGO worker 14) Other (specify) _____	
15.	What is your preferred source of information on menstruation and menstrual hygiene?	1) Radio 2) Television 3) Newspaper/Magazine	

S. No.	Questions	Possible Answers	Skip
		Social Media 4) WhatsApp 5) Facebook 6) Instagram 7) YouTube 8) Twitter 9) Any other (specify) _____	
16.	How often do you discuss and get information regarding Menstruation from these sources?	1) Once a month 2) Twice a month 3) Once in six months	
17.	Whom do you trust as credible source of information? Please provide your answer in order of ranking in number. ***(Rank in the bracket – between 1 to 13, rank 1 is most trust worthy whereas 13 is the least trust worthy)***	( ) Mother ( ) Friend ( ) Elder sisters ( ) Father ( ) Other family members ( ) School text book ( ) School Teacher ( ) Radio ( ) Television ( ) Social Media ( ) Newspaper/Magazine ( ) Health professional/AWW/ASHA ( ) NGO worker	
18.	Are you aware about some of the misconceptions/social taboos that exist in society regarding menstruation? ***(Probe: Multiple answers possible)***	1) Don't take bath regularly 2) Don't worship 3) Don't eat/touch pickle 4) Don't enter kitchen 5) Don't stay/sleep with others 6) Don't play outside 7) Don't dry undergarments/washable sanitary pad in open 8) Don't go to school 9) Other (specify) _____	
19.	Are you comfortable talking openly about periods?	1) Yes 2) No	If No, skip to Q21
20.	If yes, with whom are you comfortable? ***(Multiple answers possible)***	1) Mother 2) Elder sister 3) Friend 4) Father 5) Teacher 6) Other family members 7) Other (specify) _____	

S. No.	Questions	Possible Answers	Skip
21.	If no, why are you not comfortable?	1) It is shameful 2) It is kept as a secret 3) All (1&2) 4) Other (specify) _____	
22.	Do you think there is a general embarrassment/hesitancy regarding periods?	1) Yes 2) No	
23.	If yes, have you ever faced/observed any embarrassment?	1) Yes 2) No	
24.	Please tell me, what type of embarrassment you have faced/observed? ***(Note down everything. Probe where – school, home or while procuring sanitary pads)***		
25.	Have you ever faced any health issues due to periods or poor menstrual hygiene (e.g., Reproductive Tract Infection)?	1) Yes 2) No 3) Don't Know	If No or Don't Know, skip to Q27
26.	If yes, what was the health issue? Please specify.		
Myths, management and hygiene practices (All those girls experiencing periods)			
27.	What materials do you use during the menstrual period? ***(Multiple answers possible)***	1) Homemade absorbents / cloth 2) Sanitary pads available in market 3) Washable sanitary pads in market 4) Other (specify) _____	
28.	If not using sanitary pad, the reasons for not using a sanitary pad? ***(Multiple answers possible)***	1) Cost 2) Not available 3) Difficulty in disposal 4) No knowledge 5) Shyness 6) Other (specify) _____ 7) Not applicable	
29.	From where do you usually get sanitary pads? ***(Multiple answers possible)***	1) Chemist shop 2) Provision / General store 3) Anganwadi Centre (AWC) 4) Health Worker 5) NGO 6) School 7) Other (specify) _____	

S. No.	Questions	Possible Answers	Skip
30.	How do you dispose off sanitary pads?	1) Routine waste disposal system 2) Routine waste disposal system after wrapped in paper 3) Deserted open areas 4) Latrine 5) Other (specify) _____	
31.	Did you experience/observe any kind of restrictions during menstrual periods?	1) Yes 2) No	
Menstruation and girls' academic performance (All those girls experiencing periods and are in school)			
33.	If response of Q 29 more than "0", What are the reasons for missing school during period? ***(Probe)***		
a)	Afraid of staining my clothes.	1) Yes 2) No	
b)	Afraid of others making fun of me.	1) Yes 2) No	
c)	Periods cause pain.	1) Yes 2) No	
d)	Periods make me feel uncomfortable or tired.	1) Yes 2) No	
e)	Non-functional toilets.	1) Yes 2) No	
f)	There is no place to dispose of sanitary products.	1) Yes 2) No	
g)	Do not have sanitary pads.	1) Yes 2) No	
h)	There isn't any place for girls to change pad at school.	1) Yes 2) No	

Annexure 2: Credits – Partners and Volunteers, REC Members and Subject Experts, and CRY Team Members involved in the KAP Study

Partners and Volunteers:

Region	Partners	Volunteers
East	• GVM • SESTA • Educate The Girl Child • Teach Me-Vahdam Teas	• Saptarshi Majumder • Sudeshna Ghorui • Tanisha Banerjee • Ankita Dey • Poushali Pal • Riya Ghosh • Samriddhaa Ghosh • Sutirtha Sana • Niloy Saha • Abhinandan Patra • Pooja Kalikotey • Ranjit Subba
West	• MITWA • Gram Mitra • Mahasamund Bajaj Project • Path Pradshak • HALWA • Jeevandhara • KMAGVS Latur, Osmanabad and Nanded • Shrishti • Swaryamitra • VVS Ahmednagar • Vidhayak Bharathi	• Lavanya Bhati • Ananya Chaudhary • Gayatri Bhatt • Abhishek Jha • Neha Kumari
South	• HREPC • RWDS • SPT • SCSTEDS • PORD • Pragathi • SRAMA	• Tanmay Kakati • Pooja Bengani • Nikita Rana
North	• Vikas Samvad Samiti (VSS), Bhopal • Samvedna, Bhopal • Gramin Vikas Samiti (GVS), Damoh • Aim for the Awareness of Society (AAS), Indore • Doaba Vikas evam Utthan Samiti (DVEUS), Kaushambi • Rural Organisation for Social • Advancement (ROSA), Chandoli	

Region	Partners	Volunteers
	• Samagra Vikas Sansthan (SVS), Buduan • Sonebhadra Vikas Samiti Sansthan • (SVSS), Sonebhadra • Asian Institute of Management Trust • (AIM Trust), Lucknow • Jan Mitra Nyas (JMN), Varanasi • Dr. Shambhunath Singh Research • Foundation (SRF), Varanasi • DI: Udaan-Breaking Barriers, Guna • and Sagar ***Fellows:*** • Ramnaresh Yadav, Rewa • Anandilal Shriwas, Satna	

REC Members and Subject Experts:

• Dr. Anand Pradhan • Dr. Biswajit Das	• Dr. Debarati Dhar • Dr. Gnana Prakasam

CRY Team Members:

• Anupama Muhuri • Abhik Bhattacharjee • Jaya Singh • Jaya Amin • Mayur Pateria • Neelam Naik • Smrati Awasthi • Sneha Methil • Sohini Bhattacharjee • Manishankar Kumar • Sourabh Ghosh • Aditi Banerjee	• Pallavi Jadhav • Soumya Suresh • Veronica Xavier • Saptarshi Hazra • M. Poornima • Dilna Dayanandan • Libza Mannan • Saurav Kumar • Nancy Gupta • Jenishiya Priyanka • Shailendra Anand • Neelabja Mukherjee

Annexure 3

CONCURRENT ASSESSMENT OF MENSTRUAL HYGIENE SCHEME UNDER RASHTRIYA KISHOR SWASTHYA KARYAKRAM IN SELECT CRY INTERVENTION DISTRICTS

1. Introduction

The World Health Organisation (WHO) defines 'Adolescents' as population belonging to the age group of 10–19 years. As per Census of India 2011, adolescents (10–19 years age group) cover 20.9% of the total population in India. Among the many unaddressed issues are sexual and reproductive health issues, which are a major cause of morbidity and mortality in adolescents, particularly adolescent girls. Seeing the gravity of the Adolescent Reproductive and Sexual Health (ARSH) issue, the Ministry of Health and Family Welfare incorporated ARSH programmes into the National Rural Health Mission (NRHM) in 2005, but the impact of the programmes has not been very successful and has largely remained uneven across the country[1]. For a further more holistic approach to the problems of adolescents, the Rashtriya Kishor Swasthya Karyakram (RKSK) was launched by the Government of India in 2014. The programme aims to improve the overall health and well-being of adolescents aged 10–19 years, including their menstrual health and hygiene[2]. The programme focuses on providing information and education, increasing access to information and services related to menstrual hygiene management, as well as addressing social taboos and stigma surrounding menstruation.

Under the RKSK, a range of interventions is implemented to address menstrual health and hygiene, including:

- **Education and awareness-raising:** Adolescent girls are provided with accurate and comprehensive information about menstrual health and hygiene. This includes information on the menstrual cycle, menstrual hygiene practices, use and disposal of sanitary products, and prevention of infections.
- **Access to menstrual products:** The programme provides access to affordable and safe menstrual products such as sanitary pads, tampons and menstrual cups through partnerships with local manufacturers, distributors and non-governmental organisations. This ensures that girls have access to clean and safe menstrual hygiene products.
- **Hygiene and sanitation:** Promoting good menstrual hygiene practices such as washing hands before and after changing sanitary products, and ensuring clean and safe toilet facilities in schools.
- **Management of menstrual pain:** Addressing issues related to menstrual pain and discomfort, such as providing information about pain management techniques and ensuring access to pain-relief medication.
- **Menstrual waste management:** Providing information and resources for safe and environment-friendly disposal of menstrual waste.
- **Capacity building of healthcare providers:** Healthcare providers are trained in menstrual hygiene management, and are equipped to provide counselling and services related to menstrual health.
- **Community engagement:** The programme engages with communities to raise awareness and reduce stigma around menstruation. This includes working with adolescents, parents, teachers and community leaders to promote menstrual health and hygiene.

1.Hoopes AJ, Agarwal P, Bull S, Chandra-Mouli V. Measuring adolescent friendly health services in India: A scoping review of evaluations. Reprod Health. 2016; 13(1):137. doi:10.1186/s12978-016-0251-8.
2. https://www.nhm.gov.in/index4.php?lang=1&level=0&linkid=152&lid=173, accessed on 20th March 2023.

2. Methodology

The present study was conducted to develop an understanding of the status of Menstrual Health Scheme (MHS) under RKSK in 38 districts of 13 intervention States of CRY covering all four regions in India. A minimum of two States were chosen from each region to ensure geographic representation. Eighteen districts across six States in the North region, 11 districts across two States in the West, six districts across three States in the South, and three districts across two States in the East were covered. Table 1 below provides the details of the States and districts in each region.

Table 1: Names of States and Districts covered in each region

Regions	States	No. of Districts	Districts
East	Assam	2	Barpeta, Nalbari
	Odisha	1	Kandhamal
North	Delhi	2	North West, South East
	Haryana	1	Panchkula
	Jammu & Kashmir	4	Baramulla, Budgam, Bandipora, Ganderbal
	Madhya Pradesh	4	Bhopal, Devas, Indore, Shivpuri
	Rajasthan	2	Ajmer, Udaipur
	Uttar Pradesh	5	Budaun, Chandauli, Kaushambhi, Sonbhadra, Varanasi
South	Andhra Pradesh	2	Annamayya, Tirupati
	Telangana	2	Nagarkurnool, Wanaparthy
	Tamil Nadu	2	Salem, Dharmapuri
West	Maharashtra	7	Ahmednagar, Latur, Mumbai, Gadchiroli, Osmanabad, Nandurbar, Wardha
	Chhattisgarh	4	Bilaspur, Korba, Mahasamund, Surguja

3. Data Collection

Data was collected for the study from July to August 2022. The study covered 354 adolescent girls in the age group of 10–17 years, 374 Accredited Social Health Activists (ASHAs), and 140 Adolescent Friendly Health Centres (AFHCs) across all four regions in the country. A team of volunteers and community workers visited the selected districts to collect the data with a validated questionnaire developed to study the status of RKSK in CRY's intervention districts. The survey was conducted among adolescent girls aged 10–17 years through one-on-one interviews. Interviews were conducted with only those who voluntarily agreed to participate in the survey. Further, data was also collected from selected ASHAs and AFHCs. The data was entered using Microsoft Excel and analysed using Statistical Package for Social Sciences (SPSS) 22.0.

4. Results and Discussion

4.1. Analysis of data collected through interviewing adolescent girls on Menstrual Health Scheme

Table 2 below shows the percentage of respondents (adolescent girls) who answered "Yes", "No", or "Don't know" when asked whether they buy sanitary pads from the ASHAs every month at the Anganwadi Centre

(AWC) or in the community. In the East region, out of 30 respondents, 76.7% answered "Yes", 23.3% answered "No", and 0% answered "Don't know". In the North region, out of 148 respondents, 37.8% answered "Yes", 62.2% answered "No", and 0% answered "Don't know". In the West region, out of 114 respondents, no one was aware about sanitary pads being sold by the ASHAs every month at AWC/Community. In the South region, out of 62 respondents, 14.9% answered "Yes", 82.5% answered "No", and 2.6% answered "Don't know". Overall, out of 354 respondents across all four regions, 27.1% answered "Yes", 72% answered "No", and 0.8% answered "Don't know".

Table 2: Sanitary Pads sold by ASHAs every month at AWC/Community*

	East (N-30)	North (N-148)	West (N-114)	South (N-62)	Total (N-354)
Yes	76.7%	37.8%	0%	14.9%	27.1%
No	23.3	62.2%	100%	82.5%	72.0%
Don't Know	0%	0%	0%	2.6%	0.8

* Based on information collected through interviewing adolescent girls.

All those respondents who said that sanitary pads were sold by ASHAs, were further asked about the price of the packet of sanitary pads. Table 3 below provides information about the price of sanitary pads sold by ASHAs to adolescent girls.

The price of the sanitary pad varied significantly across regions. In the East region, all 22 respondents reported that the price of sanitary pads sold by ASHAs was Rs. 6. In the North region, out of 55 respondents, 32.7% reported that the price of sanitary pads was Rs. 6, 18.2% reported that the price was Rs. 7–10, 3.6% reported that the price was Rs. 11–15, and 45.5% reported that the price was Rs. 16–30. In the West region, out of 17 respondents, 76.5% reported that the price of sanitary pads was Rs. 6, while 23.5% reported that the price was Rs. 7–10. Since no one reported the price of sanitary pads sold by ASHAs in the South, there is no data available for this region. Overall, out of the 94 respondents across all four regions, 56.4% reported that the price of sanitary pads sold by ASHAs was Rs. 6, 14.9% reported that the price was Rs. 7–10, 2.1% reported that the price was Rs. 11–15, and 26.6% reported that the price was Rs. 16–30.

Table 3: Price of Sanitary Pad sold by ASHAs*

	East (N-22)	North (N-55)	West (N-17)	South (N-0)	Total (N-94)
Rs. 6	100%	32.7%	76.5%	–	**56.4%**
Rs. 7–10	0%	18.2%	23.5%	–	14.9%
Rs. 11–15	0%	3.6%	0%	–	2.1%
Rs. 16–30	0%	45.5%	0%	–	26.6%

* Based on information collected through interviewing adolescent girls.

The highest percentage of respondents who reported that deep pit burial or burning is available but not used is from the East region (16.7%), followed by the West (11.4%), and North (0.7%). Overall, the data suggests that deep pit burial or burning for the safe disposal of sanitary napkins under the supervision of ASHAs at the community level is not widely available or used, along with significant regional variations.

Table 4: Availability and use of deep pit burial or burning for safe disposal of sanitary pads under the supervision of ASHAs at the community level*

	East (N-30)	North (N-148)	West (N-114)	South (N-62)	Total (N-354)
Yes, available and being used	13.3%	16.2%	7.9%	6.5%	11.6%
Yes, available but not used	16.7%	0.7%	11.4%	0.0%	5.4%
No, not available	70.0%	83.1%	80.7%	93.5%	**83.1%**

* Based on information collected through interviewing adolescent girls.

Table 5 below indicates that highest percentage (53.3%) of respondents from East region reported that ASHAs and Anganwadi Workers (AWWs) hold meetings every month on issues related to menstrual health and hygiene, followed by North (25.7%), West (23.7%), and South (9.7%). The overall percentage for all the regions together is 24.6%.

Table 5 also shows that the highest percentage of adolescent girls acknowledging that monthly meetings on issues related to menstrual health and hygiene are held, but not every month, is for the West region with 63.2%, followed by North (43.9%), East (36.7%), and South (14.5%). The overall percentage for all the regions together is 44.4%. On the other hand, the highest percentage of respondents reporting that monthly meeting is not being held at all is for the South region with 75.8%, followed by North (27.7%), West (13.1%), and East (10.0%). The overall percentage of adolescent girls who reported that monthly meeting is not at all held is 29.9%. Lastly, Table 5 shows that a very small percentage of respondents (1.1%) were not aware of the monthly meetings and therefore chose "Don't know" as their response.

Table 5: Monthly meetings held for adolescent girls to focus on the issue of menstrual hygiene at AWC by ASHA*

	East (N-30)	North (N-148)	West (N-114)	South (N-62)	Total (N-354)
Yes, held every month	53.3%	25.7%	23.7%	9.7%	**24.6%**
Yes, but not held every month	36.7%	43.9%	63.2%	14.5%	44.4%
No, not held at all	10.0%	27.7%	13.1%	75.8%	29.9%
Don't know	0.0%	2.7%	0%	0%	1.1%

* Based on information collected through interviewing adolescent girls.

Information, Education and Communication (IEC) materials can be an effective tool for promoting behaviour change and increasing awareness on important issues. Therefore, it is recommended that efforts be made to increase the use of IEC materials in awareness sessions, particularly in regions where their use is low. This could include training sessions for ASHAs/AWWs on the effective use of IEC materials and increase in the availability of IEC materials.

Based on the data provided in Table 6 below, the availability of IEC materials with ASHAs and AWCs on menstrual health and hygiene management varies across different regions as reported by the respondents (adolescent girls). In the East, 53.3% of respondents reported that such materials were available at AWCs or with ASHAs. In the North, 45.3% of respondents reported availability of the same, while in the West and South, the percentages were much lower at 28.1% and 21.0% respectively. Overall, the data shows that only 36.2% of respondents across the regions reported availability of IEC materials on menstrual health and hygiene

management at AWCs or with ASHAs. The findings suggest that improvement is required on the availability of IEC materials at AWCs and with ASHAs.

Table 6: Availability of IEC materials at AWC or with ASHAs on menstrual health and hygiene management*

	East (N-30)	North (N-148)	West (N-114)	South (N-62)	Total (N-354)
Yes	53.3%	45.3%	28.1%	21.0%	**36.2%**
No	46.7%	54.7%	71.9.%	79.0%	63.8%

* Based on information collected through interviewing adolescent girls.

Table 7 below shows the percentage of respondents (adolescent girls) who reported use of IEC materials during awareness sessions in different regions. In the East and North regions, similar percentages of respondents reported using IEC materials (43.3% and 43.9%, respectively). In the West and South regions, a smaller percentage of respondents reported using IEC materials (21.9% and 14.5%, respectively). The percentage of respondents who reported using IEC materials during awareness sessions is highest in the North region (43.9%) and lowest in the South (14.5%). Overall, about one-third of adolescent girls had reported about use of IEC materials during awareness sessions.

It is important to note that a significant proportion of respondents in all regions reported non-usage of IEC materials during awareness sessions (ranging from 56.1% to 85.5%). This suggests that there is room for improvement in the use of IEC materials during awareness sessions.

Table 7: Use of IEC materials during awareness sessions*

	East (N-30)	North (N-148)	West (N-114)	South (N-62)	Total (N-354)
Yes	43.3%	43.9%	21.9%	14.5%	**31.6%**
No	56.7%	56.1%	78.1%	85.5%	68.4%

* Based on information collected through interviewing adolescent girls.

4.2. Analysis of data collected through interviewing ASHAs on Menstrual Health Scheme

Table 8 below reveals that across all regions taken together, the average number of adolescent girls covered by each ASHA is 60 (as reported by ASHAs during the survey). However, there is variation in the number of adolescent girls covered by each ASHA across regions. The highest number of adolescent girls covered by each ASHA on average is in the West region (68), followed by the South (61), North (60), and East (39). It is important to note that these numbers represent averages and may vary depending on the specific context and location.

Table 8: Average number of adolescent girls covered by each ASHA*

	East (N-50)	North (N-148)	West (N-62)	South (N-112)	Total (N-372**)
Average Adolescent Girls covered by ASHAs	39	60	61	68	60

* Based on information collected through interviewing ASHAs.
**1 outlier in data removed from analysis; 1 missing value in the data.

Table 9 below gives the percentage of ASHAs reporting adolescent girls receiving weekly supply of Iron Folic Acid (IFA) tablets in schools or through AWWs. The results indicate that 100% of ASHAs in the South region reported adolescent girls receiving weekly supply of IFA tablets followed by East (84%), North (83.1%), and West (74.6%). Overall, 83.4% of ASHAs reported that adolescent girls receive weekly supply of IFA tablets. Hence, it can be concluded that there is a relatively high percentage of adolescent girls receiving weekly supply of IFA tablets across regions based on the responses of ASHAs.

Table 9: Supply of IFA tablets on weekly basis by school teacher or Anganwadi Workers*

	East (N-50)	North (N-148)	South (N-62)	West (N-114)	Total (N-374)
Yes	84.0%	83.1%	100.0%	74.6%	**83.4%**
No	16.0%	16.9%	0.0%	25.4%	16.6%

* Based on information collected through interviewing ASHAs.

Table 10 below shows the percentage of ASHAs reporting screening of adolescent girls for moderate/severe anaemia by AWWs. Overall, 64.1% of ASHAs reported that adolescent girls were screened for moderate/severe anaemia by AWWs. Highest percentage of ASHAs reporting screening of adolescent girls for moderate/severe anaemia by AWWs is for the South region (83.9%) followed by West (78.9%), East (57.1%), and North (46.6%).

Table 10: Screening of adolescent girls for moderate/severe anaemia by AWWs*

	East (N-49)	North (N-148)	South (N-62)	West (N-114)	Total (N-373**)
Yes	57.1%	46.6%	83.9%	78.9%	**64.1%**
No	42.9%	53.4%	16.1%	21.1%	35.9%

* Based on information collected through interviewing ASHAs.

**1 outlier in data removed from analysis; 1 missing value in the data.

Table 11 below gives the percentage of ASHAs reporting referral of anaemic cases by AWWs with the help of Auxiliary Nurse Midwives (ANMs) and ASHAs to appropriate facilities. Overall, out of the total 374 ASHAs, 63.1% reported referral of anaemic cases to appropriate facilities by AWWs. Region-wise disaggregated data shows that 80.6% of the surveyed ASHAs in the South region reported referral of anaemic cases by AWWs followed by 78.1% for West, 61.5% for North, and only 12% for East.

Based on the responses of ASHAs, the referral rate of anaemic cases to appropriate facilities by AWWs needs improvement, especially in the East and North regions where the rates are lower than the overall average of 63.1%. Therefore, efforts should be made to improve the training and support of AWWs to ensure that they can effectively identify and refer anaemic cases to appropriate facilities.

Table 11: Referral of anaemic cases to appropriate health facility by AWWs with the help of ANMs and ASHAs*

	East (N-50)	North (N-148)	South (N-62)	West (N-114)	Total (N-374)
Yes	12.0%	61.5%	80.6%	78.1%	**63.1%**
No	88.0%	38.5%	19.4%	21.9%	36.9%

* Based on information collected through interviewing ASHAs.

Table 12 below gives the percentage of ASHAs reporting regular supply of sanitary napkins from the health department every month. Overall, out of the total 374 ASHAs covered as part of the survey, about one-fifth (21.1%) reported that they receive regular supply of sanitary napkins from the health department every month. Region-wise disaggregation shows that 32.3% of the ASHAs covered for the South region reported receiving regular supply of sanitary napkins from the health department every month, followed by 26% for East, 24.3% for North, and only 8.8% for West.

Table 12: Regular supply of sanitary napkins received by ASHAs from the health department every month*

	East (N-50)	North (N-148)	South (N-62)	West (N-114)	Total (N-374)
Yes	26.0%	24.3%	32.3%	8.8%	21.1%
No	74.0%	75.7%	67.7%	91.2%	**78.9%**

* Based on information collected through interviewing ASHAs.

According to Table 13 below, about 75% of ASHAs in the North and West regions reported to have received training on safe disposal of sanitary napkins in an environment-friendly manner followed by 69.4% in the South and 52% in the East. Overall, 70.9% of ASHAs reported to have received training on safe disposal of sanitary napkins in an environment-friendly manner.

Table 13: Training on safe disposal of Sanitary Napkins in an environment-friendly manner received by ASHAs from health officials*

	East (N-50)	North (N-148)	South (N-62)	West (N-114)	Total (N-374)
Yes	52.0%	75.0%	69.4%	74.6%	**70.9%**
No	48.0%	25.0%	30.6%	25.4%	29.1%

* Based on information collected through interviewing ASHAs.

4.3. Analysis of data collected from the staff of AFHCs and also based on observations of investigators made at AFHCs

A total of 140 AFHCs were covered during the survey. The data indicates that the AFHCs were unevenly covered for the survey across different regions. The highest number of AFHCs were covered in the West region (114), followed by North (19), South (4), and East (3). Out of the 114 AFHCs which were covered in the West region, more than two-thirds (83) were in Maharashtra.

Table 14 below provides information on the average number of adolescents covered by each AFHC. Overall, on an average, 607 adolescents were covered by each AFHC. Considerable variation can be seen across regions in the average number of adolescents covered by each AFHC. The North region has the highest average number of adolescents covered by each AFHC (2,874), followed by South (1,201), East (426), and West (213). Here, factors such as the population density of adolescents in each region and the level of healthcare infrastructure may affect the average number of adolescents covered by each AFHC.

Table 14: Average number of adolescents covered by each AFHC

	East	North	South	West	Total
No. of AFHCs	3	19	4	114	140
Average no. of adolescents covered by each AFHC	426	2,874	1,201	213	607

Table 15 below gives the average number of adolescents attending AFHCs every month. Overall, average number of adolescents attending AFHCs every month is 119. The South region has the highest average number of adolescents attending AFHCs every month (345) followed by East (159), North (114), and West (112).

Table 15: Average number of adolescents attending AFHCs every month

	East	North	South	West	Total
No. of AFHCs	3	19	4	114	140
Average no. of adolescents attending AFHCs every month	159	114	345	112	119

Table 16 below gives information regarding accessibility, availability of human resources and infrastructure/ services, behaviour of health staff, and maintenance of privacy and confidentiality at the surveyed AFHCs. Availability of medical officers at AFHCs ranges from 50% of the surveyed AFHCs in the South region to 89.5% in the North. Availability of ANMs has been reported to be 100% for the surveyed AFHCs in the East and North regions, while the lowest percentage is for South at 50%. Availability of counsellors has been reported to be highest for the East region at 100% and the lowest for South at 0%.

Highest percentage of AFHCs having medicines and referral services has been reported for the East and North regions at 100% and 84.2% respectively, while the lowest percentage for the same is for the South region at 25%. As observed by the investigators, the highest percentage of well-ventilated and well-lit AFHCs with properly painted walls has been reported for the North region at 84.2% while the lowest percentage is for the South region at 25%. The percentage of surveyed AFHCs with range of services displayed is reported to be highest for the North region at 73.7%; the same is lowest for the South region at 0%. As far as adolescents' ability to access services without hesitation is concerned, it varies from 0% of AFHCs for the South region to 68.4% for the North, based on information collected by the investigators from the staff of AFHCs.

Table 16: Infrastructure and availability of services at AFHCs as observed by investigators during the survey

	East	North	South	West	Total
Availability of Medical Officer	66.7%	89.5%	50%	61.4%	65%
Availability of ANM	100%	100%	50%	88.6%	89.3%
Availability of Counsellors	100%	68.5%	0%	57.9%	58.6%
Availability of medicines	100%	94.7%	25%	86%	85.7%
Availability of referral services	66.7%	84.2%	25%	77.2%	76.4%
Whether the AFHC is well-ventilated and well-lit with properly painted walls	66.7%	84.2%	25%	70.2%	70.7%
Range of services displayed at the AFHCs (IEC, proper signages)	66.7%	73.7%	0%	69.3%	67.9%
Adolescents can access without hesitation	66.7%	68.4%	0%	51.8%	52.9%
Staffs are non-judgemental and competent	100%	57.9%	0%	59.6%	58.6%
Maintenance of privacy and confidentiality of services provided	100%	89.5%	0%	63.2%	65.7%

Staff reported to be non-judgmental and competent is highest for the East region at 100% of the surveyed AFHCs with the lowest percentage reported for the South region at 0%. With regard to maintenance of privacy and confidentiality of services provided, highest percentage is reported for the East and North regions at 100% and 89.5% respectively and the lowest percentage is reported for South at 0%.

Overall, the status of availability of human resources and infrastructure/services in AFHCs varies across regions, with the North region generally reporting higher availability of services and infrastructure compared to other regions.

5. Conclusion

RKSK, initiated by the Government of India, seeks to enhance the health and well-being of adolescents in the country. As a part of this programme, the Menstrual Hygiene Scheme (MHS) aims to raise awareness about menstrual hygiene among adolescent girls aged 10–19 years in rural areas, promote self-confidence, and empower them for better social integration. MHS also intends to increase the accessibility and usage of high-quality sanitary napkins and ensure the safe disposal of these napkins in an eco-friendly way.

The aim of concurrently assessing MHS under RKSK is to evaluate the effectiveness of the MHS programme in all the four regions of CRY's intervention areas. Some of the highlights in terms of findings of this study are as follows:

- About 72% of the adolescent girls reported that sanitary pads were not available with the ASHAs, and 78.9% of the ASHAs reported lack of regular supply of sanitary pads from the health department.
- There exists significant inter-region variations in the price of sanitary pads, ranging from Rs. 6 to Rs. 30 per packet, as reported by adolescent girls covered during the survey.
- About 83% of the adolescent girls expressed their concern regarding the lack of safe disposal facilities.
- Despite majority of adolescent girls reporting that monthly meetings on issues related to menstrual health and hygiene are held, only one-third of them reported availability of IEC materials with ASHAs and AWCs, and a significant proportion of them reported that ASHAs and AWWs do not use IEC materials during awareness sessions.
- The number of adolescent girls covered by each ASHA varies across regions.
- A high percentage of ASHAs reported adolescent girls receiving weekly supply of IFA tablets in schools or through AWWs.
- Availability and accessibility of menstrual health services at AFHCs vary significantly across regions. While some regions reported high availability of services and infrastructure, others reported low availability. Availability of medical officers, ANMs, counsellors, medicines and referral services at AFHCs varied across regions.
- Overall, the North region generally reported higher availability of services and infrastructure compared to other regions. Thus, it can be inferred that, although there are efforts to enhance menstrual hygiene among adolescent girls in India, the implementation of the RKSK-MHS varies significantly across regions and has significant gaps.

6. Recommendations

Based on the findings, the following recommendations are made for improving the menstrual health and hygiene among adolescent girls:

- Increased availability and distribution of IEC materials such as posters, pamphlets, and video messages, to educate adolescent girls and their families about menstrual hygiene and the proper use and disposal of sanitary pads.
- Increased support for ASHAs and AWWs to use IEC materials during awareness sessions and improve their knowledge and skills related to menstrual hygiene management.
- Addressing regional variations in the number of adolescent girls covered by each ASHA and ensuring that all

adolescent girls have access to information and supplies for menstrual health and hygiene management products.

- Ensuring regular and adequate supplies of sanitary napkins to adolescent girls especially in rural areas, in addition to IFA tablets.
- Conducting regular monitoring and evaluation of the RKSK-MHS to identify gaps and variations in implementation.
- Collaborating with community-based organisations and other stakeholders to increase awareness of menstrual health and hygiene management and promote social and cultural changes related to menstrual taboos and stigma.

Note: *It is worth noting that the data only reflects the responses of the respondents who participated in the survey, and may not be representative of the entire population in each region. Additionally, there may be other factors that influence the availability and accessibility of sanitary napkins such as socio-economic status and cultural norms. AFHCs, AWCs and ASHAs were selected for the survey based on the convenience of the field investigators.*