

# Problems and Practice of Management on Menstruation by Adolescents Girls of Basic Schools of Chitwan, Nepal

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## Abstract

Managing menstruation in a hygienic way is a challenge in most of the low and middle-income countries (LMIC) including Nepal, where normal and natural physiological process of menstruation is considered as girls' problem which is viewed as sinful, unholy and matter of shame. This paper explores the current practice and existing difficulties that adolescents girls encounter hygienic management of menstruation (MHM) especially during school days. The study was conducted on five purposively selected community schools of Chitwan district. The study adopted Participatory Action Research (PAR) as an approach, that is encapsulated with mixed method research design. For qualitative information observation, focus group discussions (FGD) and field notes were used, whereas for quantitative data self-administrative questionnaires were used. Quantitative information was collected from 205 girls students who were present at schools on the day of data collection. The finding shows that majority of the girls (93.7%) who encounter hygienic management of menstruation were of 10-14 years old age, whereas nearly one third of them were (29%) from grade eight. Similarly, among the total 205 girls, only 79 girls have already started their menstruation; among those who have started menstruation majority (78%) had heard about menstruation form their mothers. Likewise, 35% girls used homemade cotton pads and 40.5% of them changed pad three times a day. During FGD, adolescents girls shared that lack of water and soap in toilets, stress and lack of concentration during menstruation are the major difficulties which they encounter during days of menstruation. They suggested the concerned authorities to manage pad bank, make soap and water available, and develop skills for proper disposing of used sanitary pads for MHM at schools.

Keywords: Adolescents, menstruation hygiene management, School

## Introduction

Managing menstruation in a hygienic way is a challenge in most of the LMIC (Sommer et al., 2016) including Nepal, where normal and natural physiological process of menstruation is considered as girls' problem and view as a sinful, unholy and matter of shame (Crawford et al., 2014). Furthermore, lack of access to affordable menstrual materials, lack of improved sanitation facilities, soap, water, and private place to change pads are facilities related problems that come hindering the hygienic management of menstrual (MHM) (Dhakal et al., 2018). Similarly, little, inaccurate or incomplete knowledge about menstruation, very less or no knowledge about reproductive tract infections, not prepared for menstruation further acts as an obstacle for better MHM (Kaur et al., 2018). Thus to address those revealed problems

regarding MHM, government of Nepal (GON) has started different awareness campaign programs, sanitary pad management procedure, 2076 and even brought the provision of providing free sanitary pads in schools. Furthermore, in 2017, Government of Nepal passed a law punishing people who force women into exile during menstruating with up to three months in jail or a fine of 3,000 Nepalese rupees. Despite national and international initiation and intervention for MHM, still 15 to 22% of girls missed schools during the days of menstruation (Dhakal et al., 2018); less than half (48.1%) of the girls have appropriate knowledge about menstruation (Baumann et al., 2019) and they experience different forms of restrictions during the days of their period (Sapkota et al., 2013). The practice and perception of menstruation is different in culture and context of Nepal, the practice of restriction is varied from urban to rural and different ethnic groups (Ranabhat et al., 2015). In this context, this paper explores the current practice and the problems that adolescents girls are encountering for MHM in the schools of Chitwan that come under semi-urban area and examines how their problems are different from rest of the others. The findings of the study will help in designing the context based MHM program targeted for adolescents of Chitwan district in contrast to blanket approach that has been followed for MHM.

### **Methods**

The study was conducted on five purposively selected community schools of Chitwan district with the support of Rupantaran Project. The project (2016-2021) focuses on transformation of the quality of teaching and learning at the basic education level in Nepal, that offers a scholarship for PhD students for their academic capacity building jointly implemented by three universities: Tribhuvan University, Kathmandu University, Nepal and Norwegian University of Life Sciences, Norway. The project focuses on different issues on school education including menstrual hygiene. This study adopted Participatory Action Research (PAR) as an approach that was encapsulated with the mixed method research design, where equal weightage was given to qualitative and quantitative information. For the quantitative data, self-administrative questions were used whereas for qualitative information observation, focus group discussions (FGD) and field notes from the researchers were used. The results were generated by triangulation of both data. For quantitative data, SPSS version 22 was used for analysis, whereas for qualitative data thematic analysis was adopted. For the quantitative data collection all the students from grade four to eight who were present at the school on the day of data collection were included, whereas for the qualitative information, series of FGD and observation were done. There were altogether 205 girls students involved in quantitative data collection procedure among whom only 79 girls had experienced menstruation. So, specific information related to menstruation was elicited from the girls who had already started menstruation. Both qualitative and quantitative questions were pre-tested for reliability before actual data collection. Furthermore, the research is ethically approved by NHRC (Nepal Health Research Council), and separate written consent from the teacher and verbal consent from the parents and students were taken.

## Results

The results section is presented in a threefold subtitles, firstly socio-demographics of the girls students, then knowledge of menstruation and practice, and finally use of pads during menstruation and study variables associated.

### Socio-demographics of Girls Students

This section deals with girls students' socio-demographic information such as age, grade, religion, houses, and caste groups. The data in table 1 below shows that out of 205 girls, the majority of students (83%) belonged to the age category 10 -14 years. Similarly, nearly one third (29.3%) were from grade eight, which was followed by grade seven (26.3%). Three quarters (75.1%) belonged to the Hindu religion and nearly three fifths (61.5%) lived in concrete houses. In the same line, four in ten (40.5%) belonged to disadvantaged Janajati groups, followed by Dalits (22.4%).

Table 1: Socio- demographic information of girls' students

Characteristics	Number (N= 205)	Percentage
<b>Age</b>		
Below 9	22	10.7
10-14	170	83.0
15 and above	13	6.3
<b>Grade</b>		
Four	25	12.2
Five	22	10.7
Six	44	21.5
Seven	54	26.3
Eight	60	29.3
<b>Religion</b>		
Hindu	154	75.1
Buddha	35	17.1
Christian	16	7.8
<b>House type</b>		
Non-concrete	79	38.5
Concrete	126	61.5
<b>Caste groups</b>		
Dalit	46	22.4
Disadvantaged Janajati	83	40.5
Disadvantaged non-dalit	8	3.9
Relatively Advantaged Janajati	28	13.7
Upper caste	40	19.5

The above data gives the glimpses of the character of the participants based on which further analysis has been done.

### Knowledge of Menstruation and Practices

This section shows the concern of the girls students' knowledge related to menstruation and practices. Basically, it deals with the girls' first time information about menstruation, types of pads used during it, change of pads in a day, and at schools and its disposal, and many others. The data in table 2 below show the data related to menstruation, which was asked to girls students. The majority of the girls (78.5%) had ever heard about menstruation from their

mothers, nearly one fifth (17.7%) from sisters, and very less (3.8 %) from the teachers. Nearly two-thirds (65.8%) shared that they buy and use sanitary pads from the market as an absorbent for blood. Four out of ten (40.5%) girls changed pads three times a day which was double (20.2%) to those who changed pads once a day. Overwhelmingly, 81 per cent girls change pads at schools, and considerable number of the girls use dustbins to dispose the used pads. The majority (83.5%) of students agreed that they have a safe place or separate room to change pads at schools.

Table 2: Knowledge and practice related to menstruation

Variables	Number	Percentage
<b>First time information about menstruation (n= 79)</b>		
Mother	62	78.5
Sister	14	17.7
Teacher	3	3.8
<b>Types of pads used during menstruation</b>		
Re use homemade pad	27	34.2
Sanitary pads from market	52	65.8
<b>Changing pads on a day</b>		
Once a day	16	20.2
Twice a day	30	38.0
Thrice a day	32	40.5
None	1	1.3
<b>Change of pad at school</b>		
Yes	64	81.0
No	15	19.0
<b>Dispose of Sanitary pad at school ( n=64)</b>		
Disposing in toilet pan	9	14.1
Pad on collecting chamber	19	29.7
Openly on corner of toilet	36	56.2
<b>Having safe place to change pad in school (n= 79)</b>		
Yes	66	83.5
No	13	16.5
<b>Absent at school during menstruation</b>		
No	50	63.3
Yes	29	36.7
<b>Number of days absent during menstruation (n=29)</b>		
One day	23	79.3
Two day	5	17.2
Three day	1	3.5
<b>Cleaning genital after changing pads</b>		
No	9	31.0
Yes	20	69.0
<b>Materials used in cleaning genital</b>		
Soap water	6	20.7
Water only	23	79.3
<b>Having bath during menstruation</b>		
No	3	10.3
Yes	26	89.7

Mother is the main source of information about menstruation for girls. The students (36.7 %) reported that they missed schools during menstruation. The study shows that nearly four fifths (79.3%) missed the school for a day, followed by 17.2 % two days.

The figure 1 below explains the reasons for missing school during menstruation by adolescents girls.

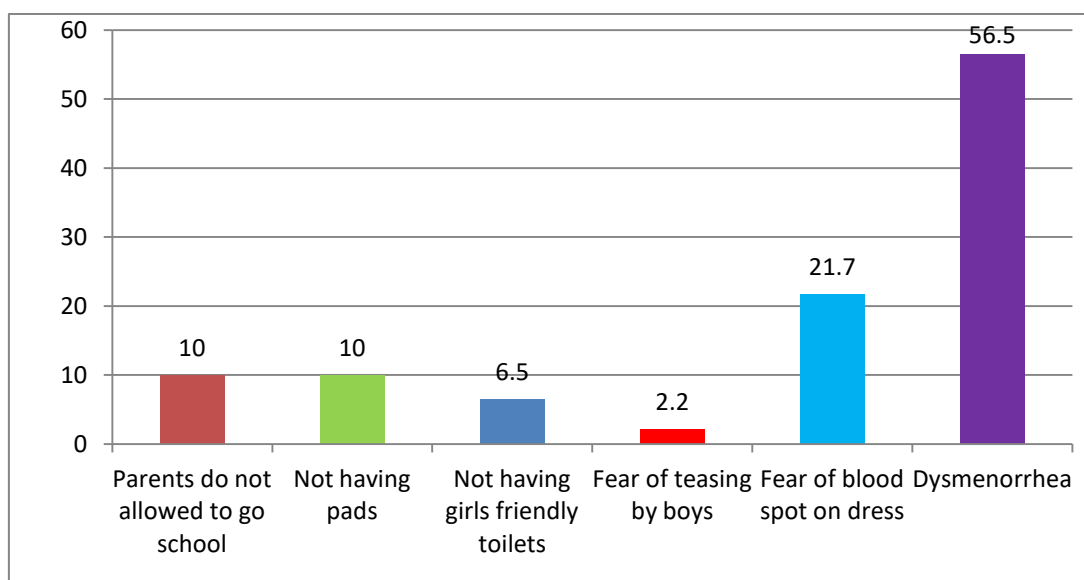


Figure 1: Reasons for not going to school during menstruation

More than fifty percent (56.5 %) of the girls missed their school because of pain during periods, followed by 21.7% due to fear of blood spot on their school uniforms. If we could manage basic facilities at school like pain killer, pads in school, we can reduce the number of absenteeism at school during menstruation.

The Focus Group Discussion (FGD) was also conducted to explore the knowledge and current practice of menstruation management by adolescents girls at school. During FGD one girl participant shared that

*We have separate toilets for girls, but the toilet does not have sufficient water. To be honest, I haven't seen soap in our toilet yet. The bins are full of pads.....because of that girls' toilets are very smelly...we need to cover our nose while entering the toilets. (FGD, Participant 8)*

Adding to her another participant shared,

*I was terrified, when I saw blood coming out from my vagina. I thought I had some major disease and would die soon, ... at that time there was no one at home ...I cried for several hours (FGD, participant 6)*

*It's difficult to concentrate in class while having period, I am much worried with the blood spot on my dress, and sometimes, boys tease us by saying ...dirty girls....I feel so bad being women especially when I am not allowed to enter the kitchen and not allowed to any social function on these days...I wish, I would I never have periods. (FGD, participant 7)*

The overwhelming number of girls responding to the self-administered survey mentioned that they clean genitals during menstruation. Meanwhile, in FGD they shared that they knew they needed to clean the genitals during the period, but the school lacks clean water. As a result, they do not clean genitals at the school. However, in-home, they clean genitals after changing pads.

*Sometimes, when we get menstruation in school, we take leave from school and go back to home...sometimes, teachers scold us saying we are staging a drama.....by saying we are having pain....even sometimes we need to buy pads from the money we brought for our snacks, and have to stay in hunger whole day. (FGD, 7 class girl).*

Both qualitative and quantitative data show that managing menstruation at school is full of challenge due to unavailability of basic facilities like water, pads, soaps, etc. at school.

### Study Variables Association

This section is on association between types of pads and study variables that follow. As regards this, table 3 below discusses the economic status of students which matters in their choice of pads. The 51 % girls from low-socio economic backgrounds were found to be using re-usable pads. There is no much difference in the use of types of pads based on religions and castes/ethnicity. Most girls (71.9%) using commercial pads were found changing pads frequently compared to those who used homemade pads. This finding is contradicted with the qualitative findings, where the students shared that to save the money, they have been using commercial pads for a long time.

*Umm...to save money some of my friends do not change pads commercial pad for a long time, uumm... like if they use a pad on 4<sup>th</sup> day when they have scanty bleeding, they only throw it on either 5<sup>th</sup> or 6<sup>th</sup> day. (FGD, a participant from class 8).*

Table 3: Association between type of pad and study variables

Variables	Use of homemade pads	Use of commercial pads	Chi-sq.
<b>House *</b>			
Non-concrete	51.9	48.1	0.33
Concrete	27.8	72.2	
<b>Religion *</b>			
Hindu	37	63.0	
Non-Hindu	33	66.7	0.74
<b>Caste*</b>			
Dalit	35.7	64.3	
Non- Dalit	34.8	65.2	0.95
<b>Type of family *</b>			
Joint family	42.9	57.1	0.33
Nuclear	32.1	67.9	
<b>Changing pads during menstruation *</b>			
Once a day	64.7	35.3	0.17
Twice a day	25.8	74.2	
Thrice a day	28.1	71.9	
<b>Changing genital after changing pads *</b>			
Yes	33.8	66.2	0.50
No	50	50	

(Note\*: None of the variables analyzed here were found statistically significant)

The data show that the use of home made pads is not associated to the religion, caste and type of family. However, in FGD adolescents girls shared that they do not change commercial pads frequently so that they could save a little money for snacks, no matter whether they get fully soaked.

In a focused group discussion, the girls shared that they use home-made pads when they are at home and use commercial pads at school because it is difficult for them to manage homemade pads at school. Another girl added that sometimes they feel awkward when boys find cotton pads in their bags or sometimes cloths (homemade pads) come out of bags, while they take out a book from a bag. Similarly, during the workshop conducted to explore the problems related to menstruation and probable solutions, most of the adolescent girls shared that lack of water and soap, disposing used sanitary pads everywhere, taking stress and lack of concentration on study during menstruation, and missing the classes are the reasons that have forced them to stay in hunger whole day. Moreover, they need to spend their snacks money in buying pads which is the saddest aspect of the problems identified.

*Every girls have their period, so all should understand that, they should have stress-free and joyful menstruation, because its physiological change (FGD, a participant from class 8)*

In the meantime, while they identified their problems by themselves, they have also come up with multiple solutions for solving those problems like managing pad banks at school, an awareness session on menstruation at school, teaching skills like making environment friendly home-made pads, and proper way of disposing used sanitary pads.

### **Discussion**

This study reveals that in context of Nepal, family members are the primary source of information about menstruation. A study by Parajuli et al. (2016) found that more than half of the respondents (53.9%) were taught about menstruation by their mothers, which was similar to our finding, where the main source of an informant for adolescents girls were mothers which is even similar to the study done in India (Thakre et al., 2011). In addition to that, a study done in three districts of Nepal namely Achham, Bajura and Parsa in schools shows that eight percent of the girls received information about menstruation from teachers, which is even lesser by 1.5% in this study. While having FGD from the participants, the researcher reflected that the students talk very less with their teachers about menstruation; they prefer talking with their friends, that might be because of existing structural differences and lack of friendly relation between teachers and students. A study by Crawford et al. 2014 on managing menstruation in Nepal reported that little preparation about menarche caused distress, and were subjected to ongoing stigmatization as menstruating women, which is relevant with the finding in this study, where the students during FGD mention how terrified they were during menstruation. Regarding the restriction based on caste and ethnicity, the adolescents girls still have a different type of restrictions during menstruation like not being allowed to cook food, not being allowed to visit holy places and sleep in own house during menarche (Parajuli et al., 2016), which was supportive to the present study as well, which was revealed by girls during

FGD. Nearly half (45.74%) of the girls of Nagpur found to be using old clothes as an absorbent which was slightly more (34.7) from this study. A study by Karki (2019) shows that 36.7% sometimes and 3.3% always missed the schools during menstruation, whereas in the present study, 36.7% girls missed the class. But the study by Oster & Thornton (2011) contradict with this the finding of this study which claims that menstruation has a very small impact on school attendance. The study estimates that the girls miss a total of 0.4 days in a 180 day school year. Furthermore, a study by Sivakami et al. (2019) showed the direct relation of education with menstruation which further indicated pain medication in school and use of disposable pads were associated with lower absenteeism and inadequate sanitary facilities with higher absenteeism during menstruation, whereas in this study as well painful menstruation is one of the significant causes of absenteeism at school. Similarly, the study by Baumann et al. (2019) showed that 59% of the adolescents girls had positive menstrual practices, like changing pads every four hourly, using soap, and taking nutritious diet during menstruation. Unlikely to this, in this study more than three fifth of the girls (69 %) clean genitals after changing pads and 89.7 % take bath during periods. Furthermore, Baumann et al. claimed that menstrual health programs may not be sufficient for improving menstrual knowledge and practices for all; this finding is supporting our study, where the students have indicated various reasons that need to be addressed separately.

### **Conclusion**

Restriction during periods, lack of facilities, and absenteeism during menstruation are some common problems that the adolescents girls from Chitwan face, which is similar to the problems faced by the girls from different parts of Nepal. Menstrual hygiene education, managing pads banks at school, proper ways of disposing used sanitary pads and provision of adequate sanitary facilities at school are some suggestions which the adolescents girls have identified that would help to improve their current practices for MHM. Furthermore, stress-free and joyful menstruation is the right of every female, irrespective of their culture, age and education.

### **Declarations**

#### **Ethics Approval and Consent to Participate**

The ethical approval for this study was obtained from Nepal Health Research Council. Informed consent of participants was taken from the students, school authorities and parents.

#### **Consent for Publication**

Consent for publication was received from school administration, teachers and parents, before submission of the manuscript.

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