

Status of Menstrual Health and Hygiene Management among Adolescent Girls of Nepal



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Table of Contents

List of Tables.....	6
List of Figures.....	8
Acronyms.....	9
Executive Summary.....	10
Background.....	16
Objectives	19
Methods.....	19
Sample Size.....	20
Study Population.....	21
Study Site.....	21
Sampling Unit.....	21
Sampling Technique.....	21
Data collection tools and techniques.....	22
Validity and Reliability of tools	23
Data Management and Analysis.....	23
Ethical Consideration.....	24
Findings.....	25
Section I: Socio-demographic profile of study participants	25
1.1 Age distribution.....	25
1.2 Education level.....	26
1.3 Ethnicity.....	26
1.4 Religion.....	27
Section II: Knowledge and perception on menstruation.....	28
2.1 Knowledge on menstruation before menarche.....	28
2.2 Source of Information.....	30
2.3 Cause of menstruation	33
2.4 Knowledge on menstruation and fertility	33

2.5 Menarche and management.....	35
2.6 Practice and perception of Chaupadi.....	39
2.7 Restrictions during menstruation.....	45
Section III: Practice on menstrual hygiene management	68
3.1 Access to menstrual management materials	68
3.2 Access to WASH facilities	72
3.3 Access to safe space for changing menstrual management materials.....	79
3.4 Disposal of menstrual management materials.....	80
3.5 Dysmenorrhea and management.....	81
Section IV: Psychosocial scales	85
4.1 Secrecy and shame:.....	85
4.2 Annoyance:	87
4.3 Menstrual Stress.....	89
4.4 Menstrual Self-efficacy:	91
Section V: Menstrual needs and gaps: qualitative findings.....	93
5.1 Needs from adolescent girls' perspective	94
5.2 Needs of adolescent girls with disability	99
5.3 Perception of stakeholders.....	105
5.4 Current programmes and activities.....	111
Conclusion.....	121
Recommendations	122
Reference.....	127
Annex	129

List of Tables

Table 1: Age distribution.....	25
Table 2: Education level.....	26
Table 3: Ethnicity.....	26
Table 4: Religion.....	27
Table 5: Knowledge on menstruation.....	29
Table 6: Source of information regarding menstruation before menarche.....	31
Table 7: Additional source of information regarding menstruation after menarche.....	32
Table 8: Cause of menstruation.....	33
Table 9: Knowledge on linkage between menstruation and pregnancy.....	35
Table 10: Guidance at menarche.....	35
Table 11: Experience of menarche.....	37
Table 12: Restriction during menarche.....	38
Table 13: Practice of Chaupadi.....	40
Table 14: People suggesting to follow Chaupadi.....	41
Table 15: Perception regarding practice of Chaupadi.....	42
Table 16: Necessity of practicing Chaupadi.....	43
Table 17: Reasons for practicing Chaupadi.....	44
Table 18: Is Chaupadi legal or illegal.....	44
Table 19: Activities restricted during menstruation by ethnicity.....	45
Table 20: Activities restricted during menstruation by religion.....	47
Table 21: Activities restricted during menstruation by province.....	48
Table 22: Preferred activities in absence of restrictions.....	50
Table 23: Current use of menstrual management materials.....	69
Table 24: Reasons for not using preferred sanitary materials.....	70
Table 25: Frequency of changing sanitary materials.....	71
Table 26: Reasons for not changing menstrual materials at home.....	73
Table 27: Reasons for not changing menstrual materials at school.....	74

Table 28: Girls who use reusable materials.....	75
Table 29: Place for washing of sanitary materials.....	76
Table 30: Time taken to reach place for washing sanitary materials.....	76
Table 31: Use of soap in washing sanitary materials.....	77
Table 32: Drying of sanitary materials.....	77
Table 33: Drying site of sanitary materials.....	78
Table 34: Frequency of bath taken during menstruation.....	79
Table 35: Place for changing sanitary materials.....	79
Table 36: Condition of place for managing menstrual hygiene	80
Table 37: Time interval to go for changing sanitary materials and reach back home.....	80
Table 38: Disposal of sanitary materials	81
Table 39: Management of menstrual pain.....	82
Table 40: Reasons for missing workdays during menstruation.....	83
Table 41: Reasons for not attending the school during menstruation.....	84
Table 42: Secrecy and shame	86
Table 43: Annoyance.....	88
Table 44: Menstrual Stress.....	90
Table 45: Menstrual Self-efficacy	92

List of Figures

Figure 1: Knowledge on linkage between menstruation and fertility	34
Figure 2: Opposed restrictions at home	67
Figure 3: Opposed restrictions in community	67
Figure 4: Satisfaction with current menstrual management materials.....	69
Figure 5: Sharing of reusable materials.....	72
Figure 6: Accessibility and availability of toilet facilities at home.....	72
Figure 7: Accessibility and availability of toilet facilities at school.....	73
Figure 8: Fear of others seeing sanitary materials	78
Figure 9: Unable to attend work during menstruation	82
Figure 10: Missing school/college during menstruation.....	83
Figure 11: Menstrual Secrecy and Shame.....	85
Figure 12: Menstrual Annoyance	87
Figure 13: Menstrual Stress	89
Figure 14: Menstrual Self-Efficacy.....	91

Acronyms

AHW	Auxiliary Health Worker
ANM	Auxiliary Nurse Midwife
CMA	Community Medicine Assistant
CREHPA	Center for Research on Environment Health and Population Activities
FCHV	Female Community Health Volunteer
FGD	Focus Group Discussion
GIZ	The Deutsche Gesellschaft für International Zusammenarbeit
GNI	Good Neighbors International
HA	Health Assistant
IDI	In-depth Interview
INGOs	International Non-Governmental Organization
KII	Key Informant Interview
MHM	Menstrual Health and Hygiene Management
MHPSS	Menstrual Related School Participation, Stress and Self-efficacy
NGOs	Non-Governmental Organization
NHRC.	Nepal Health Research Council
WASH	Water, Sanitation and Hygiene
WVI Nepal	World Vision International Nepal

Executive Summary

Menstrual taboos are common in many low- and middle-income countries (LMICs) including Nepal. Poor menstrual health and hygiene management (MHM) can have negative impact on adolescent health contributing to overall poor health outcomes among girls and women. Studies have reported a wide range of negative effects from poor MHM, including shame, fear, anxiety, loneliness, and psychological distress. While a number of efforts to address adolescent issues have been initiated, there is a significant lack of national data on menstrual health and hygiene status of adolescents in Nepal that are essential for programmes to be properly targeted, be based on robust needs assessments, and for them to reach their intended beneficiaries and achieve desired outcomes. Only very few data sources in Nepal exist that focus on adolescent girls exclusively, and very few delve into the nuanced aspects of adolescent lives that can address the complex vulnerabilities they face.

Recognizing these gaps, and with support from World Vision International Nepal, the Nepal Health Research Council has undertaken this study among adolescent girls that aims to assess knowledge, perception and practice on menstrual health and hygiene management, assess psychosocial scores due to menstruation itself and provide evidence-based recommendations for future action.

Methods: This study adopted a mixed method design, two staged cluster sampling that included a population-based national representative survey of 3,495 adolescent girls aged 10-19 years who had experienced their menarche. Qualitative study included; key informant interviews (KII) with community leaders, teachers, health coordinator and political leaders, member of school management committee of school, focus group discussion (FGD) with adolescent mothers, out-of-school adolescent girls and school going adolescent girl and in-depth interviews (IDI) with adolescent girls with disability.

The data was entered into Epi-Data version 3.1. Data cleaning and editing were done subsequently after entry and descriptive statistical analysis (frequency and percentage) and cross-

tabulation where necessary steps were done using statistical package for social sciences (SPSS) version 21.0 and data were weighted to ensure actual representativeness of the survey and descriptive analysis was carried out.

For qualitative analysis, data from the IDI, KII and FGDs was simultaneously translated and transcribed into English. Then, the accurate data was segmented manually using Microsoft Word and Microsoft Excel. Results were generated through thematic analysis.

Background characteristics: Among total 3,495 adolescent girls who participated in this study, 47.5% were from upper caste groups and 0.9% from religious minorities. 84.7% were Hindu 1.1% were Muslims. Fifteen participants were found to be married. The mean age of menarche was 12.8 years.

Knowledge regarding menstruation: Out of the total, three quarter (71.7%) of the adolescent girls knew about menarche before its onset, with one quarter (28.3%) who had “no idea” about menstruation. This knowledge was found to be highest (88.9%) in Province 1 and lowest (47.4%) in Sudurpashchim Province. Nearly half of the participants felt menstruation as a normal healthy process and bad blood being shed while very few also associated menstruation with illnesses, curse and supernatural reasons. Half of the adolescent girls were unaware of the linkage between menstruation and fertility. However, 22 % of the girls knew that there are certain days between two menstruation cycle when one can get pregnant

Mothers, elder sisters and friends were the major source of information for the adolescent girls with regard to both knowledge and guidance both before and after menarche, while books and media (radio and television) provided the least amount of information.

Perception and practices: Thirty six percent of the girls experienced “feeling scared” at their first menstruation. Restrictions during menstruation were highest with regard to religious activities (79.1%), followed by restrictions in household chores (51.9%), social activities (46.1%)

and personal activities (36.95 %). The reasons that adolescent girls follow restrictions is because of family obligations (31.9%), feeling unwell (22.3%), feeling restrictions are right (17.3%) and fearing divine retribution (16.6%). Again, mothers were the first person who suggested girls to follow restrictions, followed by grandparents and fathers.

Given that there were no restrictions during menstruation, more than 90% adolescent girls preferred to continue personal activities (take a bath, sleep in their own room, eat dairy products) while the least preferred action was to engage in religious activities. Similarly, one third (38.4%) had talked or done anything against restrictions at home and nearly one quarter (21.2%) had talked or done anything against restrictions in the community.

Practice of Chaupadi: *Chaupadi* is practiced by 8.7% of all adolescent girls and observed in only three provinces: Lumbini (0.9%), Karnali (20.5%) and Sudurpaschim (47.7%). The major reason behind the practice was found to be family obligations (70.8%), fearing divine retribution (13.7%) and don't know (11.8%). Three quarter of the girls (74.3%) thought *Chaupadi* is bad practice and one tenth (9.4%) felt anxious about it. 83.9% of all girls think it is not necessary to practice *Chaupadi*, but interestingly 22.5% of girls in Sudurpaschim thought it is necessary.

Menstrual hygiene management practices: Half (51.2%) of all girls said they use disposable sanitary materials, followed by reusable sanitary materials (37.7%). Majority (65%) were happy with the current use of sanitary material, while one fifth (20.9%) would prefer a different material given the option. Majority (42.6%) changed sanitary material three times or more per day, 39.7% changed twice a day and 11.9% once a day. At home, 92.9% girls were able to change sanitary materials as often as necessary. At school, only 55.2% were able to change sanitary materials and three major reasons for not being able to change were: unavailability of disposal mechanism (29.1%), embarrassment (25.9%), not enough sanitary material (23.9%).

Almost half of the girls (46.6%) had access to toilets for cleaning purpose, 37.7% went to well/taps and 15.6% went to river/ponds. 93.7% had access to soap for washing and the number

was almost similar across all provinces. 92% washed and dried sanitary materials in sunlight but away from others view. Half (54.1%) of the girls took a bath daily. 60.5% girls could easily access washing place (<15 mins) while 1.8 % had to walk more than one hour. Disposal mechanism of used sanitary materials was mostly burying and burning. Place for changing sanitary materials were toilets followed by bed room. Majority of girls stated that the places for changing are clean, private and safe.

One quarter (26.7%) girls missed school over the last 12 months with dysmenorrhea and heavy bleeding/fear of leakage being the major reasons.

Psychosocial impact: Secrecy and shame was scored on a scale of 0-33 and the average mean score was 14. Half of the girls (45.2%) related menstruation to high secrecy and shame. Annoyance was scored on a scale of 0-36 and the mean score was 19. 45.4% experienced high levels of annoyance. Menstrual stress was scored on a scale of 0-32, and the average mean score was 10. 42.5% experienced high menstrual stress. Menstrual self-efficacy was scored on a scale of 0-27 and the average mean score was 6. 42% experienced low self-efficacy.

Menstruation from disability perspective: Experiences of adolescent girls with disability varied with nature of their impairment. Major challenges were; not having access to disposable sanitary materials, difficulties in disposal mechanisms, reliance on immediate female family members for changing sanitary material, reliance on female family member to oblige *Chaupadi* and absence of disable-friendly WASH facilities outside home resulting in them staying home during menstruation.

However, depending on the nature of impairment, not everyone required the same type of external support. The general needs of adolescent girls with disability were to have access to disposable sanitary materials, disable-friendly disposal mechanisms, disable-friendly WASH facilities in school, distribution of free pads from government and care and support both at home and school.

Conclusion: Adolescent girls' knowledge around menstruation is inadequate as one quarter are unaware about menstruation before menarche and one half are unaware about the link between menstruation and fertility. Adolescent girls continue to face restrictions during menstruation ranging from restrictions in religious activities, issues of touchability to food consumption. Mothers were the primary source of information and guidance for menstrual management as well as major conveyors to continue menstrual restrictions. *Chaupadi* continues to be practiced in three of seven provinces with Sudurpaschim practicing it the most. Three fourth of adolescent girls knew *Chaupadi* is bad but cultural practice was found to be deeply rooted. Menstruation management among adolescent girls was found to be good: majority had access to disposable sanitary materials, half of the girls were able to change pads thrice or more per day, more than 90% had access to soap for washing and were able to dry menstrual materials, majority had a safe and private place to change. However, home was more comfortable place for menstruation management compared to schools. One quarter of girls missed school due to menstruation-related issues.

Menstrual needs of adolescent girls with disability was found to be largely neglected. Their expressed needs were related to availability of menstrual material and disable friendly WASH beyond home. Their needs are largely fulfilled within household only. Majority of girls felt sacred during their first menstruation. Almost half of the girls experienced shame, high menstrual stress, high-level of annoyance and low self-efficacy due to menstruation itself.

Recommendation: Deliberate efforts must be made at provincial and local government for formulation of plans, policies and strategies to overcome gaps in the menstrual health and hygiene management directed towards the target group. Government must intensify monitoring and supervision of MHM related government programmes for example, the free pad distribution initiative. Government should allocate budget to establish girl-friendly (*Chhatra Maitri*) schools and take empowerment and engendered approach to capacitate adolescent girls, making them

self-concerned and confident to speak up for their own menstrual health needs with everyone at school, including male students and teachers. Health promotion awareness programmes need to prioritise adolescent girls both at school and out-of-school, differently-abled adolescent girls and their mothers via Female Community Health Volunteers (FCHV)s, mothers' groups and health workers to challenge superstition, myths and ill practices that adversely impact menstrual health. All stakeholders interested in MHM should take measures for girl-friendly and MHM-friendly WASH provisions with proper waste disposal facilities in all schools and public as well as promote sustainable, low cost, affordable and eco-friendly sanitary materials and its distribution to adolescent girls throughout the country.

Background

Globally, there are about 350 million adolescents and the South East Asia Region (SEAR) comprises about 22% of the population (1). Adolescence (10-19 years) is a period of transition from childhood to adulthood, characterised by rapid pubertal maturation, starting of menstruation in girls, and a wide range of social, emotional and behavioral changes. This transition from childhood to adulthood may provide opportunities for their development but at the same time, it poses risks to their health and well-being (2). Adolescent girls in low-income countries do not start healthy adolescence because menstruation, although a normal part of the growing process, is rarely discussed and considered a taboo. Adolescents make 24% of the total population in Nepal (3). Adolescent girls in Nepal face many sexual and reproductive health problems and challenges (3, 4). Many adolescent girls in Nepal lack hygienic sanitary materials and disposal options, access to a safe place to change sanitary cloths or pads, and clean water to wash their hands and are scared that classmates would notice that they are menstruating (5). Lack of access to education on sexual health, reproductive health, or menstrual health restrict them from effectively managing their menstrual hygiene and dramatically affect their education, physical health, psychological well-being, and general quality of life (6).

Adding to this, social and cultural norms around menstruation, including the practice of *Chaupadi* in Nepal, do not allow girls the best start towards adolescence and in some cases, even as an indirect cause for mortality. *Chaupadi* is a traditional practice, prevalent in mid and far western regions of Nepal, whereby, menstruating girls and women during their menstruation days, live outside their houses, preferable in a small hut, as menstruation is considered impure. The word *Chaupadi* is said to have derived from the local *Raute* dialect in Achham district where *Chau* means menstruation and *padi* means women (7). Poor menstrual health and hygiene management (MHM) in schools has been shown to worry and humiliate adolescent girls and contribute to monthly absenteeism resulting in them missing classes and dropping out of school when they have their periods (8).

The experience of differently-abled women and girls concerning menstruation may be different and more negative. Adolescents with disabilities are more likely to have menstrual problems than the general population and managing the problems is restricted due to the existence of co-morbidities (9). However, there is limited evidence identified on the requirements of disabled people in managing their menstruation (10).

Rationale/Justification

The first-ever consultative workshop on menstrual health, co-hosted by GiZ in December 2018 in Kathmandu, also urged for a multi-sectoral, evidence-based collaboration on menstrual health management by positioning it as a holistic health and rights issue. In the past few years in Nepal, there have been concerted efforts both from government and non-government sectors to improve menstrual hygiene through multi-sectorial efforts in education and awareness programmes and WASH (water sanitation and hygiene) in schools.

Water Supply, Sanitation and Hygiene Sector Development Plan (2016-2030), the School Sector Development Plan (2016 - 2030), and WASH in school Operational Guideline 2018 address MHM but national plans and policies that include MHM as a major component are in draft versions and yet to be endorsed by the Government. Typically, MHM is included as a soft component of WASH programmes and does not receive adequate attention. There are 28 organisations including UN agencies, INGOs and NGOs that have worked in MHM for the last few years but interventions have been scattered, unaccounted for and focused mainly on awareness-raising, sanitary pad making, and WASH components (6).

Evidence-based research around MHM is very limited not only in Nepal but also in the global context. There is a substantial knowledge gap around the social construct of menstruation, adolescent girl's health, the efficacy of environmental infrastructure, hygiene products, school-based programming, and advocacy (10). With the context of the secular state of Nepal, the need for the differently-abled must be focused but local authorities have no concern and priorities on differently-abled girls (11). Given this background, World Vision International Nepal received

funding from World Vision US Accelerator Fund, which was used to undertake this research in MHM in Nepal. The research explores the social determinants of menstrual health of adolescent girls and the efficacy of existing MHM interventions to assist relevant stakeholders in informed policymaking. In addition, this research helps in fulfilling the knowledge gap regarding menstruation as well as assessing the psychosocial well-being of adolescent girls. Moreover, the research aims to identify the menstrual needs of vulnerable group's especially those with disability and out-of-school adolescent girls.

Objectives

General Objectives

The general objective of this study is to assess the status of menstrual health and hygiene management among adolescent girls in Nepal.

Specific Objectives

- To assess knowledge, perception and practice of adolescent girls regarding menstrual health and hygiene management
- To assess psychosocial well-being of adolescent girls due to menstruation
- To assess menstrual health needs of adolescent girls with disability and adolescent girls out-of-school

Methods

A mixed-methods study was conducted combining qualitative and quantitative methods.

Quantitative method

A cross-sectional study design was carried out to assess the knowledge, attitude and practices (KAP); and psychosocial well-being of adolescent girls regarding menstrual hygiene. Questionnaire includes knowledge and perception, practice, belief and attitudes, psychosocial scales regarding menstruation. Questions on psychosocial scales were adopted from a study jointly carried out by the Center for Research on Environment Health and Population Activities (CREHPA) and University of Bath, UK in 2019 in Dailekh district and validated for use in Nepal (12). CREHPA and University of Bath had adopted the tool from Menstrual Related-School Participation, Stress and Self-efficacy (MR-SSS) tool.

Qualitative method

A qualitative study was carried out to identify the menstrual needs of adolescent girls with disability, adolescent mothers, school-going adolescent girls and out- of- school adolescent girls. In-depth-interview was also conducted among adolescent girls with disability. Focused group discussion (FGD) was held among the school going adolescent girls and adolescent girls who dropped out of school. In addition, Key Informant Interview (KII) was conducted among community leaders, teachers, health workers, and members of the school management committee for identifying the needs of adolescent girls for their safe and healthy menstrual health and hygiene management.

Sample Size

Studies have shown that the prevalence of psychosocial problems among adolescents ranges from 13 to 45 percent in different parts of the world (14, 15). In Nepal, it has been found from a range of 17 percent to 30 percent (16, 17). Therefore, this cross-sectional survey was calculated considering prevalence of psychosocial problems among adolescents (P) to be 30%, allowable error (L) to be 5% and Z value to be 1.96 and design effect of 1.5. This gives a total sample size of 3,675, with 525 per province.

School, as primary sampling unit (PSU), having secondary and higher secondary education from each province was obtained. 15 schools per province were randomly selected totaling 105 PSUs across country. In each school, the list of adolescent girls (10-19 years) who had attained menarche was prepared and taken as secondary sampling unit (SSU). Therefore, required number of participants was 35 per school.

However, data enumerators could not reach the schools in three districts (Doti, Humla, Kalikot) due to road blockade caused by heavy snowfall, So, 105 adolescent girls were excluded from the three districts, therefore the sample size was 3,570. Similarly, a non-response rate of 2.1% was

observed i.e., 75 girls were excluded from the sample size. Thus, 3,495 adolescent girls participated in the study.

We purposively conducted 12 FGDs among school-going adolescent girls, 12 FGDs among out-of-school adolescent girls, married adolescent girls and adolescents' mothers to explore their needs regarding menstruation. Also, 14 IDI among adolescent girls with disability and 28 KII among community leaders, teachers, health workers, and members of the school management committee was conducted to identify menstrual needs of vulnerable group's especially adolescent girls with disability and out of school adolescent girls. Data saturation was the marker of sample adequacy for qualitative study.

Study Population

Study population included adolescent girls between the age of 10-19 years and who had already experienced their first menstruation at the time of study.

Study Site

This study was carried out in all seven provinces (Province 1, Province 2, Bagmati, Gandaki, Lumbini, Karnali and Sudurpaschim) of Nepal.

Sampling Unit

Schools were considered the primary sampling units and from each PSU's adolescent girls of 10-19 years were randomly chosen.

Sampling Technique

Two stage sampling design was used in this study. In the first stage, a list of schools (PSUs) having higher education from each province was obtained. 15 schools from the list were randomly selected. In each school, a list of adolescent girls aged 10-19 years who had their menarche was

prepared. Then, the required number of participant's i.e., 35 from each school was further selected randomly.

Adolescent girls with disability, adolescent mothers and adolescent girls out-of-school were identified in all provinces. The research team coordinated with rural municipalities/municipalities and FCHV to identify adolescent girls with disability. The team included adolescent girls having any form of disability and assured their disability through disability card provided by the Government of Nepal. Through Purposive Sampling, in-depth interview was conducted among adolescent girls with disability and focused group discussion was carried out among the school going and out of school adolescent girls. Similarly, we also conducted KII with the community leaders, teachers, for identifying the needs of adolescent girls by coordinating with the rural municipality/municipality and school committee members. The sample for IDI and FGD and was taken in the same district and the same school where quantitative study was conducted. In each district, the samples were taken until the point of the saturation was met.

Data collection tools and techniques

Adopted version of MR-SSS tool utilised by CREHPA and University of Bath UK, was used to assess the knowledge, attitude and practice and psychosocial well-being of the adolescents. Quantitative data was collected using structured questionnaires comprising socio-demographic characteristics, knowledge, attitudes, practice and psychosocial well-being related to menstrual health of the adolescent girls aged 10-19 years in all the seven provinces of Nepal. The data enumerators carried out data collection process in two phases (Day 1 and Day 2). After receiving the written informed consent from their parents for adolescent girls below 18 years of age on Day 1, questionnaires were used to collect the information on Day 2. The instrument for the data collection procedure was a self-administered questionnaire.

The method of qualitative data collection was in-depth interviews, key informant interviews and focused group discussion. Interview and FGD conducted by female interviewers, who are public

health graduates and nursing professionals who were oriented on both quantitative and qualitative questions before the data collection by the research team. The interviews and focused group discussion were based on guideline related to the menstrual need of adolescent girls with disability, out of school adolescent girls, adolescent mother (accessibility and availability of sanitation facilities, availability of medicine, cultural barrier, activities and programme in their community and school related to menstruation, problems faced during menstruation and so on). The guideline of qualitative was finalized in English and then translated into Nepali with help of experts before the data collection. The interviews/FGD were conducted in Nepali language, whose average duration was 60 minutes. FGD, IDI and KII were recorded using a digital voice recorder.

Validity and Reliability of tools

Pretesting of the questionnaire was done after ethical approval from the NHRC to assure the reliability and validity of the tool among 150 adolescent girls who had attained menarche from the school of Kathmandu.

Data Management and Analysis

After completion of data collection, questionnaires were checked for consistency and completeness. Data was entered into Epi-Data version 3.1 defining range values, legal values and skip patterns and it was transferred to statistical package for social sciences (SPSS) version 21.0 data were weighted to ensure actual representativeness of the survey and descriptive analysis was carried out.

Data from the IDI, KII and FGDs were simultaneously translated and transcribed into English by field enumerators who conducted the interviews. The transcriptions were re-read by listening to the audio and checked for accuracy by the research officers. Then, few interviews were sent to the two researchers for ensuring the accuracy of the transcripts. Any inaccuracies found were discussed between researchers and the research team to understand the root of the differences.

Data were arranged using MS-Word and MS-Excel. The research team and qualitative expert independently read the data carefully and segmented the data. Meaningful segments were coded manually by each researcher according to seven provinces and discussed in between the expertise and the researcher. Continual comparison of developed themes, concepts, and code within the research team was done. Several levels of data analysis were conducted including data description, category construction and thematic coding. Thus, results were generated through thematic analysis.

Ethical Consideration

Ethical approval to conduct the study was obtained from the Nepal Health Research Council (NHRC) Ethical Review Board (ERB). In addition, formal permissions were obtained from the concerned authorities in the districts, municipalities and wards for the study whenever relevant. The study objectives, methods, risks and benefits, need of this study, expected outcome of this research were well explained to all the adolescent girls with the assurance of confidentiality. Before administration of the questionnaire, written consents were obtained from the adolescent girls. But among the girls under 18 years old, written consent was taken from their parents. Also, all selected participants were given a choice to fill the questionnaires themselves and by respecting the rights of participants to withdraw from the study at any point in time, they were allowed to leave anytime if they wished to.

Findings

Section I: Socio-demographic profile of study participants

Key findings

Age: Half of the respondents were early adolescents i.e. 10-14 years. The mean age of menarche was 12.8 years

Education: 89.9 % were studying at secondary level

Ethnicity: 47.5% of the respondents were from upper caste group

Religion: 84.7% follow Hindu religion

This section presents demographic characteristics of respondents such as age, education, ethnicity and religion, which is helpful in understanding various aspects of menstrual health and hygiene management by socio demography.

1.1 Age distribution

Age of the respondent is classified into three groups: i) early adolescence (10-14 years) ii) mid adolescence (15-17 years) and iii) late adolescence, (18 -19 years) (18). Half (50.6%) of the respondents were early adolescents, followed by mid adolescents (45.8%) and 3.7% are late adolescents. The mean age of menarche was found to be 12.8 years.

Table 1: Age distribution

Province	Age n (%) n=3495			Mean	Total
	Early adolescent	Mid adolescent	Late adolescent		
Province 1	325(62.30)	182(34.9)	15(2.9)	14.20	522
Province 2	233(50.1)	223(48.0)	9(1.9)	14.46	465
Bagmati	261(50.1)	238(45.7)	22(4.2)	14.60	521
Gandaki	337(65.1)	170(32.8)	11(2.1)	13.96	518
Lumbini	207(38.1)	298(54.9)	38(7.0)	14.93	543
Karnali	204(45.4)	237(52.8)	8(1.8)	14.66	449
Sudurpaschim	200(41.9)	251(52.6)	26(5.5)	14.90	477
Total	1767(50.6)	1599(45.8)	129(3.7)	14.53	3495

1.2 Education level

Education is classified into three levels: i) primary level (class 1-5) ii) secondary level (class 6-10) and iii) higher secondary (class 11-12). 90% of the respondents were at secondary level of education.

Table 2: Education level

Province	Education level n (%) n=3495			Total
	Primary	Secondary	Higher secondary	
Province 1	66(12.6)	432(82.8)	24(4.6)	522
Province 2	14(3.0)	451(97.0)	0	465
Bagmati	9(1.7)	459(88.1)	53(10.2)	521
Gandaki	8(1.5)	487(94.0)	23(4.4)	518
Lumbini	16(2.9)	480(88.4)	47(8.7)	543
Karnali	14(3.1)	435(96.9)	0	449
Sudurpaschim	15(3.1)	399(83.6)	63(13.2)	477
Total	142(4.1)	3143(89.9)	210(6.0)	3495(100)

1.3 Ethnicity

Nearly half (47.5%) of all respondents were from upper caste groups and remained highest across all provinces. The number of respondents belonging to Dalit caste groups was highest (26.1%) in Karnali province and disadvantaged non-Dalit terai caste was highest (27.5%) in province 2.

Table 3: Ethnicity

Province	Ethnicity n (%) n=3495					Upper caste groups	Total
	Dalit	Disadvantaged janajati	Disadvantage non dalit terai Caste	Religious minorities	Relatively advantaged janajati		
Province 1	31(5.9)	51(9.8)	32(6.1)	7(1.3)	213(40.8)	188(36)	522
Province 2	35(7.5)	87(18.7)	128(27.5)	16(3.4)	17(3.7)	182(39.1)	465
Bagmati	41(7.9)	36(6.9)	18(3.5)	3(0.6)	210(40.3)	213(40.9)	521
Gandaki	128(24.7)	9(1.7)	3(0.6)	3(0.6)	167(32.2)	208(40.2)	518
Lumbini	59(10.9)	60(11.0)	39(7.2)	2(0.4)	76(14.0)	307(56.5)	543
Karnali	117(26.1)	11(2.4)	11(2.4)	0	77(17.1)	233(51.9)	449
Sudurpaschim	79(16.6)	27(5.7)	32(6.7)	0	9(1.9)	330(69.2)	477
Total	490(14.0)	281(8.0)	263(7.5)	31(0.9)	769(22.0)	1661(47.5)	3495(100)

1.4 Religion

With regard to religion, 84.7% followed Hindism and 1.1% Muslim religion.

Table 4: Religion

Province	Religion n (%)					Total
	Hindu	Buddhist	Christian	Kirat	Muslim	
Province 1	339(64.9)	51(9.8)	21(4.0)	104(19.9)	7(1.3)	522
Province 2	379(81.5)	56(12.0)	5(1.1)	0	25(5.4)	465
Bagmati	413(79.3)	81(15.5)	16(3.1)	8(1.5)	3(0.6)	521
Gandaki	451(87.0)	57(11.0)	7(1.4)	0	3(0.6)	518
Lumbini	519(95.6)	17(3.1)	5(0.9)	1(0.2)	1(0.2)	543
Karnali	393(87.5)	32(7.1)	24(5.3)	0	0	449
Sudurpaschim	466(97.7)	8(1.7)	2(0.4)	0	1(0.2)	477
Total	2960(84.7)	302(8.6)	80(2.3)	113(3.2)	40(1.1)	3495(100)

Section II: Knowledge and perception on menstruation

Key findings

71.7% adolescent girls knew about menstruation before menarche. Majority of them knew that menstruation was a normal healthy process.

50% of all adolescent girls were unaware about menstruation and fertility.

Mothers were the primary source of information as well as guides at menarche while roles of television, internet and radio were minimal.

Feeling scared was the most common experience at menarche.

8.7% of adolescent girls followed Chaupadi and were from Lumbini, Karnali and Sudurpaschim province. 59.2% of respondents knew it is illegal but continue its practice due to family obligations.

Major restrictions during menstruation are not being allowed in religious activities and is similar across all province, ethnicity and religion.

38.4% of all adolescent girls have opposed restrictions at home and 21.2% in the community.

This section provides in-depth information on knowledge and perception of adolescent girls before, during and after menstruation, drawn from quantitative and qualitative study.

2.1 Knowledge on menstruation before menarche

Nearly three quarter (71.7%) of adolescent girls had known about menstruation before menarche, with 28.3% of adolescent girls still unaware about menstruation before experiencing it. While three fourth of adolescent girls from Province 1, Bagmati, Gandaki, Lumbini and Karnali were aware about menstruation before menarche, around only half of adolescent girls from province 2 (56.7%) and Sudurpashchim (47.4%) were aware before menarche.

Table 5: Knowledge on menstruation

Province	Knowledge on menstruation before menarche n(%) n=3495
Province 1	461(88.9)
Province 2	267(56.7)
Bagmati	399(73.9)
Gandaki	370(78.5)
Lumbini	453(84.1)
Karnali	346(81.7)
Sudurpashchim	236(47.4)
Total	2532(71.7)

In depth interviews and focus group discussions also revealed that adolescent girls had limited knowledge and information on preparedness aspects of menstruation although they were curious to understand it.

"I used to see elder sisters drying tiny clothes but did not know why. Later after sharing things, I came to know it was used for blood management. My sisters used to share everything related to menstruation and used to tell me that I will understand everything even more clearly after I menstruate." – An adolescent girl, out-of-school, Parbat, Gandaki Province

Despite being a normal biological process, many adolescent girls had to experience menstruation themselves in order to understand it.

"Menstruation was something that I suddenly knew about when I experienced it for the first time. I didn't know what to do when I menstruated. So, I did not know about it earlier." – an adolescent girl, Gulmi, Gandaki Province

2.2 Source of Information

Out of 2,532 girls, the girls who were aware about menstruation before menarche were asked who provided information about it. Across all province, the top three primary sources of information were mothers, elder sisters and friends. The least common sources of information were books, health magazines, television, internet and mentors. Even after menarche, the most common sources for menstruation information remained the same.

Similar were the findings for qualitative study. Adolescent girls obtained information regarding menstruation from their mothers and sisters but the information was focused mainly on restrictions rather than menstruation itself.

“I did not know the exact reason why bleeding happened to everyone but I know which restrictions to follow and what to use when having periods from mother and sisters” – an adolescent girl from Taplejung, Province 1

School was another source where adolescent girls received information on menstruation from, but male teachers were unable to deliver the course and presence of boys in class was not an enabling environment, thus leaving information on menstruation inadequate and incomplete.

"We did not get enough information about menstruation at school. A male teacher taught us about it but he did not teach openly. He told us to study it by ourselves and taught us other things. We had to study along with the boys in the class. So, we felt a bit shy. I was interested to understand more about menstruation so I used to study at home when I was alone. My friends used to tease me when I studied it at school." – an adolescent girl with disability from Sankhuwasabha, Province 1

Table 6: Source of information regarding menstruation before menarche

Province	Source of information regarding Menstruation before menarche n (%)												
	Mother	Elder sister	Elder sister in law	Female relatives	Male relative	Friend	Teacher	Book/ health magazine	Health worker/ FCHV	Radio	TV	Internet	Mentor/young champion
Province 1	375(85.1)	219(49.5)	7(1.4)	24(4.6)	1(0.2)	237(47.0)	98(17.2)	17(3.1)	16(3.3)	22(3.9)	21(4.8)	7(3.4)	1(0.3)
Province 2	194(69.6)	91 (32.1)	3(0.8)	5(1.1)	1(0.3)	67(22.9)	57(18.3)	6(2.3)	8(2.2)	3(0.6)	8(1.2)	1(0.1)	0 (0.0)
Bagmati	331(83.3)	190(48.5)	5(0.6)	17(4.1)	1(0.4)	158(40.0)	125(28.7)	35(9.7)	47(17.3)	30(9.7)	45 (11.6)	21(3.9)	0 (0.0)
Gandaki	326(89.3)	204(58.6)	1(0.1)	25(4.7)	0(0.0)	203(56.5)	176(52.6)	27(10.5)	45(14.4)	40(9.7)	56(13.7)	17(6.0)	2(1.1)
Lumbini	386(86.6)	202(45.0)	1(0.2)	24(4.0)	1(0.0)	201(48.7)	108(26.8)	27(6.1)	41(6.9)	29(7.0)	25(7.6)	9(1.5)	1(0.2)
Karnali	279(83.6)	209(56.6)	1(2.5)	34(10.4)	4(1.7)	201(56.8)	96(29.7)	18(4.5)	35(8.1)	91(25.6)	56(13.9)	15(2.5)	3(0.6)
Sudurpashchim	137(54.0)	138(59.1)	5(1.3)	7(3.5)	2(1.1)	100(47.5)	43(19.2)	8(4.5)	12(4.2)	26(13.7)	12(7.3)	2(1.0)	1(0.4)

Note: Total Percentages may sum to more than 100.0% because multiple responses were possible

Table 7: Additional source of information regarding menstruation after menarche

Additional source of information regarding Menstruation after menarche n (%) n=3495													
Province	Mother	Elder sister	Elder sister in law	Female relatives	Male relatives	Friend	Teacher	Book/magazine/health magazine	Health worker/FCHV	Radio	TV	Internet	Mentor/Young champions
Province 1	349(78.9)	236(56.8)	4(2.7)	54(12.0)	4(1.2)	286(57.8)	204(44.6)	62(16.0)	51(11.6)	39(10.0)	37(10.6)	20(6.5)	5(3.2)
Province 2	203(74.1)	83(32.0)	11(3.2)	5(1.0)	3(1.6)	87(31.9)	106(37.9)	37(14.3)	12(3.4)	5(1.6)	11(3.1)	2(0.3)	1(0.2)
Bagmati	319(73.9)	182(44.0)	3(0.6)	35(8.1)	11(2.5)	174(43.7)	176(42.4)	54(13.6)	69(21.2)	30(8.0)	43(11.9)	41(9.5)	5(0.4)
Gandaki	344(83.2)	234(56.1)	5(0.6)	39(11.7)	6(1.3)	262(59.5)	192(50.7)	49(13.7)	72(19.4)	52(12.7)	59(16.3)	19(7.9)	3(1.8)
Lumbini	327(74.7)	182(41.4)	3(0.8)	51(9.6)	5(1.1)	225(49.3)	137(29.9)	86(20.1)	38(7.7)	48(10.8)	27(6.2)	32(8.8)	1(0.2)
Karnali	271(81.7)	189(51.9)	12(2.3)	42(10.2)	15(3.3)	198(55.8)	104(32.6)	52(15.0)	65(16.8)	91(26.1)	59(15.1)	22(6.3)	2(0.6)
Sudurpashchim	192(46.2)	192(52.5)	14(3.5)	45(12.8)	3(1.0)	194(51.4)	84(27.8)	40(12.5)	42(14.9)	50(11.1)	23(7.8)	10(2.9)	4(1.0)

Note: Total Percentages may sum to more than 100.0% because multiple responses were possible

Note Others (specification) not included in the table above)

Adolescent girls also benefitted from information provided by non-government organisations.

"Good Neighbors International taught us about menstrual hygiene, how to use a pad, how to make reusable home clothes pad and about sanitation during the menstrual period" – an adolescent girl from Kailali, Sudurpashchim province

2.3 Cause of menstruation

All participants were asked their perception on why menstruation occurs. Majority of girls responded that it was normal health process and bad blood being shed. However, small number of participants also responded that it was a curse, was caused due to supernatural reason and illness.

Table 8: Cause of menstruation

Province	Reasons of menstruation n=3495						
	Normal healthy process	Any type of illness	Internal bleeding	Curse	Bad blood being shed	Supernatural reason	Don't know
Province 1	345(69.7)	31(7.5)	40(8.8)	5(1.1)	245(55.7)	12(2.8)	0
Province 2	247(66.2)	34(7.6)	5(1.1)	4(1.3)	211(47.7)	19(4.7)	0
Bagmati	373(80.1)	22(5.7)	35(8.3)	9(2.1)	235(46.8)	16(3.3)	1(0.2)
Gandaki	370(76.3)	17(1.9)	40(5.7)	1(0.1)	325(67.0)	9(1.3)	0
Lumbini	400(77.6)	1(2.2)	25(6.4)	7(1.4)	252(48.6)	10(3.0)	0
Karnali	280(65.7)	26(7.1)	47(9.6)	7(1.6)	243(52.7)	17(4.5)	1(0.2)
Sudurpaschim	227(51.4)	27(4.4)	30(6.7)	8(2.1)	359(79.8)	11(2.1)	0

Note: Total percentages may sum to more than 100.0% because multiple responses were possible

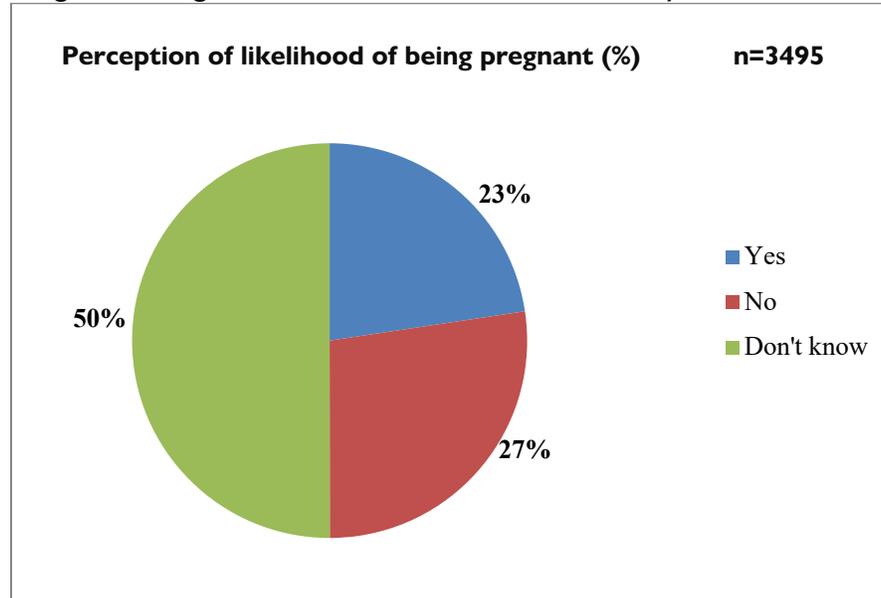
Note: Others (specification) is not included in the table above

2.4 Knowledge on menstruation and fertility

Respondents were asked if they were aware about the linkage between menstruation and fertility (in the interview “pregnancy” was used instead of “fertility” for ease of understanding). 23% of the adolescent girls knew there are certain days between two menstrual periods with likelihood of

being pregnant, while 50% had no idea regarding the likelihood of being pregnant. This finding has strong implications on knowledge of fertility and reproductive health among adolescent girls.

Figure 1: Knowledge on linkage between menstruation and fertility



Among the 777 adolescent girls who knew the linkage between menstruation and fertility, 30.5% said pregnancy (proxy word for fertility) can happen right after period ends. Majority of girls from province 1 and 2 still did not have knowledge about fertility and menstruation, majority of girls from Bagmati and Gandaki province knew that fertility is halfway between two menstrual periods while those from Lumbini, Karnali and Sudurpashchim said fertility is right after period ends.

By education, it was found that knowledge of girls from primary and secondary level were divided between right after period ends and half way between two menstrual periods but as girls reached higher secondary level, majority (47.5%) answered that it was halfway between two menstrual periods.

Table 9: Knowledge on linkage between menstruation and pregnancy

Province	Periods between two menstrual cycles when a woman is likely to become pregnant n(%) n=777					Total
	Just before a period begins	During period	Right after period ends	Halfway between two periods	Don't know	
Province 1	20 (10.9)	21(7.2)	46(26.1)	36(22.6)	66(33.2)	189
Province 2	4(3.3)	12(15.1)	16(33.1)	8(14.5)	17(34.0)	57
Bagmati	9(9.8)	6(6.7)	19(29.9)	19(32.1)	14(21.4)	67
Gandaki	10(3.4)	9(5.9)	16(7.8)	66(61.1)	31(21.8)	132
Lumbini	20(14.8)	17(12.3)	38 (34.2)	25(22.3)	36(16.5)	136
Karnali	18(11.8)	18(14.2)	89(58.2)	18(8.1)	15(7.7)	158
Sudurpashchim	11(26.6)	2(0.8)	13(41.1)	7(20.2)	5(11.3)	45
Current educational level						
Primary	10(2.4)	4(11.80)	7(20.6)	7(20.6)	6(17.6)	34
Secondary	75(11.0)	78(11.4)	210(30.8)	143(21.0)	176(25.8)	682
Higher secondary	7(11.5)	3(4.9)	20(32.8)	29(47.5)	2(3.3)	61

2.5 Menarche and management

Guidance: At menarche, adolescent girls found most comfortable talking about menstruation as well as received guidance from mothers, elder sisters and friends. The role of male relatives, teachers and health workers in providing guidance during menarche was found to be very minimum.

Table 10: Guidance at menarche

Province	Guidance at menarche n (%) n=3495							Health worker/ FCHV
	Mother	Elder sister	Elder sister in law	Other female relative	Male relative	Friend	Teacher	
Province 1	359(73.2)	292(63.6)	5(2.7)	10(1.4)	6(1.0)	350(65.9)	22(6.8)	18(3.7)
Province 2	289(58.6)	175(36.8)	10(2.5)	13(3.3)	7(0.8)	213(44.1)	32(4.8)	6(1.0)
Bagmati	411(76.4)	275(56.7)	1(0.3)	6(1.0)	11(2.5)	278(57.9)	59(12.8)	29(7.0)
Gandaki	377(76.4)	289(57.7)	2(0.2)	6(1.8)	8(1.9)	333(66.8)	35(4.8)	10(2.8)
Lumbini	400(77.6)	271(49.8)	2(0.4)	15(3.2)	3(0.6)	314(61.1)	24(5.2)	13(2.4)
Karnali	254(60.7)	236(46.3)	3(0.8)	6(0.8)	7(1.7)	255(56.5)	18(4.9)	33(5.5)
Sudurpashchim	179(37.7)	284(63.0)	12(2.5)	10(2.8)	9(2.1)	327(70.2)	15(3.5)	25(5.6)

Note: Total percentages may sum to more than 100.0% because multiple responses were possible

Note: Others (specification) are not included in the table above.

In depth interviews revealed that the support provided by family members during menstruation varied widely. In most of the cases interviewed in urban areas, mothers played a central role in supporting daughters, whereas in rural areas, where social restrictions around menstruation was more common, mothers were found to be less supportive.

“If I tell them I have a cramp or unwell due to my menstruation, my mother takes me to the hospital. She has done that before as well” - an adolescent girl from Kathmandu, Bagmati Province

“Some mothers understand but others would not try to understand. Last time during my period, I was lifting a heavy sack of rice, I was about to fall and my mother noticed this. But she did not even hold my hands to save me (sad face). My mother scolds me for having my period during festivals. She wishes to send me off so that she does not have to deal with it. That makes me feel bad and it hurts” – an adolescent girl, out-of-school from Jajarkot, Karnali Province

Apart from mothers, adolescent girls felt comfortable talking to friends, sisters and female teachers at menarche. Married adolescent girls felt most comfortable talking about menstruation with sister-in-laws.

“My sister taught me everything about menstruation” – a physically impaired adolescent girl from Panchthar, Province 1

“After marriage, it’s difficult to share things with mother-in-law but there are sisters of husband with whom we can share our things” – an adolescent girl, out-of-school from Jumla, Karnali Province

In rare cases, adolescent girls received support from fathers as well.

“Fathers tell us that we are of different generations now and we should not follow restrictions but mothers tell us that it is a sin. Men can change according to the time” – an adolescent girl, Udayapur, Province 1

Experience: Feeling scared was the highest and most common experience shared by adolescent girls across all provinces, followed by girls responding that menstruation is ok as it is a normal process.

Table 11: Experience of menarche

Province	Feeling when first started menstruating n (%)			
	n= 2532			
	Scared	Worried that something was wrong	Worried about the management of menstruation	Ok as knew it was a normal process
Province 1	234(51.8)	100(20.3)	14(30.6)	200(41.6)
Province 2	115(41.7)	31(9.7)	60(22.3)	95(35.9)
Bagmati	190(41.5)	82(22.1)	127(34.4)	161(41.9)
Gandaki	203(50.7)	58(14.0)	161(45.1)	164(49.7)
Lumbini	223(48.6)	54(11.0)	109(25.8)	212(45.1)
Karnali	180(48.7)	67(17.2)	134(35.2)	153(43.8)
Sudurpashchim	114(45.2)	49(18.9)	47(20.9)	93(40.5)

Note: Total percentages may sum to more than 100.0% because multiple responses were possible

Note: Others (specification) is not included in the table above

In depth interviews also revealed that respondents shared similar experiences of feeling “scared”, as being the initial emotion followed by normalisation after family member primarily, mother, knew of the situation and provided support.

"When I had my first period, I was nervous and also felt scared to talk about it. I was questioning myself what is happening to me and finally decided to talk with my mother. She answered that it was normal bleeding that occurs to every adolescent girl" – an adolescent girl from Sarlahi, Province 2

Restrictions: Respondents were asked on what were the restrictions expected of them at menarche. Although some form of restriction during menarche was spread across all province, majority of adolescent girls in province 1 (81.7%) and 2 (59.5%) did not have to follow any

restrictions. In rest of the provinces, living in separate room was the major norm. Small percentage of adolescent girls from Lumbini, Karnali and Sudurpashchim province followed *Chaupadi*.

Table 12: Restriction during menarche

Province	Restriction at menarche n=2532 n (%)				
	Stay in a dark room	Stay in a separate room	Stay in a shed far away from the house (<i>Chaupadi</i>)	Not to look at the sun	Nothing
Province 1	26(11.2)	67(25.4)	0	26(9.2)	286(81.7)
Province 2	30(18.2)	94(51.0)	0	25(16.6)	100(59.5)
Bagmati	33(11.5)	143(63.4)	0	49(22.4)	115(50.5)
Gandaki	84(25.2)	236(71.7)	0	66(19.9)	155(46.2)
Lumbini	88(20.5)	268(63.2)	15(4.5)	98(23.9)	160(42.8)
Karnali	79(21.5)	165(60.2)	62(19.5)	38(14.4)	129(48.9)
Sudurpashchim	74(41.3)	157(81.5)	128(59.3)	59(31.8)	106(45.5)

Note: Total percentages may sum to more than 100.0% because multiple responses were possible.

Note: Others (specification) is not included in the table above.

In depth interviews also reveal that the most common restrictions during menarche was not being allowed to view male members of family and also not being allowed to watch the sun.

"I was sent away for several days. I could not meet my father, brother, or any male members of my family and also I could not see sunlight" – a visually impaired adolescent girl from Bara, Province 2

In some cases, restrictions meant staying away from home, sometimes even in unsafe places like the jungle. The reported number of days that girls stayed away from home during menarche ranged from 7-11 days, 3-7 days and 4-5 days in Province 1, Lumbini and Karnali respectively. Usually, girls returned home only after taking a bath.

"We also had to hide in the nearby jungle and we returned to our house after 5 days" – an adolescent girl, from Jumla, Karnali Province

In some places, menarche is celebrated. For example, adolescent girls, having stayed away from home during menarche, received tika, gift, money, jewelry etc from elders and relatives before re-entering their house.

"Parents call relatives and celebrate in a big way it's like they regard it an important event when a girl menstruates for the first time" – an adolescent girl from Jumla, Karnali Province

However, not everyone practiced staying away from home during menarche, some of the participants' family were against these cultural restrictions and allowed them to stay at home in separate confined rooms.

"I did not find it difficult because my family was very understandable. So, I did not have to go to anybody's house to stay during my first period" – an adolescent girl from Parbat, Gandaki Province

2.6 Practice and perception of Chaupadi

From the survey, it was found that 8.7% girls followed *Chaupadi* in three province viz. Lumbini (0.9%), Karnali (20.5%) and Sudurpaschim (47.7%). By religion, *Chaupadi* was practiced mostly by those following hindu religion (12.2%) while handful of those following Buddhist (4.4%) and Christian (4.8%) also practiced it. By ethnicity, those belonging to upper caste group (11%) practiced most followed by dalit group, while it was virtually non-existent among religious minorities and relative advantaged janajati groups.

Table 13: Practice of *Chaupadi*

Practice of Chaupadi (%) n=3495	
Province 1	0
Province 2	0
Bagmati	0
Gandaki	0
Lumbini	3(0.9)
Karnali	80(20.5)
Sudurpashchim	222(47.7)
Total	305(8.70)
Hindu	287(12.2)
Buddhist	12(4.4)
Christian	6(4.8)
Kirat	0
Muslim	0
Total	305(8.7)
Dalit	74(18.8)
Disadvantaged janajatis	15(4.9)
Disadvantaged non dalit terai caste Group	14(4.4)
Religious minorities	0
Relatively advantaged janajatis	16(2)
Upper caste groups	186(11)
Total	305(8.7)

Focus group discussions also substantiated the findings, whereby adolescent girls from Karnali and Sudurpashchim province shared their experiences that have affected them negatively.

"Family keeps us outside and sees us (daughters) in a bad way. They send us to sleep at animal stables/ Chaugoth and they won't even let us stay at our houses or even at our yard"- an adolescent girl from Kailali, Sudurpashchim Province

"I get angry and sad. During summer days I have to sleep outside but on winter days, I sleep on the floor of the room. If we slept outside during the winter season, we would probably be dead" – an adolescent girl from West Rukum, Karnali Province

People suggesting to follow Chaupadi: Participants were asked who made them practice *Chaupadi*. Overall, top three people who suggest to follow this practice across all three provinces were mothers, grandparents and fathers. In Karnali and Sudurpashchim province, other relations like auntie, uncle, friends and priest also played a significant role in suggesting to follow this practice.

Table 14: People suggesting to follow *Chaupadi*

Province	People suggesting to follow <i>Chaupadi</i> n (%) n=305																
	Mother	Father	Grandparents	Auntie	Uncle	Sister	Brother	Mother in law	Father in law	Sister in law	Brother in law	Other relative	Whole family	Teacher	Friends	Priest	Nobody, just me
Lumbini	2(30.9)	1(69.1)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1(20.5)
Karnali	75(95.6)	13(13.3)	28(31.3)	11(14.5%)	9(13.4%)	7(4.6)	5(5.0)	4(1.3)	2(1.3)	2(1.3)	2(1.3)	4(7.2)	5(4.8)	4(2.5)	7(24.2)	15(18.8)	9(10.8)
Sudurpashchim	174(81.2)	39(17.2)	96(45.6)	36(15.8%)	24(11.8%)	24(10.4)	12(6.2)	6(3.8)	6(3.8)	7(4.9)	6(3.8)	20(8.3)	26(14.2)	12(6.5)	17(9.7)	28(13.7)	17(7.8)

Note: * indicate that a percent, whose figure is fewer than 5 which is suppressed

Note: Total Percentages may sum to more than 100.0% because multiple responses were possible

Note: Others (specification) is not shown in the table above

Perception on Chaupadi: Close to three-quarter (74.3%) of adolescent girls believed that *Chaupadi* is a bad practice. About one tenth (9.4%) girls reported that they were scared and anxious about the practice.

Table 15: Perception regarding practice of *Chaupadi*

Province	Perception regarding practice of <i>Chaupadi</i> n (%)					Total
	Good	Scared/anxious	Bad	Ok	Don't know	
Province 1	5(.5)	72(17.9)	353(67.1)	11(2.2)	81(12.3)	522
Province 2	40(7.6)	40(9)	304(67.1)	7(2.1)	74(14.3)	465
Bagmati	2(0.5)	26(4.7)	394(77.5)	18(4.4)	81(12.9)	521
Gandaki	5(.4)	27(4.7)	461(89.2)	11(2.3)	14(3.5)	518
Lumbini	21(2.5)	53(6.2)	416(80.3)	14(2.5)	39(8.4)	543
Karnali	23(5.2)	71(11.9)	324(76.8)	8(1.5)	23(4.7)	449
Sudurpashchim	16(3)	39(9)	344(71.2)	55(11.7)	23(5.1)	477
Total	112(3.2)	328(9.4)	2596(74.3)	124(3.5)	335(9.6)	3495

Interviews with adolescent girls revealed that this practice has instilled a deep fear of physical abuse and possibly death without being able to call for help from family members.

"Staying and sleeping alone at night in a livestock shed is fearful and frightening. Family members would not even know if anything happens to us when we menstruate and it is a major problem." (FGD Out of School, Accham, Adolescent Girls, Sudurpashchim Province)

"Because of chaugufa, girls and women face a lot of problems which leads to fatality. There are many incidences of the woman dying in *Chaupadi* huts." (KII, Kalikot, School Chairperson, Karnali Province)

“Last year, there was an incident in ward no 9 of Bajura district. A girl was raped while practicing *Chaupadi* by a drunk man. Due to other several reasons, adolescent girls and women die every year while practicing *Chaupadi*. It is difficult to make elders understand about menstruation process and health management, as well as *Chaupadi*” (KII, Kailali, Female Community Leader, Sudurpashchim Province)

Necessity of practicing Chaupadi: When asked if it is necessary to continue this practice, majority of girls (83.9%) across all provinces stated that this is not necessary. Surprisingly, 22.5% respondents from Sudurpashchim province said that this should be practiced.

Table 16: Necessity of practicing *Chaupadi*

Province	Do you think women and girls should practice <i>Chaupadi</i> ? n(%)			Total
	Yes	No	Don't know	
Province 1	18(5.1)	435(85)	69(9.8)	522
Province 2	44(9.9)	358(78.4)	63(11.8)	465
Bagmati	13(2.7)	455(88.3)	53(9)	521
Gandaki	16(3.1)	488(94)	14(2.9)	518
Lumbini	29(2.2)	482(90.4)	32(7.4)	543
Karnali	61(11.4)	375(85.5)	13(3.2)	449
Sudurpashchim	92(22.5)	357(72.2)	28(5.4)	477
Total	273(8.6)	2950(83.9)	272(7.5)	3495

Reasons why Chaupadi continues to be practiced: Participants were asked why *Chaupadi* continues to be practiced. The major reasons cited were family decision (70.8 %) and fear of divine retribution (13.7%). Fearing divine retribution was high in Karnali (19.9%) and Sudurpashchim (21.2%) province.

Table 17: Reasons for practicing *Chaupadi*

Reasons for practicing <i>Chaupadi</i> n (%) n=3495					
Province	Fearing of divine retribution	Family make decision	They feel it is the right thing to do	Don't know	Total
Province 1	27(8.7)	372(73.7)	16(2.5)	107(15.1)	522
Province 2	111(27)	246(50.5)	30(5.9)	78(16.5)	465
Bagmati	37(6.2)	396(80.5)	10(2)	78(11.2)	521
Gandaki	35(5.6)	454(89.1)	10(1.3)	19(4.1)	518
Lumbini	42(5)	429(80.2)	20(3.9)	52(10.9)	543
Karnali	97(19.9)	332(76.1)	9(1.9)	11(2)	449
Sudurpashchim	105(21.2)	276(58.8)	25(5.)	71(15.1)	477
Total	454(13.7)	2505(70.8)	120(3.7)	416(11.8)	3495

Knowledge on legality of Chaupadi: More than half (59.2%) respondents knew that *Chaupadi* is illegal, while 29.5% did not know that it is illegal.

Table 18: Is *Chaupadi* legal or illegal

Is <i>Chaupadi</i> legal or illegal in our country? n(%) n=3495					
Province	Legal	Illegal	Don't know	No response	Total
Province 1	43(6.8)	293(56.7)	186(36.6)	0	522
Province 2	65(14.3)	245(55.5)	149(29.2)	6(1)	465
Bagmati	40(9.2)	288(54.9)	187(35.2)	6(0.6)	521
Gandaki	23(3.7)	431(85.2)	62(10.90)	2(0.20)	518
Lumbini	40(6.8)	367(62.3)	136(30.9)	0	543
Karnali	97(19.7)	275(62)	69(16.9)	8(1.4)	449
Sudurpashchim	88(14.9)	239(51.5)	149(33.3)	1(0.3)	477
Total	396(10.8)	2138(59.2)	938(29.5)	23(0.4)	3495

2.7 Restrictions during menstruation

During menstruation, major restrictions were cited as not being allowed in religious activities like visiting temples, attending religious occasions and doing household puja. The restrictions were similar across all ethnicity, religion and provinces.

Table 19: Activities restricted during menstruation by ethnicity

Ethnicity	During your regular menstruation, what are you typically obligated to avoid doing n (%) n=3495													
	Attend temple	Attend religious occasions	Do household puja	Touch male family members	Touch any adults	Cook/enter the kitchen	Go outside as much as normal	Sleep in the same house as the rest of the family	Sleep in the same bed that you normally sleep in	Lift the heavy loads	Take a bath wash	Go to fetch drinking water	Touch plants/seeds	Eat or drink dairy products
Dalit	423(88.2)	401(83.8)	406(85.5)	277(52.9)	250(51.9)	325(66.6)	195(39.6)	279(53.5)	241(53.1)	198(39.9)	162(33.4)	265(58.8)	267(54.5)	202(40.9)
Disadvantaged janajatis	205(71.7)	177(67.8)	184(64.2)	112(42.7)	114(41.3)	132(46.8)	91(34.1)	110(42.9)	108(38.4)	108(38.9)	105(39.2)	115(43.8)	114(45.5)	105(37.5)
Disadvantaged non dalit Terai caste Group	179(67.3)	167(63.7)	173(64.9)	115(39.5)	104(34.6)	137(49.2)	97(33.6)	128(45.1)	130(49.6)	127(58.6)	108(43.1)	118(44.7)	104(37.5)	100(38.1)
Religious minorites	25(77.5)	16(49.1)	23(73.6)	11(36.3)	9(21.7)	12(47.3)	8(25.2)	11(34.7)	10(37.9)	9(35.2)	6(23.5)	8(33.9)	9(24.9)	5(24.1)
Relatively advantaged lanaiatis	656(88.8)	577(80.3)	612(82.2)	198(25.8)	213(26.1)	293(37.3)	183(25.4)	245(32.9)	224(33.9)	291(39.8)	216(26.7)	286(35.2)	361(45.0)	190(24.0)
Upper caste groups	1393(84.0)	1325(80.6)	1350(81.4)	901(54.9)	833(52.2)	1123(68.6)	536(31.9)	921(56.0)	805(50.5)	695(43.5)	536(32.2)	939(58.9)	832(50.8)	660(39.5)

Note: Total Percentages may sum to more than 100.0% because multiple responses were possible

Table 20: Activities restricted during menstruation by religion

Religion	During your regular menstruation, what are you typically obligated to avoid doing n (%) n=3495													
	Attend temple	Attend religious occasions	Do household puja	Touch male family members	Touch any adults	Cook/enter the kitchen	Go outside as much as normal	Sleep in the same house as the rest of the family	Sleep in the same bed that you normally sleep in	Lift the heavy loads	Take a bath wash	Go to fetch drinking water	Touch plants/seeds	Eat or drink dairy products
Hindu	2456(82.8)	2305(79)	2372(79.6)	1449(48.9)	1353(46.6)	1816(61.4)	967(32.6)	1524(51.2)	1342(48)	1241(44)	963(32.8)	1521(52.9)	1453(49.5)	1110(37.2)
Buddhist	252(84.2)	222(76.9)	229(78.2)	99(31.8)	110(35.9)	121(39.7)	86(30)	105(36)	119(41.9)	118(39.6)	105(34.7)	122(43.6)	143(42.8)	104(37.1)
Christian	44(71.9)	36(61)	35(63.1)	31(50.4)	20(28.7)	35(55.2)	19(22.1)	28(43.8)	22(27.9)	24(34)	27(40.2)	30(54.7)	24(44)	18(26.8)
Kirat	97(87.1)	79(71.5)	82(73.6)	21(15.3)	29(23.0)	36(31.6)	25(21)	21(18.5)	22(25.6)	27(31.1)	26(24.4)	45(38.6)	56(36.1)	20(17.2)
Muslim	32(70.4)	21(44.9)	30(71.1)	14(29.9)	11(17.6)	14(37.3)	13(34.3)	16(38.9)	13(40.9)	18(51.2)	12(35.4)	13(36)	11(17.6)	10(32)

Note: Total Percentages may sum to more than 100.0% because multiple responses were possible

Table 21: Activities restricted during menstruation by province

Province	During your regular menstruation, what are you typically obligated to avoid doing n (%) n=3495													
	Attend temple	Attend religious occasions	Do household puja	Touch male family members	Touch any adults	Cook/enter the kitchen?	Go outside as much as normal	Sleep in the same house as the rest of the family	Sleep in the same bed that you normally	Lift the heavy loads	Take a bath wash?	Go to fetch drinking water	Touch plants/seeds	Eat or drink dairy products
Province 1	436(84.8)	377(75.2)	400(79.6)	166(34.9)	169(36.5)	236(49.6)	147(37.7)	147(32.6)	150(39.3)	171(34.7)	148(36.7)	212(41.5)	244(48.4)	139(33.2)
Province 2	298(63.6)	282(60.7)	286(60.3)	190(39.4)	194(39.6)	238(49.6)	176(36.3)	212(44.8)	227(49.5)	204(46.5)	173(38.5)	216(47.5)	199(45.1)	174(37.5)
Bagmati	449(89.5)	396(82.4)	425(83.8)	188(38.6)	171(36.3)	245(50.0)	127(26.3)	193(41.0)	183(35.9)	201(38.8)	156(28.0)	202(44.3)	254(51.1)	146(28.8)
Gandaki	485(95.0)	452(87.3)	473(93.9)	272(54.4)	217(40.4)	336(65.8)	178(31.5)	290(54.6)	234(45.4)	220(40.5)	148(30.6)	278(52.7)	255(48.6)	16(32.0)
Province5	478(90.6)	456(87.0)	469(88.2)	277(48.1)	225(37.1)	323(59.0)	127(22.3)	255(44.7)	213(39.7)	255(50.4)	90(17.9)	250(48.8)	252(46.9)	137(23.4)
Karnali	389(88.9)	359(81.9)	358(79.4)	218(43.6)	225(45.8)	315(67.2)	160(36.5)	283(61.0)	243(54.9)	186(41.4)	191(42.5)	258(54.3)	222(43.1)	242(51.3)
Sudurpashchim	346(74.9)	341(73.4)	337(73.1)	303(63.1)	322(70.9)	329(71.1)	195(39.5)	314(67.2)	268(58.3)	191(40.8)	227(45.9)	315(69.3)	261(53.8)	257(54.8)

Note: Total Percentages may sum to more than 100.0% because multiple responses were possible

In depth interviews with adolescent girls revealed that restrictions during menstruation is varied and not always logical, affecting the daily activities of adolescent girls and causing distress. These included not being all allowed to participate in religious activities, enter kitchen, touch male family members, touch certain plants, touch cows, drink milk and milk products, touch taps and rivers, walk on same road as other people etc. These restrictions keep adolescent girls under lots of pressure and distress.

"We cannot be involved in *Bhai-Tika*, which only happens once a year. I feel very disappointed. I feel like crying. My mother scolds me saying why I have to have my period during festivals. She wishes to send me off to another house by marrying early so that she does not have to deal with it. That makes me feel bad and it hurts" – an adolescent girl, Jajarkot, Karnali Province

"We are not allowed to touch people. If we touch them, they are purified by sprinkling cow urine all over them" – an adolescent girl, Baitadi, Sudurpashchim Province

"People also say we cannot touch plants of vegetables and fruits because plants would die and fruits will get rotten and fall from tree"- an adolescent girl, Udayapur, Province 1

"We are not allowed to drink the cows and buffalo milk and touch the cow during periods" – an adolescent girl, Jumla, Karnali Province

"I wish I would not have to change roads because of the menstruation" – an adolescent girl with visual impairment, Bajura, Sudurpashchim Province

Respondents were asked what they would prefer, if there were no restrictions. Majority responded that they would prefer doing activities like sleeping in the same house and in the same bed, taking bath and washing if no restriction were to be followed. In addition, most of them preferred doing household activities, and touching adults and male members. However, less than half of girls in each province preferred to restrict themselves from religious activities.

Table 22: Preferred activities in absence of restrictions

Province	If no obligation, activities done n (%) n=3495													
	Religious activities			Touching Prohibition			Household work		Personal Activities			Eating prohibition		
	Attend Temple	Attend religious occasions (wedding, blessing, puja, ...)	Do household puja	Touch male family members	Touch any adults	Touch plants/seeds	Cook/enter the kitchen	to fetch drinking water	Go outside as much as normal	Sleep in the same house as the rest of the family	Sleep in the same bed that you normally sleep in	Lift the heavy loads	Take a bath, wash	Eating or drinking dairy products
Province 1	125(28.5)	196(35.1)	121(22.8)	342(63.9)	360(68.8)	271(52.4)	363(71.1)	373(71.4)	396(75.7)	372(71.3)	446(84.9)	299(57.9)	497(94.2)	460(88.2)
Province 2	195(43.3)	249(53.9)	207(46.5)	331(71.1)	361(77.2)	329(70.0)	383(82.5)	383(83.4)	354(77.4)	370(81.3)	373(80.3)	193(41.2)	426(91.6)	408(88.2)
Bagmati	170(31.3)	232(44.1)	161(29.2)	377(71.4)	386(72.3)	352(65.9)	349(67.5)	388(72.3)	421(80.3)	346(65.7)	434(85.1)	263(55.8)	471(93.2)	447(86.4)
Gandaki	150(32.2)	202(45.3)	151(29.8)	366(70.4)	388(75.3)	346(69.8)	332(64.7)	345(69.9)	424(84.4)	319(61.6)	421(81.4)	276(50.1)	486(94.5)	443(84.6)
Lumbini	180(32.9)	214(35.7)	178(29.9)	306(63.0)	349(68.0)	377(69.9)	294(58.7)	374(71.9)	357(70.6)	372(67.4)	358(72.0)	247(49)	503(92.8)	446(83.5)
Karnali	144(37.5)	227(50.6)	144(36.7)	312(73.3)	298(70.5)	335(74.7)	266(64.3)	301(72.3)	325(72.4)	281(63.4)	339(77.6)	243(59.3)	403(92.3)	332(75.7)
Sudurpashchim	142(29.8)	181(39.6)	138(27.6)	253(53.6)	246(51.1)	339(72.6)	193(37.0)	261(53.8)	319(69.1)	251(51.9)	274(56.7)	280(60.8)	426(91.2)	320(66.1)

Note: Total Percentages may sum to more than 100.0% because multiple responses were possible

Opposed restrictions: Adolescent girls were asked if they had taken any steps against restrictions like raising issues, making conversations or going against restrictions either at home or in the community. 38.4% have talked or done things against restriction at home and 21.2% had done in the community.

Figure 2: Opposed restrictions at home

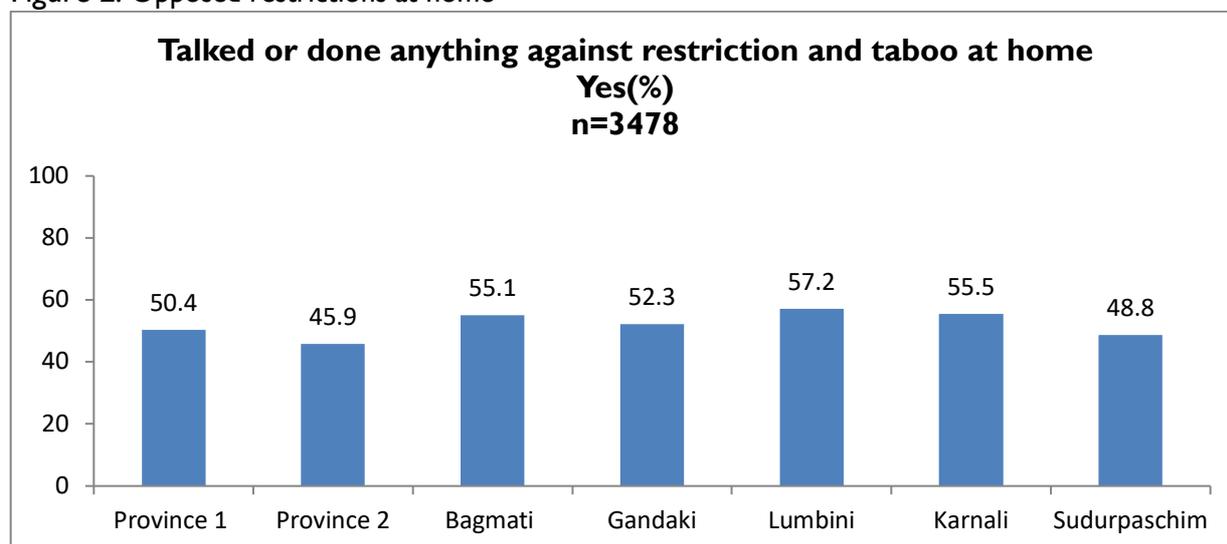
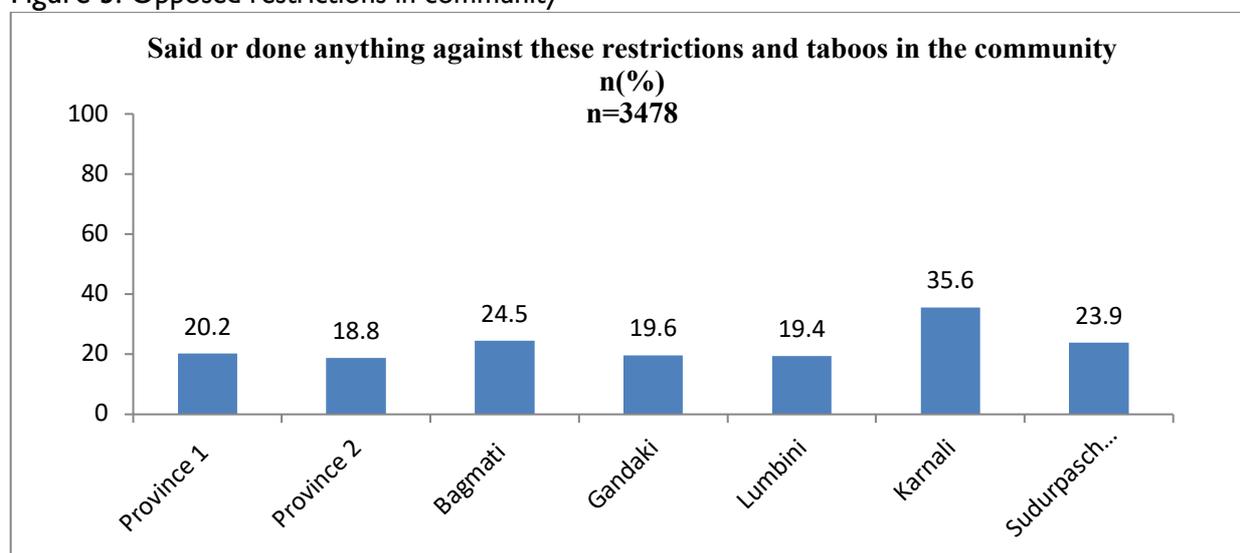


Figure 3: Opposed restrictions in community



Section III: Practice on menstrual hygiene management

Key findings

Commercial disposable pads and reusable pads were the most commonly used menstrual management materials. 65% of all respondents were satisfied with their current use.

42.6% changed materials thrice or more per day, 39.7% changed twice a day and 11.9% changed once a day.

92.9% adolescent girls of all the provinces were able to change their menstrual management materials as often as they would like at home, while only 55% were able to change as often as they like at school.

More than three quarter of respondents in all provinces had access to clean, private and safe space for changing sanitary materials. 88.2% had easy access to a space for changing sanitary material that required less than 15 minutes of walk to and back home.

Primary means of menstrual material disposal were burying, burning and throwing the materials in waste bin.

26.7% girls missed school/college during menstruation in the last 12 months. Again, menstrual pain or dysmenorrhea was cited as the major reason for missing school.

This section provides in-depth information on adolescent girls' practices of menstrual hygiene management particularly how girls access menstrual management materials, WASH facilities, disposal mechanisms and dysmenorrhea management.

3.1 Access to menstrual management materials

Current use: Disposable commercial pads were the most commonly used menstrual management material in Province 1, Gandaki, and Lumbini while reusable pads were mostly used in Province 2, Bagmati, Karnali and Sudurpaschim. However, it is to be noted that some individuals may have used multiple types of menstrual management materials, while this data captures only that material used during the most recent menstruation. Reliance on underwear only was also observed in very few cases. Use of materials like tampons was rare and there was no mention of any other types of menstrual management materials.

Table 23: Current use of menstrual management materials

Province	Management of menstrual blood during the last menstruation n (%) n= (3495)									
	Disposable sanitary pad (commercial)	Reusable The sanitary pad	New cloth	Old cloth	Cotton wool	Tampons	Toilet paper	Underwear alone	No material used	No response
Province 1	288(61.1)	153(29.3)	201(31.9)	78(11.1)	12(1.8)	0	0	1(0.3)	0	1(0.3)
Province 2	165(32.2)	213(48.2)	140(27.8)	81(15.8)	10(1.5)	1(0.1)	2(0.1)	11(2.5)	1(0.2)	5(1.00)
Bagmati	239(45.8)	264(51.5)	156(32.6)	56(11.5)	17(3.3)	3(0.6)	0	1(0.1)	3(0.2)	1(0.1)
Gandaki	406(78.0)	96(22.0)	90(15.3)	136(20.7)	26(5.0)	0	0	0	0	0
Lumbini	335(64.6)	165(27.1)	133(21.9)	66(10.8)	18(2.6)	1(0.4)	1(0.2)	3(0.1)	0	1(0.2)
Karnali	158(31.7)	173(45.7)	234(52.8)	99(21.2)	16(5.1)	0	2(0.5)	1(0.2)	0	0
Sudurpashchim	197(39.9)	252(54.1)	131(29.1)	101(22.7)	27(6.2)	2(0.1)	2(0.5)	3(0.6)	1(0.1)	1(.0.5)

Note: Total Percentages may sum to more than 100.0% because multiple responses were possible

Satisfaction: Respondents were asked if they were satisfied with their current use of menstrual management material. 65% of all girls were satisfied while 20.9% (723) would prefer a different material than the current one they are using. Further, they were asked why their preferences were not met and the major reasons cited were: shops too far away (30.1%), materials unavailable (20%), materials expensive (13%) and difficult to dispose (12.3%).

Figure 4: Satisfaction with current menstrual management materials

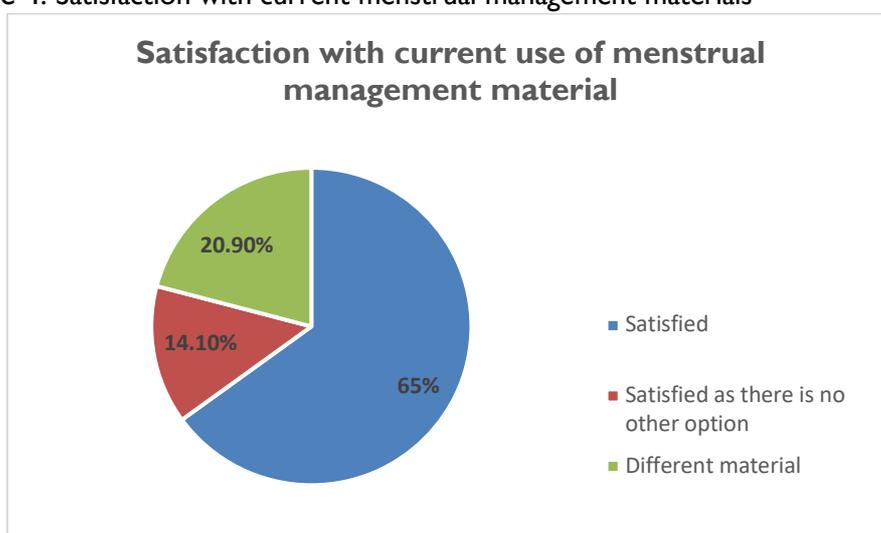


Table 24: Reasons for not using preferred sanitary materials

Province	Reasons for not using preferred sanitary materials n(%) n=723								Total
	Shops too far away	Materials too expensive	Materials not available	Too embarrassed to buy	Family would not like it	Difficult to dispose of	Don't know how to use	Others	
Province 1	44(30.6)	15(15)	37(27.1)	17(10.4)	7(3.3)	10(5.5)	12(5.9)	2(2.2)	144
Province 2	19(29.1)	12(20.5)	12(13.3)	3(3.2)	2(2.5)	4(10.1)	11(21.2)	0	63
Bagmati	20(21.3)	11(7.3)	30(24.9)	12(11.4)	5(7.9)	12(20.2)	5(4.7)	2(2.3)	97
Gandaki	8(18.3)	14(22.5)	13(38.00)	3(11.3)	3(1.4)	4(8.5)	0	0	45
Lumbini	43(27.5)	3(1.1)	23(18.9)	15(14.2)	5(7.9)	19(19.9)	7(10.6)	0	115
Karnali	45(36.6)	22(15.2)	18(16.1)	19(15.4)	1(1.2)	25(11)	3(2.1)	2(2.6)	135
Sudurpashchim	38(34.1)	28(22.8)	28(20.1)	15(10.8)	2(0.5)	8(6.8)	5(4.9)	0	124
Total	217(30.1)	105(13.00)	161(20.7)	84(11.7)	25(3.9)	82(12.3)	43(7.4)	6(.9)	723

Note: Others (specification) is not included in the table above.

In-depth interviews also substantiate these findings that girls do not use sanitary materials as per their preference due to the issues of availability, accessibility and affordability of materials. Cost was an issue and they hesitated to ask money from parents to buy pads. Therefore, they used both commercial pads as well as reusable home-made pads. Adolescent girls, out of school and from low income families, altogether, do not have access to commercial sanitary materials.

“Pad is very expensive here and I cannot use it every time. So, I wear both pads as well as cloth” – an adolescent girl, West Rukum, Karnali Province

“Municipality distributes pad only to the school. It’s not that everyone in the village can buy pads. The financial situation is very weak for some families. They will be struggling to eat a one-time meal or wear one pair of clothes, let alone buying a pad. So, the programme of distributing pads should be brought to the village too, not just in schools” - an adolescent girl, out-of-school, Udaypur, Province 1

“School students are benefited with the freely distributed pad but the ones like us who stay at home have to buy it ourselves” – an adolescent girl, out-of-school, Rupandehi, Lumbini

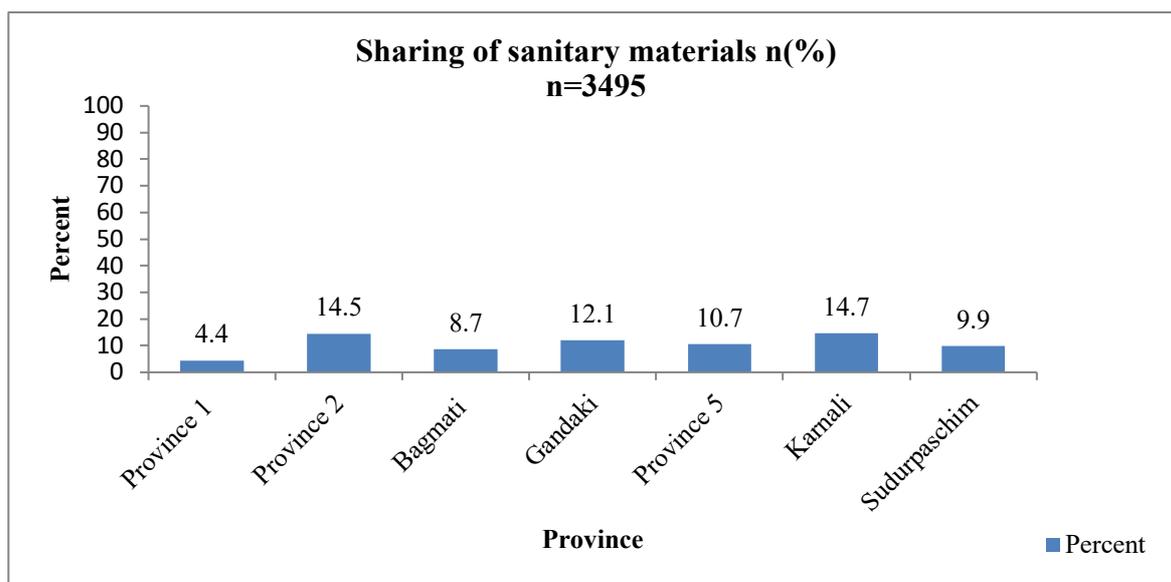
Frequency of changing menstrual management materials: In order to assess hygiene during menstruation, respondents were asked how often they changed materials in a day. 42.6% changed materials thrice or more per day, 39.7% changed twice a day and 11.9% changed once a day. This shows adolescent girls have adequate access to changing menstrual management material as they feel is necessary or at least once every six hours.

Table 25: Frequency of changing sanitary materials

Province	During your last period, how often did you change your menstrual blood management materials (pad/cloth) in a day n (%)						Total
	Never, it's not necessary	Never for another reason	Once	Twice	3 times or more	No response	
Province 1	14(3.3)	10(1.3)	82(11.6)	218(40.5)	197(43.2)	1(0.1)	522
Province 2	26(5.6)	10(2.2)	55(12.3)	162(34.5)	204(44.9)	3(0.5)	460
Bagmati	12(1.8)	3(0.7)	56(12.8)	186(37.6)	261(46.9)	2(0.2)	520
Gandaki	7(0.8)	10(1.7)	46(8.0)	279(56.7)	176(32.7)	0	518
Lumbini	12(2.1)	8(0.4)	61(8.2)	214(41.1)	244(46.8)	4(1.3)	543
Karnali	8(1.6)	16(3.1)	74(11.6)	153(37.2)	198(46.6)	0	449
Sudurpashchim	37(9.3)	5(1.2)	91(18.0)	183(38.1)	161(33.4)	0	477
Total	116(4.00)	62(1.3)	465(11.9)	1395(39.7)	1441(42.6)	10(0.50)	3489

Sharing of reusable materials: 10.6% adolescent girls of all the provinces shared sanitary materials (cloth) with other members of their household and it was highest in Karnali province with 14.7% girls sharing.

Figure 5: Sharing of reusable materials



3.2 Access to WASH facilities

WASH facilities at home: 92.9% adolescent girls of all the provinces were able to change their menstrual management materials as often as they would like at home, however, 7.1 % (261) were not able to change pad as often as they like to change. When asked why they could not change, major reasons cited were: unavailability of the disposal site (25.7%), unclean toilets (25.2%), unavailability of sanitary materials (14.9%) and unavailability of private place (14.4%).

Figure 6: Accessibility and availability of toilet facilities at home

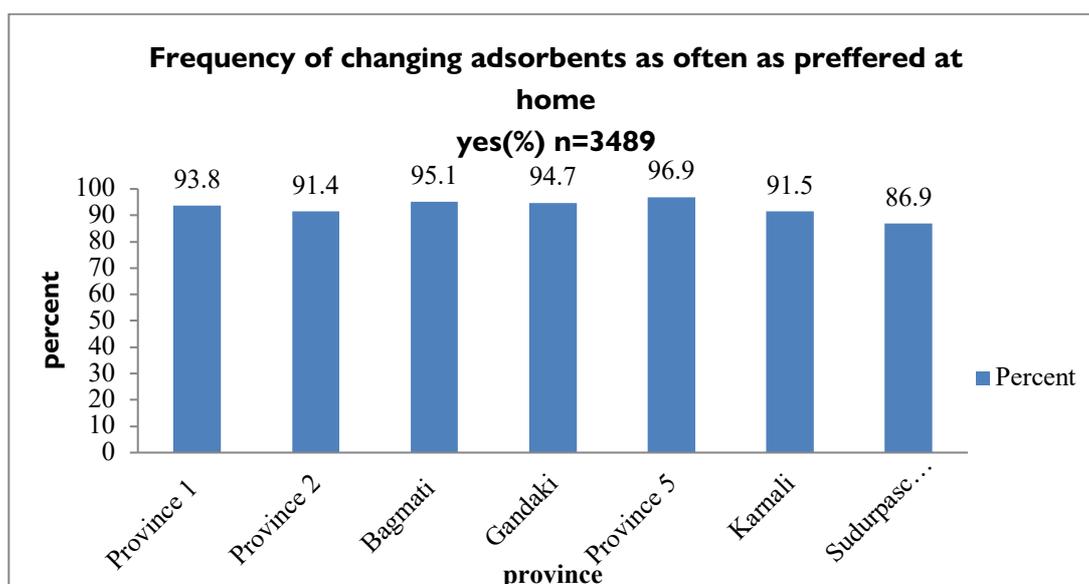


Table 26: Reasons for not changing menstrual materials at home

Province	If not, reasons for not changing menstrual materials n (%) n=261						Total
	Unclean Toilet facilities	Toilet facilities not available	No private place available	Water not available	No place for disposal	No enough material to Change	
Province 1	7(35.4.)	3(11.00)	3(4.7)	4(8.7)	6(18.1)	10(22.0)	33
Province 2	15(32.9)	12(27.7)	2(6.1)	2(3.00)	6(18.2)	5(12.1)	42
Bagmati	13(46.5)	1(2.3)	2(11.6)	0	5(19.8)	2(19.8)	23
Gandaki	3(5.2)	1(5.2)	6(19.0)	2(1.7)	11(43.1)	5(25.9)	28
Lumbini	4(45.1)	6(9.8)	6(21.8)	0	4(8.3)	8(15.00)	28
Karnali	9(16.8)	11(25.5)	5(8.00)	5(14.6)	24(27.7)	4(7.3)	58
Sudurpashchim	8(12.1)	6(10.9)	10(21.8)	1(0.5)	14(36.1)	10(18.6)	49
Total	59(25.2)	40(14.9)	34(14.4)	14(3.5)	70(25.7)	44(16.4)	261

WASH facilities at school: Likewise, in school, 55% of adolescent girls were able to change sanitary materials as frequently as they preferred, while 45% could not do that. Out of those who could not, major reasons behind it were unavailability of private place to change, unavailability of disposal mechanism, and feeling embarrassed/uncomfortable to change.

Figure 7: Accessibility and availability of toilet facilities at school

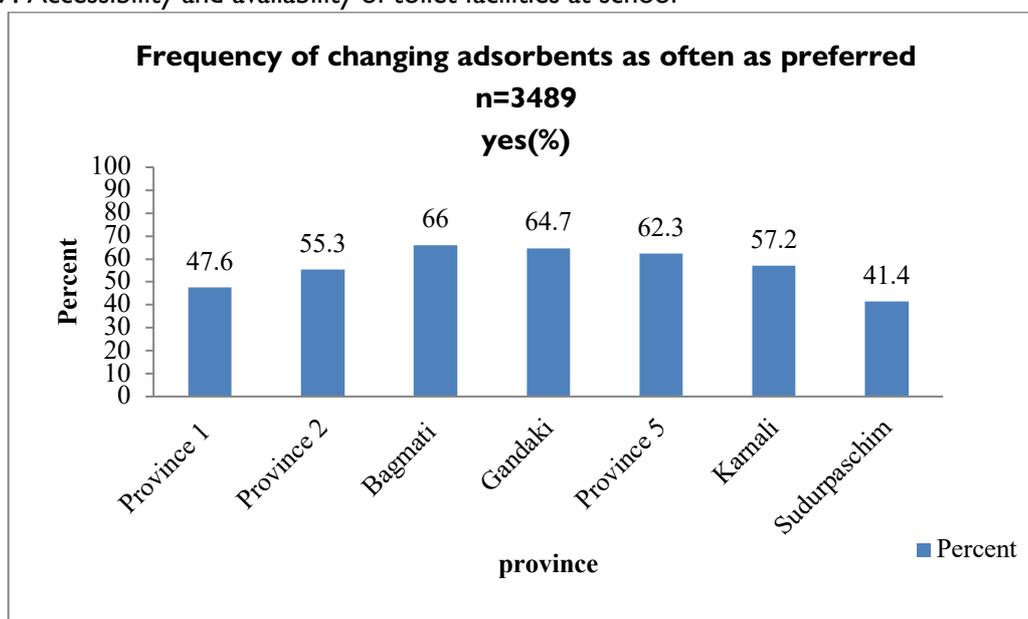


Table 27: Reasons for not changing menstrual materials at school

Province	Reasons for not changing menstrual materials at school n=(1564) n=1564						
	Toilet facilities not clean	Toilet facilities not available	No private place available	Water not available	No place for disposal	Embarrassed or uncomfortable to at school	No enough materials to change
Province 1	42(24.3)	21(6.5)	65(27.1)	18(7.6)	70(23.9)	126(37.3)	74(22.2)
Province 2	56(29.4)	41(18.5)	29(12.9)	34(14.2)	110(50.5)	26(11.4)	66(32.4)
Bagmati	47(33.3)	33(17.1)	43(22.4)	24(13.7)	48(27.8)	68(39.8)	41(22.8)
Gandaki	39(27.4)	13(4.7)	49(29.6)	15(7.9)	72(41.2)	66(31.9)	50(32.9)
Lumbini	39(22.00)	13(4.8)	36(13.8)	16(5.8)	92(31.00)	56(30.3)	95(26.7)
Karnali	55(30.3)	49(17.5)	74(30.9)	59(17.00)	59(25.4)	69(35.2)	60(22.2)
Sudurpashchim	63(22.9)	47(19.1)	126(44.7)	58(15.7)	108(34.0)	88(33.9)	74(27.3)

Note: Total Percentages may sum to more than 100.0% because multiple responses were possible

Note: Others (specification) is not included in the table above.

Although gender friendly toilets in schools have improved, the availability of water and disposal mechanisms are some of the aspects that can be improved to support adolescent girls during menstruation.

“We do have toilets in our school and home but there is no water facility. If our cloth pads get fully soaked, we put it in our pocket and bring it home” – an adolescent girl, Jajarkot, Karnali Province

“There is no separate toilet and no dustbin at school” – an adolescent girl, Tanahun, Gandaki Province

“There is no separate toilet for girls and boys. We feel ashamed if they see us and tease us when we go to the same toilet” – an adolescent Girl, Sudurpaschim Province

Management of reusable materials: Of all adolescent girls, 45.1% (1610) washed and reused menstrual materials. For WASH purposes, they had access to toilet (46.6%), well/tap (37.7%) and river/ponds (15.6%). Further, 60.5% of the girls reported that it took them less than 15 minutes to reach the place where they usually wash the sanitary materials and come back home, 28.6% required 15 minutes and 1.8% required more than one hour.

Almost all adolescent girls (93.7 %) had access to soap to wash the sanitary materials. 92 % adolescent girls completely dried their sanitary materials before each use. Majority dried reusable sanitary materials in sunlight but away from people’s view. 58% feared that other people might see their sanitary materials. In some cases, cultural belief that sanitary materials should be hidden from view of malevolent people for fear of black magic was also persistent.

“When the pain becomes unbearable during menstruation, that is when some people say that it is because of black magic and ask me whether or not I had kept the cloth pads at a safe place. Sometimes I doubt the same too.” (FGD, an adolescent girl, out-of-school, Udayapur, Province 1)

54.1% adolescent girls took bath daily. 17.8% took bath on first and fourth/fifth day of their period, followed by 16% girls taking bath only on the fourth/fifth day.

Table 28: Girls who use reusable materials

Province	Washing and reusing pads, cloths or other sanitary materials n (%) n=3489		Total
	Yes	No	
Province 1	229(37.5)	293(62.5)	522
Province 2	170(34.3)	290(65.7)	460
Bagmati	245(56.7)	275(43.3)	520
Gandaki	214(35.3)	304(64.7)	518
Lumbini	206(39.5)	337(60.5)	543
Karnali	308(69.9)	141(30.1)	449
Sudurpashchim	238(51.4)	239(48.6)	477
Total	1610(45.1)	1879(54.9)	3489

Table 29: Place for washing of sanitary materials

Province	Place of washing the sanitary materials during the last menstrual period n (%)			Total
	River/Pond	Well/tap	Toilet	
Province 1	15(3.9)	86(39.4)	128(56.7)	229
Province 2	22(14.3)	24(8.8)	124(76.9)	170
Bagmati	5(1.3)	79(34.1)	161(64.6)	245
Gandaki	9(4.3)	108(51.3)	97(44.4)	214
Lumbini	28(17.8)	72(46.6)	106(35.6)	206
Karnali	56(13.00)	129(40.3)	123(46.8)	308
Sudurpashchim	85(33.4)	92(41.5)	61(25.1)	238
Total	220(15.6)	590(37.7)	800(46.6)	1610

Note: Others(specification) is not included in the table above

Table 30: Time taken to reach place for washing sanitary materials

Province	Time taken to reach to the place for washing adsorbents and get back home n (%)						Total
	Very little time	15 minutes	30 Minutes	45 Minutes	1 Hour or more	Don't Know	
Province 1	178(77.8)	38(16.4)	8(4.0)	1(0.1)	3(0.8)	1(0.8)	229
Province 2	84(48.2)	43(24.7)	19(14.8)	5(2.3)	6(3.00)	12(7.0)	169
Bagmati	185(81.6)	45(14.2)	9(2.7)	2(0.2)	2(0.8)	3(0.5)	246
Gandaki	147(71.6)	53(21.5)	5(3.1)	3(1.5)	4(0.8)	2(1.5)	214
Lumbini	111(66.9)	65(23.6)	20(7.00)	1(0.6)	1(0.5)	8(1.4)	206
Karnali	123(42.3)	135(44.6)	22(6.8)	9(1.1)	16(3.8)	3(1.5)	308
Sudurpashchim	115(49.2)	81(33.4)	20(10.2)	6(2.4)	6(2.3)	10(2.5)	238
Total	943(60.5)	460(26.9)	103(7.5)	27(1.2)	38(1.8)	39(2.2)	1610

Table 31: Use of soap in washing sanitary materials

Province	Use of soap in washing sanitary materials n (%)			Total
	n= 1610			
	Yes, always	Yes, Sometimes	Never	
Province 1	219(95.3)	7(2.9)	3(1.8)	229
Province 2	150(89.00)	13(6.5)	7(4.5)	170
Bagmati	237(98.2)	3(1.00)	5(0.8)	245
Gandaki	209(97.7)	5(2.3)	0	214
Lumbini	177(80.6)	27(17.3)	2(2.1)	206
Karnali	291(94.2)	15(4.1)	2(1.7)	308
Sudurpashchim	225(93.4)	12(6.4)	1(0.3)	238
Total	1508(93.7)	82(7.2)	20(1.6)	1610

Table 32: Drying of sanitary materials

Province	During your last menstrual period, were the sanitary materials that you washed completely dried before each reuse n (%)			Total
	n= 1610			
	Yes	No	Don't Know	
Province 1	225(97.7)	4(2.3)	0(0.0)	229
Province 2	146(86.7)	16(9.4)	8(3.9)	170
Bagmati	240(98.9)	4(1.0)	1(0.1)	245
Gandaki	206(96.4)	6(2.3)	2(1.3)	214
Lumbini	181(86.5)	19(10.7)	6(2.8)	206
Karnali	300(95.7)	6(3.4)	2(0.9)	308
Sudurpashchim	213(90.4)	17(6.4)	8(3.2)	238
Total	1511(92.00)	72(5.9)	27(2.00)	1610

Note: others (specification) is not included in the table above

Table 33: Drying site of sanitary materials

Province	Place for drying the sanitary materials n (%) n= 1610						
	Outside home in sunlight in the normal place where clothes are dried	Outside home in the sunlight in a place away from view	Outside home covered by other clothes	Inside home in a normal place	Inside home in a hidden place	By the fire	Dry using a hot iron
Province 1	106(48.9)	98(41.7)	21(8.2)	3(1.7)	5(2.5)	0(0.0)	0(0.0)
Province 2	58(37.0)	99(55.5)	16(9.3)	6(3.3)	16(7.8)	2(0.4)	4(2.6)
Bagmati	144(59.1)	95(39.5)	9(2.1)	2(1.1)	2(0.3)	0(0.0)	0(0.0)
Gandaki	100(45.9)	100(48.2)	19(9.1)	1(0.2)	2(0.5)	0(0.0)	0(0.0)
Povince 5	107(47.6)	78(45.00)	19(6.7)	3(1.9)	2(1.2)	0(0.0)	1(0.4)
karnali	208(67.5)	92(30.9)	14(3.4)	6(1.7)	4(1.2)	1(0.5)	0(0.0)
Sudurpashchim	92(37.4)	127(54.6)	25(11.1)	1(0.2)	5(1.3)	0(0.0)	0(0.0)

Note: Total Percentages may sum to more than 100.0% because multiple responses were possible

Figure 8: Fear of others seeing sanitary materials

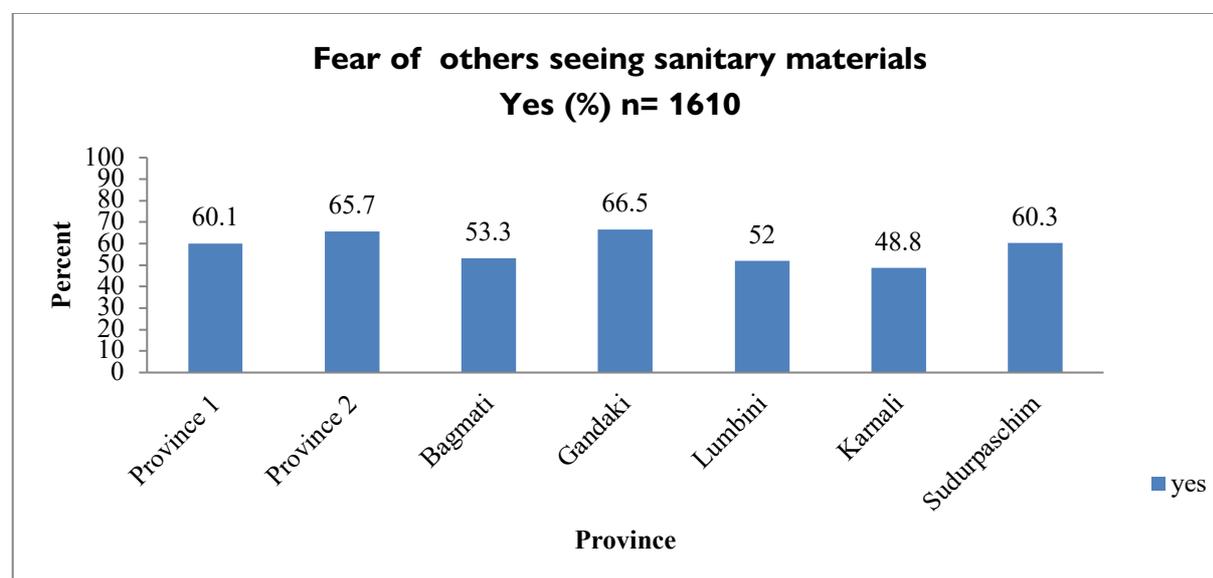


Table 34: Frequency of bath taken during menstruation

Province	During your last menstrual period, how often did you take a bath? n(%)						Total
	n=3495						
	Twice a day	Daily	On the first day	Only the fourth or fifth day	The first day and fourth/fifth day	Not at all	
Province 1	36(4.70)	298(65.80)	24(3.60)	81(13.00)	80(11.7)	3(1.20)	522
Province 2	44(8.20)	311(67.80)	24(5.10)	33(6.80)	51(11.5)	2(0.50)	465
Bagmati	38(6.20)	202(45.00)	23(5.80)	124(18.60)	125(22.6)	9(1.90)	521
Gandaki	26(4.40)	135(31.80)	43(9.00)	125(24.80)	187(29.6)	2(0.30)	518
Lumbini	41(6.80)	188(35.90)	28(5.00)	136(26.00)	150(26.3)	0	543
Karnali	48(11.50)	253(56.40)	31(5.70)	45(9.90)	71(16.3)	1(0.30)	449
Sudurpashchim	25(6.50)	324(71.90)	9(1.40)	66(10.40)	52(9.6)	1(0.20)	477
Total	258(6.9)	1711(54.1)	182(4.6)	610(16.0)	716(17.8)	18(0.5)	3495

3.3 Access to safe space for changing menstrual management materials

Majority of girls had access to toilets for changing their sanitary materials followed by changing in bedroom as well. More than three quarter of respondents in all provinces had access to clean, private and safe space for changing sanitary materials. 88.2% had easy access to a space for changing sanitary material that required less than 15 minutes of walk to and back home. However, 0.6% adolescent girls had to walk more than an hour to reach space for changing sanitary materials and also get back home.

Table 35: Place for changing sanitary materials

Province	Place for changing used pads, cloths, or other sanitary materials n (%)					
	n=3489					
	Toilet	Sleeping room/bedroom	Backyard	No facility/bush/field	Others	No response
Province 1	348(67.5)	162(29.1)	4(1.9)	5(1.1)	0(0.0)	3(0.3)
Province 2	352(76.0)	64(13.6)	22(4.9)	15(3.8)	3(0.6)	4(1.00)
Bagmati	445(85.6)	62(12.3)	5(0.6)	1(0.1)	5(1.2)	2(0.2)
Gandaki	440(86.4)	63(12.1)	4(0.2)	6(0.9)	3(0.4)	2(0.1)
Lumbini	468(86.0)	61(10.7)	7(1.0)	5(2.0)	1(0.2)	1(0.1)
Karnali	324(74.3)	108(21.8)	5(1.2)	7(2.2)	5(0.5)	0(0.0)
Sudurpashchim	258(56.5)	172(32.3)	18(4.2)	18(4.9)	9(1.5)	2(0.5)

Note: Total Percentages may sum to more than 100.0% because multiple responses were possible

Table 36: Condition of places for managing menstrual hygiene

Province	Condition of places for managing menstrual hygiene n (%) n=3495						Total
	Clean	Private	Safe	Able to be locked	Supplied with water	Supplied with soap	
Province 1	514(98.3)	478(93.8)	518(99.0)	500(95.0)	448(82.9)	429(79.8)	522
Province 2	447(96.6)	336(70.8)	430(91.4)	429(92.9)	444(95.9)	410(87.7)	465
Bagmati	514(98.6)	448(90.2)	511(97.1)	508(97.4)	509(97.4)	498(95.5)	521
Gandaki	507(97.8)	442(85.3)	513(99.3)	505(98.5)	500(95.2)	467(91.3)	518
Lumbini	517(96.6)	470(86.00)	522(97.1)	503(92.2)	504(94.5)	487(89.8)	543
Karnali	428(97.0)	372(84.90)	419(95.9)	392(88.1)	395(90.0)	390(87.3)	449
Sudurpashchim	455(95.0)	354(76.30)	447(94.8)	414(88.0)	389(82.1)	403(85.0)	477

Note: Total Percentages may sum to more than 100.0% because multiple responses were possible

Table 37: Time interval between changing sanitary materials and reaching back home

Province	Time taken to go change the sanitary materials and get back home n (%) n=3489					Total
	15 minutes or less	30 minutes	45 minutes	1 hour or more	Don't know	
Province 1	471(91.5)	16(2.9)	3(0.6)	3(0.8)	29(4.2)	522
Province 2	361(78.1)	48(11.2)	3(0.5)	4(0.9)	48(9.3)	464
Bagmati	448(87.8)	15(3.00)	2(0.3)	3(0.7)	52(8.2)	520
Gandaki	484(95.3)	12(1.4)	7(0.5)	5(0.6)	10(2.1)	518
Lumbini	502(91.5)	14(1.4)	1(0.1)	2(0)	23(6.9)	542
Karnali	403(91.6)	28(5.6)	3(0.1)	6(1.0)	8(1.7)	448
Sudurpashchim	400(86.1)	22(3.8)	5(0.8)	4(0.9)	44(8.3)	475
Total	3069(88.2)	155(4.2)	24(0.4)	27(0.6)	214(6.5)	3489

3.4 Disposal of menstrual management materials

The mechanism for sanitary material disposal was burying, burning and throwing them in waste bin and this varied by provinces.

Table 38: Disposal of sanitary materials

Province	Place for disposal of the sanitary materials n (%)					
	Flush/pour toilet	Latrine	Waste bin/trash bag	Burned	Burying	Bush, field
Province 1	68(10.6)	114(24.7)	62(18.8)	153(31.5)	194(33.9)	10(1.9)
Province 2	63(11.3)	83(17.2)	55(11.9)	28(4.2)	275(63.4)	40(9.1)
Bagmati	70(12.6)	83(21.6)	180(29.3)	92(20.7)	171(37.3)	12(3.00)
Gandaki	57(11.1)	93(19.9)	131(26.5)	172(28.7)	148(29.00)	23(2.9)
Lumbini	47(8.2)	60(11.5)	151(30.1)	207(36.7)	145(29.30)	27(5)
Karnali	51(11.8)	65(18.2)	30(7.4)	130(29.00)	199(43.00)	34(5.9)
Sudurpashchim	31(8.2)	43(11.1)	12(2.5)	163(32.5)	246(54.10)	68(16.10)

Note: Total Percentages may sum to more than 100.0% because multiple responses were possible

Qualitative findings revealed that limited disposal mechanisms and lack of favorable environment for disposal are important stressors for adolescent girls in disposal of both reusable and commercial sanitary materials.

“In my hostel, I throw them in the dustbin. I feel tense when it comes to disposal issues at home, and sometimes it doesn't get burnt well so I feel confused while I have to dump the used pads. I think better management of these needs to be made by the concerned authority” – an adolescent girl, Palpa, Gandaki Province

“We throw the pads where there are a lot of trees and plants” – an adolescent girl, out-of-school, Udayapur, Province

“I go to a river which is far from my house to take shower. I then throw the pads in the river” - an adolescent girl, out-of-school, Accham, Sudurpashchim Province

3.5 Dysmenorrhea and management

Menstrual pain was not experienced by all adolescent girls, but when they did, taking medicines (painkillers), drinking hot water and taking rest were the methods adopted to ease pain.

Table 39: Management of menstrual pain

Province	Management of menstrual pain n (%) n=3495						
	Take painkillers	Drink hot water	Hot water bottle	Tie cloth around stomach	Sleep more	Nothing but had pain	Nothing because no pain
Province 1	80(12.3)	146(28.8)	21(6.7)	64(10.7)	92(13.90)	69(11.7)	199(42.3)
Province 2	108(23.8)	85(18.3)	8(2.2)	37(8.3)	102(22.1)	79(16.5)	148(30.4)
Bagmati	58(12.1)	263(45.1)	57(11.0)	84(15.6)	67(12.9)	78(15.9)	126(26.8)
Gandaki	37(7.4)	219(42.9)	47(9.8)	86(15.1)	92(20.1)	67(13.1)	189(37.6)
Lumbini	64(9.3)	138(22.3)	43(9.7)	47(9.2)	69(14.2)	138(24.7)	213(40.9)
Karnali	97(17.1)	131(30.2)	32(12.2)	94(18.3)	56(12.4)	44(10.9)	143(31.1)
Sudurpashchim	118(25.2)	109(20.2)	23(3.8)	84(13.7)	58(13.1)	71(14.4)	206(46.4)

Note: Total Percentages may sum to more than 100.0% because multiple responses were possible

Daily chores during menstruation: 20.4% girls were unable to carry on with their daily chores during menstruation. Menstrual pain was cited as one of the major reasons for missed working days.

“Carrying woods from the forest is difficult during menstruation time. Because of the stomach ache, I couldn’t go to the field for work many times.” (FGD, an adolescent girl, out-of-school, Parbat, Gandaki Province

Figure 9: Unable to attend work during menstruation

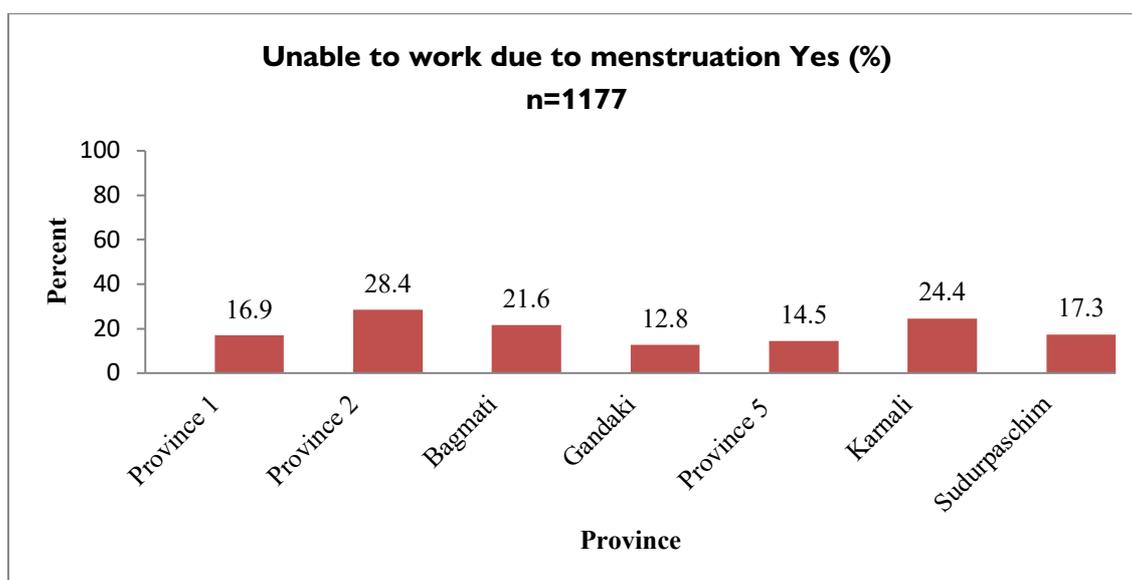


Table 40: Reasons for missing workdays during menstruation

Province	Reason for missing workdays due to menstrual period n (%)							
	n=714							
	Pain	Tiredness	Family advises not to go or prevents from going	Heavy bleeding leading to fear of leakage	Fear of teasing	Toilet facilities inadequate for management	Nowhere to dispose pads, cloths, napkin	Had to go and get sanitary materials
Province 1	45(51.7)	8(9.5)	16(19.9)	43(45.3)	2(1.7)	7(8.8)	6(7.3)	2(2.4)
Province 2	45(31.4)	53(41.3)	34(22.2)	33(16.8)	6(2.1)	16(7.6)	24(12.0)	16(9.5)
Bagmati	73(64.6)	25(23.5)	24(20.0)	61(50.7)	7(5.9)	12(8.00)	18(11.9)	3(2.2)
Gandaki	34(45.1)	7(10.3)	21(41.2)	41(53.0)	6(7.2)	6(10.3)	7(5.1)	2(1.0)
Lumbini	29(49.1)	19(19.5)	29(23.9)	24(36.6)	5(6.2)	10(12.1)	4(2.7)	9(4.1)
Karnali	56(49.1)	17(13.8)	30(22.6)	49(39.8)	11(10.1)	13(16.9)	9(3.9)	10(6.1)
Sudurpashchim	22(28.9)	24(28.1)	43(31.7)	31(36.8)	5(2.4)	3(2.7)	13(9.1)	3(3.8)

Missed days of school/college during menstruation: 26.7% girls missed school/college during menstruation in the last 12 months. Again, menstrual pain or dysmenorrhea was cited as the major reason behind it.

“I missed many of my school days. I used to have terrible abdominal cramps and heavy bleeding due to which I could not go to school” – an adolescent girl, Dhanusa, Province 2

“Yes, menstruation affects the school days, and sometimes if we get bloodstains over our clothes, we need to leave earlier as well” – an adolescent girl, Palpa, Lumbini

Figure 10: Missing school/college during menstruation

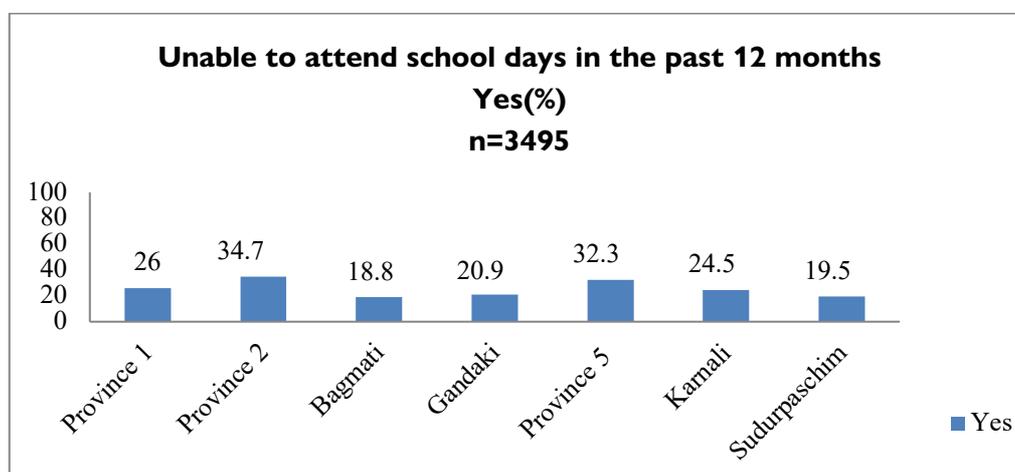


Table 41: Reasons for not attending school during menstruation

Province	Reason for not attending school/college n (%) n=932							
	Pain of any kind	Tiredness	Family advises not to go	Heavy bleeding leading to fear of leakage	Fear of teasing	Toilet facilities inadequate for management	Nowhere to dispose pads/cloths /napkin	Had to go and get sanitary materials
Province 1	74(49.6)	27(19.9)	11(3.2)	73(64.6)	13(10.5)	7(7.3)	5(3.6)	7(4.2)
Province 2	79(41.6)	59(37.0)	25(17.9)	60(28.5)	8(3.1)	17(7.4)	26(11.4)	9(5.7)
Bagmati	94(73.4)	10(6.2)	10(6.3)	50(47.4)	6(5.7)	6(7.4)	12(12.5)	3(4.0)
Gandaki	65(69.4)	12(13.9)	15(19.4)	43(53.5)	5(2.6)	3(5)	7(5.9)	1(1.2)
Lumbini	107(71.8)	25(11.7)	29(12.0)	58(29.3)	10(5.9)	3(0.7)	2(0.8)	16(2.3)
Karnali	48(45.2)	19(16.7)	18(12.3)	66(51.5)	11(11.5)	14(12.1)	4(1.9)	6(3.8)
Sudurpashchim	30(31.7)	9(8.7)	25(20.3)	42(40.6)	5(4.7)	8(6.5)	24(20.2)	9(5.0)

Note: Total Percentages may sum to more than 100.0% because multiple responses were possible

Section IV: Psychosocial scales

Key findings

Secrecy and shame were scored on a scale of 0-33 and the average mean score was 14. Half of the girls (45.2%) related menstruation to high secrecy and shame.

Annoyance was scored on a scale of 0-36 and the mean score was 19. 45.4% of adolescent girls experienced high levels of annoyance.

Stress was scored on a scale of 0-32, and the average mean score was 10. 42.5% of adolescent girls experienced high menstrual stress.

Self-efficacy was scored on a scale of 0-27 and the average mean score was 6. 42% of adolescent girls experienced low self-efficacy.

Consistently, as age increased there was relative decrease in high secrecy and shame, annoyance, menstrual stress and low self-efficacy.

This section provides information on psychosocial wellbeing of adolescent girls due to menstruation and its management. The study assessed psychosocial well-being on four scales: secrecy and shame, annoyance, stress and self-efficacy.

4.1 Secrecy and shame:

Secrecy and shame were scored on a scale of 0-33, with 0 and 33 indicating extremely low and high secrecy and shame respectively. 11 indicators were included in the scale, for example, acceptable to talk or discuss menstruation with male members or in school with male friends, not hiding anything that showed the girls having menstruation. The mean of secrecy and shame was 14. Response less than 14 was categorised to low secrecy and shame and above 14 to high secrecy and shame.

Menstrual Secrecy and Shame (%)

N=3495

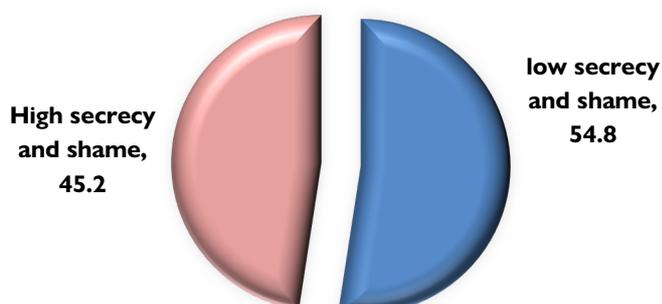


Figure 11: Menstrual Secrecy and Shame

54.8% of the adolescent girls had low level of secrecy and shame, while 45.2% had high level of secrecy and shame.

Table 42: Secrecy and shame

	Secrecy and shame n(%) (N=3495)		Total
	Low secrecy and shame	High secrecy and shame	
Completed Age			
Early aged	903(54)	864(46)	1767
Mid aged	851(55)	748(45)	1599
Late aged	77(60.3)	52(39.7)	129
Total	1831(54.8)	1664(45.2)	3495
Religion			
Hindu	1566(55.5)	1394(44.5)	2960
Buddhist	144(48.2)	158(51.8)	302
Christian	46(55.1)	34(44.9)	80
Kirat	58(55.5)	55(44.5)	113
Muslim	17(41.6)	23(58.4)	40
Total	1831(54.8)	1664(45.2)	3495
Ethnicity			
Dalit	213(46.9)	277(53.1)	490
Disadvantaged Janajatis	158(59.5)	123(40.5)	281
Disadvantaged non-Dalit Terai Caste Group	119(47.8)	144(52.2)	263
Religious Minorities	13(41.9)	18(58.1)	31
Relatively Advantaged Janajatis	420(54.4)	349(45.4)	769
Upper Caste groups	908(57.7)	753(42.3)	1661
Total	1831(54.8)	1664(45.2)	3495
Current educational level			
Primary	70(56.3)	72(43.7)	142
Secondary	1612(53)	1531(47)	3143
Higher secondary	149(73)	61(27)	210
Total	1831(54.8)	1664(45.2)	3495
Province			
Province 1	258(48.3)	264(51.7)	522
Province 2	225(47.9)	240(52.1)	465
Bagmati	320(62.5)	201(37.5)	521
Gandaki	294(59.8)	224(40.2)	518
Lumbini	304(59.6)	239(40.4)	543
Karnali	177(40.2)	272(59.8)	449
Sudurpashchim	253(59.8)	224(40.2)	477
Total	1831(54.8)	1664(45.2)	3495

With regard to age, high secrecy and shame gradually decreased with increase in age: 46% of

early adolescents experiencing high secrecy and shame, decreased to 45% of middle adolescents and the least t 39.7% late adolescents. Similar pattern was observed with regard to education, where high secrecy and shame decreases with increase in level of education: 43.7% of girls in primary level experienced high secrecy and shame, followed by 47% at secondary level and the least 27% at higher secondary level.

Further, 58.4% adolescent girls in Muslim religion, 58.1% adolescent girls from religious minorities group and 59.8% girls residing in Karnali region experienced high secrecy and shame.

4.2 Annoyance:

Twelve items were included in the scale of annoyance with all negative statements, which was reversed and were scored on a scale of 0-36, with 0 and 36 indicating extremely low and high annoyance respectively. Annoyance regarding menstruation included different aggravating factors of girls that made menses painful, dirty, annoying, and difficult to live with a period. The mean annoyance was 19. The sum of response less than 19 were considered to have low annoyance and above 19 to high annoyance.

The study found that 54.6% of adolescent girls had low levels of annoyance while 45.4 % had high annoyance level.

Figure 12: Menstrual Annoyance

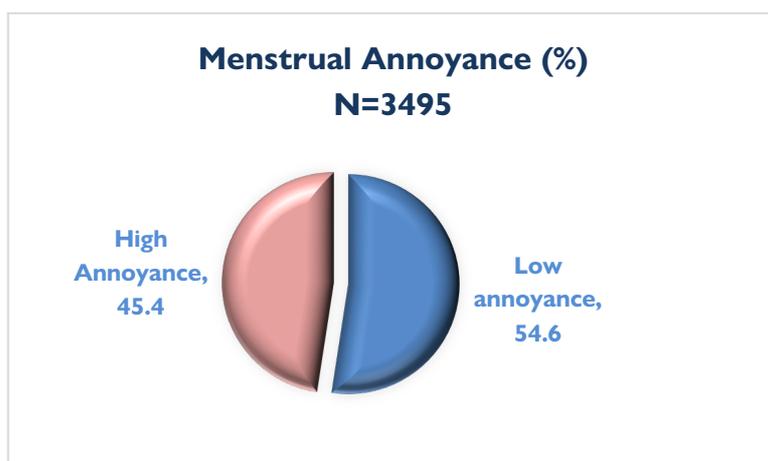


Table 43: Annoyance

	Annoyance n (%) (N=3495)		
	Low annoyance	High Annoyance	Total
Completed Age			
Early aged	911(53.2)	856(46.8)	1767
Mid aged	847(55.9)	752(44.1)	1599
Late aged	72(55.1)	57(44.9)	129
Total	1830(54.6)	1665(45.4)	3495
Religion			
Hindu	1556(54.4)	1404(45.6)	2960
Buddhist	166(57.6)	136(42.4)	302
Christian	46(58.7)	34(41.3)	80
Kirat	43(42.4)	70(57.6)	113
Muslim	19(56.7)	21(43.3)	40
Total	1830(54.6)	1665(45.4)	3495
Ethnicity			
Dalit	242(53.2)	248(46.8)	490
Disadvantaged Janajatis	169(62.3)	112(37.7)	281
Disadvantaged non-Dalit Terai Caste Group	161(59.1)	102(40.9)	263
Religious Minorities	15(56.4)	16(43.6)	31
Relatively Advantaged Janajatis	394(52.7)	375(47.3)	769
Upper Caste groups	849(53.3)	812(46.7)	1661
Total	1830(54.6)	1665(45.4)	3495
Current educational level			
Primary	63(57.1)	79(42.9)	142
Secondary	1649(57.1)	1494(42.9)	3143
Higher secondary	118(56.2)	92(45.7)	210
Total	1830(54.6)	1665(45.4)	3495
Province			
Province 1	231(49.1)	291(50.9)	522
Province 2	303(63.6)	162(36.4)	465
Bagmati	295(58)	226(42)	521
Gandaki	296(53.7)	222(46.3)	518
Lumbini	317(60.2)	226(39.8)	543
Karnali	172(45.3)	277(54.7)	449
Sudurpashchim	216(45.7)	261(54.3)	477
Total	1830(54.6)	1665(45.4)	3495

With regard to annoyance, majority of early-aged girls (46.8%), girls from Kirat group (57.6%), relatively advantaged janajati girls (47.3%), girls in higher secondary level of education (45.7%) and girls from Karnali province (54.7%) found menstruation annoying.

4.3 Menstrual Stress

Menstrual stress was scored on a scale of 0-32, with 32 indicating extremely high stress. 16 indicators were included in the scale, asking about the extent to which girls were worried about different aspects of dealing with menstruation. The questionnaire related to menstrual stress consisted of 16 questions enquiring about the girls being anxious on the start of their menses, leaking of blood, miss out on social events or school, being gossiped by others, availability and accessibilities of water, toilet, pad, disposal facilities in managing menstruation etc. The average mean score of menstrual stress was 10. It was taken as a cutoff point and those who scored below 10 were categorised into having low stress levels, while girls with scores above 10 were categorised to have high stress. These items of menstrual stress addressed the girl's level of stress and their difficulties in dealing with their menstruation and its management.

57.5% of adolescent girls scored low stress and 42.5% of the girls scored high stress.

Figure 13: Menstrual Stress

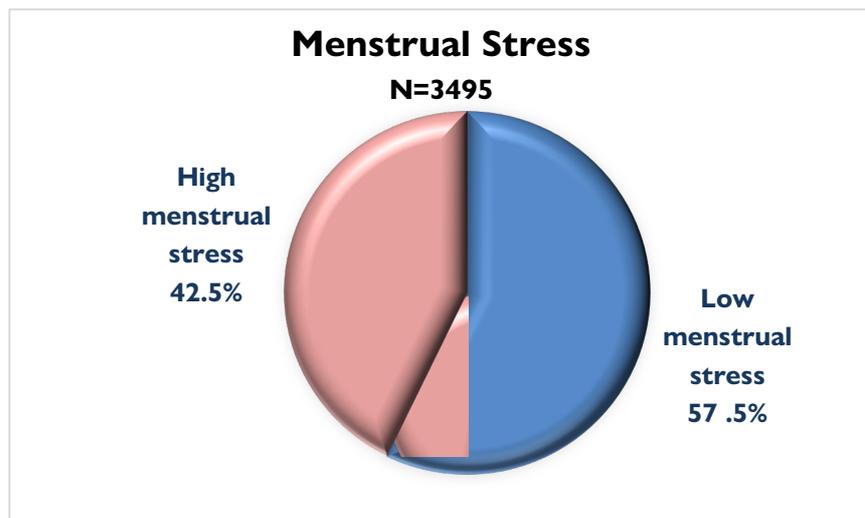


Table 44: Menstrual Stress

	Menstrual Stress n=3495		n (%)
	Low menstrual stress n (%)	High menstrual stress n (%)	
Early aged adolescent	992(56.5)	775(43.5)	1767
Mid aged adolescent	917(57.1)	682(42.9)	1599
Late aged adolescent	89(70.6)	40(29.4)	129
Total	1998(57.5)	1497(42.5)	3495
Religion			
Hindu	1683(57.3)	1277(42.7)	2960
Buddhist	169(59)	133(41)	302
Christian	48(56.6)	32(43.4)	80
Kirat	74(65.4)	39(34.6)	113
Muslim	24(56.7)	16(43.3)	40
Total	1998(57.5)	1497(42.5)	3495
Ethnicity			
Dalit	255(52.2)	235(47.8)	490
Disadvantaged Janajatis	160(58)	121(42)	28
Disadvantaged non-Dalit	146(51.5)	117(48.5)	263
Terai Caste Group			
Religious Minorities	20(59.2)	11(40.8)	31
Relatively Advantaged	472(61.1)	297(38.9)	769
Upper Caste groups	945(58.7)	716(41.3)	1661
Total	1998(57.5)	1497(42.5)	3495
Current Education			
Primary	81(63.4)	61(36.6)	142
Secondary	1764(55.6)	1379(44.4)	3143
Higher secondary	153(75.2)	57(24.8)	210
Total	1998(57.5)	1497(42.5)	3495
Province			
Province 1	298(51.9)	224(48.1)	522
Province 2	210(50.1)	255(59.9)	465
Bagmati	319(66.7)	202(33.3)	521
Gandaki	322(58.3)	196(41.7)	518
Lumbini	343(58.3)	200(41.7)	543
Karnali	243(60.5)	206(39.5)	449
Sudurpashchim	289(59.7)	188(40.3)	477
Total	2024(57.5)	1471(42.5)	3495

With regard to age, high menstrual stress gradually decreased with increase in age: 43.5% of early adolescents experiencing high secrecy and shame, decreased to 42.9 % of middle adolescents and the least to 29.4% late adolescents.

Further, 43.4% adolescent girls in Christian religion, 47.8% adolescent girls from Dalit group, 44.4% girls at secondary level of education and 59.9 % girls residing in Province 2 experienced high menstrual stress.

4.4 Menstrual Self-efficacy:

This self-efficacy scale measured a girl's ability to comfortably manage menstruation with self-confidence. These 9 item scales were scored on the range of 0-27, with 27 indicating a low level of self-efficacy consisting their ability in asking help from the friend or adult for the menstrual blood management, pain management, confidently talk to an adult about menstrual-related queries, getting extra pad when needed, performing the regular activities normally as before and standing up against teasing and when being obligated in certain constraint. The average mean score of the self-efficacy was 6.

59.5% of the adolescent girls had high self-efficacy, and 40.5% had low levels of self-efficacy.

Figure 14: Menstrual Self-Efficacy

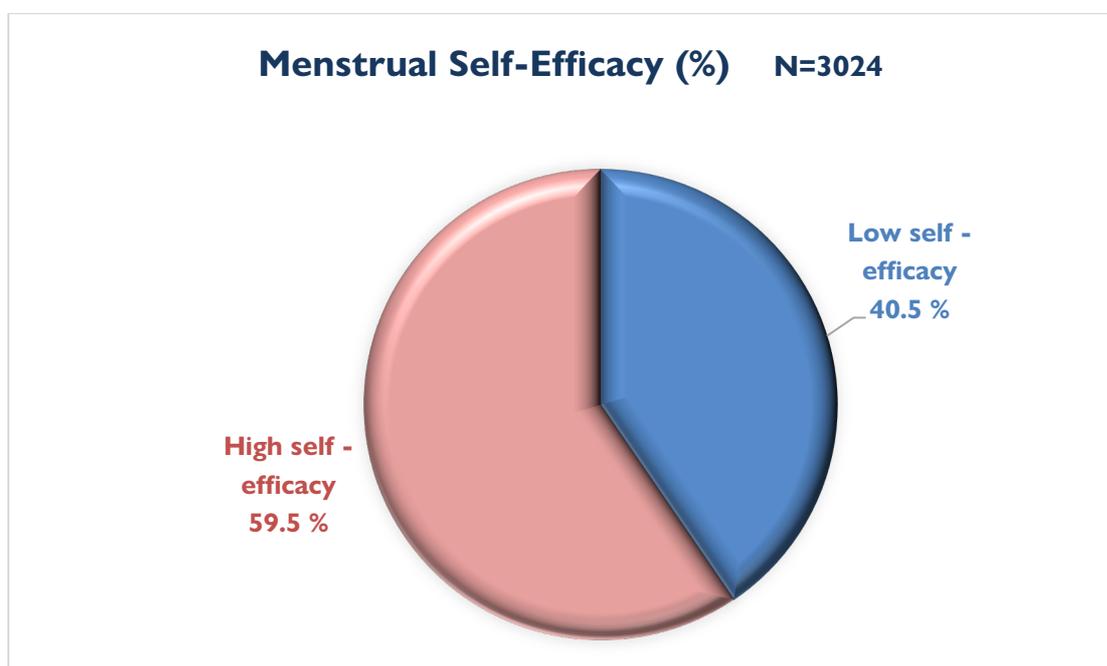


Table 45: Menstrual Self-efficacy

	Low self-efficacy	High self-efficacy	Total (N=3024)
Completed age			
Early aged adolescent girls	615(43.6)	902(56.4)	1517
Mid aged adolescent girls	567(37.5)	829(62.5)	1396
Late aged adolescent girls	42(35.1)	69(64.9)	111
Total	1224(40.5)	1800(59.5)	3024
Religions			
Hindu	1056(40.8)	1531(59.2)	2587
Buddhist	84(39.6)	128(60.4)	212
Christian	31(40.8)	45(59.2)	76
Kirat	41(36.9)	70(63.1)	111(100)
Muslim	12(31.6)	26(68.4)	38(100)
Total	1224(40.5)	1800(59.5)	3024
Ethnicity			
Dalit	163(36.9)	279(63.1)	442
Disadvantaged Janajatis	87(38.2)	141(61.8)	228
Disadvantaged non-Dalit Terai Caste	103(45.2)	125(54.8)	228
Religious Minorities	9(31)	20(69)	29
Relatively Advantaged Janajatis	268(41)	386(59)	654
Upper Caste groups	594(41.2)	849(58.8)	1443
Total	1224(40.5)	1800(59.5)	3024
Primary	45(34.6)	85(65.4)	130
Secondary	1107(40.5)	1627(59.5)	2734
Higher secondary	72(45)	88(55)	160
Total	1224(40.5)	1800(59.5)	3024
Province 1	222(45.60)	265(54.40)	487
Province 2	152(43.20)	200(56.80)	352
Bagmati	155(39.90)	233(60.10)	388
Gandaki	168(37.40)	281(62.60)	449
Lumbini	181(36.80)	311(63.20)	492
Karnali	167(37.20)	282(62.80)	449
Sudurpashchim	179(44)	228(56)	407
Total	1224(40.50)	1800(59.50)	3024

It was observed that high self-efficacy increased with increase in age: 56.4% early adolescents demonstrated high self-efficacy, followed by 62.5% middle adolescents and mostly seen in 64.9% late adolescents.

With concern to education level, girls belonging to all primary, secondary and higher secondary levels had high self-efficacy. Among the girls with high efficacy level, girls 85 (65.4%) from primary level had the highest and girls 88 (55%) from the higher secondary level the lowest self-efficacy. Similarly, girls 45 (34.6) having low self-efficacy were from the primary education in comparison to other.

Further, 68.4% adolescent girls in Muslim religion, 69% adolescent girls from religious minorities group, 65.4% girls at primary level of education and 63.2 % girls residing in Province 2 scored high menstrual self-efficacy.

Section V: Menstrual needs and gaps: qualitative findings

This section provides information on needs and gaps from respondents as well as stakeholders perspective and is based on qualitative findings.

5.1 Needs from adolescent girls' perspective

Majority of participants across all provinces said that their menstrual needs were mostly related to management, particularly the availability of gender-friendly toilet facilities, safe and private places for the changing pad, medicine, nutrition foods, and adequate rest, family support was needed and would be very helpful to manage menstruation. Besides that, participants also said that restrictions associated with menstruation were barriers in daily life which made their menstruation difficult.

“During menstruation, the most important need for adolescent girls is nutritious food. Secondly, for hygiene management, availability of sanitary pad or clean cloth, clean toilet, dustbins for disposal are necessary. Except these, soap and water are also required for maintaining personal hygiene.” - Teacher, Illam, Province 1

Majority of the adolescent girls were in stress because of a shortage of pads in school. The girls from the Karnali province and Sudurpashchim province were found to be dealing with much more difficult menstrual problems in comparison to other provinces. Many girls said that the provision of water and free pads at school was the most essential need for them during periods to have proper concentration and regular school. This gives the clear view that girls were deprived of the sanitation facilities in school which ultimately affect their education.

“There are no proper facilities for water and pads in our schools. It is a big problem. We don't change cloth pads and have to wear them for a whole day. If there are pad and water facilities in the school, we would go to school during our period also. That is all we need.” – An adolescent Girl, In School, Jajarkot, Karnali Province

Not only in school, one of the most important and crucial needs felt in two provinces, Karnali province and Sudurpashchim province, were the respondents' society and families to let the girls use water resources and the same toilet available at their own home during their menstruating days. This can be seen not only at home but also in schools. With sad faces, they revealed that even with the availability of those things, they could not make use of available resources. Some of the girls also wished to have warm water during the winter season as they had to wash clothes, bed sheets, bed cover used during menstruation. The girls also wished if they could wash their faces, bath and clean themselves with warm water and have some privacy to dry their clothes.

“We don't go to the toilet for three days. After bathing, we take water by ourselves and then go there but don't touch the water. It would be more comfortable if we could use the toilet.”

– An adolescent Girl, Out-of-School, Jumla, Karnali Province

“We desire to have a bath in warm water during the cold season. It is even hard to wash the face with cold water. Also wish for the place to dry cloth,” – An adolescent Girl, Out-of-School, Jumla, Karnali Province

Similarly, the girls from province 2 also highlighted that they wanted to wash their clothes at their own homes and wished for a private place to dry the cloth pad in sunlight. Also, they said that to reduce the potential health hazards from an infection, they felt the importance of a separate place for drying reusable cloth pads.

“I am supposed go to the river to wash my used clothes. I wish to wash it at my home.” – An adolescent Girl, Out-of-School, Parsa, Province 2

“The most important thing is we need a sanitary pad because we feel uneasy to use cotton cloth pads which we have to dry in sunlight after washing so we hesitate to dry outside which causes various kinds of infection.” – An adolescent Girl, In School, Sarlahi, Province 2

Furthermore, proper disposal of sanitary pads was found to be one of the essential needs of adolescent girls during their menses in all the provinces. They mentioned that it would be easier

for them to dispose of their pads in school if provided with dustbins or other allocated disposal facilities.

“Younger sisters in our school used to put their worn clothes which were for blood management, in the window of school toilets because they used to feel shy. Therefore, dustbins for disposal in toilets school is also necessary” – An adolescent Girl, In School, Parbat, Gandaki Province

“There should be a proper place for pad disposal and availability of dustbins.” – An adolescent Girl, Out-of-School, Taplejung, Province 1

In addition to this, the importance of having separate toilet facilities for girls was also considered as vital needs by the majority of research participants and the local authorities. For example, in some schools, the common toilets for boys and girls with no water supply, no toiletries and even no locking system still existed. This emphasises that basic essential needs for periods lack in Nepal.

“Separate toilets for females were not maintained yet.” – A school teacher, Rolpa, Gandaki Province

“We need (girls) friendly toilet with well-equipped and disposal facilities for sanitary pads.” – An adolescent girl, In School, Kailali, Sudurpashchim Province

In various provinces such as province 1, province 2, Bagmati province, Gandaki province and Sudurpashchim province, the supply and intake of an adequate and nutritious balanced diet was emphasised by both the adolescent girls and the authorities (teacher, community leader, etc.) as one of the major needs during menstruation.

“I need to eat legumes, liquid soup and green leafy vegetables.” – An adolescent girl, Accham, Sudurpashchim Province

“During menstruation, they need cleanliness for their health. It is important to emphasise on proper meals during the menstruation, unlike other days. In our community, there is a lack of

having enough nutrients and healthy soups and also public awareness. Similar kind of programmes can bring positive changes” – A community leader, Kailali, Sudurpashchim Province

Sensitisation along with training on menstrual hygiene management among adolescents’ girls was also felt as one of the crucial needs during one of the interviews. The need for proper management of pads and cloths which included the time interval of changing pads and correct ways of wearing pads and cloths were focused by the authorities. Most of the adolescents mentioned that there must be a reasonable price for the affordability of pads as their prominent needs during menstruation.

“If there were trainings regarding hygiene, awareness and menstrual hygiene management for adolescent girls, that would be helpful.” – A member of School Management Committee, Taplejung, Province 1

“In the context of Nepal, the cost of pads is high. Many girls cannot afford it and have to use cloth pads. We can also use cloth in a proper manner. Its hygienic aspect, management and time should be focused and inform them. The majority of girls do not know the effect of using pads for more than six hours. So, proper management of pad and cloth is necessary.” – A teacher, Taplejung, Province 2

Apart from this, the provision of counseling services by female teachers related to health problems during menstruation among adolescent girls within their school hours was emphasised by the authorities during an interview in Bagmati Province. The need was felt to provide proper guidance specifically by female teachers to the girls’ parents on menstrual health, knowledge and management as per the comfort level of the school girls.

“They also need counseling services. Sometimes they have problems like abdominal pain; health-related other problems may arise. So, if there are female teachers who can provide them with guidance on this matter, it would be better. Usually, adolescent girls hesitate to openly talk about this matter.” – A Public Health Officer, Nuwakot, Bagmati Province

“Raising awareness among parents by school teachers about menstruation and how traditional beliefs, taboos, restrictions will harm our health is necessary for us.” – An adolescent girl, Kailali, Sudurpashchim Province

Few of the adolescent girls from various provinces also stated that there should be easy accessibility and availability of medicines to relieve menstrual cramps. The need for adolescent sexual and reproductive health services was also highlighted by some health personnel of Nepal.

“Due to the lack of shops around here, it is difficult to find the materials that you need (materials like sanitary pads and medicine)” – An adolescent girl, Out-of-School, Dhading, Bagmati Province

“There must be counseling facilities for adolescent girls in health posts and hospitals.” – A Community Medicine Assistance, Surkhet, Karnali Province

Another common need of adolescent girls in Bagmati, Gandaki and Karnali provinces was the importance of taking rest during their menstrual period. The participants said that their families and school faculties must understand about them having physical weakness, provide them with the required comfort and rest to cope up with their physical problems.

“Families must understand that we become weak in such periods so heavy work must be prohibited at home and in school, teachers must understand that it's not like our normal days so we must be treated well and taken proper care of.” – An adolescent girl, Parbat, Gandaki Province

“I need proper food, rest and pad (if not soft cloth) for the duration of menstruation” – An adolescent girl, In School, Chitwan, Bagmati Province

“I hope no one scolds me and could take a rest when I have stomach ache during menstruation.” – An adolescent girl, Out of School, Parsa, Province 2

Moreover, the interesting need for adolescent girls observed in various provinces was the need to eradicate menstrual restrictions. The girls reported that the eradication of menstrual restrictions such as not being able to live in the same house or being conscious of touching elderly people would aid them in being at ease during this period.

“The practice of being untouchable during menstruation are still prevalent in houses; it would be better if those can be eradicated.” – An adolescent girl, Gulmi, Gandaki Province

“I miss my bed where I usually sleep; I want to sleep in the same bed and go to the kitchen while menstruation.” - FGD, an adolescent girl, In School, Dailekh, Province

“In the period, girls need to depend on others for drinking water. They are not allowed to touch the tap. How can cleanliness be maintained when they have to beg for drinking water?” – A community leader, Kailali, Sudurpashchim Province

Participants also thought there was a need to educate their mothers, regarding menstruation which would help girls to comfort their menstruation by the mothers’ support. Similarly, most of the participants also reported that they needed especially fathers, brothers, male friends and male teachers, traditional healers and every member of the society to be better informed to understand their experience, to improve attitudes towards menstruation, and to eliminate barriers in discussing menstruation

“I feel that parents would behave as if it was not our menstrual days and act normal as any other days” – An adolescent girl, Jajarkot, Karnali Province

“First of all, boys should be scolded. They wait for us to get a period just to tease us. Grandparents, parents, and also boys should be involved in public awareness programmes.” – An adolescent girl, West Rukum, Karnali Province

“It is necessary to create an environment for the girls to talk freely regarding all the menstrual problems with their family members” – A school teacher, Bajura, Sudurpashchim, Province

“Family and society should be aware of the needs of adolescent girls during menstruation. - An adolescent girl, Tanahun, Gandaki Province

5.2 Needs of adolescent girls with disability

Adolescent girls with disability were found to have different menstrual needs than that of the girls with no disability in Nepal. Also, it was found that menstrual needs varied for differently-

abled girls as per the nature of their impairment. Collectively, they shared that they often had to encounter different obstacles according to their disability in accessing adequate facilities related to menstruation. Furthermore, most of them expressed that to ease their menstruation family support, awareness programme related to MHM, shops nearby houses to buy pads and separate disabled-friendly toilets with sufficient water and soap were needed. Beside this, disability along with social stigma caused additional problems in their life because of their limited abilities in managing menstrual hygiene. As a consequence, these girls faced lots of discrimination by society which led to low self-esteem as well as compelled to put their life in danger by staying in Chhapuadi hut.

“I feel it is difficult to wear a piece of cloth as pads, wash and dry them. There must be a sanitary napkin. I wish I could use sanitary napkins so that I don’t have to wash clothes. There must be facilities for soap and water in the toilet. There must also be a bin to throw away the used pads.” - An adolescent girl with disability, Rukum, Karnali Province

“There are no restrictions at hostel compared to home as cultural restrictions make it harder at the time of menstruation.” – An adolescent girl with disability, Palpa, Gandaki Province

“We have to dwell at *Chhapuadi* hut during menstruation. Because of my visual impairment (night blindness), my sister sleeps with me in the *Chhapuadi* hut during menstruation but it gets very difficult during summer days due to the presence of the mosquito. So, we light a fire for emitting smoke to repel the mosquitoes and fall asleep.” – An adolescent girl with night blindness, Bajura, Sudurpashchim Province

Moreover, adolescent girls with limited abilities in receiving assistance from family or relatives also appeared contrasting during in-depth interviews. Girls with severe disabilities were more likely to take assistance from immediate family members. For example, an adolescent girl with lower limbs paralysed from Sudurpashchim province mentioned that without her mother’s support, she would not be able to do anything. Because she relied on her the most, she did not even care for privacy. It can be concluded that managing the blood shed during menstruation was much more important than her privacy. Furthermore, she also advocated for the

conduction of awareness programmes especially for differently-abled girls in her community so that such girls could be self-capable of performing their daily activities.

“I am not able to do anything so my mother does them for me. If there will be the provision of certain awareness programmes for differently-abled, it will be better for us.” – An adolescent girl with paraplegia, Kanchanpur, Sudurpashchim Province

“I used to wear a cloth pad. When I put a pad on by myself, I am worried if it might leak. I felt easy when my mother put it on for me. My mother told me to put it in a dustbin then she burns it. Sometimes she throws it away.” – An adolescent girl with disability, Sankhuwasabha, Province

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“If anything is needed, I get from my sister-in-law during period.” - An adolescent girl with disability, Jumla, Karnali Province

Some girls, who could not physically change their pads, were going through lots of struggles to maintain their hygiene, wash their menstrual materials and dispose them off safely. Depending on others for cleaning and disposal developed the feeling of being incapable among girls with disabilities. Such struggles with menstruation made girls feel vulnerable and more distressed.

“At home, my mother used to wash the used cloth, but in my hostel, I used to wash it with my feet. It is difficult for me. I feel it is difficult to wear a piece of cloth, wash and dry them. There must be a disposable pad. I wish I could use pads so that I don't have to wash clothes.” – An adolescent girl with disability, Rukum, Karnali Province

“We feel it is difficult to reach the road for disposal, so we think there should be a disable-friendly place where even wheelchairs can go and dispose of the pads safely.” – An adolescent girl with disability, Palpa, Gandaki Province

However, some other differently-abled girls were self-capable and could manage menstruation more independently with a feeling of self-confidence. Such as, despite being visually impaired they were self-capable of wearing pads, maintained hygiene, and washed cloth pads as needed. Although they felt that they were practicing proper menstrual hygiene, the way they thought

changed when they met the people with better knowledge regarding menstruation. It made them feel that there was a constraint in their knowledge regarding menstrual hygiene, being not able to use the proper knowledge and hygiene practice in their practical life.

“I don't need any assistance in maintaining my menstrual hygiene. However, I need help from my friend while going outside, crossing roads, etc. Although, I feel like I am capable of managing my menstruation but after meeting knowledgeable people, I feel like there are a lot of things to know and understand regarding safer menstruation practice. I get clear knowledge about many things that I hadn't been practicing in hygienic way earlier while managing my menstruation.” – An adolescent girl with disability, Palpa, Gandaki Province

“The knowledge which I already learned helped me very much during my periods. Being visually impaired, we know how to use pads. If pads are not available, use clean cotton clothes, wash and then warm in the sun and then use.” – An adolescent girl with disability, Banke, Gandaki Province

“I do not have such difficulties in managing menstruation by one hand. It is easy for me.” – An adolescent girl with disability, Kathmandu, Bagmati Province

When menstrual management issues came to the school setting, the availability of pads, medicines, dustbins, disable friendly toilets with soaps and water were felt major need by differently-abled girls which would help them overcome their stress. They also shared that clean toilet was also essential to make their menstruation comfortable both at home and school. They also felt that if school and the government started providing free pads to needy people, it could help them in maintaining regular attendance in school.

“Except for provision of clean toilets with dustbins to dispose the pad, water supply along with soap and availability of pads at school are needed to reduce the stress during menstruation.” – An adolescent girl with disability, Panchthar, Province 1

“I think distribution of free pads and the availability of disabled-friendly toilets will be helpful.”- An adolescent girl with disability, Kanchanpur, Sudurpashchim Province

Similarly, majority of girls felt uncomfortable continuing their classes due to stained blood over their dress. Some-time, several adolescent girls with visual impairment were unknown if they had got blood spilled over their clothes. They also mentioned that they get embarrassed when an outsider sees menstrual blood stained in their clothes. Also, they shared that after each urination, they kept on flushing the toilet. Therefore, the majority of participants with limited bodily function wanted to ease their menstruation by requesting government/ concerned authorities for the easy accessibility and availability of pad at school and proper disposal site.

“Sometimes blood gets leaked and stain our clothes. It’s very awkward when heavy blood flow occurs. In such cases, if any person who can see sees it and informs us. Else, we can feel the leakage ourselves sometimes.” – An adolescent girl with disability, Palpa, Gandaki Province

“Some girls get their periods unpredictably and they have no preparation at all. If they start menstruation at school, when they have no preparation, it has a chance of leakage of blood into outfits. If the school starts providing free pads, this can help in maintaining regular attendance of girls in school.”- An adolescent girl with disability, Banke, Gandaki Province

Some of them also felt that they needed psychological support, love, and care for comfortable menstruation. They also revealed that they felt relaxed when they were around with females like sisters, mothers at home, similar peer groups, teachers, and hostel wardens at school. Most of the differently-abled adolescent girls wanted female teachers in managing health and hygiene while menstruating in school.

“It would be easy for me if somebody provided me with hot water, love and care during my periods. Sometimes when I’m unable to manage, my mother and sister help me. During school, I share my pain with female teachers and they let me take rest. The hostel warden provides me with warm water and takes care of me “- An adolescent girl with disability, Bara, Province 2

“Understanding and supportive teachers along with awareness regarding the causes of menstruation, what to do, what to use and how to dispose the pads would reduce our stress during menstruation.” – An adolescent girl with disability, Panchthar, Province 1

In addition, few girls with disabilities said that their capability in managing menstruation heightened in school as they think they had to deal with menstruation anyhow which enhanced their self-confidence and made them used to managing monthly periods. Whereas, some panic to leave their house and handle periods in school and public places due to the unavailability of disabled-friendly toilets and environment. Therefore, they said that they preferred to stay at home rather than to go outside.

“My mother and sister help me while I’m at home. I don't need help in school” - a girl with partial difficulty in moving, Mahottari, Province 2

“It is difficult when you step outside. We can’t get a disabled-friendly environment as we go out of our own home. Therefore, providing dustbins and toilets in every road within a short distance would make it easier for us to manage menstration better.” – An adolescent girl with visual impairment, Palpa, Gandaki Province

“I usually don't leave my house because of periods.” – An adolescent girl with disability, Jumla, Karnali Province

“Even when I don’t suffer from abdominal pain, I feel difficult to go to school when I bleed red.” – An adolescent girl with disability, Rukum, Karnali Province

Regarding privacy management, those who could maintain their privacy were self-satisfied with their independency. On the contrary, most differently-abled girls who had to rely on family members had no bigger issue in privacy management and did not hesitate with the female members especially mothers and sisters at home. On the other hand, they denied using the unfamiliar toilet of the public place as they thought it was unsafe and difficult to maintain privacy. But adolescent girls with disability from the Sudurpashchim province wished to use the available toilet for privacy and safety as they were restricted to use toilets and touch water available in toilets.

“I do all of the things myself related to menstruation. I change my clothes whenever I need and privacy prevails. My mother buys pads for me. Sometimes, I use disposable pads, other times I

use clothes for blood management.” – An adolescent girl with difficulty in speech, Dhading, Bagmati Province

“While staying in rooms, if all of us friends are completely visually impaired, then there is no problem of privacy. But if there is someone who can see completely, then I take the pad from the room and change it pad in the toilet knowing that I am completely alone. I don't go to public toilets until I can withhold. If I feel very difficult to hold, I confirm the safety first then only I use it. However, I would try to avoid using toilets away from home.” – An adolescent girl with disability, Palpa, Gandaki Province

“When I need to change pad at night time, my mother secretly does it for me. I also wish for separate toilet with privacy and safety,” – An adolescent girl with night blindness, Bajura, Sudurpashchim Province

5.3 Perception of stakeholders

All the key informants that participated in this study agreed on the need for menstrual health and maintaining hygiene. Most of them believed that the young adolescent girls hesitant to speak about menstrual health which could be due to lack of awareness regarding menstruation. They also added that the adolescent girls faced various problems such as irregular periods, heavy bleeding, stomachache which remain hidden due to their shyness. The participants further advocated on the various needs of adolescent girls during menstruation such as availability of sanitary pads, separate toilets with adequate water supplies, medicines, and a healthy nutritious diet.

Menstruation was regarded as one of the culturally and socially sensitive topics. This was the main reason that people felt awkward to talk about it. The health workers believed that the topic; ‘menstrual health’ still needed to be addressed by every community.

“Menstrual health is a genuine topic to speak about but it has not been highlighted in all sectors including health facilities, schools, and local government” – A health post in-charge, Kaski, Gandaki Province

Majority of participants agreed that the adolescent girls had inadequate knowledge regarding menstruation and its management, along with the knowledge regarding blood soaking materials, nutritious diet, cleanliness and hygiene maintenance, and menstrual problems as well.

“The girls have inadequate knowledge regarding menstruation due to which they hide anything regarding menstruation.” – A school principal, Okhaldhunga, Province 1

“Cleanliness is important during menstruation but most girls do not have an idea regarding it including maintaining personal hygiene and cleaning the private parts of their body.” – A school teacher, Chitwan, Bagmati Province

“There is a lack of knowledge on hygiene management. Adolescent girls need to be taught regarding maintaining cleanliness and taking a proper nutritious diet.” – A community leader, Kailali, Sudurpashchim Province

Some of the participants explained the different menstrual problems faced by adolescent girls during menstruation such as lower abdominal pain, back pain, heavy bleeding problems and irregular periods. Other than that, most of the key informants also added the needs of adolescent girls during menstruation were nutritious food, hygiene, accessibility and availability of sanitary pads, access to health care, clean and separate toilets, and proper disposal facility for disposing of sanitary pads. This highlights that the needs of adolescent girls also differed from each other based on the problems they suffered and their surroundings.

“During menstruating, the most important things is nutrition. Secondly, it is hygiene. For the maintenance of hygiene, pads or clean cloth, soap and water facility in the toilet, clean toilets, and availability of dustbins for disposal of pads are required.” - A school teacher, Illam, Province 1

“The needs include pads, medicine, gender-friendly toilets, and availability of water, soap and dustbin.” – A school principal, Rukum, Karnali Province

Likewise, most of the key informants pointed out that the adolescent girls felt shy and hesitated to speak about the problems and their needs with their mothers, family members and even

school teachers. They also added that the girls were scared and worried during periods, so their mothers needed to be familiar with their daughter's physical problems during menstruation and needed to act accordingly. This gives the view that many key informants thought that there was no suitable environment where girls could discuss it openly.

“In my opinion, looking at the present context, adolescent girls are afraid and hesitant during the menstrual period. They are ashamed to talk about their physiological changes.” – A school teacher, Gulmi, Gandaki Province

“The girls who are menstruating become frightened and rarely share it with the family. The girls are afraid and worried during their period. They should not hesitate to tell their mothers and sisters about their condition. If they are in school, they should tell the teachers.” – Chairperson of a mothers’ group, Bara, Province 2

“Firstly, girls should accept that menstruation is a natural process and is not a matter of hesitation. They should share their problems among family members and especially mothers need to be familiar with their daughter's physical problems during menstruation and need to act accordingly.” – A school teacher, Darchula, Sudurpashchim Province

“There is a need for a suitable environment in school where the girls can speak up regarding their menstrual problems.” – A CMA, Surkhet, Karnali Province

Some of the key informants from Province 2 and Sudurpashchim Province focused that the knowledge on menstruation should be given from an early age, i.e. before menarche. They believed that learning about menstruation would prepare the girls mentally for their menstruation. A chairperson of the mother group from Bara district pointed out that most of the families were engaged in agriculture and didn't have time to teach their children regarding menstruation. This resulted in the children being frightened and confused during their first menstruation.

“Most of the families do not follow good practice during menstruation whereas most of the people are engaged in the agriculture field. They don't have time to teach their children about

menstruation. The children are frightened when they menstruate and they don't know what's happening." - Chairperson of a mothers' group, Bara, Province 2

"I think it would be better if girls get proper knowledge regarding menstrual health at their early age of their life." - A nurse, Baitadi, Sudurpashchim Province

Some participants also focused on giving knowledge regarding menstruation before menarche. So, teaching the girls about menstruation before menarche can also help girls learn about the bad practices ongoing in the community.

"What I have noticed in the community is that the young adolescents when they have their first periods they are scared and they first go tell their mothers. Then the first thing they hear in their first menstruation is that they cannot do this, they cannot do that. And these restrictions get printed in their minds and they catch it. So, we need to give them proper information before menarche so that they will bring change in their thoughts and the traditions as well." – A Public Health Officer, Nuwakot, Bagmati Province

Few of the key informants also advocated about restrictions such as the girls could not enter the kitchen, cook food, worship god, or visit temples. They believed that these restrictions made girls scared and even wished for no menstruation. The key informants from Karnali province and Sudurpashchim Province pointed out on Chhaupadhi and its consequences. They mentioned that due to such traditions girls and women faced different problems such as they didn't get proper nutritious food and lacked water facilities in toilets.

"The girl child wishes for no menstruation. When the period of menstruation arrives, the girls are mentally distressed. They cannot drink milk and milk products. In addition, during winter, all the clothes or dresses that are used in the menstrual period, they are supposed to wash it and dry themselves." - A community leader, Kailali, Sudurpashchim Province

"Because of tradition, girls and women face a lot of problems. The basic needs of nutritious food, water facilities in washrooms are not met. There are so many death incidents that took place in *Chaughot*." – A municipality personnel, Kalikot, Karnali Province

Almost all the key participants agreed that the knowledge regarding menstruation was still inadequate. They further added that different programmes had to be conducted to raise awareness regarding menstruation so that the adolescent girls get a suitable environment to discuss menstruation openly. They also said that the programmes should be supported by health posts as well.

Some key informants' participants mentioned that health education classes should be conducted. Education regarding the use and disposal of blood soaking materials, changing under-wares and maintaining cleanliness must be given. Most of the informants focused on organizing awareness programmes which will help to increase knowledge regarding menstruation. They added the awareness programmes to teach girls to make homemade pads which were needed. Some of the participants said that the government needs to bring different programmes to help the adolescent girls fulfill their needs. They said that the government should provide sanitary pads free of costs and introduce programmes for management and disposal of pads.

“The government should also conduct an awareness programme regarding making pads using cheap sterile cloths which are hygienic to wear and easy to make.” - Chairperson of a mothers' group, Bara, Province 2

“Awareness campaigns are required to bring changes in the mentality of people regarding menstrual negative practices, myths as well as behavioral changes.” - A school teacher, Gulmi, Gandaki Province

Few of the informants advocated that only awareness programmes were not enough to meet the needs of adolescent girls. They said that empowerment programmes could also help to eliminate the misconceptions regarding menstruation.

“The awareness programme does meet the need to increase the knowledge level of students but is not adequate to meet other needs of adolescent girls.” – A Health Population and Education teacher, Illam, Province 1

“Empowerment programmes in the community/society will help to eliminate taboos, malpractices, misconceptions associated with menstruation” – A school teacher, Bajura, Sudurpashchim Province

Some of the key informants added that training and health classes had to be provided. The training and classes should not only be provided to adolescent girls but also mothers, teachers and health personnel as well. The training such as proper disposal of sanitary pads, maintenance of personal hygiene, blood management and improving menstrual health was needed.

“Mothers should be trained as the daughters speak openly with them and they can teach their daughters.” – A school principal, Okhaldhunga, Province 1

“Training related to personal hygiene during menstruation uses of the safe material for blood management and training to health personnel and some knowledgeable key personnel who can provide counseling and advice regarding issues at the irregular menstruation is needed.” - A member of a School Management Committee, Taplejung, Province 1

Few of the school teachers and health personnel focused on the needs for counseling sessions where the adolescent girls can speak freely regarding their irregular menstruation and other health problems. They also added counseling could help the girls to understand that menstruation was a natural process. This also gave the girls an environment where they could speak freely regarding their menstruation and other health problems without any fear and hesitation.

“The girls must consult a counselor regarding menstruation and how it is a natural phenomenon for every girl.” – A school teacher, Gulmi Gandaki Province

“They need counseling services. Sometimes they have problems like abdominal pain and health-related to other problems that may arise. At that time, they need someone to talk to.” – A Public Health Officer, Nuwakot, Bagmati Province

Few informants expressed that the various programmes that had been conducted in the past were not continued so it became ineffective. They also said sustainable programmes should be

introduced. The programmes that were introduced should not be temporary as it was not effective. One of the members of the school management committee of Taplejung added that lack of sexual and reproductive health education had resulted in ineffective programmes.

“The lack of sex and reproductive education and traditional sophisticated social bound are considered as the prime reason for the ineffectiveness of awareness programmes.” – A member of a School Management Committee, Taplejung, Province 1

“The problems that girls face won't be solved by one or two programmes and events. There needs to be continuity of programmes. Only then we will have good results. The previously conducted programmes are more or less ineffective.” – A community leader, Kailali, Sudurpashchim Province

Hence, the key informants agreed that there is a need for menstrual health education programmes since the adolescent girls still felt hesitant to speak about it. The girls had different needs during menstruation, so a suitable environment had to be created where the girls could speak freely. So, more and more sustainable awareness and encouragement programmes should be introduced and these programmes should be evaluated based on the effectiveness periodically.

5.4 Current programmes and activities

MHM interventions mostly include awareness programmes, training and workshops, and education. School and community are significant settings where adolescent girls can receive MHM related information. However, in this research study, school-based interventions and programmes were found to be the most common than community-based programmes. The majority of the schools did not have a concrete and sustainable MHM programme although few scattered activities were conducted in the schools with the support of municipalities, health posts, non-governmental organizations, child/youth clubs and key MHM focal persons. The MHM programmes and activities of government, schools and non-government organizations were mostly limited to awareness programmes on menstrual health and hygiene, basic orientation sessions on menstruation, training on preparing reusable sanitary pads, and

distribution of sanitary pads at schools. Some of the local governments from the Province 1, Bagmati Province, Gandaki Province, Sudurpashchim Province provided sanitary pads to schools through their bodies such as health posts and ward offices. MHM programmes and training had reached only some of the schools from all the provinces as reported by the key informants and participants of this study. Community-based MHM programmes were found to be scanty or non-existent in all the provinces as reported.

So, this research study results imply that still there are many schools all over Nepal where there are no MHM programmes despite the efforts made by concerned organizations. Also, many participants suggested that more attention was required in the part of strengthening, sustainability and evaluation of MHM programmes as one-time conduction of these programmes does not turn out to be effective in the long run. Similarly, the findings of this research study indicated the need for a greater number of community-based programmes on MHM as community engagement and involvement of community influencers in MHM plays a vital role in ensuring the sustainability of these programmes.

The various awareness programmes and training conducted on MHM were found to be focused on activities such as making reusable sanitary pads using local resources, menstrual health and hygiene management, disposal of sanitary pads, and distribution of sanitary pads. MHM programmes and activities of government and schools were mostly limited to awareness programmes on menstrual health and hygiene, basic orientation sessions on menstruation, training on preparing reusable sanitary pads, and distribution of sanitary pads at schools. In this research study, most of the adolescent girls and key informants from all the provinces reported that MHM programmes were mostly conducted by health workers and volunteers such as ANM, AHW, HA, FCHVs, etc., and female teachers from schools. School teachers and health workers were the key stakeholders in imparting education on menstruation along with creating awareness. Also, government bodies such as municipalities, District Education Office, government health facilities such as health posts, public health offices providing adolescent-friendly services, etc., also provided and supported MHM programmes and activities mostly at schools as reported by the key informants and research participants. Awareness programmes and education have helped in increasing the knowledge level of adolescent girls on menstrual

health and hygiene management. However, there is a need of incorporating MHM in the school curriculum in a comprehensive way so that the adolescent girls can gain knowledge on vast areas of menstruation such as harmful traditional practices, misconceptions and social taboos associated with it.

“ANM, AHW and HA from health post conducts programmes in schools once or twice in a month.” – A school principal, Okhaldhunga, Province 1

“One of the female teachers took training regarding pad making of the pad and menstrual hygiene and provided it to students.” – A Health and Population teacher, Illam, Province 1

“We do have some health programmes at our school where teachers let us know about the benefits, positive aspects and negative aspects of menstruation.” – An adolescent girl, In School, Lalitpur, Bagmati Province

“The staff from the local health post give awareness along with training to the adolescent girls who have already menstruated. Similarly, the staff of the health section provide training, take classes regarding personal hygiene and cleanliness, and distribute pad at school.” – A health teacher, Lamjung, Gandaki Province

“FCHVs are conducting menstruation-related classes once in a 6 month in a group of adolescent girls and we have the provision of the free pad in our school.” – A teacher, Darchula, Sudurpashchim Province

“The urban municipality brings programmes from time to time regarding menstruation. In that programme, the municipality makes pad available during menstruation.” – An adolescent girl, Out-of-School, Udayapur, Province 1

As reported, training was mostly given to adolescent girls and female teachers from the schools. As the school teachers were one of the primary influencers of MHM programme, there is a need for the provision of rigorous training to teachers along with the adolescent girls. Some of the research participants also shared that the schools coordinated with health posts and local government in the provision of menstrual-related services and programmes such as conduction

of MHM training, distribution of sanitary pads, and educational orientation sessions on MHM. According to the key informants from Sudurpashchim province, the provision of sanitary pads was made by the local government through its bodies such as health posts and ward offices. Likewise, research participants from other provinces such as province 1, Bagmati province, Gandaki province also reported the provision of sanitary pads by the local governments. Few of the participants from Lumbini, Karnali Province and Sudurpashchim Province also mentioned that the provision of sanitary pads was made by the schools themselves. Availability of sanitary pads in schools ensures a menstrual friendly environment for the adolescent girls which further aids in reducing school absenteeism, skipping of school activities, and school drop-out.

“The Nepal Government introduced a policy on the provision of sanitary pads to adolescent girls intending to reduce school dropout because of menstruation. Girl students started leaving schools at that time so sanitary pad distribution programmes were conducted firstly from ward level. Similarly, through the child clubs, we have conducted programmes regarding menstruation. ward no-6.” – A community leader, Kailali, Sudurpashchim Province

“Menstrual health programmes are not being conducted. However, this school has made the provision of sanitary pads services for adolescent girls at free of cost.” – A school teacher, Gulmi, Lumbini

“Every Friday one of the health workers goes to the school to teach the students on health issues or share her knowledge and ask the students their health concerns. We have key people like female teachers to distribute pad to the adolescent girls from ward and municipality level.” – A ward chairman, Ramechhap, Bagmati Province

“Our municipality in coordination with health department has been distributing sanitary pads in schools to help school-going adolescent girls.” - Deputy Mayor of Bhirkut Municipality, Syangja, Gandaki Province

“Previously, we conducted a programme named ‘Janatasanga Pratinidhi (elected leader with people)’ and gave education to girls about menstruation. We are also distributing the free

sanitary pads and conducting a programme on preparing sanitary pads at the Kalikot Secondary School” – A ward member, Kalikot, Karnali Province

“We have a provision of free sanitary pads in our school.” – A school teacher, Darchula, Sudurpashchim Province

“Now schools have also distributed pad to adolescent girls which have helped them but they hesitate to utilize it due to shyness.” - Chairperson of Nepal Rastriya Adarbhut Vidhyala, Mugu, Karnali Province

“In the present context, our medical staff nurse who had already taken training regarding menstrual health and hygiene have been taking classes in schools about menstrual health education. Those adolescent girls who visit our health post are also provided with counseling regarding menstrual hygiene.” - A health post in-charge, Kaski, Gandaki Province

“District Education Office, Bajura provides training on how to use and how to make reusable clothes sanitary pads. Recently, from Adharbhut Swasthya Chowki, Kailasmandu, Bajura, one of the ANM distributed the sanitary pads.” – A school teacher, Bajura, Sudurpashchim Province

MHM programmes and projects by I/NGOs

Many non-governmental organizations have been working in the area of MHM in Nepal to address the menstrual health and hygiene needs of the adolescent girls. However, the programmes and activities carried out by these non-state organizations have lagged behind in incorporating community involvement in sustaining MHM. Also, the programmes and activities conducted by these organisations have not been able to address other issues associated with menstruation such as harmful traditional practices, misconceptions, social taboos and stigmas. According to the reports provided by the research participants, various organizations such as Red Cross Society, Plan Nepal, Rose Bahini, Good Neighbors International, Panchtara, Srijansil Apanga Swabalamban Kendra’, Navajyoti Jagaran, HURREC, Peace Pin and WASH Nepal supported and conducted MHM programmes and activities in different provinces. The majority of these organizations commonly carried out various awareness programmes and training on MHM which were focused on activities such as menstrual hygiene and management, distribution

of menstrual products, educational and awareness sessions, and making reusable sanitary pads using local resources.

According to the key informants from Gandaki province, an organization called Rose Bahini carried out activities such as awareness on menstrual hygiene and the distribution of menstrual-related materials at the school. Similarly, an organization called Srijanshil Apanga Swabalamban Kendra. supported disabled students by distributing sanitary pads to them as reported by the research participant from Lumbini.

“Rose Bahini organization conducted an awareness programme for adolescent girls. They had already sent the list of the materials so in the coming days we hope they will send the required materials to conduct the programme related to menstruation hygiene.” – A health teacher, Lamjung, Gandaki Province

“Almost all the disabled students studying in this campus reside in Srijanshil Apanga Swabalamban Kendra. This organization distributes sanitary pads for the girls.” – An adolescent girl with disability, Palpa, Lumbini

Likewise, organizations such as Plan Nepal, Red Cross Society and Good Neighbors International carried out menstrual-related awareness programmes and activities such as the use of menstrual products, menstrual hygiene and sanitation, etc. at schools from province 1, Bagmati province and Gandaki province respectively.

“Last time Plan Nepal taught that we must use either pad or soft cotton cloth pads and should dispose of them either by burying, burning or in the dustbin. And used cloth should be washed by soap and water and can be reused.” – An adolescent girl, In School, Jhapa, Province 1

“Red Cross Society shared knowledge about menstruation by keeping all students in the class.” – An adolescent girl, In school, Chitwan, Bagmati Province

“Good Neighbors International has been teaching and providing training on menstruation for a long time. We are not only the students who received the training but our senior sisters in

school also had a chance to attend their training.” - An adolescent girl, In School, Parbat, Gandaki Province

Some of the key informants reported that activities and training were also given to the students regarding the preparation of reusable sanitary pads utilizing local resources by organizations like Panchtara, Peace Pin organization and HURREC in Lumbini, Karnali province and Sudurpashchim province.

“Panchtara gave us training regarding reusable pads.” – An adolescent girl, Out-of-School, Jajarkot, Karnali Province

“Peace Pin organization has provided training (2-3 times) to adolescent girls regarding menstrual health and hygiene management in partnership with our school. They taught about how to make reusable sanitary clothes pads by using home-made materials/ resources.” – A school teacher, Bajura, Sudurpashchim Province

“Once an organization named HURREC took six to ten classes and taught students to make the pads by local clothes. They had taken the classes on how to use and dispose of pads.” – A school teacher, Rolpa, Lumbini

Self-initiated MHM programmes at local level

Few of the key informants’ participants shared that they conducted MHM programmes and activities on their own-expenses and initiation. These kinds of initiatives shown by individuals and groups on receiving support from governmental bodies and other organisations working in similar areas can help to sustain those initiatives as well as expand to a greater extent.

“Some time ago Sita madam used to share information regarding menstruation and distribute pads from her own expenses. But there are no such provisions and programmes from particular organizations/offices. So, the current necessities are awareness programmes and free distribution of sanitary pads.” – A CMA, Surkhet, Karnali Province

“We ourselves made a committee of women groups and gave health awareness classes in the community.” – A member of the District Coordination Committee, Bardiya, Lumbini

“We teachers organized a rally to remove *Chaupadi* sheds. But still, it is difficult to remove such malpractices. This practice is traditional and it’s a problem. Many awareness programmes regarding *Chaupadi* is being conducted which are aimed to educate and aware community.” – A school teacher, Bajura, Sudurpashchim Province

“Earlier there were lots of programmes run by the woman and children welfare committee. There was this seven-day training session regarding the inclusiveness of the men and women. Then there was this programme for adolescent girls who had left school, they had provided some funds for this group in every ward, there weren’t many girls who had left school in this ward. But this woman and children welfare committee has been providing a lot of the various training.” – A member of a School Management Committee, Taplejung, Province 1

Need for MHM programmes

On the contrary, many of the key informants from Province 1, Province 2, Lumbini, and Karnali Province reported that programmes related to MHM have not reached their schools and communities. Some of the key informants also emphasised that they haven’t heard and participated in any type of menstrual health and hygiene management programmes in their community conducted by both the government and non-government organisations. However, key informants and research participants revealed that primary influencers of communities and schools have tried to provide education on MHM through orientation sessions which are usually not comprehensive. So, there exists a clear need for an established programme that focuses on the expansion of awareness and educational programmes on MHM, involves the community and provides rigorous training to primary influencers such as teachers, FCHVs, women’s groups and community leaders along with students on MHM. Along with it, efforts should be made for and by schools to incorporate comprehensive MHM in their curriculums which will help to impart all the necessary knowledge and skills to adolescent girls. Similarly, there is a clear need for a greater number of community-based programmes on MHM as community engagement and involvement of community influencers in MHM plays a vital role in ensuring the sustainability of these programmes.

A more coordinated approach is required across different sectors and organisations to consolidate efforts in promoting and sustaining MHM interventions in Nepal.

“There is no any specific type of menstrual health and hygiene programmes in our community through weekly classes were conducted by local health workers in schools in the past.” - A health post in-charge, Khotang, Province 1

“There have been no meetings or programmes regarding menstruation done in our community.”
- An adolescent girl, In School, Udayapur, Province 1

“In this community, I have not heard about any kind of programme related to menstruation. I have not received any training related to menstrual health.” – A school teacher, Taplejung, Province 2

“There are no direct MHM programmes on raising awareness in the community but we have such programmes that are conducted through schools, health posts, and health professionals. Every week a health post arranges classes at school. Also, there is a focal teacher, especially female teachers appointed at school so that adolescent girls can express their problems and their needs freely.” - A Public Health Officer, Nuwakot, Bagmati Province

“Other teachers informed us that no MHM related programmes are conducted in our society.”-
A school teacher, Rolpa, Lumbini

“In fact, there are no events related to menstrual health and hygiene in our community and have no initiative for it.” – A school principal, West Rukum, Karnali Province

Meanwhile, some of the school teachers also revealed their plans on conducting programmes on MHM. Some of the research participants also expressed concerns that adolescent girls were not addressed and that there was a need for programmes on MHM. Besides, some of them also shared their eagerness to contribute more to conducting such educational and useful programmes for adolescent girls. The study findings also indicated the need of counseling programmes covering menstrual issues for adolescent girls integrated along with the MHM programme.

“There is no programme of such kind in our school nor this community in my knowledge till today. But one of our female teachers got four-day training on preparing reusable homemade pads. We are planning to conduct a training on preparing homemade pads in school for female students after the vacation ends.”- A Health and Population teacher, Illam, Province 1

“The problems of adolescent girls are not addressed. Menstruation programmes are not conducted yet but I feel it should be conducted as well. I also have some responsibility to contribute to menstrual knowledge and hygiene in the mother group meeting.” - Chairperson of a mothers’ group, Bara, Province 2

“There is a need for training related to menstrual health for adolescent girls, health personnel, and key persons at schools so that they can provide counseling and advice regarding menstrual issues.” - A member of a School Management Committee, Taplejung, Province 1

Overall, there is a need for strong and continuous collaboration of both the government agencies and non-state organisations directly with the school students and teachers for planning, organising, implementing, monitoring, and evaluating MHM programmes and activities and empowering the students themselves to implement and sustain these programmes effectively and efficiently.

Conclusion

Menstrual Health and Hygiene Management was found to be a substantial issue among the majority of adolescents that needs to be addressed at all levels in Nepal. Inadequate knowledge and misperception about MHM is common and deeply rooted among adolescent girls and within the society. This is revealed by the fact that 28 percent of girls are unknown about menarche before its onset. Moreover, some of the girls believed menstruating was a curse, any kind of illness or it happens as a supernatural reason. Inadequacy of knowledge is echoed as more than two-thirds of the adolescent girls being unknown about the likelihood of being pregnant from one menstrual period to next.

Many barriers for good MHM both at home and school are prevalent. MHM practice affected adolescent girls in their study, work and overall development. Improper assumption and less awareness about menstruation among the school dropped adolescents and vulnerable girls emphasize that there is a need of education about physiological facts of menstruation.

The hurdles faced by adolescent girls in the form of restrictions, local customs, cultural and/or religious traditions are one of the challenging issues that adolescent girls have been facing since the time immemorial. Lack of security, safety, stigma and taboo are common but varied from province to province and other indicators. So, menstrual health and hygiene should be promoted not only among adolescent girls but also among their mothers, families, schools and community to eradicate false taboos.

This study also revealed 45.4 percent of girls having high secrecy and shame and 42.5 percent adolescent girls still have high menstrual stress. Moreover, 42 percent of them have low self-efficacy regarding menstruation. So, it is very crucial to provide proper knowledge and ample opportunities to talk about menstruation freely and facilities among adolescent girls for the effective management of their menstrual health and hygiene.

It has been also observed that there is a huge gap in the supply and demand of menstrual hygiene services which includes the lack of accessibility and availability of low-cost sanitary pad, clean materials to absorb or collect menstrual blood, water and toiletries, comfortable toilet with

privacy, a private place to change these materials as often as necessary and access to safe and convenient facilities to dispose of. All these actors have made a greater impact on regular activities, particularly school attendance and attending their workplace. So, priority should be given to address the gaps and challenges hindering the effective implementation and expansion of MHM activities and programmes in schools and communities to meet the menstrual needs of adolescent girls. However, in this research study, the activities conducted related to the menstruation were found to be scattered and few. Community-based interventions were also found limited in Nepal. Therefore, MHM related holistic and evidence-based policy provision should be designed. The key priority should be on collaboration and coordination among all the MHM stakeholders focusing on encouragement of the active involvement of communities and families to strengthen the existing MHM efforts in a sustainable way. Despite many programmes related to MHM in Nepal, obstacles concerning menstrual health and hygiene management are still under-recognized and not optimally managed. These obstacles varied with their age, culture, religion, geographical location, disability, economic status, and ethnicity. So, MHM interventions should be designed, tested and scaled up by considering all adolescent girls including those with disability and vulnerable adolescent girls for their health, safety and dignified menstruation. Reframing menstruation as a question of rights can help to bring these various facets under one clear umbrella. A focus on rights emphasises both the naturalness of menstruation and the individual girl or woman as a rights-bearing agent. This reorientation can help to begin to shed the stigma around menstruation, and also to act as catalyst to bring new voices into the global movement for better menstrual practices.

Recommendations

This study revealed different understandings of adolescent girls on menstrual health and hygiene management in Nepal. These perceptions are mostly influenced by cultural, religious, social and economic factors. It indicates that for the improvement of MHM in Nepal, evidence-based and effective approaches are required through the integration and coordination from various levels of government, stakeholders, and non-governmental organizations.

Health professionals, policymakers, community leaders, teachers and programme managers must have a deeper sense of understanding of the issues that adolescent girls are facing in recent times to meet the objectives and needs of menstrual health management. Alternative ways must be developed to make effective mechanisms to reach out to adolescents for the establishment of lifelong conversations on menstrual health. Most importantly, the adolescent girls must always be at the center in all levels of intervention and participation. The following points are recommended for the safe and effective management of menstrual hygiene in Nepal.

For Government

1. The government must make MHM a priority area and allocate a specific budget for the implementation of MHM-related programmes as a part of reproductive health and SDGs.
2. Government should promote sustainable and low cost, affordable pads, pad distribution programme to adolescent girls and environment-friendly MHM products throughout the country
3. There should be a supply of supportive items for menstrual hygiene and health more broadly such as pain relief materials, free pads and counseling facilities at health service centres in the local level across the nation.
4. School is the focal point for supporting adolescent girls on menstrual hygiene management. Thus, there should be efforts from the government such as allocation of budget to establish girls-friendly (Chhatra Maitri) schools.

5. The government should take measures for the provision of WASH facilities including the provision of clean, lockable, age and gender specific toilets, waste disposal facilities in every school and public places.
6. The federal government should coordinate with the provincial and local governments for the abolishment of the *Chaupadi* system by the formulation of policies and strategies and act strictly towards those who follow those taboos.
7. Deliberate efforts must be made between the provincial and the local government for the formulation of plans, policies and strategies to overcome the gap in the menstrual health management directing towards the target group.
8. Conduction of large scale programmes such as monthly menstrual hygiene health campaigns in every district and community in coordination with local government which includes actions on establishing facilities that cater to the needs of menstruating girls, raising awareness among the community, including among boys and men and with the objective of breaking the taboo and restrictions around menstruation.

For Schools

1. There should be gender segregated toilets and comfortable toilet for differently-abled students in school with a regular maintenance.
2. Teachers should teach contents on reproductive and sexual health in schools with a conducive environment of sharing and learning among both boys and girls to aware them about menstrual health and hygiene from early age.
3. Health must be the compulsory subject for all classes. There should be Integration of the MHM content in school curriculum before the onset of menarche.
4. To address the needs through conducting MHM programmes by providing training to the school teachers along with continuous monitoring and scrutiny to ensure whether the MHM topic is being covered sufficiently or not.
5. Enabling the environment for the adolescent girls to be self-concerned and confidently speak up for their menstrual health and problems both with male and female teachers to break the silence of menstrual issues is necessary.

6. Posters and Pamphlets presentation must be organised targeting the knowledge, attitude and practices of students including the proper way of sanitary pad disposal and reuse of homemade pad.
7. The school must conduct programmes specific to adolescent girls on maintaining their menstrual health focusing on physical activity, intake of nutritious food and management of usage and disposal of pads.
8. School health services should include the provision and availability of health personnel during the school hours in case of menstrual counseling, management and other medical emergencies promoting healthy development and helping students to reach their full potential.

For Communities

1. There should be a health promotion awareness programme focusing on adolescent girls with disability, and their mothers via FCHVs, mothers' groups and health workers to eliminate superstitions and myths about menstruation including adverse health impacts of poor practices during menstruation.
2. Responsiveness towards community people through the organisation of public awareness campaigns to educate people rightly and talk openly about menstruation and its management which includes the usage of the pad to the management of bleeding.
3. Sensitisation and awareness campaigns should be conducted being age-specific such as providing pre-information and knowledge to the girls who have not had menarche and educating menstruating girls on maintenance and management of their menstrual hygiene.
4. Training on making reusable pads should be provided to either adolescent girls or to women creating employment for them. The municipalities can buy these pads and supply them to adolescent girls in schools.
5. There should be a constant exchange of information among social workers, community helpers, community people and leaders.
6. Community people must be made aware of the negative impacts of the *Chaupadi* system on the health and wellbeing of adolescent girls and women.

7. The community leader and people should act together to end the mentality of *Chaupadi* practice for eliminating myths about menstruation.
8. Awareness should be raised about menstruation health management including safe health practices, where and how to access the needs etc. through the advertisements in newspapers, broadcasting in different media such as TV, radio etc. as they could influence public opinions.
9. Religious and inter-faith leaders such as a priests, *dhamis* living in the community are crucial influencers having the ability to create an impact in the society. So, they must be motivated and made aware of the menstrual hygiene topic for the elimination of menstrual discrimination, myths and taboos.

For family

1. Family members should create a supportive environment for girls which allows them to talk freely about their menstrual health and problems.
2. They should provide girls with nutritious food, adequate water and proper rest during menstruation for their safety and comfort.
3. Family members must understand the negative effects of menstrual restriction on girls which can persist physically or mentally and refrain from practicing such taboos.
4. Female members in the house such as sisters, mothers and grandmothers are the first point of contact for girls to talk about their menstrual health. Therefore, they must be made aware of proper information and knowledge on menstrual hygiene and advocate to eliminate menstrual restrictions in the home by the greater involvement of older generations
5. There should be awareness raised to make male members of the family to enable girls to openly talk about their menstrual health.

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Annex

1) Consent Form

Assessing the status of Menstrual Health and Hygiene Management among adolescent girls in

Nepal

Consent form

Information sheet for the participant

Namaste! My name is I, along with team, are from Kathmandu, Nepal Health Research Council under the Ministry of Health and Population. NHRC has been conducting research on “Assessing the Situation of Menstrual Health and Hygiene Management among adolescent girls in Nepal”. I would like to inform you regarding this research and request you to participate in this research. If you are under 18 years of age, you should seek approval from your parents before making a decision. So, while giving information, you can pause any whenever you do not understand. I will explain it in a timely manner.

Purpose: The purpose to assess the situation of menstrual health and hygiene management among adolescent girls in Nepal.

Selection of the participants: In this study, 10-19 adolescent girls are selected scientifically.

Voluntary Participation: Your participation in this study will be entirely voluntary. You may leave this study at any time if you do not wish.

Procedures and protocols: You will not receive any funds for participating in this research. This Focus Group Discussion will take about 2 hours and interview will take 1 hours.

Privacy and Sharing information: The information found in this study will be kept confidential. Your information will be kept separate and no one will be able to see it except the researcher. Information related to you will be in number instead of your name. Only the researcher will know your number.

Sharing results: The information and data that you provide will help to formulate the health policy and rules regarding menstruation in Nepal

Whom to contact: If you have any questions or questions regarding this research, you can contact Nepal Research Council Office, Ramshahpath Kathmandu, Telephone No: 014227460

This proposal has been approved by the Ethical Review Committee (NHRC), whose responsibility is to ensure the safety of participants in the research.

Consent form for participant

Province no:

District no:

Participation no:

Everything about this study has been made known to me in a language which I understand. I understand everything and am satisfied with the information provided. My participation is voluntary and I am free to leave this study at any time without giving any reason. My information and data will help to formulate health policy rules related to menstruation in Nepal as well I am aware that it will be published in the national and international journal. I assure that the signature within this consent form is mine.

The information I provide is kept confidential and is used for research purposes only. I have participated in this study because of my desire and discretion. I was not under the influence of any drugs when signing this consent form.

Participant Name: Age: Gender:

Address: Contact No:

Participant's signature: Researcher signature

For participants under 18years- (Parent only if required)

The above statement is valid for me. I give consent to my participation as a parent to participate in the study.

Parent Name..... Parent's signature

Relationship with Participants.....

Parents who cannot read and write

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2) Questionnaire

Section 1: Background information

S.N.	Questions	Coding	Skip
101	Age of the participant/...../.....DD/MM/YYYY	
102	Completed years of age	<input type="text"/> <input type="text"/> Years	
103	Ethnic Background (use HMIS classification of ethnicity)	Dalit1 Disadvantaged Janajatis2 Disadvantaged non-Dalit Terai caste groups3 Religious minorities..... 4 Relatively advantaged Janajatis.....5 Upper caste groups.....6 Refused.....88	
104	Religion of respondent	Hindu1 Buddhist.....2 Muslim.....3 Christian.....4 Kirat5 Others specify.....6 Refused.....88	
105	Current educational level	Primary1 Lower Secondary.....2 Higher secondary and above.....3	
106	Marital status	Unmarried1 Married.....2 Refused.....88	

Section 2: Knowledge and perception regarding menstruation

No	Question	Coding	Skip
201.	How old were you when you first experienced menstruation?	Age in Years <input type="text"/> <input type="text"/> Don't know88	
202	Did you know about Menstruation before experiencing it <u>for the first time?</u>	Yes..... 1 No..... 2 No answer 97	If 2 and 97 go to 208
203	Where did you get that Information from? (multiple option)	Mother 1 Older Sister 2 Older Sister in law 3 Female cousin or other female relative 4 Male relative 5 Friend 6 Teacher 7 Book/magazine/health magazine 8 Health Worker/FCHV..... 9 Radio..... 10 TV 11 Internet 12 Mentor/Young Champion 12	

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204.	Who helped you manage your menstruation at first? (advised you what to do, advised you about what it was, advised you about what to use) (Single option - focus on who helped the most)	Mother 1 Older Sister 2 Older Sister in law 3 Female cousin or other female relative 4 Friend 5 Teacher 6 Health Worker/FCH..... 7 Other (Specify)	
205.	During your first menstrual period were you expected to... a) Stay in dark room b) Stay in a separate room c) Stay in a shed far away from the house (<i>Chaupadi</i>)..... d) Not to look at the Sun e) Nothing	Yes No 1 2 1 2 1 2 1 2 1 2 1 2 1 2	
206.	When you first started menstruating, what did you believe was the cause of your menstruation? If you have not started menstruating, what do you believe is the cause of menstruation?	Normal healthy process 1 Any type of illness 2 Internal bleeding 3 Curse 4 Bad blood being shed 5 Supernatural reason 6 Don't know 88 Others (Specify).....	
207.	How did you feel when you first started menstruating?	Scared..... 1 Worried that something was wrong..... 2 Worried about how to manage menstruation..... 3 OK as knew it was a normal process. Other (specify)..... 4	
208.	During your own puberty were there (or are there) any physical issues that you are concerned about?	Slow physical development 1 Irregular menstruation 2 Excessive bleeding 3 Lower abdominal pain 4 White vaginal discharge 5 Acne appears 6 Tender breasts 7 No worries..... 8 Other (specify)_____	
209.	Since you first learned about menstruation, have you heard any more information?	Yes..... 1 No..... 2	211

210.	Where did you get that additional information from? (multiple responses)	Mother 1 Older Sister 2 Older Sister in law 3 Female cousin or other female relative 4 Male relative 5 Friend 6 Teacher 7 Book/magazine/health magazine .. 8 Health Worker/FCHV 9 Radio 10 TV 11 Internet 12 Mentor/Young Champion ... 13	
211.	From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant?	Yes..... 1 No..... 2 Don't know..... 88	213
212.	Is this time just before her period begins, during her period, right after her period has ended, or halfway between two periods?	Just before her period begins..... 1 During her period 2 Right after her period has ended 3 Halfway between two periods . 4 Don't know 88	
213.	Now, what do you believe is the Cause of your menstruation? (multiple responses)	Normal healthy process..... 1 Any type of illness 2 Internal bleeding 3 Curse 4 Bad blood being shed 5 Supernatural reason 6 Don't know 88 Others (Specify).....	
214.	Who do you feel comfortable talking to about your menstruation? ((multiple responses, Probe for others)	Mother 1 Older Sister 2 Older Sister in law 3 Female cousin or other female Relative..... 4 Male relative 5 Friend 6 Teacher 7 Health Worker/FCHV 8 Other (Specify).....	

215.	<p>During your regular menstruation what are you typically obligated to avoid doing...?</p> <p>Attend temple?</p> <p>Attend religious occasions (wedding, blessing, puja, bratabanda)?</p> <p>Do household puja?</p> <p>Touch male family members?</p> <p>Touch any adults?</p> <p>Cook/enter the kitchen?</p> <p>Go outside as much as normal?</p> <p>Sleep in the same house as the rest of your family?</p> <p>Sleep in the same bed that you normally sleep in?</p> <p>Lift the heavy loads?</p> <p>Take a bath/wash?</p> <p>Go to fetch drinking water?</p> <p>Touch plants or seeds?</p> <p>Eat or drink dairy products?</p> <p>Other (specify)?.....</p>		Yes	No	No response	If all response no go to 224
		a. Temple	01	02	97	
		b. Religious	01	02	97	
		c. Puja	01	02	97	
		d. Touch male	01	02	97	
		e. Touch adult	01	02	97	
		f. Cook	01	02	97	
		g. Outside	01	02	97	
		h. Sleep family	01	02	97	
		i. Sleep bed	01	02	97	
		j. Lift	01	02	97	
		k. Wash	01	02	97	
		l. Water	01	02	97	
		m. Plants	01	02	97	
n. Dairy	01	02	97			
n. Other	01	02	97			
216.	<p>What do you actually avoid doing?</p> <p>Attend temple?</p> <p>Attend religious occasions (wedding, blessing, puja, bratabanda)?</p> <p>Do household puja?</p> <p>Touch male family members?</p> <p>Touch any adults?</p> <p>Cook/enter the kitchen?</p> <p>Go outside as much as normal?</p> <p>Sleep in the same house as the rest of your family?</p> <p>Sleep in the same bed that you normally sleep in?</p> <p>Lift the heavy loads?</p> <p>Take a bath/wash?</p> <p>Go to fetch drinking water?</p> <p>Touch plants or seeds?</p> <p>Eat or drink dairy products?</p> <p>Other (specify)?</p>		Yes	No	No response	If all response no go to 223
		a. Temple	01	02	97	
		b. Religious	01	02	97	
		c. Puja	01	02	97	
		d. Touch male	01	02	97	
		e. Touch adult	01	02	97	
		f. Cook	01	02	97	
		g. Outside	01	02	97	
		h. Sleep family	01	02	97	
		i. Sleep bed	01	02	97	
		j. Lift	01	02	97	
		k. Wash	01	02	97	
		l. Water	01	02	97	
		m. Plants	01	02	97	
n. Dairy	01	02	97			
n. Other	01	02	97			

218.	If there were no obligations, what would you still avoid doing? Attend temple? Attend religious occasions (wedding, blessing, puja, <i>bratabanda</i>)? Do household puja? Touch male family members? Touch any adults? Cook/enter the kitchen? Go outside as much as normal? Sleep in the same house as the rest of your family? Sleep in the same bed that you normally sleep in? Lift the heavy loads? Take a bath/wash? Go to fetch drinking water? Touch plants or seeds? Eat or drink dairy products? Other (specify)?		Yes	No	No response	If all response no go to 223
		a. Temple	01	02	97	
		b. Religious	01	02	97	
		c. Puja	01	02	97	
		d. Touch male	01	02	97	
		e. Touch adult	01	02	97	
		f. Cook	01	02	97	
		g. Outside	01	02	97	
		h. Sleep family	01	02	97	
		i. Sleep bed	01	02	97	
		j. Lift	01	02	97	
		k. Wash	01	02	97	
		l. Water	01	02	97	
		m. Plants	01	02	97	
n. Dairy	01	02	97			
n. Other	01	02	97			
218.	What is the main reason that you follow these restrictions? (select one)	I don't feel well	1			
		I fear divine retribution	2			
		My family don't allow these things..	3			
		I feel it is the right thing to do....	4			
		I fear I will make your period worse.....	5			
		Others (specify).....				
219.	Are there any other reasons? (multiple responses)	I don't feel well	1			
		I fear divine retribution	2			
		My family don't allow these things..	3			
		I feel it is the right thing to do	4			
		I fear I will make your period worse.....	5			
		Others (specify).....				

220.	<p>Can you tell me who in your family and community expects you to follow these restrictions?</p> <p>(Multiple responses)</p>	<p>Mother..... 1 Father..... 2 Grandparent..... 3 Auntie..... 4 Uncle..... 5 Sister..... 6 Brother..... 7 Mother-in-law..... 8 Father-in-law..... 9 Sister-in-law 10 Brother-in-law..... 11 Other relative..... 12 Whole family..... 13 Teacher..... 14 Friends..... 15 Priest..... 16</p>	
221.	<p>Have you ever said or done anything against these restrictions and taboos about menstruation at home?</p>	<p>Yes..... 1 No..... 2</p>	
222.	<p>Do you feel that you can say or do anything against restrictions and taboos about menstruation at home?</p>	<p>Yes..... 1 No..... 2</p>	
223.	<p>Have you ever said or done anything against these restrictions and taboos about menstruation in the community?</p>	<p>Yes..... 1 No..... 2</p>	
224.	<p>Do you feel that you can say or do anything against restrictions and taboos about menstruation in the community?</p>	<p>Yes..... 1 No..... 2</p>	
225.	<p>Do you practice <i>Chaupadi</i>?</p>	<p>Yes..... 1 No..... 2</p>	227

226.	Who makes you practice <i>Chaupad</i> ? (Multiple responses)	Mother..... 1 Father..... 2 Grandparent..... 3 Auntie..... 4 Uncle..... 5 Sister..... 6 Brother..... 7 Mother-in-law..... 8 Father-in-law..... 9 Sister-in-law 10 Brother-in-law..... 11 Other relative..... 12 Whole family..... 13 Teacher..... 14 Friends..... 15 Priest..... 16 Nobody just me..... 17	
227.	How do you feel about practicing <i>Chaupad</i> ?	Good..... 1 Scared/Anxious..... 2 Bad..... 3 OK..... 4 Don't know..... 88	
228.	Do you think that women and girls should practice <i>Chaupad</i> ?	Yes..... 1 No..... 2 Don't know..... 88	
229.	Why do you think some women and girls practice <i>Chaupad</i> ?	They fear divine retribution..... 1 Their family make them..... 2 They feel it is the right thing to do. 3 Other..... Don't know..... 88	
230.	Is <i>Chaupad</i> legal or illegal in our country? NOTE: Tell them that it is now illegal after they have answered the question. There are some punishments now for enforcing <i>Chaupad</i> including a fine and time in prison.	Legal..... 1 Illegal..... 2 Don't know..... 88 No response..... 97	
231.	Do you think people will be Worried about practicing <i>Chaupad</i> if they know that it is illegal?	Yes..... 1 No..... 2 Don't know..... 88	
232.	Do you think people will stop Practicing <i>Chaupad</i> if they know that it is illegal?	Yes..... 1 No..... 2 Don't know..... 88	

Section 3: Practice regarding Menstruation (ask only to those who have experienced of menstruation)

Thank you. Now I would like to ask you few questions regarding what you do, what don't do during menstruation and how you manage your menstruation etc.

No	Question	Coding	Skip
301.	Are you currently menstruating?	Yes..... 1 No..... 2	
302.	When did your last menstrual period start?	Days ago <input type="checkbox"/> Weeks ago <input type="checkbox"/> Months ago <input type="checkbox"/> Years ago <input type="checkbox"/> Before last birth 6 Never menstruate..... 7 No response..... 97	
303.	During your last menstrual period, what did you use to manage your menstrual blood? PROBE: Anything else? Do not read options aloud. Select all that apply.	Disposable sanitary pad (commercial) 1 Reusable sanitary pad 2 New cloth 3 Old cloth 4 Cotton wool 5 Tampons 6 Toilet paper 7 Underwear alone 8 Other (specify)..... No materials used 77 No response..... 97	
304.	If you could choose to use anything to manage your menstrual blood would you choose to use the same thing you currently use or would you use something else?	Same, because happy..... 1 Same, because don't know of any other options..... 2 Different..... 3	} If 1 and 2 go to 307
305.	If different then what would you choose?	Disposable sanitary pad (commercial) 1 Reusable sanitary pad 2 New cloth 3 Old cloth 4 Cotton wool 5 Tampons 6 Toilet paper 7 Underwear alone 8 Other (specify)..... No response..... 97	
306.	Why do you not use the material that you would ideally like to use?	Shops too far away..... 1 Materials too expensive..... 2 Materials not available..... 3 Too embarrassed to buy..... 4 Family would not like it..... 5 Difficult to dispose of..... 6 Don't know how to use..... 7 Others (specify)	

307.	During your last period, how often did you change your menstrual blood management materials (pad/ cloths) in a day?	Never, it's not necessary..... 1 Never, for another reason..... 2 Once 3 Twice..... 4 Three times or more..... 5 No response..... 97	
308.	Were you able to change your menstrual materials as often as you would like at home?	Yes..... 1☑ No..... 2	310
309.	If no, then why were you not able?	Toilet facilities not clean... 1 Toilet facilities not available..... 2 No private place available... 3 Water not available..... 4 No place for disposal 5 Did not have enough materials to change..... 6 Others (specify).....	
310.	Were you able to change your menstruation materials as often as you would like at school/college?	Yes..... 1☑ No..... 2 Not applicable..... 3☑	312 312
311.	If no, then why were you not able? (multiple responses)	Toilet facilities not clean..... 1 Toilet facilities not available... 2 No private place available..... 3 Water not available..... 4 No place for disposal 5 Embarrassed or uncomfortable to do so at school..... 6 Did not have enough materials to change..... 7 Others (specify).....	
312.	Do you share the sanitary materials that you use with anyone else in the household?	Yes..... 1 No..... 2	
313.	Did you wash and reuse pads, cloths, or other sanitary materials during your last menstrual period?	Yes..... 1☑ No..... 2	315

314.	If no why?	Did not need to/ Use disposable cloths/pads..... 1 No proper place to wash them 2 No water 3 Nowhere to dry them 4 No soap 5 Other (specify).....	322
315.	If yes, where did you wash your sanitary materials during your last period?	River/pond..... 1 Well/tap..... 2 In toilet..... 3 Others (specify).....	

316.	How long does it take you to get there and get back? About 15 minutes, 30 minutes, 45 minutes or more than an hour	Very little time..... 1 15 minutes..... 2 30 minutes..... 3 45 minutes..... 4 1 hour or more..... 5 Don't know..... 88	
317.	Is this the same place that you normally use for washing?	Yes..... 1 No..... 2	
318.	Do you always use soap to wash the sanitary materials or do you only sometimes or never use soap?	Yes, always..... 1 Yes, sometimes..... 2 Never..... 3	
319.	During your last menstrual period, were the sanitary materials that you washed and reused completely dried before each reuse?	Yes..... 1 No..... 2 Don't know..... 8	
320.	Where do you usually dry your sanitary materials after washing?	Outside home in sunlight in the Normal place where clothes are dried 1 Outside home in the sunlight in a place away from view 2 Outside home covered by other clothes 3 Inside home in a normal place ... 4 Inside home in a hidden place 5 Inside home covered by other clothes 6 By the fire 7 Dry using hot iron Others (Specify)..... 8	
21.	Are you worried that your sanitary materials will be seen by other people while washing and drying?	Yes..... 1 No..... 2	
322.	During your last menstrual period how often did you take bath?	Twice a day..... 1 Daily..... 2 Only first day..... 3 Only fourth or fifth day..... 4 First day and fourth/fifth day..... 5 Not at all..... 6	
323.	What did you use while taking bath?	Water only..... 1 Soap and water..... 2	
324.	You mentioned that you used [RESPONSES FROM 230] during your last menstrual period. Where did you dispose of these materials after use? PROBE: Anywhere else? Do not read options aloud. Select all that apply. (Multiple responses)	Flush toilet 1 Latrine 2 Waste bin/Trash bag 3 Burning 4 Burying..... 5 Bush/Field 6 Other (specify)..... No response 97	

325.	Where do you most often change your used pads, cloths, or other sanitary materials? (Single response)	Flush/pour toilet 1 Ventilated improved pit latrine 2 Pit latrine with slab 3 Pit latrine without slab/open pit 4 Bucket toilet 5 Composting toilet 6 Hanging toilet/hanging latrine 7 Sleeping area/bedroom 8 Backyard 9 No facility/bush/field 10 Other																													
326.	While managing your menstrual hygiene, was this place... Clean? Private? Safe? Able to be locked? Supplied with water? Supplied with soap?	<table border="1"> <thead> <tr> <th></th> <th>Yes</th> <th>No</th> <th>Don't know</th> </tr> </thead> <tbody> <tr> <td>Clean</td> <td>1</td> <td>2</td> <td>88</td> </tr> <tr> <td>Private</td> <td>1</td> <td>2</td> <td>88</td> </tr> <tr> <td>Safe</td> <td>1</td> <td>2</td> <td>88</td> </tr> <tr> <td>Lock</td> <td>1</td> <td>2</td> <td>88</td> </tr> <tr> <td>Water</td> <td>1</td> <td>2</td> <td>88</td> </tr> <tr> <td>Soap</td> <td>1</td> <td>2</td> <td>88</td> </tr> </tbody> </table>		Yes	No	Don't know	Clean	1	2	88	Private	1	2	88	Safe	1	2	88	Lock	1	2	88	Water	1	2	88	Soap	1	2	88	
	Yes	No	Don't know																												
Clean	1	2	88																												
Private	1	2	88																												
Safe	1	2	88																												
Lock	1	2	88																												
Water	1	2	88																												
Soap	1	2	88																												
327.	How long does it take you to get from your home to this place, change your sanitary materials and get back?	15 minutes or less..... 1 30 minutes..... 2 45 minutes..... 3 1 hour or more..... 4 Don't know..... 88																													

328.	During your last menstrual period what did you do to manage your pain? (multiple response)	Take painkillers..... 1 Drink hot water..... 2 Hot water bottle..... 3 Tie cloth around stomach..... 4 Sleep more..... 5 Nothing, but I had pain..... 6 Nothing because I had no pain.... 7 Others (specify)	330
329.	Was this method enough to manage your pain?	Yes..... 1 No..... 2	
330.	Aside from your own housework, have you done any work in the last month?	Yes..... 1 No..... 2	333
331.	Due to your menstrual period, were there any work days in the last month that you did not attend?	Yes..... 1 No..... 2	
332.	If you missed any work days, what were all the reasons?	Pain (any kind) 1 Tiredness 2 Family advise not to go or prevent from going 3 Heavy bleeding leading to fear of leakage 4 Fear of teasing 5 Toilet facilities inadequate for management (i.e. no water, no soap, too dark, no lock etc.) 6 Nowhere to dispose of pads/cloths/napkins 7 Had to go and get sanitary materials. 8 Others (specify)	

333.	Were there any school/college days in the past 12 months that you did not attend due to menstruation?	Yes..... 1 No..... 2	→	335
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334.	If you missed any school/college days what were all the reasons?	Pain (any kind) 1 Tiredness 2 Family advise not to go/prevent from going 3 Heavy bleeding leading to fear of Leakage 4 Fear of teasing 5 Toilet facilities inadequate for management (i.e. no water, no Soap, too dark, no lock etc.) 6 Nowhere to dispose of pads/ Cloths/napkins 7 Had to go and get sanitary materials.8		
335.	When you are menstruating how Comfortable do you feel doing each of these activities?	Playing sports..... Going to school..... Reading or studying..... Working in the fields... Doing housework..... Going for other work...	Comfor table Uncom fortabl e 1 2 1 2 1 2 1 2 1 2	

Section 4: Beliefs and Attitudes Regarding Menstruation

In this community and elsewhere people have different opinions about menstruation. I would like to read out the few statements and I would like you to tell me whether you fully agree, partially agree, partially disagree or do not agree at all. There is no right or wrong answer.

No	Question	Coding	Skip
4.1: Secrecy and Shame			
401.	It is acceptable to talk about the menstrual period with men	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know.....	
402.	It is important to discuss the topic of the period at school/college with boys and girls together	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know.....	
403.	We girls must hide anything that shows that we are having our periods	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know.....	

404.	It is important to buy sanitary pads without being seen	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know.....
405.	It is uncomfortable for us girls to talk about our periods	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know.....
406.	It is important that nobody knows when a girl is having her period	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know.....
407.	It is embarrassing when a man finds out that a girl is having her period	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know.....
408.	It is important to keep the period a secret	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know.....
409.	We girls should avoid talking about our periods when there are men present	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know.....
410.	It is important to discuss the topic of the period at home openly	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know.....
411.	Girls must stay away from men while we are having our periods	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know.....
4.2. Annoyance		
412.	I think there are times when we girls cannot stand our periods	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know.....
413.	Periods are dirty	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know.....

414.	We girls wish that the period would last for just a few minutes	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know.....
415.	We girls wish that we did not have our periods	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know.....
416.	The period is annoying	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know.....
417.	The period is painful	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know.....
418.	It is uncomfortable for girls to have our periods	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know.....
419.	The period is a big problem	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know.....
420.	The period is something that we girls have to bear	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know.....
421.	It is hard to live with having periods	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know.....
422.	It is annoying for us girls to have the period every month	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know.....
423.	The period is really annoying	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know.....

Section 5: Psychosocial Scales

Now I will ask your opinion about different things and I want you to tell me what you think or feel about them. My intention is to ask about your opinion, so there are no right or wrong answers.

No	Question	Coding	Skip
	5.1 Menstrual stress		
501.	Do you worry about starting your period?	Yes, a lot 1 Yes, a little..... 2 Not at all..... 3 Don't know..... 88	
502.	Do you worry about where you will sleep during your period?	Yes, a lot 1 Yes, a little..... 2 Not at all..... 3 Don't know..... 88	
503.	Do you worry that you will miss out on things (social event)things during your period?	Yes, a lot 1 Yes, a little..... 2 Not at all..... 3 Don't know..... 88	
504.	Are you afraid that boys will make fun of you?	Yes, a lot 1 Yes, a little..... 2 Not at all..... 3 Don't know..... 88	
505.	Are you afraid that other girls will gossip about you?	Yes, a lot 1 Yes, a little..... 2 Not at all..... 3 Don't know..... 88	
506.	Do you feel nervous about your period?	Yes, a lot 1 Yes, a little..... 2 Not at all..... 3 Don't know.....	
507.	Do you worry that it will be painful?	Yes, a lot 1 Yes, a little..... 2 Not at all..... 3 Don't know..... 88	
508.	Are you afraid of accidentally doing something to make your period worse?	Yes, a lot 1 Yes, a little..... 2 Not at all..... 3 Don't know..... 88	
509.	Do you worry about staining your clothes?	Yes, a lot 1 Yes, a little..... 2 Not at all..... 3 Don't know..... 88	
510.	Do you worry about what sanitary materials you will use?	Yes, a lot 1 Yes, a little..... Not at all..... Don't know..... 88	
511.	Do you worry about how you will get sanitary materials to use?	Yes, a lot 1 Yes, a little..... 2 Not at all..... 3 Don't know..... 88	

512.	Do you worry about using the toilet?	Yes, a lot 1 Yes, a little..... 2 Not at all..... 3 Don't know..... 88	
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513.	Do you worry about not having enough water to use in the toilet?	Yes, a lot 1 Yes, a little..... 2 Not at all..... 3 Don't know..... 88	
514.	Do you worry about how to dispose of your pad?	Yes, a lot 1 Yes, a little..... 2 Not at all..... 3 Don't know..... 88	
515.	Do you worry about missing school/college because of your period?	Yes, a lot 1 Yes, a little..... 2 Not at all..... 3 Don't know..... 88	
516.	Do you worry that boys may peek on you when using the toilet?	Yes, a lot 1 Yes, a little..... 2 Not at all..... 3 D o n ' t k n o w 88	

5.2. Menstrual self-efficacy

517.	You are confident that you can ask a friend for help when needed	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know..... 88	
518.	You are confident that you can get a pad if you need one	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know..... 88	
519.	You are confident that you could ask a friend to lend you a pad	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know..... 88	
520.	You are confident that you could talk to an adult (e.g. mother or sister) if you have questions about your period	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know..... 88	
521.	You are confident that you could ask an adult for help if you stain yourself	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know..... 88	

522.	You are confident that you can ask an adult for pain medication if you need it	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know..... 88	
523.	You are confident that you can stand up for yourself if you are teased about menstruation	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know..... 88	

524.	You are confident that you can do everything you normally do during your period	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4 Don't know..... 88	
525.	You are confident that you can stand up for yourself if someone tells you that you can't do something you want to do during your period	Fully agree..... 1 Partly agree..... 2 Partly disagree..... 3 Fully disagree..... 4	

3) Guidelines for FGD/IDI

Guidelines for the focused group discussion/in-depth interviews with adolescent girls, adolescent girls with disability and out-of-school adolescent girls)

Province:

Community:

Date:

Age group: 10-19 years

Participants (out-of-school adolescent mothers, adolescent girls with disability, adolescent girls of school)

1. Have you heard/experience menstruation cycle? (If yes, probe for perception/their experience including memorable events around that)
2. How did you get the information about menstruation cycle? (Probe for sources of information)
3. How did you feel about your first menstruating?
4. How much you know about menstruation before started menstruating? (Probe for the preparation, restriction and causes)
5. Where and how would you get information about menstruation usually?
6. How is the information that you usually receive before you start menstruating?
7. How do you feel about the information of menstruation? (Probe for useful , easy to understand)
8. What do you think that would make menstruation easier for girls at school / home?
9. Who do you feel comfortable talking to about your menstruation? (Probe for with friends, family members, neighbors, teachers etc)
10. How do you manage menstruation?(Probe for hygiene : frequency of the changing pads, availability of water , availability of the separate toilet , use of the material , disposal,)
With disability: assistance, self-capable, privacy)
11. What difficulties do you face during the menstruation? (Probe for : Psychological problems , Physical problems, Social and cultural restriction , accessibility and affordability of the materials, Access to health service, access of toilet and water use in school/home, separate toilet, place for disposal of pads etc)
12. How do you deal with the problems faced during the menstruation? (Probe for : Psychological problems , Physical problems, Social and cultural restriction , accessibility and affordability of the materials, Access to health service)
13. During your last menstrual period, what did you use to manage your menstrual blood? (Probe: what did you use, where did you dispose etc)

14. Has your menstruation period have affected your schools days or working time at home?
(Probe for school absenteeism, absenteeism in regular work etc)
15. What are your needs for managing your menstruation in safe healthy and comfortable manner? (Probe for: Availability of sanitary pads- Access of separate toilet with availability of water ,Availability of place for drying washed clothes/pads
Access of room for changing pads/clothes, Availability of disposal sites for pads/clothes)
16. If you think that there is need to illuminate/remove some practices related to menstruation in your village/town, what can be done to remove wrong practices related to menstruation?
(Probe for, by family members; by community leaders/religious leaders; by school/teachers; by health workers and by government)

Guideline for the IDI for the community leaders/ teacher for accessing their perception regarding menstrual health and hygiene management of adolescent girls

Province:

Community:

Date:

Age group:

Participants: Teachers / Community leaders

1. What are the programme related to MHM in your community / school?(Probe for : advocacy , knowledge , health and hygiene, production , disposal)
2. Does the programme adequately respond to the adolescent? If yes, how?
(Probe for if no, what sort of programme can be designed to address MHM among the adolescent girls, how can be addressed?)
3. In your opinion what could be the needs of the adolescent girls regarding their menstrual needs?
4. Do you think those needs are being addressed? If yes how?
If no, what can be done to address those needs?
5. Have you been provided any sort of the training related to menstrual health? If yes, what types of training?
If no, is there need of any sort of training related to menstrual health?
6. Any further suggestion to improve menstrual health of the adolescent girls in your community?

Annex II: Complete list of verbatim from qualitative study

Section II: Knowledge and perception on menstruation

2.1 Knowledge on menstruation before menarche

"No, I didn't know anything about menstruation and hadn't prepared for it." (FGD, Adolescent girl, Out of School, Rupandehi, Gandaki Province)

"I didn't have all the details about what to do or what not to do, but I had some general understanding about some restrictions from sisters and mother." (FGD, Adolescent girl, Out of School, Taplejung, Province 1)

"At first menstruation, my father taught me about it and later on, I got to know about it from my teachers." (FGD, Adolescent girl, in School, Chitwan, Bagmati Province)

"Our mothers are the one who usually educates us on the topic of menstruation. We have rarely heard our fathers speaking on the topic like our mothers" (FGD, Adolescent girl, Out of school, Taplejung, Province 1)

"I think the information that we got about menstruation was not adequate. Some of the girls still cannot talk about it confidently due to which they can't stop being embarrassed when talking about it." (FGD, Adolescent girl, In School, Lalitpur, Bagmati Province)

"I stay at a hostel so I discuss menstruation with a lot of my friends. My menstruation is not so regular. Sometimes I discuss and even think that it would have been better if I could discuss or get some suggestions from the doctors. Also, there is a website called khulduli.com that conducts a programme named '*Meri Sathi*', I take help from it too." (IDI, Visually impaired adolescent girl, Palpa, Gandaki Province)

"Firstly, I got information from friends and then from a school health book." (FGD, An adolescent girl, Out of School, Achham, Sudurpashchim Province)

"FCHV of our village shared informative knowledge about menstruation for adolescent girls." (FGD, An adolescent girl, Out of School, Dang, Gandaki Province)

"Good Neighbors International taught us about menstrual hygiene, how to use a pad, how to make reusable home clothes pad and about sanitation during the menstrual period". (FGD, An adolescent girl, Kailali, Sudurpashchim Province)

“My mother and sister didn’t say anything about periods.” (FGD, An adolescent girl, In School, West Rukum, Karnali Province)

"My mother used to sleep separately when she was menstruating and that was how I came to know about menstruation." (FGD, An adolescent girl, Out of School, Parbat, Gandaki Province)

“Some were practical and useful information, some were not. For instance, the restriction to touch food items and cook are not useful. Menstruation is a natural process but these restrictions are made by people so they are not useful.” (FGD, An adolescent girl, In School, Jhapa, Province 1)

"No one mentioned anything to me about menstration." (IDI, An adolescent girl with disability, Kathmandu, Bagmati Province)

2.3 Cause of menstruation

“Blood discharge from the stomach is menstruation.” (FGD, An adolescent girl, Out of School, Achham, Sudurpashchim Province)

“I have heard that infection of the uterus is menstruation while studying.” (FGD, An adolescent girl, Out of School, Rupandehi, Gandaki Province)

“I was unknown about the initiation of periods (menarche) whether it started at the age of 12 or 15.” (FGD, An adolescent girl, Out of School, Rupandehi, Gandaki Province)

“I didn't know what it was until I experienced it myself.” (IDI, Adolescent girl with disability, Sankhuwasabha, Province 1)

"I don't know anything but I know that bleeding occurs every month" (FGD, An adolescent girl, Out of School, Rupandehi, Gandaki Province)

“I haven't gained such knowledge from anywhere. I did not understand anything before menarche.” (FGD, An adolescent girl, Out of School, Achham, Sudurpashchim Province)

"We didn't know anything about menstruation before starting menstruation. How were we supposed to know before menarche? Nobody told us anything." (FGD, An adolescent girl, Out of School, Bajhang, Sudurpashchim Province)

“As learned from books and teachers we had knowledge that we are capable of conceiving babies and becoming a mother after menstruation occurs.” (FGD, An adolescent girl, In School, Parbat, Gandaki Province)

“Menstruation is blood flow from the uterus every month and if we don’t bleed then we are pregnant.” (FGD, An adolescent girl, Out of School, Jumla, Karnali Province)

“I don’t wish to tell people that I am menstruating but I have to tell.” (FGD, An adolescent girl, Out of School, Udayapur, Province 1)

“The topic of menstruation should not be kept private.” (FGD, An adolescent girl, Out of School, Udayapur, Province 1)

“In our society, menstruation means being impure and they perceive it as a bad thing” (FGD, An adolescent girl, In School, Kailali, Sudurpashchim Province)

“I heard a little about it and was aware a little bit about periods but it was different once I faced it myself. I felt like periods shouldn’t happen in my life. Later, I found out it is a normal and natural process. Sometimes, I feel bored when it happens monthly.” (IDI, An adolescent girl with disability, Banke, Gandaki Province)

“I wish it never happened to me. Due to periods, we can’t attend social occasions and visit temples. So, I don’t quite enjoy it.” (FGD, In School, Jhapa, An adolescent Girl, Province 1)

“Sometimes I wish for menstruation to happen and sometimes I wish against it”. (FGD, An adolescent girl, Out of School, Udayapur, Province 1)

“I wonder why we need to be a girl and face problems like menstruation. Sometimes I get mad thinking about it.” (FGD, An adolescent girl, In School, West Rukum, Karnali Province)

“I didn’t know a lot about menstruation before my first period but I know that we should bathe daily, change clothes/pads from time to time and not touch family members of other peoples, live and eat separately.” (FGD, An adolescent girl, Out of School, Dang, Gandaki Province)

2.4 Knowledge on menstruation and fertility

“As learned from books and teachers, we knew that we are capable of conceiving babies and becoming a mother after menstruation occurs.” (FGD, An adolescent girl, In School, Parbat, Gandaki Province)

“Menstruation is blood flow from the uterus every month and if we don’t bleed, then we are pregnant.” (FGD, An adolescent girl, Out of School, Jumla, Karnali Province)

2.5 Support during menarche: comfortable in talking regarding menstruation

“Some families don’t understand, while some would say that it happens to everyone and even to us. For some girls, the pain is unbearable. It is not the same for everyone. Families wouldn’t understand it at that time. Even a female won’t understand a female, I wish to argue at that time” (FGD, An adolescent girl, Out of School, Udayapur, Province 1)

“At first, we should share our knowledge with our parents, regarding menstruation. So, the message can be conveyed by parents to parents. We can make our parents understand by sharing whatever we have learned from schools such as menstruation cycle and physiological process, and menstruation wrong practices/blind faith. Teachers should counsel and convince parents regarding wrong practices such as staying /sleeping away from the home, not feeding hot and nutritious foods in this cold weather, and how following traditional beliefs, taboos and restrictions will harm our health.” (FGD, An adolescent girl, In School, Kailali, Sudurpashchim Province)

“Whenever I have a pain, my mother tells me not to work and take rest properly.” (FGD, An adolescent girl, In School, Gulmi, Lumbini)

“My mother used to teach me how to maintain hygiene, use of pads and disposal of pads.” (FGD, An adolescent girl, Out of School, Rupendehi, Lumbini)

“If I tell them I have a cramp or am unwell due to menstruation, my mother takes me to the hospital. She has done that before as well.” (IDI, An adolescent girl with disability, Kathmandu, Bagmati Province)

“After using cloth pads, I wash them but sometimes my mother washes them.” (FGD, An adolescent girl, Out of School, Chitwan, Bagmati Province)

“Some mothers understand but others won’t try to understand. Last time, during my period, I was lifting a heavy sack of rice, I was about to fall and my mother noticed this. But she didn’t even hold my hands to save me (sad face). My mother scolds me for having my period during festivals. She wishes to send me off so that she doesn’t have to deal with it. That makes me feel bad and it hurts.” (FGD, An adolescent girl, Out of School, Jajarkot, Karnali Province)

“We don’t have time to rest. We need to go outside and do fieldwork which includes: bringing water for animals and going to the forest to get some firewood. We are not allowed to enter the kitchen so we have to burn the firewood outside to keep ourselves warm.” (FGD, An adolescent girl, In School, Rukum, Karnali Province)

“Our family gets angry when we ask for anything, sometimes they provide one blanket, sack. Even when it’s really cold... They don’t provide clothes and foods when we ask and later, they scold us” (FGD, An adolescent girl, Out of School, Jumla, Karnali province)

“Daughters-in-law are not menstruating as often as we should be due to consumption of contraceptive pills and other injections. But when we try to make them understand that on this matter, parents scold us. Sometimes I want to die. I wish I could marry and leave this house. Even when I take medicine and take some injection, parents think that I’m pregnant” (FGD, An adolescent girl, Out of School, Jajarkot, Karnali Province)

“It is comfortable with friends as we can say anything to them. It is easy to talk about stomach pain to friends other than parents. We cannot say anything to our mother and father. During the time of complications, parents know about it as friends pass that information to them. Parents can easily take us to the hospital. Friends are comparatively less advantageous than parents.” (FGD, An adolescent girl, Out of School, Accham, Sudurpashchim Province)

“It’s easy to share with friends and I feel awkward to share with my mother. When my mother asks me if I am having regular menstruation, regularly then I reply ‘yes’. Otherwise, I usually don’t share with her about menstruation.” (FGD, An adolescent girl, In School, Parbat, Gandaki Province)

“My sister taught me everything about menstruation” (IDI, a Physically impaired adolescent girl, Panchthar, Province 1)

“I was always told by my sister to use clean pads.” (FGD, An adolescent girl, In School, Gulmi, Lumbini)

“My sister, she serves hot water, during my period.” (FGD, An adolescent girl, In School, Chitwan, Bagmati Province)

“After marriage, it’s difficult to share things with mother-in-law but there are sisters of husband with whom we can share our feelings with.” (FGD, An adolescent girl, Out of School, Jumla, Karnali Province)

“I feel comfortable to talk about menstruation with sisters-in-law” (FGD, An adolescent girl, Out of School, Bajhang, Sudurpashchim Province)

“My sister-in-law teaches me about menstruation and I get enough information about this from her. She provides me hot water and anything I need during menstruation.” (IDI, an adolescent girl with disability, Jumla, Karnali Province)

“Especially after marriage, I felt comfortable to talk with my husband regarding menstruation problems.” (FGD, a Married Adolescent Girl, Out of School, Udayapur, Province 1)

“Educated husbands understand what menstruation is and the situation girls face.” (FGD, a Married Adolescent Girl, Out of School, Jajarkot, Karnali Province)

“My husband feels ashamed to buy pads so I buy it myself” (FGD, a Married Adolescent Girl, Out of School, Rupandehi, Lumbini)

“A male teacher taught us about it but he didn’t teach it openly. He told us to study it by ourselves and taught us other things.” (IDI, An adolescent girl with disability, Sankhuwasabha, Province 1)

“During school, I share my pain with female teachers and they would let me take rest” (IDI, An adolescent girl with disability, Bara, Province 2)

“We don’t talk about my menstrual problems with teachers in school as we are scared to talk to them.” (FGD, Out of School, Rupandehi, Lumbini)

"We want to eat sour and spicy food when we are in our period. One day I was eating Chatpate and one of my male friends teased me saying, 'Hey, do you know in which condition spicy and sour foods are craved for?' I beat him up so much. He doesn't even talk to me after that." (FGD, An adolescent girl, Out of School, Udayapur, Province 1)

"If we really need to go outside the house during menstruation, we only go to buy pads. But if we don't want, we stay in our house. We don't go outside the house wearing a piece of cloth. We feel ashamed as boys tease us if they know we are on our periods" (FGD, An adolescent girl, Out of School, Jajarkot, Karnali Province)

"First of all, my father taught me about this topic." (FGD, An adolescent girl, Out of School, Chitwan, Bagmati Province)

"Fathers tell us that we are of different generations now and we should not follow restrictions but mothers tell us that it is a sin. Men can change according to the time." (FGD, An adolescent girl, Out of School, Udayapur, Province 1)

"During my first period, I showed the blood to my father but he got angry and beat me asking why I had revealed it to him" (FGD, An adolescent girl, Out of School, Chitwan, Bagmati Province)

"Those who don't have a mother or sister used to tell how their fathers helped them manage changing pads and so on". (IDI, An adolescent girl with disability, Kathmandu, Bagmati Province)

"I feel comfortable with mother, sister, friends, aunty and grandmother" (FGD, An adolescent girl, Out of School, Dhanusa, Province 2)

"When I had my first period, I informed my mother, who told me to use a sanitary pad, informed me not to see other people and asked me to stay isolated at someone else's home." (FGD, An adolescent girl, In School, Sarlahi, Province 2)

"I showed the blood to my father but he got angry and beat me asking why I had revealed it to him. Then my grandmother told me that I was menstruating and she changed my clothes, brought a pad, and taught me how to use it." (FGD, An adolescent girl, out of School, Chitwan, Bagmati Province)

"I was nervous and didn't know how to wear a pad the first time after menstruating. My elder sister taught me how to do it." (FGD, An adolescent girl, Out of School, Parbat, Gandaki Province)

"When I had my first period, I was nervous and also felt scared to talk about it. I was questioning myself on what was happening to me and finally decided to talk with my mother. She answered that it was normal and menstruation happens to every adolescent girl." (FGD, An adolescent girl, In School, Sarlahi, Province 2)

"It was a very difficult situation. I was very afraid and nervous after seeing blood, unaware about how to manage and handle it." (IDI, An adolescent girl with disability, Tanahun, Gandaki Province)

"I have faced problems like loneliness and laziness for four to five days, ignoring people and feeling scared that my outfit would be stained due to blood leakage." (IDI, a Visually Impaired adolescent girl, Banke, Gandaki Province)

"I was afraid during menstruation; I have cried many times as well." (IDI, Difficulty in Moving, Kanchanpur, Sudurpashchim Province)

"My mother came to know on her own and asked me and still I felt uncomfortable telling her about my menstruation. I shared it with her only on my second menstruation cycle." (IDI, Physically Impaired, Sankhuwasabha, Province 1)

"At first, I was scared and confused about things which I would tell about it, how it was going to happen, how I was going to manage this, etc. Initially, I didn't know what to do, and I couldn't even dare to share it with my friends at first." (IDI, Visually Impaired, Palpa, Gandaki Province)

2.7 Perception and practice of Chaupadi

"There is not much restrictions practiced in eastern part of Nepal in comparison to the western part of Nepal. It is believed that menstruating girl\female should not touch seeds, plants, or flowers or enter the kitchen beside these restrictions. We should not follow as many restrictions in the western part of Nepal." (FGD, Out of School, Taplejung, Adolescent Girls, Province 1)

"Family keeps us outside and sees us (daughters) in a bad way. They send us to sleep at animal stables/ Chaugoth and they won't even let us stay at our houses or even at our yard." (FGD, An adolescent girl, In School, Kailali, Sudurpashchim Province)

"I get angry and sad (sad face). During summer, I have to sleep outside but on winter days, I sleep on the floor of the room. If we slept outside during the winter season, we would probably be dead." (FGD, In School, West Rukum, Karnali Province)

"In our Rai community, we do not have any such traditions that restrict us from touching things or going somewhere." (FGD, An adolescent girl, Out of School, Nuwakot, Bagmati Province)

"In the Tharu community, untouchability or being fearful of menstruation are not big problems. However, due to the lack of awareness of this community face problems only regarding menstrual health and hygiene management but in the hilly community of Kailali, adolescent girls stay out of homes. In such a period, they need to depend on others for drinking water. They are not allowed to touch taps. How can cleanliness be maintained when they have to beg for drinking water?" (KII, Kailali, Female Community Leader, Sudurpashchim Province)

"In our Buddhist religion, we don't follow many restrictions but in other religions, I had heard that one should not enter temples or engage in religious activities." (IDI, Physically Impaired, Panchthar, Province 1) by this statement, we can also say that these types of restrictions also differ according to religions of people.

"I cannot do anything for cultural restrictions. My family follows them, so I have to follow them too. When I am at home, I do not enter the kitchen and temple. I also do not touch the elder male members. Even today, if we have puja at our home, and we are menstruating, we are supposed to stay away from home. We are not allowed to enter our home. I have also heard that girls should live in unsafe place and heard of rape cases and snakebite during menstruation. There are a lot of wrong practices regarding menstrual restriction in our community (IDI, Partially Visually Impaired, Bara, Province 2)

"Staying and sleeping alone at night in a livestock shed is fearful and frightening. Family members would not even find out if anything happens to us when we menstruate and it is a major problem." (FGD Out of School, Accham, Adolescent Girls, Sudurpashchim Province)

"Because of chaugufa, girls and women face a lot of problems which leads to fatality. There are many incidences of the woman dying in *Chaupadi* huts." (KII, Kalikot, School Chairperson, Karnali Province)

"Last year, there was an incident in ward no-9, Bajura. A girl was raped while practicing *Chaupadi* by a drunk man. Due to several other reasons, adolescent girls and women die every year while practicing *Chaupadi*. It is difficult to make elders understand about menstruation process, health management, and *Chaupadi*." (KII, Kailali, Female Community Leader, Sudurpashchim Province)

2.8 Restrictions during menarche

"We are not allowed to look at the roof of our houses and they say we shouldn't look at our brothers and father during our first menstruation." (FGD, An adolescent girl, Out of School, Udayapur, Province 1)

"I was sent away for several days during my first menstruation. I could not meet my father, brother, or any male members of my family and I was barred from seeing the sunlight." (IDI, Visually Impaired adolescent girl, Bara, Province 2)

"We also had to hide in the nearby jungle and returned to our house after five days of our first menstruation." (FGD, An adolescent girl, Out of School, Jumla, Karnali Province)

"Parents call relatives and celebrate in a big way when we have our first menstruation. They regard it as an important event when a girl menstruates for the first time" (FGD, An adolescent girl, Out of School, Jumla, Karnali Province)

"We took a bath thrice a day and took care of our health when we were kept in the jungle to hide during our first menstruation." (FGD, Adolescent girl, Out of School, Jumla, Karnali Province)

"It was winter and I needed a blanket but didn't have one. It was such a situation that even when we were hungry, we had to ask someone else for food." (FGD, An adolescent girl, Out of School, Parbat, Gandaki Province)

"When I menstruated for the first time, I felt like it was useless because I needed to stay away from my family and had to wait for a long time even to get food." (FGD, An adolescent girl, Out of School, Chitwan, Bagmati Province)

"I was staying at my aunt's place when my first menstruation happened. I didn't know her father-in-law was a religious healer (dhami). He started to shake as soon as he ate food prepared by me. That incident scared me." (FGD, An adolescent girl, Out of School, Morang, Province 1)

"I didn't find it difficult because my family was very understandable. So, I didn't have to go to anybody's house to stay during my first period." (FGD, An adolescent girl, Out of School, Parbat, Gandaki Province)

"At the hostel, there was no cultural restriction. I think being in the hostel during my first menstruation made it easier for me to handle it. It would have been difficult at home." (IDI, Visually Impaired, Palpa, Gandaki Province)

"I feared if someone would isolate me or ask me to go away because of my menstruation." (IDI, Physically Impaired, Panchthar, Province 1)

"I suffer from severe abdominal cramps and my bleeding occurs till seven days. I feel uneasy to go to school because of the fear of having leakage in school uniform" (FGD, An adolescent girl, In School, Sarlahi, Province 2)

"I am not allowed to go to the kitchen and touch utensils." (FGD, An adolescent girl, Out of School, Parbat, Gandaki Province)

"We are not allowed to wash clothes in the same bucket and touch water or crops. That creates a little inconvenience for us." (FGD, An adolescent girl, Out of School, Morang, Province 1)

"There are still many social stigmas in our area like prohibition to enter some places especially kitchen, touching things and male members of family. So, we are trying our best to boycott such stigmas and traditions." (KII, Ramechhap, Ward Chairperson, Bagmati Province)

"During my period, I am restricted to touching my father and brothers. For easy menstrual experience, practices like not touching fathers shouldn't be eliminated." (FGD, An adolescent girl, Out of School, Gulmi, Gandaki Province)

"We are not allowed to touch people during menstruation. If we touch them, they are purified by being sprinkled with cow urine all over them." (FGD, An adolescent girl, In School, Baitadi, Sudurpashchim Province)

"People also say we can't touch vegetables plants and fruits because plants would die and fruits would get rotten and fall from trees."(FGD, An adolescent girl, In School, Udayapur, Province 1)

"We are not allowed to drink cow and buffalo milk and touch the cow during periods." (FGD, An adolescent girl, Out of School, Jumla, Karnali Province)

"There is a cultural practice in hilly region of the Far-western districts like restrictions to drink milk and milk products. These food items are very essential so these restrictions have direct effect on health. If nutritious foods are avoided and healthy soups are not taken, it is challenging for us." (KII, Kailali, Community Leader, Sudurpashchim Province)

"It's difficult to have easy access to tap for bathing and cleaning because we cannot use pumps/tap nearby. We have to travel a long distance and it's a major problem." (KII, Bajura, Female Teacher, Sudurpashchim Province)

"We aren't allowed to go to the toilet. Our family members have to share the same toilet so we aren't allowed to go there. So, we are supposed to go outside in an open field." (FGD, Out of School, Jumla, An adolescent girls, Sudurpashchim Province)

"I wish I wouldn't have to change roads because of menstruation." (IDI, Visually Impaired, Bajura, Sudurpashchim Province)

"(Sad face) we can't be involved in Bhai-Tika, which only happens once a year. I feel very disappointed. I feel like crying. My mother scolds me saying why I have to have my period during festivals. She wishes to send me off to another house by marrying early so that she doesn't have to deal with it. That makes me feel bad and it hurts." (FGD, An adolescent girl, Out of School, Jajarkot, Karnali Province)

"Sometimes I lie about period and attend religious functions like worshipping and a lot of social functions." (FGD, An adolescent girl, In School, Kailali, Sudurpashchim Province)

"There are no restrictions in anything either at home or community." (FGD, An adolescent girl, Out of School Chitwan, Bagmati Province)

"In our community, there are no such restrictions except worshipping god." (FGD, An adolescent girl, Out of School, Rupandehi, Gandaki Province)

"Some people also tell us not to put on lipstick and not to comb our hair too. But we don't care. We put it on and leave." (FGD, An adolescent girl, Out of School, Udayapur, Province 1)

"I cannot do anything against cultural restrictions. My family follows them, so I have to follow them too. When I am at home, I do not enter the kitchen and temple. I also do not touch elder male members. Even today, if we have puja at our home, and we are menstruating, we are supposed to stay away from home. We are not allowed to enter our home. I have also heard that girls should live in unsafe place and heard of rape cases and snakebite during menstruation. There are a lot of wrong practices regarding menstrual restriction in our community (IDI, Partially Visually Impaired, Bara, Province 2)

Section III Practice on hygiene management

3.1 Access to menstrual management materials

“We don't find degradable pads easily so I also use cloth pads and reuse it every time I menstruate.” (FGD, An adolescent girl, Out of School, Taplejung, Province 1)

“We don't have degradable pads so I use cloth pads.” (FGD, An adolescent girl, Out of School, Sindhupalchowk, Bagmati province)

“We use homemade cloth pads when there is shortage of commercial sanitary pads.” (FGD, An adolescent girl, In School, Sudurpashchim Province)

“I don't have any income. My grandfather gives me money sometimes. I save it to buy pads. The price of the pad is okay but it's difficult to buy.” (IDI, An adolescent girl with disability, Sankhuwasabha, Province 1)

“Pad is very expensive here and I can't use it every time. So, I wear both pads as well as cloth.” (FGD, An adolescent girl, In School, West Rukum, Karnali Province).

“Pad is expensive and its rate depends on materials. I brought one packet of pad at 80 rupees.” (FGD, Out of School, Jajarkot, Karnali Province)

“The price of sanitary pads should be reduced a little but if the cost is reduced the quality also decreases.” (IDI, An adolescent girl with disability, Sankhuwasabha, Province 1)

“Municipality distributes pad only to the school. It's not that everyone in the village can buy pads. The financial situation is very weak for some families. They'll be struggling to eat a one-time meal or wear one pair of clothes, let alone buying a pad. So, the programme of distributing pads should be brought to the village too, not just in schools.” (FGD, An adolescent girl, Out of School, Udaypur, Province 1)

“Families are poor and cannot afford to buy pads. Uneducated girls feel shy to the shop to buy pads.” (KII, Bara, Chairperson of Mother Group, Province 2).

“Even in the present day, in my community, it is quite difficult to manage their basic needs daily. In this situation, it is impossible to buy and use pads.” (KII, Gulmi, School Teacher, Lumbini).

“Due to poor economic status, the girls do not have enough clothes. In addition, the washed clothes do not dry immediately.” (KII, Kailali, Community Leader, Sudurpashchim Province)

“The rural municipality has brought us many pads. We told the female teacher to distribute enough pad to the students.” (KII, Okhaldunga, School Principal, Province 1)

“School students are benefited with the freely distributed pad but the ones like us who stay at home have to buy it ourselves.” (FGD, An adolescent girl, Out of School, Rupandehi, Lumbini)

“We cannot get sanitary pads from our school even if we need them. (IDI, An adolescent girl with disability, Kathmandu, Bagmati Province)

“At school, we feel it is difficult to manage menstrual period. School teachers don’t provide us with pads. If there was pad distribution in school, it would be more easy, comfortable and safe.” (FGD, An adolescent girl, In School, Kailali, Sudurpashchim Province)

“Even if the schools do not provide pad, there should be facilities of clean toilets and adequate water.” (FGD, An adolescent girl, In School, Chitwan, Bagmati Province)

“If someone hasn’t brought a pad and we have it, then we provide her with the pad we have.” (IDI, An adolescent girl with disability, Dhading, Bagmati Province)

“My friend’s house is near the school, so I usually get it from her. If today I take it from her then I will return the pad next time she needs it.” (IDI, An adolescent girl with disability, Kathmandu, Bagmati Province)

“Pads are easily available in the market.” (FGD, An adolescent girl, Out of School, Chitwan, Bagmati province)

“Due to the lack of shops near here, it is difficult to find the materials that you need like sanitary pads and medicines.” (FGD, An adolescent girl, Out of School, Parbat, Gandaki Province)

“Girls have to walk to the market areas to buy the commercial sanitary pad.” (KII, Taplejung, Member of School Management Committee, Province 1)

“In many places, access to pads is limited, which is why the government has come up with a programme to distribute sanitary pads in school.” (KII, Nuwakot, Public Health Officer, Bagmati Province)

“If market pad/ sanitary pads are not available then instructions related to the process of making reusable homemade pad should be given.” (KII, Tanahun, FCHV, Gandaki Province)

3.2 Access to WASH facilities

“Nowadays, toilet facilities are available in every house. Moreover, the toilet facilities of the school are even better. There is also the availability of water.” (KII, Taplejung, Member of School Management Committee, Province 1)

“I don’t feel any obstacle to go to the toilet at my home or in school.” (IDI, An adolescent girl with disability, Mahottari, Province 2)

“Yes, toilets are available at school and they are very clean.” (IDI, An adolescent girl with disability, Kaski, Gandaki Province)

“The condition of toilet is good and there is a separate toilet for boys and girls in school.” (FGD, An adolescent girl, In School, Chitwan, Bagmati Province)

“In our school, we have a girl's friendly toilet to decrease the absenteeism during menstruation.” (KII, Gulmi, School teacher, Gandaki Province)

“We have proper toilet facilities at home.” (FGD, An adolescent girl, Out of school, Udayapur, Province 1)

“We go to the river and look for places we can use as toilets because of the unavailability of toilets.” (FGD, An adolescent girl, In School, Jajarkot, Sudurpashchim Province)

“We aren't allowed to go to the toilet. Our family members also have to share the same toilet so we aren't allowed to go there, which is why we are supposed to go outside.” (FGD, An adolescent girl, Out of School, Jumla, Kailali Province)

“District Education Office Bajura has built girls-friendly toilets, where used pads can be disposed and buried”. (KII, Bajura, School Teacher, Sudurpashchim Province)

“They demand separate toilets for females that help them during periods and there are no separate toilets for boys and girls which create difficulty during periods.” (KII, Rolpa, School Teacher, Lumbini)

“There is no separate toilet for girls and boys. We feel ashamed if boys see us and tease us when we go to the same toilet.” (FGD, In school, Jajarkot, An Adolescent Girl, Sudurpashchim Province)

“The toilet condition is not good at school so we go to the house of our close friends to change our pads.” (IDI, An adolescent girl with disability, Kathmandu, Bagmati Province)

“We do have toilets in our school and home but there is no water facility. If our cloth pads get soaked, we put it in our pocket and bring it home.” (FGD, An adolescent girl, In School, Jajarkot, Sudurpashchim Province)

“There is no separate toilet and no dustbin in school.” (FGD, An adolescent girl, In school, Tanahun, Gandaki Province)

“I don’t have a toilet at my house so I go to the river.” (FGD, An adolescent girl, School Dropout, Parsa, Province 2)

“It is the same for us. If there is an availability of a toilet and bathroom, we could have bathed in warm environment and we can go to the toilet as well. With no toilets, where are we supposed to go in the cold season?” (FGD, Out of School, Jumla, An adolescent Girls, Kailali, Karnali Province)

“We don’t have to worry about water availability and there is no problem to clean ourselves during menstruation.” (FGD, An adolescent girl, Out of School, Taplejung, Province 1)

“Water is available now and there are good facilities. We can get water in our homes now, because of which maintaining hygiene and cleaning has become very easy. My mother also always tells me to clean myself so compared to our past, now it is easy. People usually don’t pay attention to their cleanliness and are dirty because of which their health is also affected. For us, it is very good now.” (FGD, An adolescent girl, Out of School, Nuwakot, Bagmati Province)

“Yes, we have sufficient water available at home and in school.” (FGD, An adolescent girl, In School, Gulmi, Lumbini)

“Yes, there are a lot of hurdles. We don't have enough water during winter sometimes. It makes it difficult to manage menstruation. For example, we can't take a bath at the end of menstruation and that feels unhygienic. Moreover, everyone wants hot water to take a bath in winters but we aren't getting even cold water. Sometimes things like this happen. (IDI, An adolescent girl with disability, Palpa, Lumbini)”

“No, we have to carry water from the tap to the toilet.” (FGD, Out of School, Rupandehi, An adolescent Girls, Lumbini)

“Water supply in or near the toilet would be great.” (FGD, Adolescent girl, Out of School, Morang, Province 1)

“At school, sometimes it (water) comes from the tap, otherwise we have to manage by ourselves.” (FGD, An adolescent girl, In School, Udayapur, Province 2)

“I wish the water tap to be nearby. I wish for help from others in times of need. When I cannot, I wish others could help in washing using soap and water.” (FGD, An adolescent girl, Out of School, Accham, Karnali Province)

“For my stomach pain, I drink lukewarm water and take rest.” (IDI, Bara, An adolescent Girls, Province 2)

“I drink hot water and sleep. I can't just get up otherwise.” (FGD, An adolescent girl, In School, Lalitpur, Bagmati Province)

“My stomach was hurting and I slept. My mother came to know about my condition so she prepared hot water and clothes for me.” (FGD, An adolescent girl, In School, Rukum, Karnali Province)

“They don't allow watering plants during menstruation. They say that it would kill the plants. (IDI, An adolescent girl with disability, Sakhuwasabha, Province 1)

“I do not get to drink enough water when I am alone in the house during my period.” (FGD, An adolescent girl, In School, Chitwan, Bagmati Province)

“In such a period, they need to depend on others for drinking water. They are not allowed to touch taps. How can cleanliness be maintained when they have to beg for drinking water? Cleanliness becomes a critical problem.” (KII, Kailali, Community Leader, Sudurpashchim, Province)

“Others are fine, we just have the problem of toilet and water, nothing has been done.” (FGD, An adolescent girl, Out of School, Sindhupalchowk, Bagmati Province)

“If there are pads and water facilities in school, we would go to school during our period also. That is all we need.” (FGD, An adolescent girl, In School, Jajarkot, Karnali Province)

“On the third day of menstruation, we used to go to Bheri River, carrying all our touched things like bedsheets and clothes. But I wash the used piece of cloth in my own house because of the problem of water in the village.” (FGD, An adolescent girl, In School, Jajarkot, Karnali Province)

“We do have toilets in our school and home but there is no water facility. If our clothes get soaked, we put it in our pocket and bring it home (FGD, An adolescent girl, In School, Jajarkot, Karnali Province)

“We did not get proper facilities for washing clothes and drying them. Therefore, we have to go so far for water. Also, we have to go near the river to bathe.” (IDI, Jumla, Karnali Province)

“There should be the availability of places for drying washed clothes/pads under the sun.” (FGD, An adolescent girl, In-School, Kailali, Sudurpashchim Province)

“It would be good if there are good and clean spaces because, during the monsoon time, there are leeches.” (FGD, An adolescent girl, Out of School, Accham, Sudurpashchim Province)

“We don’t have proper facilities for washing clothes and drying them, so we have to go to a nearby river to take a bath, wash and dry the blood-stained cloth.” (IDI, An adolescent girl with disability, Jumla, Karnali Province)

“I was scared of drying my washed cloth out in the open. I used to wash the blood-stained cloth and dry it by covering it with another cloth in the sunlight.” (IDI, An adolescent girl with disability, Sankhuwasabha, Province 1)

“I dry it in the sun always, but in a place where no one can see.” (FGD, An adolescent girl, Out of School, Nuwakot, Bagmati Province)

“We have to dry the cloth in the sunlight after washing, but we hesitate to dry it outside.” (FGD, An adolescent girl, In School, Bara, Province 2)

“I feel awkward and embarrassed to let the cloth sun-dry outside in front of everyone. I prefer to keep them in my house's balcony since many people cannot see them and I put a thin cloth to cover it.” (IDI, An adolescent girl with disability, Palpa, Lumbini)

“I dry the piece of cloth in my room because our custom does not allow us to show such clothes to male members.” (FGD, An adolescent girl, Out of School, Parsa, Province 2)

“I dry the cloth in sunlight and in the place where other clothes are dried as well.” (FGD, An adolescent girl, Out of School, Rupandehi, Lumbini)

“I always clean the cloth properly and hang it outside in the sun to dry.” (FGD, An adolescent girl, Out of School, Nuwakot, Province)

“When the pain becomes unbearable during menstruation, that’s when some people say that it is because of black magic and ask me whether or not I had kept the cloth at a safe place. Sometimes I doubt the same too.” (FGD, An adolescent girl, Out of School, Udayapur, An Adolescence Girl, Province 1)

take them out and dry openly.” (FGD, An adolescent girl, Out of School, Parsa, Province 2)

3.3 Disposal of menstrual management materials

“I know that it is not good to throw it away at random places but there is no proper place to dispose of it. If anyone sees us, we get scolded and they would know that we are menstruating. That’s why we throw away used pads in the places where people can’t reach and see.” (FGD, An adolescent girl, Out of School, Jajarkot, Sudurpashchim Province)

“In the hostel, I throw them in the dustbin. I feel tensed when it comes to disposal issues at home, and sometimes it doesn't get burnt well so I feel confused while I have to dispose the used pads. I think better management of these needs to be made by the concerned authority.” (IDI, An adolescent girl with disability, Palpa, Gandaki Province)

“Dustbin is not available all the time. I collect the entire used pad and I prefer burying sometimes I also burn it according to the situation. Also, I use to dispose them at the riverside by burning” (IDI, An adolescent girl with disability, Bara, Province 2)

“I collect all used pads in one place and burn them.” (FGD, An adolescent girl, In School, Chitwan, Bagmati Province)

“I usually put used pad in plastic and bury in a pit which is near the house or I used to cover the pads with soil” (FGD, An adolescent girl, Out of School, Udayapur, Province 1)

“I do use sanitary pads. It is very easy to use. I can use it at home and even when I am not at home. I can also dispose it anywhere. That way, I don’t need to carry it back home. Sometimes I search for places where no one goes or somewhere everyone is throwing their garbage. I never dispose of the pad near my house.” (FDG, An adolescent girl, Out of School, Nuwakot, Bagmati Province).

“I go to a river which is far from my house to take a bath. I then throw the pads in the river.” (FGD, An adolescent girl, Out of School, Accham, Sudurpashchim Province)

“We dispose of our pads in ponds, rivers, and sewage, etc.” (FGD, An adolescent girl, Out of School, Bara, Province 2)

“We use to throw the pads where there are a lot of trees and plants.” (FGD, An adolescent girl, Out of School, Udayapur, Province 1)

“We use to wrap a sanitary pad with plastic and throw it in an open space.” (FGD, An adolescent girl, Out of School, Nawalpur, Gandaki Province)

“I dispose the pad by tearing it apart and flushing it in the toilet” (FGD, An adolescent girl, Out of School, Morang, Province 1)

“There was no dustbin in school. We disposed the pad in a hole located in one corner of the toilet.” (IDI, An adolescent girl with disability, Sakhuwashaba, Province 1)

“If my used cloth pads get soaked, I put it in my pocket and bring it home. I also wear it until it is worn out or if it’s no longer in use, I burn it too and sometimes I throw it in the river” (FGD, An adolescent girl Out of School, Jajarkot, Karnali Province)

“Some people say that clothes should be hidden in a safe place otherwise black magic will affect menstruating girls”. (FGD, An adolescent girl, Out of School, Udayapur Province 1)

“I throw the used pad in the toilet or burn or dispose it in the dump. I don’t have any problem regarding pad disposal.” (IDI, An adolescent girl with disability, Mahottari, Province 2)

“I throw pads in the dustbin and dispose it in the garbage.” (FGD, An adolescent girl, Dailekh, Karnali Province)

“At least, if there would have been a specific place to dispose used pads/clothes, it would be easier for us in our daily life.” (FGD, An adolescent girl, In School, Sudurpashchim Province)

3.4 Dysmenorrhea and management

“In school, teachers provide medicines for stomach cramps.” (FGD, An adolescent girl, Out of School, Province 2)

“We don’t have much of a problem in accessing the health service.” (FGD, An adolescent girl, Out of School, Taplejung, Province 1)

“If my stomach hurts, I go to the health post and take medicine.” (FGD, An adolescent girl, In School, West Rukum, Karnali Province)

“It takes one and a half hours for me to reach the nearest health post.” (FGD, An adolescent girl, In School, Chitwan, Bagmati Province)

“Health post is near but no medicine is available.” (FGD, An adolescent girl, In School, Parbat, Gandaki Province)

“Even when I take medicine for stomach ache, my parents think that I’m pregnant.” (FGD, An adolescent girl, Out of School, Jajarkot, Karnali Province)

“There should be the availability of medicine at school for stomach cramps and body pain.” (FGD, An adolescent girl, In School, Parbat, Gandaki Province)

“Medicines for stomach cramps during menstruation should be freely distributed through government health facilities.” (FGD, An adolescent girl, In School, Tanahun, Gandaki Province)

“I have unbearable cramps that leave me unable to stand up for three days during menstruation.” (FGD, An adolescent girl, Out of School, Udayapur, Province 1)

“I used to go to school via bicycle. Due to heavy bleeding, riding bicycles is hard for me, so I usually can’t attend school at the time of menstruation.” (FGD, An adolescent girl, In School, Sarlahi, Province 2)

“Stomach pain, body pain occurs during menstruation. While carrying heavy loads, walking and milling rice, heavy bleeding occurs but we are unable to change pads.” (FGD, An adolescent girl, Out of School, Achham, Sudurpashchim Province)

“It’s difficult to work everywhere and I feel my uterus is going to fall because of pain in my lower abdomen.” (FGD, An adolescent girl, Out of School, Sindhupalchowk, Bagmati Province)

“I experience less hunger, stomach cramp, vomiting during my periods. I feel irritated.” (FGD, An adolescent girl, In School, Chitwan, Bagmati Province)

“In my past menstruation, there was stomach pain, back pain, laziness and loss of appetite.” (FGD, An adolescent girl, Out of School, Jumla, Karnali Province)

“During menstruation, I have always suffered from stomach cramps. So I feel it would be better if menstruation stops because I can't even walk during menstruation time.” (IDI, An adolescent girl with disability, Kaski, Gandaki Province)

“The psychological problems like the stress of blood leaking and staining my college uniform are constant and I undergo awkwardness when others see me. I also feel bored and angry around people all the time so I feel like why are these people walking, talking, or making such noises. I get annoyed by all these things.” (IDI, An adolescent girl with visual impairment, Palpa, Gandaki Province)

“During menstruation, I suffer from stomach cramps, anger, and dizziness.” (FGD, An adolescent girl, In School, Chitwan, Bagmati Province)

“Restrictions are irritating. I feel irritation and aggression towards cultural restriction.” (FGD, An adolescent girl, Out of School, Taplejung, Province 1)

“I feel very irritated during my periods and sometimes I have fights with my sister due to that.” (IDI, An adolescent girl, with disability, Bara, Province 2)

“I feel irritated while other people talk to me during menstruation.” (FGD, An adolescent girl, In School, Baitadi, Sudurpashchim Province)

“I suffer from breast pain so badly and it feels like its heavier than normal times.” (FGD, An adolescent girl, In School, Udayapur, Province 1)

“I feel lazy, difficult, and uneasy. I don’t like to do any sorts of activities. I have ache in my whole body.” (FGD, An adolescent girl, Out of School, Rupandehi, Gandaki Province)

“Whenever the date approaches or menses are near, I feel worried. I worry a lot.” (IDI, An adolescent girl, with disability, Kathmandu, Bagmati Province)

“I feel dirty and foul-smelling due to bleeding.” (FGD, An adolescent girl, In School, Parbat, Gandaki Province)

“I get mood swings, irritation, and craving for tangy food just before and during every period but we aren’t allowed to go to the kitchen and have food as we wish. It depresses me.” (IDI, An adolescent girl with disability, Panchthar, Province 1)

“I don’t attend my class for 2-3 days because of my stomach cramps during menstruation. Hence, it affects my studies.” (FGD, An adolescent girl, In School, Chitwan, Bagmati Province)

“I miss many of my school days. I used to have bad abdominal cramps and heavy bleeding due to which I can’t go to school.” (FGD, An adolescent girl, In School, Dhanusa, Province 2)

“I leave school whenever I feel extreme stomach pain during my periods. If there’s no pain, I feel easy to work and read. (FGD, An adolescent girl, Out of School, Dang, Lumbini)

“Absenteeism of adolescent girls is seen in our community due to menstruation.” (IDI, Chairperson of Mother Group, Bara, Province 2)

“I have to take leave for one or two days during my periods.”(IDI, An adolescent girl with disability, Banke, Lumbini)

“I don’t come to school for 3-4 days during my menstruation.”(FGD, An adolescent girl, In School, Chitwan, Bagmati Province)

“Usually, we do not attend school during menstruation.” (FGD, An adolescent girl, In School, Baitadi, Sudurpashchim Province)

“I feel so weak due to heavy bleeding and also feel worried about what happens if somebody sees me in such a condition especially in school.”(FGD, An adolescent girl, In School, Parbat, Gandaki Province)

“Yes, menstruation affects the school days, and sometimes if we get bloodstains due to leakage on our clothes, we need to leave early as well.” (IDI, An adolescent girl with disability, Palpa, Lumbini)

“First of all, the boys should be scolded. They wait for us to get a period just to tease us. You should also give them a class on menstruation. Some of us who can fight back deal with the boys. Some of us who don’t speak, just sit on the bench from morning to evening until the bell rings and go home.” (FGD, An adolescent girls, In School, Rukum, Karnali Province)

“My friends feared to return home from school because of the bloodstain on their clothes. So, we used to take off our jacket and give it to our friends to cover the stain. Boys tease girls when things like this happen in school.” (IDI, An adolescent girl with disability, Sankhuwasabha, Province 1)

“I am ready to lose my life but not school. I go to school even if the pain is worse during menstruation.”(FGD, An adolescent Girl, Out of School, Jajarkot, Karnali Province)

“I am unable to concentrate on my studies and I also don’t feel like studying during my menstrual periods but I have rarely left school on those days.” (FGD, An adolescent Girl, In School, Jhapa, Province 1)

“I do not face much difficulty going to school during my periods. If I face some discomfort and pain during menstruation, I take medicine but do not miss my school.” (FGD, An adolescent Girl, In School, Chitwan, Bagmati Province)

“Whatever we face, we have to bear it. So, we cannot miss our school and we also have to do household chores during menstrual periods.” (FGD, An adolescent Girl, In School, Kailali, Sudurpashchim Province)

“We cannot attend school regularly when we are menstruating due to the construction work of temples at the roadside on the way to our school.”(FGD, An adolescent Girl, In School, Baitadi, Sudurpashchim Province)

“We need to walk in a different path than usual when we are menstruating and it is difficult for us to go to school on a different road.” (FGD, An adolescent Girl, Out of School, Bajhang, Sudurpashchim Province)

"I couldn't attend a rally programme conducted by the school once as I was having my menstruation."(FGD, An adolescent Girl, In School, Jhapa, Province 1)

"We experienced discomforts while playing sports in the school during menstruation."(FGD, An adolescent Girl, In School, Jhapa, Province 1)

“Contrary to all, I feel fresher and more active to play and run during menstruation.” (FGD, An adolescent Girl, In School, Parbat, Gandaki Province)

“Carrying woods from the forest was difficult during menstruation. Because of the stomach ache, I couldn't go to the field for work many times in the past.” (FGD, An adolescent Girl, Out of School, Parbat, Gandaki Province)

Of course, it is difficult to work, I have stomach ache and can't do any activities during menstruation.” (FGD, An adolescent Girl, Out of School, Rupandehi, Lumbini)

“I am unable to do regular home activity during my menses.” (IDI, An adolescent Girl, Tanahun, Gandaki Province)

“I cannot work in the field when I am menstruating.” (FGD, An adolescent Girl, Out of School, Bajhang, Sudurpashchim Province)

“We wish that during our menses we would not have to do any work at all. We wish no one would order us to do anything. We wish we wouldn't have to work at all.” (FGD, An adolescent Girl, Out of School, Nuwakot, Bagmati Province)

“Even when we are having our periods, we need to go outside or work in the fields which includes cutting grass and carrying firewoods. We also have to bring water ourselves for bathing. During Poush and Magh (January and February), we are not allowed to enter the house so we need to burn firewood outside to keep us warm. So, we don’t get to relax and rest during our menstruation.” (FGD, An adolescent Girl, Out of school, Jajarkot, Karnali Province)

“I do nothing to manage pain because of menstruation as I have to do all the work myself.” (FGD, An adolescent Girl, Out of School, Rupandehi, Lumbini)

“Even when we are having our periods we need to go outside or at fieldwork which includes cutting the grass and carrying firewood.” (FGD, An adolescent Girl, Out of School, Jajarkot, Karnali Province)

“We cannot do indoor work. We have to harvest crops during the time of harvesting even if we are menstruating. So, we work if there is any outdoor work during our menstruation.” (FGD, An adolescent Girl, Out of School, Jumla, Karnali Province)

“I feel stressed when the pad creates uneasiness and it feels uncomfortable during work. I worry as it might cause leakage and fall off.” (FGD, An adolescent Girl, Out of School, Rupandehi, Lumbini)

“I have mood swings and don't like to talk or work.” (IDI, An adolescent Girl with disability, Physically Impaired, Sankhuwasabha, Province 1)

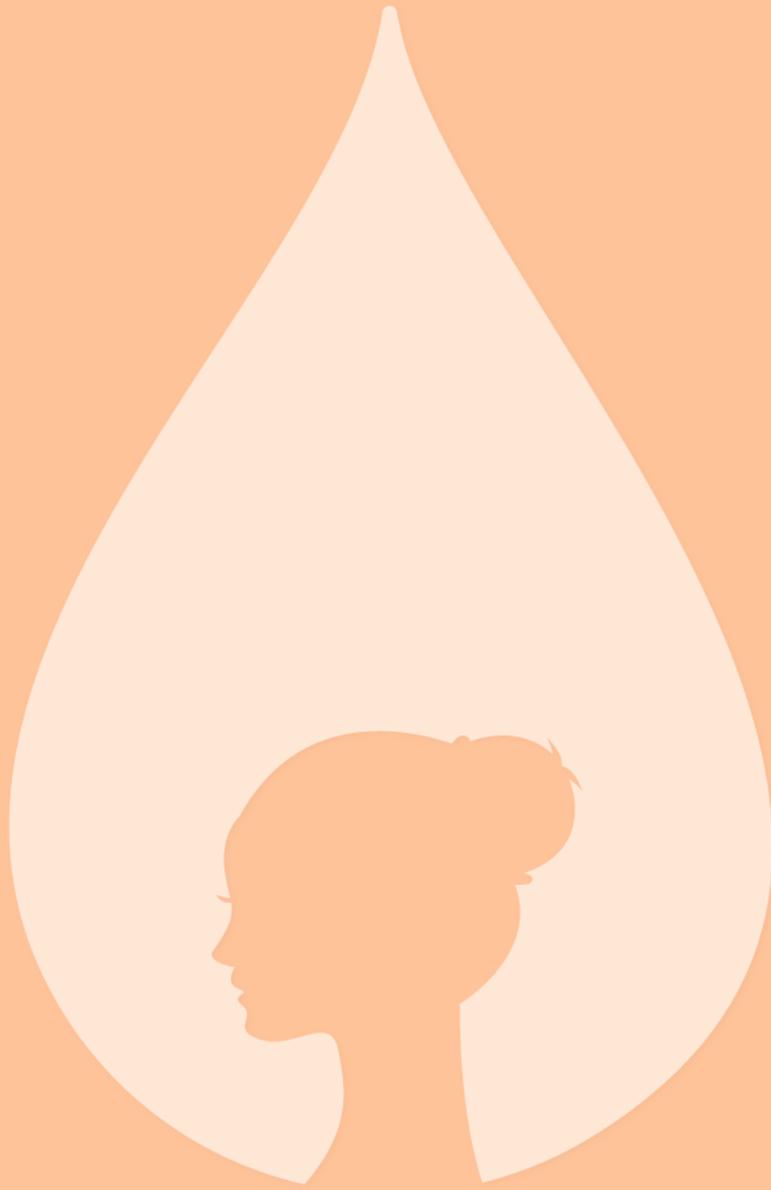
“It is easy in school but it is quite difficult to work during periods. I feel lazy when I menstruate. We have to do work such as household work like washing utensils and collecting wood.” (FGD, An adolescent Girl, Out of School, Jumla, Karnali Province)

“Menstruation does not affect my educational activities. I regularly go to school.” (FGD, An adolescent Girl, In School, Chitwan, Bagmati Province)

“I regularly go to school during the menstrual period. It does not affect my school days.” (FGD, An adolescent Girl, In School, Parbat, Gandaki Province)

“Menstruation has not affected any of my work so I work like other normal days even if I am having periods.” (FGD, An adolescent Girl, In School, Parbat, Gandaki Province)

"I have missed my school days a lot due to my menstruation however it hasn't affected my working time at home." (IDI, An adolescent Girl, Panchthar, Province 1)



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