Menstrual Hygiene Awareness and Practice Among School Going Girls in Tulsipur Sub-Metropolitan City of Dang

Sabitra Lahare
Assistant Lecturer
Rapti Babai Campus
Email : sabitralahare2417@gmail.com

Received Date : Dec. 09, 2025 Reviewed Date : Jan. 02, 2026 Accepted Date : Fab. 10, 2026

Abstract

Menstruation is a normal physiological process occurring in adolescent girls where by uterus sheds its blood and tissue through the vagina. Menstrual hygiene includes adolescent girls using hygienic menstrual management materials to absorb the flow, privacy for changing pad, soap and water to wash the body and access to facilities where used absorbent can be disposed of safely. This study aimed to find awareness and practice on menstrual hygiene among school girls in a urban municipality. A descriptive cross-sectional study was conducted with multistage sampling method among the government schools of Tulsipur Sub-Metropolitan city, Dang Nepal. Self-administered structure questionnaires were used to collect data from 327 school going girls of SSC level (Grade 8,9 and 10). The tool was confirmed by I-CVI and S-CVI (0.93) for awareness and practices (0.88). Descriptive and inferential statistics were used for data analysis in the SPSS 26. Average age of participants was age 14.70±1.21 years old. Majority (86.2 %) of the girls had good knowledge about menstrual hygiene with their mothers as predominant source of information (92.7 %). Nearly universal (95.4%) of the respondents practiced in the line of menstrual hygiene. Two third (66.4%) of the participants used both disposable pad and clean cloth pad while 28.3 percent used only disposable sanitary pad during their menstruation.

Keywords : Awareness, Menstrual hygiene, Practices, School going girls.

Introduction

Adolescent girls experience menstruation as a normal biological process, but in many societies it is shrouded in silence, myths and misconceptions. Adolescence is a fundamental life stage for building health promoting behavior conducive to lifelong well-being (World Health Organization,1994) Girls, in the absence of correct information pertaining to menstruation can experience fear, confusion and unhealthy practices.

The Tulsipur sub-metropolitan city is located at Dang district, where school attending girls have different socio-economic and cultural backgrounds. The degree of their awareness might depend also on the level of parental education, family discussion, and cultural beliefs as well access to hygienic materials . The United National Population Fund points out that access to accurate information and menstrual products is necessary in ensuring dignity and

health for adolescent girls. In most societies menstruation is a private or taboo subject which consequently leads to inhibition in open discussion and proper guidance (UNFPA, 2020).

Menstrual health and hygiene are closely connected to girls' education in school attendance. Research backed by UNESCO indicates that many girls' school resulting from menstruating as a result of absence due to lack of clean, private facilities or fear and pain from menstrual bleeding. Missing school during their periods can negatively impact both a student's grades and sense of self-worth. Girls may feel embarrassed to attend school during menstruation if the school does not have clean toilets, clean water and proper disposal options (UNESCO, 2019).

How menstruation is regarded and dealt with is also a product of cultural conventions and traditional ways. In many societies there are social constraints in place upon girls and menstrual period, which can hamper their mental and emotional health. Stigma and misconceptions around menstruation frequently cause shame and low self-esteem among teenage girls, according to the Water Aid. Promoting knowledge and positive attitudes with regard to menstruation will loosen unsound myths and encourage a production atmosphere (Water Aid, 2018).

Similarly, having access to safe water, sanitation and hygiene (WASH) facilities is a key factor for good menstrual hygiene management. The World Bank says that girls' health and attendance in schools are also significantly improved when water, sanitation and hygiene services at schools are better. When schools have private toilets, safe water and adequate disposal facilities, girls experience confidence and comfort in managing menstruation. Thus, identifying the current status will enable policy implementers to recognize what is already in place and what needs to be improved upon (World Bank, 2020).

Literature Review

Theoretical Review

The theoretical framework for MHM awareness and practice is largely grounded in health behavior theories and adolescent development theories. One significant theoretical framework is the Health Belief Model (HBM), which suggests that people are more likely to engage in health promoting behaviors if they perceive the negatives of bad behavior and positives of preventive action. When it comes to menstrual hygiene, girls are more likely i) use sanitary pads ii) keep themselves clean and iii) seek information if they know about the harmful consequences of loans for their health.

A similar theoretical framework in this context is Social Learning Theory (SCT), which asserts that social behaviors are learned through observation, interaction, and socially mediated influence. Adolescent school-going girls usually learn about menstruation from their mothers, sisters, friends and teachers. When the overall school environment encourages open conversation and positive attitudes, girls are inclined to make healthier choices. The

World Health Organization indicates that health education in adolescence contributes to the formation of healthy behavior for a lifetime (WHO, 2022).

Conceptual Review

Menstrual hygiene management (MHM) involves the use of clean materials to feel confident that you can absorb or collect menstrual blood, privacy to change and dispose the materials soiled with blood, access to soap and water so you can wash your body and options for adequate disposal. The United Nations Children's Fund (UNICEF) defines menstrual hygiene management as those relating to women's and girls' use of clean materials to absorb or collect blood, privacy to change them, and access to water and soap for washing (UNICEF, 2021). It needs the review of academic writings and references?

Empirical Review

A number of empirical studies have been done at the international and national level on knowledge and practice regarding menstrual hygiene among adolescent girls. In one study conducted by Water Aid, girls in developing countries were not already informed before experiencing menarche and often used traditional cloths because it was hard to reach sanitary pads (Water Aid, 2018). Awareness programmes were also reported to have increased hygienic practices significantly.

According to a World Bank study, inadequate menstrual hygiene management leads young girls to miss school. It was highlighted in the study that enhanced WASH facilities at school significantly cut down absenteeism and raise girls' confidence (World Bank, 2020).

In the South Asian scenario, there is empirical evidence to show that in-so-far as menstrual hygiene practices are concerned, SES (socio-economic status), mother's education and urban-rural differences plays robust effect. Other reports suggest that girls whose mothers have higher levels of education are more likely to be equipped with correct information and take up safe hygiene practices.

In Nepal, according to studies in various districts, although the awareness is progressing for the government and Non-Governmental Organizations (NGOs) interventions girls still suffer from problems such as lack of privacy at school, inadequate places for disposal, as well social barriers. According to the United Nations, menstrual health is still pervasive issue associated with gender equity and participation in education (United Nations, 2021).

But there is not enough research evidence on Tulsipur Sub-Metropolitan City, Dang. Studies are often at national or provincial level, and fail to explain local realities. Thus, it is very important to investigate the knowledge status on menstrual management, materials used for managing menses hygiene and problems experienced with they are in schools of study area.

The literature reviewed demonstrates that knowledge of menstrual hygiene, cultural beliefs, access to facilities and social support influence practice. Theoretical frameworks explain how beliefs, social learning influence behavior, conceptual definitions specify key variables and empirical studies report on what works, and what does not. Despite that the research activity was accessed at globe and national level, the attention on research is still at local level Tulsipur Sub-Metropolitan City, Dang. The present study attempts to fill that gap by exploring knowledge and practices of school-going girls in the area.

Statement of the problem

As per the findings of literature review, menstrual hygiene management has gained importance globally as an issue related to public health, education and gender equality. Internationally, the World Health Organization and the United Nations Children's Fund, in collaboration with United Nations Population Fund have produced guidelines, campaigns and school-based programmes to increase awareness about information of menstrual hygiene among adolescent girls. These programmes have focused on the need for correct information, access to sanitary items and better water, sanitation and hygiene (WASH) in schools.

At a national level in Nepal, both government and non-governmental organizations have implemented policies and programs to increase awareness about menstrual hygiene. Free sanitary pads in public schools, adolescent reproductive health education and community awareness interventions have been introduced in several districts. Studies conducted elsewhere in Nepal showed that school girls are increasingly becoming aware, and more and more girls switching from unhygienic materials to sanitary pads. These are important steps toward addressing menstrual hygiene issues.

Yet, notwithstanding these advancements, the literature also indicates a series of gaps and unresolved problems. First, the majority of studies are carried out at national or regional levels and few focus on particular local contexts like Tulsipur Sub-Metropolitan City, Dang. Hence, there is no local data to estimate the true magnitude of knowledge and practice for hygiene among school attending adolescent school-going girls in this region. What's been done gives us an idea, though not much of a detailed picture, of whether girls in Tulsipur are being provided with enough knowledge and support to practice healthy menstrual hygiene.

Objective of the study

The overall objective of the study is to assess the awareness and practice towards menstrual hygiene among school going girls in Tulsipur Sub-Metropolitan City, Dang. The specific objectives are as follows:

i. To assess the knowledge and awareness about menstruation & menstrual hygiene among school going girls.
ii. To observe the menstrual hygiene management practices among school going girls.

iii. To determine access to WASH facilities in schools.
iv. To ascertain the problems experienced by menstruating school going girls.

Methods and Data

A descriptive cross-sectional study design was used to evaluate knowledge and practices of menstrual hygiene among school-going girls in Tulsipur Sub-Metropolitan City, Dang. This design is also appropriate for studying a population in one time frame to estimate how often particular traits, risk factors or diseases occur. As such, the research was carried out in both government and private schools of city.

Study Population and Sample

The research participants for the study were 327 adolescent girls studying in grades 7,8 and 9 studying in selected schools who achieved menarche. A sample frame 20 schools (private and public) was developed. From this frame, 10 schools (five public and five private) were randomly selected using the method of lottery without replacement. Mentioned the name of the schools those are selected.

All adolescent girls that fulfilled the inclusion criteria were sampled in these schools and 300 of them constituted the study sample. This sample size was deemed to be sufficient to yield representative data for the research purposes, as well as feasible.

Data Collection Instrument

A researcher-designed, pilot tested self-administered structured questionnaire was used to collect the data from the study. The questionnaire consisted of three sections:

Demographic data: there are 16 items about age, school year, family and economic status.

Menstrual Hygiene Knowledge: Thirteen articles on knowledge related to menstruation, hygiene practices and menstrual health management.

Menstrual Hygiene Management Behaviors: 13 items included inquiring types of absorbent material and changing frequency, washing practices, and disposal methods.

The questionnaire was translated into Nepali, and then translated back into English by experts to maintain the authenticity and reliability. Content validity was retained by the Content Validity Index (CVI) which was determined by research advisors and experts. The Scale-CVI was 0.92 for awareness and 0.89 for practices; thus, content validity was strong. Internal consistency was calculated and Cronbach's alpha for awareness was 0.90 (unacceptable to excellent) while that for practices were as high as 0.91 (poor to excellent).

A pre-test was administered on 30 students from a school which is beyond the coverage of the sample selected to ensure clarity, detect ambiguity and carry out steady

changes. The survey was carried out for a month period from Shrawan 25 to Bhadra 20, 2081 B.S.

Data Collection Procedure

Permission and willingness to participate were obtained after the researcher met with school officials. The participants were given the questionnaire during class. Parental/guardian written consent and verbal assent was obtained from the students. Confidentiality of the contributors was guaranteed and code numbers instead of names appeared in the questionnaires to ensure anonymity. Participation was not obligatory and there were no consequences for students who did not participate.

Data Analysis

Data were collated and reviewed for completeness, consistency, accuracy prior to coding and entering into Statistical Package for Social Sciences (SPSS) version 26.

Socio demographic characteristics, awareness and practices were summarized using descriptive statistics (frequency, percentage, mean and standard deviation).

Inferential statistics (bivariate analysis including chi-square tests) to explore associations between knowledge, practices and socio-demographics.

Ethical Considerations

The IRC of the researcher's institution provided ethical approval for this study. Correspondence Similarly, the education wing of Tulsipur Sub-Metropolitan City and the headmasters of sampled schools were also sought official permission. The data collected were kept confidential and used for this research purpose only.

Results and Discussions

Presentation and discussion of results the study enrolled 327 school-going girls in grades 7, 8 and 9 of schools selected to investigate the findings. Descriptive and Only descriptive statistics (frequency, percentage, mean and standard deviation) were used to analyze the data. Were used to analyze the data, which is presented in tables with interpretations.

Socio-Demographic Characteristics of Girls

The average age of the study population was 14.7 ± 1.21 years. Over half (53.5%) identified as of Madhesi ethnicity and a third (33.3%) as Janajati; nearly all respondents were Hindu (96.3%). Most of the respondents (39.1%) were students of grade 10. Most (61.5%) participants belonged to nuclear families, and 26% lived in joint families.

Please put the table of socio-demographic characteristics

With regards to parental education, a quarter (24.2%) of mothers had primary school level of education and 26.9% of fathers were able to read and write. Figure 3 Types of employment Analysing the mothers' (n=402) occupational status, it was found that approximately half of them (46.8%) were housewives and one in every three (28.1%) engaged in farming. Occupation of fathers comprised farming (27.8%), business/self-employed (26.3%) and daily wage laborer (25.1%). The average age of menarche was 12.5 ± 0.91 years, which is similar to other studies in different parts of Nepal and India.

Table 1: Percent distribution of girls having Awareness on Menstrual Hygiene

Variables	N=327 (%)
Menstrual hygiene means keeping body clean, using clean pad, and disposing pad properly	261 (79.8)
Hygienic pad for menstruation	
- Reusable clean cloth pad only	36 (11.0)
- Disposable sanitary pad only	139 (42.5)
- Both reusable clean cloth pad and disposable pad	150 (45.9)
Pad should be changed every 4–6 hours	123 (37.6)
Appropriate method of disposing used pad	
- Wrap and throw in dustbin	119 (36.4)
- Bury	153 (46.8)
- Burn	12 (3.7)
Genitals should be cleaned after changing pad	322 (98.5)
Genitals should be cleaned from perineum to anus (n=322)	224 (69.5)
Water should be used to clean genitals after changing pad	175 (53.5)
Hand washing necessary after changing pad	326 (99.7)
Soap and water should be used for cleaning hands (n=326)	314 (96.3)
Bath should be taken daily during menstruation	314 (96.0)
There are undesirable consequences of poor menstrual hygiene	315 (96.3)
Consequences of poor menstrual hygiene (n=315)*	
- Foul smell	198 (60.6)
- Infection	148 (45.3)
- Itching	221 (67.6)
- Rashes	128 (39.1)

*Multiple responses

The table one need to reconstruct as per the percent and number different colums. First Colum is percent and second Colum is number. At the end of the table, one row for the total number.Table 1 revels that majority (79.8%) of the girls knew what is meant by menstrual hygiene (Figure 2). Nearly half - 45.9 percent of women said both disposable sanitary pads and clean cloth pads were hygienic, while 42.5 percent preferred disposable pads only. Only 37.6% of the participants were aware that they should change pads every 4–6 hourly. For disposal, 46.8% disposed used pads by burying and discarding them in

dustbins (36.4%). Nearly all the participants (98.5%) understood that it was needful to clean genitals while changing pads; and 69.5% of them followed the perineum-to-anus cleaning technique. Handwashing after changing pads was almost universal (99.7%), and 96% reported bathing on a daily basis during menstruation. The results of bad hygiene, including itching, odour and infection, were well known.

Menstrual Hygiene Practices

Table 2: Respondent's Practices on Menstrual Hygiene (n = 327)

Variables	n (%)
Type of pad used	
- Both sanitary pad and reusable clean cloth pad	217 (66.4)
- Disposable sanitary pad only	93 (28.4)
- Reusable clean cloth pad only	15 (4.6)
Cleaning of cloth pad (n=234)	Soap and water
Technique of drying cloth pad (n=234)	Direct sunlight
Proper disposal of used cloth pad (n=234)	
- Burn	17 (7.3)
- Wrap and throw in dustbin	44 (18.8)
- Bury	160 (68.4)
Proper disposal of used sanitary pad (n=310)	
- Wrap and throw in dustbin	106 (34.2)
- Burn	13 (4.2)
- Bury	141 (45.5)
Changing pad every 4–6 hours	161 (49.2)
Frequency of cleaning genitals	

Variables	n (%)
- Every time going to toilet	240 (73.4)
- While changing pad	83 (25.4)
Cleaning genitals from perineum to anus	264 (80.7)
Cleaning genitals with plain water after changing pad	205 (62.7)
Washing hands with soap and water after changing pad	276 (84.4)
Daily bathing during menstruation	315 (96.3)

Table 2 reveals that most respondents (66.4%) used disposable and cloth, while others (28.4%) used only disposables. The majority of women (86.3%) reported cleaning the pads with soap and water, while nearly two-thirds (64.9%) dried their pads in sunlight. 68.4% of cloth pads and 45.5% of sanitary pads were disposed off by burying. Approximately half of respondents (49.2%) replaced pads 4–6 hourly. The majority of the respondents practiced good genital hygiene and handwashing throughout their menstrual periods, with 96.3% indicating that they bathed daily.

Level of Awareness and Practice

Table 3: Level of Awareness and Practice on Menstrual Hygiene (n = 327)

Variables	n (%)
Level of Awareness	
Adequate awareness	282 (86.2)
Inadequate awareness	45 (13.8)
Level of Practice	
Appropriate practice	312 (95.4)
Inappropriate practice	15 (4.6)

Table 3 indicates that the majority of respondents (86.2%) had adequate awareness, and almost all (95.4%) practiced proper menstrual hygiene. This suggests a positive relationship between awareness and practice.

Table 4: Association Between Awareness and Practice(N=327)

Awareness Level	Inappropriate Practice n (%)	Appropriate Practice n (%)	χ^2	p-value
Inadequate	9 (20.0)	36 (80.0)	28.322	0.000
Adequate	6 (2.1)	276 (97.9)		

here is a statistically significant association between awareness and practice (p = 0.000), indicating that higher awareness leads to better menstrual hygiene practices.

Conclusion

The study also revealed that most of the school-going girls in Tulsipur Sub-Metropolitan City had good knowledge (86.2%) and proper menstrual hygiene practices (95.4%). The majority of participants used sanitary pads or a combination of sanitary pads and reusable clean cloths during menses. Most participants practiced personal hygiene, including washing the genital area, handwashing after changing pads, and bathing at least once a day during menstruation. Furthermore, a statistically significant association was reported between awareness and menstrual hygiene practices ($p < 0.001$), suggesting that with increased awareness the hygienic condition of adolescent girls also improves. Access to water and soap, parental education, and occupation of the respondents were socio-demographic factors that influenced awareness and practices. Although there was broadly good knowledge and practices, some limitations were still found and cultural barriers existed. It reinforces the importance of strengthening school-based health education, community awareness programs and access to menstrual hygiene facilities to further improve menstrual hygiene management among adolescent girls. This study findings feed into menstrual hygiene awareness and practice in Tulsipur, evidence to support school health programs, community awareness and policy modifications. Limitations include self-reporting, social desirability bias and purposeful selection of schools which may limit generalizability.

References

Poudel, J., & Khanal, D. (2026). *Menstrual hygiene awareness and practice among school-going girls in Tulsipur Sub-Metropolitan City, Dang* (Unpublished manuscript). Rapti Babai Campus, Dang, Nepal.

UNESCO. (2019). *Menstrual hygiene management in schools: Global education monitoring report*. https://www.unesco.org/en/education

UNFPA. (2020). *Adolescent reproductive health and menstrual hygiene management*. United Nations Population Fund. https://www.unfpa.org/resources

UNICEF. (2021). *Menstrual hygiene management*. https://www.unicef.org/wash/menstrual-hygiene-management

United Nations. (2021). *Menstrual health and gender equality: Policy brief*. https://www.un.org

WaterAid. (2018). *Menstrual hygiene management in South Asia: A review*. https://www.wateraid.org

World Bank. (2020). *Water, sanitation, and hygiene in schools: Improving health and education outcomes*. World Bank Publications. https://www.worldbank.org

World Health Organization. (2022). *Health education and adolescent development*. https://www.who.int/publications/i/item/health-education