



Menstrual Hygiene and Sanitation Practices Among Female College Students in Surkhet

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Article Info

Abstract

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Menstrual hygiene and sanitation practices embody the importance of menstrual hygiene and sanitation for the health and well-being of individuals who menstruate. Inadequate menstrual hygiene management can lead to health issues, social stigma, and absenteeism from work or school. The objective of this study is to examine the menstrual hygiene and sanitation practices to the help of supportive requirements of campus level girls students. Using quantitative and descriptive methods, the study surveyed 340 out of 2,294 bachelor-level female students at Surkhet Multiple Campus, selected through sample random sampling. Closed ended questionnaire was the tool of this study. The findings emphasize that menstrual hygiene and sanitation practices, along with supportive requirements, are crucial for enhancing menstrual health and overall well-being. When the symptoms of menstruation appear, the majority of respondents (91%) carry a menstrual pad, indicating that they are aware of their menstrual management and also (88%) claimed that both reusable cloth pad and sanitary pad is used for their menstrual hygiene management.

Keywords: Menstrual hygiene, sanitation practices, requirements, adequate knowledge

Background

Menstrual hygiene and sanitation practices are essential for maintaining health, dignity, and well-being among menstruating girls. A key priority for women and girls is to ensure they have the knowledge, facilities, and cultural support to manage menstruation hygienically and with dignity. (Thérèse & Maria, 2010). Menstruation is a normal process that requires facilities and good cleanliness to ensure optimal health. Knowledge, proper hygiene, and access to adequate water are necessary for managing menstruation effectively. Proper menstrual hygiene involves the regular changing of sanitary products, such as pads, tampons, or menstrual cups, and ensuring these products are disposed of or cleaned appropriately to prevent infections. Sanitation practices include maintaining cleanliness by washing hands before and after handling menstrual products and having access to clean water and private facilities for changing and disposal. Providing these resources is crucial for the well-being of women and girls (Schweizer et al., 2023; Upadhyia, 2024). Many adolescent girls in Nepal lack access to hygienic sanitary materials and disposal options, as well as private places to change sanitary cloths or pads. They also lack clean water to wash their hands, bodies, and reusable sanitary products. Consequently, girls are left to manage their periods ineffectively (Karki et al., 2017). Unhygienic and ineffective menstrual hygiene management has been documented across low-resource contexts. This issue has been linked to negative consequences for women and girls. Improving menstrual hygiene management is essential to promoting their health and well-being (Hennegan & Montgomery, 2016). Menstrual hygiene is essential for all menstruate, which have covers enough clean water, good sanitation, and the right information. Women and girls need access to clean water, private spaces to change, and proper ways to dispose of used products. These things help ensure their health and well-being (Adhikari & Adhikari, 2023). Access to clean, gentle, and absorbent sanitary products is essential for women and girls of reproductive age, as these products can ultimately safeguard their health (Thakre et al., 2011). Supportive requirements such as the availability of sanitary pads and other essential resources play a central role in ensuring better reproductive health and overall well-being. Access to affordable and hygienic menstrual products is crucial for maintaining good menstrual health, preventing infections, and reducing absenteeism in schools and workplaces (Alarcão & Pintassilgo,

2023). Additionally, comprehensive sexual and reproductive health education, access to healthcare services, and the provision of clean water and sanitation facilities are essential to support the health needs of individuals, particularly women and girls. By addressing these needs, we can promote gender equality, improve quality of life, and empower individuals to make informed decisions about their reproductive health. Menstrual Hygiene Management (MHM) is an important issue that is often overlooked in the Water, Sanitation and Hygiene (WASH) sector. Clean menstrual management involves having materials to absorb or collect blood that can be changed in privacy as often as necessary during menstruation, using soap and water for washing the body as required, and having access to facilities to dispose of used menstrual materials (Sood et al., 2020). Every day, millions of girls and women who are menstruating in low-income countries have a hard time finding clean water to wash themselves, private places to change their menstrual products, and enough good quality menstrual sanitary pads or tampons. This is a serious problem that needs more attention and solutions (Crofts, 2019). The choice of sanitary protection material, such as pads, tampons, or menstrual cups, is influenced by a variety of factors. Personal preference, cultural norms, economic status, and the availability of products in the local market all play a role in determining what menstrual hygiene solutions people have access to and feel comfortable using. Together with these personal and contextual considerations, it is essential that everyone has access to basic sanitation facilities, including clean toilets, running water, and soap. Providing these fundamental resources, along with a reliable supply of menstrual absorbents, is crucial to ensuring that people can manage their menstrual health and hygiene in a safe, hygienic, and dignified manner, regardless of their individual circumstances or location (Kaur et al., 2018). Based on the context discussed above, it is argued that most of the adolescent girls lack the basic facilities of WASH (water, sanitation, and hygiene), proper information, a suitable environment, which ultimately, affects their health and personal carrier. Many studies (Farage et al., 2014; Sultan & Sahu, 2017) claim that schools don't have proper toilet facilities. So, girls who have started their periods face a lot of problems. After puberty, it's hard for them to go to school because there's no private space, water, or a place to change their pads. So there is some gap of girl's friendly environment and menstrual hygiene management. Therefore this study play significance role for menstrual health management.

There are several types of sanitary pads. They are reusable and washable cloth pads and used and throw sanitary pads. Reusable and washable cloth pads are a sustainable choice, as they can be cleaned and reused multiple times, making them cost-effective and environmentally-friendly. However, proper hygiene practices like thorough washing and drying in sunlight are crucial for cloth pads. Another types of sanitary pads are commercial disposable widely available in stores, but they are more expensive and less eco-friendly than reusable options, as the cotton used may contain pesticides. Another alternative is tampons and menstrual cup, which provide internal absorption of menstrual flow. While tampons are convenient, they can be costly and are not easily biodegradable. More natural tampons made from sea sponges offer a sustainable option. Menstrual cups, made of medical-grade silicone or rubber, are also reusable and can be a practical choice, especially in areas with limited sanitation facilities. Reusable and washable cloth pads can be a sustainable sanitary option, but they must be properly cared for. These cloth pads need to be hygienically washed and thoroughly dried in direct sunlight. The heat from the sun acts as a natural sterilizer, killing any germs or bacteria on the cloth pads. This sterilization process makes the cloth pads safe for future use. Reusable cloth pads are a cost-effective, readily available, and environmentally-friendly alternative to disposable pads. However, it is important to store the cleaned and dried cloth pads in a clean, dry place to prevent any contamination before their next use.(Kaur et al., 2018). Commercial sanitary pads are easily accessible, as they can be purchased from many stores, pharmacies, or online. However, these disposable pads are more expensive compared to reusable cloth pads.

Additionally, they are not environmentally-friendly, as they cannot be reused. The cotton used in the manufacturing of these commercial pads is also not 100% natural, and may contain pesticides, which raises concerns about their safety and sustainability (Kaur et al., 2018). Flow before it leaves the body. They are expensive, not easily degradable in nature and, hence, not very environmental friendly. Nowadays, sea sponge tampons are available in the market which are a natural alternative to synthetic tampons (Kaur et al., 2018). Menstrual cups are a relatively new technology that can provide a sustainable alternative to traditional sanitary pads and tampons, especially for women and girls with limited access to resources. These cups are made of medical-grade silicone or rubber, which allows them to be folded and inserted into the vagina to collect menstrual blood. Menstrual cups can be worn for up to 6-12 hours at a time, reducing the need for frequent changing compared to other products. The reusable nature of menstrual cups makes them a cost-effective and

environmentally-friendly option. This makes them a practical choice in areas where sanitation conditions may not be ideal, offering a reliable solution for menstrual hygiene management (Kaur et al., 2018). Supportive requirements play importance role to all menstruates. Menstrual hygiene materials, such as cloths, reusable and disposable pads, menstrual cups, and tampons, are used to catch menstrual flow. Menstrual supplies encompass other supportive items for broader menstrual hygiene and health, including soap, underwear, and pain relief (Roeckel, 2019).

Research Methodology

This study employs a quantitative and descriptive research design conducted at Surkhet Multiple Campus, using convenience sampling. Cross and Belli (2004) stated that in quantitative survey studies, the primary concern is to select respondents so that responses are representative of a defined population of interest (p. 291). According to the records of Surkhet Multiple Campus, in 2078/079, there were 2,294 female students at the bachelor's level. From this population, 340 were selected through random sampling. The sampling process was based on the formula of \sqrt{N} the tool used in this study was a closed-ended, self-administered questionnaire. The researcher personally visited the respondents on campus and collected data through face-to-face interviews. After data collection, the information was initially entered into Epi Data 3.1 software and later transferred to Statistical Package for the Social Sciences (SPSS) software, version 20.0, for analysis. Descriptive analysis was conducted, and the results were presented in tables. As a researcher, I ensure that all research ethics carefully followed before, during, and after the study.

Results

Table 1: *Respondent characteristics*

Respondent Characteristic	Age	Number	Percentage
Age of the respondent	18	60	18%
	19	50	15%
	20	55	16%
	21	70	21%
	22	45	13%
	23	50	15%
	24	10	3%
	Total	340	100%
Age at Menarche	10	13	4%
	11	52	15%
	12	69	20%
	13	65	19%
	14	77	23%
	16	37	11%
	17	27	8%
	Total	340	100%
Caste and ethnicity of the respondent	Brahmin	124	36%
	Chhetri	109	32%
	Janajati	75	22%
	Newar	7	2%
	Dalit	25	7%
	Total	340	100%
The religion of the respondent	Hindu	318	94%
	Buddhist	5	1%
	Christain	17	5%
	Total	340	100%
Marital Status	Married	155	46%
	Unmarried	185	54%
	Total	340	100%

Table 1 provides an overview of the characteristics of 340 respondents. The majority of respondents are aged 21 (21%), with other significant age groups being 18 (18%) and 20 (16%). Most girls experienced menarche at 14 years (23%) and 12 years (20%). In terms of ethnicity, the largest groups are Brahmin (36%) and Chhetri (32%), followed by Janajati (22%). Nearly all respondents identify as Hindu (94%), with small minorities of Christians (5%) and Buddhists (1%). The marital status shows that 54% are unmarried, while 46% are married.

Menstrual hygiene and sanitation practices of the respondent

Table 2: *Carrying menstruation pad at the time of menstruation*

Carrying a menstruation pad at the time of menstruation	Frequency	Percent
Yes	310	91%
No	30	9%
Total	340	100%

Table 2 stated that the responses regarding whether respondents carry a menstruation pad during their menstrual period. A significant majority, 310 respondents, representing 91% of the total, indicated that they do carry a menstruation pad. In contrast, only 30 respondents, or 9%, reported that they do not carry a pad during menstruation. This data suggests a strong prevalence of menstrual pad usage among the respondents, indicating an awareness of menstrual hygiene practices within the respondents.

Supportive requirements play crucial role to menstrual hygiene management and sanitation Practices. There are several requirements, such as use and through sanitary pad, reusable cloth pad, tampon and menstrual cup, each with unique advantages and considerations. Such as Sanitary pads are popular and widely used due to their convenience and variety, available in both disposable and reusable forms. Tampons are compact, cylindrical products inserted into the vagina to absorb menstrual. Menstrual cups, typically made from medical-grade silicone or rubber, are another internal option; they collect rather than absorb menstrual blood and can be emptied, washed, and reused for several years, offering a long-term eco-friendly solution.

Table 3: *Type of sanitary pad use*

Use of sanitary Pad	Yes		No	
	Number	Percentage	Number	Percentage
Use and through Sanitary pad	210	62%	130	38%
Reusable Cloth pad and Sanitary pad	300	88%	40	12%
Tampon	30	9%	310	91%
Menstrual cup	40	12%	300	88%

The table 3 presented that the data on the usage of various menstrual hygiene products among respondents, highlighting their preferences and practices. Regarding the use of sanitary pads, 210 respondents (62%) reported using them, while 130 (38%) do not. When considering the combination of reusable cloth pads and sanitary pads, a notable 300 respondents (88%) indicated they use these options, with only 40 (12%) not utilizing them. The use of tampons is relatively low, with only 30 respondents (9%) reporting usage, while a significant 310 (91%) do not use tampons at all. Similarly, the menstrual cup is used by 40 respondents (12%), with 300 (88%) opting for other methods. Overall, the data indicates a strong preference for reusable cloth pads and sanitary pads, while tampons and menstrual cups are less commonly used among the respondents.

Table 4: *Way of cleaning the home used pad*

Cleaning of Home use pad	Yes	
	Number	Percentage
Detergent wash and dry to reuse	255	75%
Never re-used	85	25%

The table 4 showed that cleaning practices of home-use menstrual pads among respondents. A substantial majority, 255 respondents, representing 75%, reported that they wash their reusable pads with detergent and dry them for reuse. In contrast, 85 respondents, or 25%, indicated that they never reuse their pads. This data highlights a significant trend towards maintaining hygiene and sustainability through the cleaning and reusing of menstrual products.

Table 5: *Cleaning of the pad at the time of menstruation*

Cleaning of cloth pad	Yes	
	Number	Percentage
Wash with soap and dry in the sun	221	65%
Wash with clean water	73	21%
Never reuse	46	14%
Total	340	100%

The table 5 stated that, the cleaning practices of cloth pads among respondents, providing a detailed view of their hygiene management. A majority of 221 respondents, or 65%, reported that they wash their cloth pads with soap and dry them in the sun, indicating a strong adherence to effective cleaning methods that promote hygiene. Additionally, 73 respondents (21%) mentioned that they wash their pads solely with clean water, which, while better than not washing at all, may not be as effective in ensuring thorough sanitation. Likewise, 46 respondents (14%) stated that they never reuse their cloth pads, suggesting either a preference for single-use products or concerns about hygiene. Overall, the data reflects a positive trend towards maintaining menstrual hygiene through proper cleaning practices, although there remains a portion of respondents who do not utilize reusable cloth pads.

Table 6: *Pad management during menstruation*

Management of Pad	Yes		No	
	Number	Percentage	Number	Percentage
Collect at dustbin and send to the municipality	242	71%	98	29%
Put in college dustbin	275	81%	65	19%
Buried in soil	54	16%	286	84%
Dump randomly anywhere	34	10%	306	90%

The table 6 presented the data on the management practices for disposing of menstrual pads among respondents, highlighting various disposal methods and their prevalence. A significant majority, 242 respondents (71%), indicated that they collect used pads in a dustbin and send them to the municipality for proper disposal. Additionally, 275 respondents (81%) reported putting their pads in the college dustbin, demonstrating a communal approach to waste management. In contrast, 54 respondents (16%) opted to bury their pads in soil, a practice that reflects a more environmentally conscious method, albeit less common. Conversely, 34 respondents (10%) admitted to dumping their pads randomly, which raises concerns about proper waste management and environmental impact. Overall, the data reveals a predominant trend towards responsible disposal methods, while also highlighting areas where awareness and education on proper menstrual waste management could be improved, particularly regarding random disposal practices.

Table 7: Requirement at college for menstruation management

Requirement at College	Yes		No	
	Number	Percentage	Number	Percentage
No facility in toilet	27	2	313	98
Same toilet for male and female	0	2.4	340	97.6
Management of sick room in college	0	0.8	340	99.2
Management of hot water and medicine	58	23.2	282	76.8
Management of pad	18	58.1	322	41.9

The table 7 outlines the requirements and facilities related to menstrual hygiene and health management at college, revealing significant gaps in available resources. A mere 27 respondents (2%) reported the absence of facilities in toilets, while a vast majority, 313 respondents (98%), indicated that such facilities are present. Notably, there were no respondents who reported sharing the same toilet for males and females, highlighting a clear division in restroom facilities. However, the management of a sick room in the college is lacking, with only 0.8% of respondents acknowledging its existence, leaving 99.2% without access to this essential resource. Regarding the provision of hot water and medicine, 58 respondents (23.2%) confirmed that such management is in place, while 282 (76.8%) reported its absence. Finally, 18 respondents (58.1%) stated that there is some management for menstrual pads, yet 322 (41.9%) indicated that this is not adequately addressed. Overall, the data reveals significant deficiencies in menstrual hygiene facilities and health management resources at the college, underscoring the need for improved support and infrastructure to meet the needs of students.

Discussion

This study reveals that the age of the menstruating girls ranged from 10-17 years, with the maximum number of girls being menarche was 14 years of age which was 23%. Many respondents prefer commercially available sanitary pads, indicating a growing awareness of menstrual hygiene. Most girls said they use both reusable and disposable, as well as cheap and expensive, menstrual protection materials (Crofts, 2019). The sanitary pads are easily available and easier to get (Thérèse & Maria, 2010). However, some still use traditional methods like cloth, which can pose health risks if not properly maintained. Access to clean water and private sanitation facilities varies, impacting effective menstrual management. Education on menstrual hygiene is essential, as it shapes practices and perceptions, ultimately influencing the health and dignity of individuals during their menstrual cycles. Improved awareness and resources can empower better choices for menstrual care. It is necessary to provide adequate facilities and education on menstrual hygiene management in schools, as the probable reason for girls not changing pads often stems from ignorance and a lack of proper facilities. Without access to clean and private restrooms, or the knowledge about the importance of changing pads regularly, girls may feel embarrassed or uncomfortable, leading to potential health risks and absenteeism from school. Ensuring that these resources and information are available is crucial for promoting gender equality in education and supporting the overall well-being of female students.

The majority of respondents (99.2%) reported that there is no facility for a sick or rest room. Similarly, 76.8% of respondents stated that there is no provision for hot drinking water. The study indicates a lack of proper facilities for hygiene management on campus, leading to challenges in managing their hygiene during menstruation. Many scholars (Roeckel, 2019; USAID, 2019) mentioned that supportive items needed for menstrual hygiene management (MHM), such as the availability of pads, soap, hot drinking water, and pain relief items, are essential. It also highlighted that women employed in formal workplaces, such as campuses, offices, and factories, may have better access to facilities, but they still face challenges in adequate MHM due to unclean or unsafe toilets, lack of access to water, or facilities that are generally unsuitable for managing menstruation.

Conclusion

The study highlights that while there is a growing awareness and use of sanitary pads among menstruating girls, traditional methods and inconsistent access to clean water and sanitation facilities remain significant challenges. The preference for reusable cloth pads and sanitary pads is common, but tampons and menstrual cups are rarely used. Although most girls practice good hygiene by washing and sun-drying cloth pads, gaps

in menstrual waste management and inadequate disposal practices persist. Additionally, many colleges lack essential facilities such as dedicated restrooms, sick rooms, hot water, and proper disposal options for sanitary pads. This underscores the urgent need for improved policies, education, and infrastructure to support menstrual health and hygiene in educational settings, ensuring that female students can manage their menstruation safely and with dignity. Addressing these issues is essential for promoting the well-being and academic success of female students.

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