

Rupantaran: A Multidisciplinary Journal
Vol. IX: PP 121-129, January, 2025
ISSN(Print) : 2091-0061, ISSN (Electronic): 2738-9960
DOI: <https://doi.org/10.3126/rupantaran.v9i01.73508>
Research Management Cell (RMC)
Dhankuta Multiple Campus, Dhankuta
Tribhuvan University, Nepal

An Analytical Study on Menstrual Health and Sanitation among Female Students of Dhankuta Multiple Campus

Shantanu Pokhrel¹

Email: pokhrelshantanu@gmail.com

Abstract

This study explores menstrual health and sanitation conditions of the female students in the education faculty of Dhankuta Multiple Campus. Nepalese women experience poor menstruation health and hygiene issues. These issues impact their physical, mental, and social health. To enhance menstrual health and sanitation, it is necessary to examine the current state of the menstrual knowledge and practices among young girls. The study was conducted to identify and examine the knowledge, mensuration practice, and sanitary conditions of the respondents. The sociodemographic profile, the practice of mensuration, and care and sanitation during mensuration are analyzed in this study. The study is based on quantitative analysis and descriptive research design. A total of 60 female students were interviewed through a questionnaire, with 15 participants selected from each academic year. The data were presented in a tabular format and then analyzed. The study discovers a mixed awareness of menstruation health, with certain concerns about cultural factors and access to resources. All 60 participants reported getting information about menstruation before menarche, indicating a good level of awareness. However, the majority (65%) were restricted from certain household activities, highlighting the influence of cultural taboos, particularly among the ethnic group of Brahmin/Chhetri and within the Hindu religious community. All participants followed sanitation practices which inline with the recommended hygiene practices, however, the study found personal preferences play an important role in menstrual management.

Keywords: Menstruation, menstrual education, menstrual health, menstrual hygiene, menstrual taboo

Introduction

The female reproductive system experiences a cyclic phenomenon every month known as the menstrual cycle. Menstruation is a natural biological process in which the uterus sheds its

¹ Mr. Pokhrel is a Lecturer of Population Studies at Tribhuvan University, Dhankuta Multiple Campus, Dhankuta, Nepal.

lining, causing bleeding through the vagina. It is accompanied by a sequence of coordinated hormonal changes. This monthly cycle normally begins in adolescence and ends at menopause, until the uterus has its reproductive capabilities (Thiyagarajan et al., 2024).

Menstrual health is defined as complete physical, mental, and social wellbeing in relation to the menstrual cycle (Hennegan et al., 2021). Improper menstrual hygiene practices can cause a variety of health complications which include reproductive tract infections, urinary tract infections, which can result in future birth complications and even infertility (Benshaul-Tolonen et al., 2020). Beyond the physical health, it also affects their mental and social health. The definition of the menstrual health itself shows the complex nature of menstruation and the various ways that an individual's capacity to appropriately manage their menstrual health can impact their life.

Achieving good menstrual health not only requires more menstruation products, but also demands access to information, supplies, a supporting environment and sanitation facilities (Babbar et al., 2022). Girls and women all throughout the world have their own coping mechanisms for the menstrual cycle which differ between countries and even within countries, depending on a person's own preferences, the resources that are accessible, their economic situation, the customs and cultural beliefs of their community, and their level of education or knowledge. Because of these limitations, especially in less developed countries, women frequently use potentially unhygienic or inconvenient methods to control their menstruation (Sumpter & Torondel, 2013).

Nepalese women experience lower menstrual health and hygiene difficulties caused by a lack of knowledge about menstruation, a lack of sufficient water, sanitation, and hygiene (WASH) facilities, poor sex education, and culturally and socially restricted practices (Sharma et al., 2022). In western Nepal, there exists a social problem called Chhaupadi, a traditional practice in which women and girls during periods are separated from their homes and often confined to small, unsanitary shelters. Though it was outlawed by the Supreme court of Nepal in 2005, the tradition has been slow to change. The impact of this practice on the perception of menstruation in western Nepal remains significant (Khadka, 2020). A study reveals that an average of 18.65% of young girls miss a full day of school in the Achham, Bajura and Parsa district. The two most common reasons for this were fear of leakage and pain, which strongly suggest menstruation related issues are the primary factors affecting girl's education (Morrison et al., 2018). Additionally, while programs like WASH in schools have been introduced to improve menstrual health, there is still a wide gap in implementation and effectiveness in rural areas (Morrison et al., 2018).

It is essential to investigate current knowledge and practices to develop effective menstrual health and sanitation strategies. Although various studies of a similar kind have been conducted in the context of Nepal, no study has been conducted relating to menstrual health and sanitation among young girls studying at the bachelor's level. The objective of the

study is to identify and examine the knowledge, menstruation practice, and sanitary condition of the female students in the education faculty of Dhankuta Multiple Campus.

Methods and Materials

This study has followed a quantitative research design using numbers to analyze data. The study has focused on female bachelor's level from the Education faculty at Dhankuta Multiple Campus. A two-stage method has been applied in the sampling process. In the first stage, simple random sampling has been employed to select the Faculty of Education among the available four faculties: Education, Humanities, Science, and Technology.

In the second stage, a call for volunteers has been issued to students from each academic year, inviting them to participate as subjects in the study. 15 females from each academic year were chosen on the first come first serve basis making a total of 60 participants. The data collection was by the means of interviews that used a semi structured questionnaire which has been specifically developed for meeting the objective of the study. The collected data has been compiled into tables according to the common themes and patterns.

Results and Discussion

The results are exhibited in three primary areas: the sociodemographic profile, experiences during menstrual practice, and care and sanitation through the analysis of acquired data form primary and secondary sources.

Socio-demographic profile

Socio-demographic attributes of participants is divided into three categories: age, ethnicity and religion.

Table 1

Socio-demographic profile of respondents

S.N.	Categories	Group	Number of respondents	Percentage (%)
1	Age (years)	19-20	21	35.00
		21-22	28	46.70
		23-24	11	18.30
		Total	60	100
2	Ethnicity	Brahmin / Chhetri	27	45.00
		Janajati	28	46.70
		Others	5	8.30
		Total	60	100
3	Religion	Hindu	32	53.30
		Kirat	18	30.00
		Buddhists	6	10.00
		Christian	4	6.70
		Total	60	100

Source: Field survey, 2024

Table 1 shows the socio-demographic profile of the respondents providing a clear picture of their

background. Nepal is a country of diverse ethnicity and religion, which is evidently suggested by the socio-demographic background of the participants. Because of the dissimilarities of the menstrual practices between various ethnic and religious groups (Bramwell & Zeb, 2006), this study includes respondents from a variety of ethnic and religious backgrounds trying to address these imbalances.

The age of respondents ranged from 19 to 24 years, with the larger portion of 28 participants (46.7%) lying between the ages of 21 and 22 years. A notable amount of 21 students (35%) are between the ages of 19 and 20 years, with only 11 participants (18.3%) falling under the age category of 23-24 years. Moving towards ethnicity, respondents are classified into three ethnic categories based on their cultural similarities: Brahmin/Chhetri, Janajati, and Others. The Janajati category includes ethnic groups such as Rai, Limbu, Newar, and Tamang and has the highest number of participants which is 28, makes 46.7% of the total respondents. The Brahmin/Chhetri group follows closely with 27 participants (45%), with the remaining 5 individuals (8.3%), falling into the 'Others' category. In terms of religion, a majority of 32 people (53.3%) identify themselves as Hindu. This is followed by 30% (18 individuals) identifying themselves as Kirat. 10% of the participants (6 people) followed Buddhism, and the least are Christian only comprising of 4 respondents which makes up the 6.7% of the 60 participants.

Experiences of menstruation:

Menstruation affects individuals not only physically but also emotionally. This study investigates a series of experiences, including source of information, feeling towards first menstruation and family-imposed restrictions among variety of other menstrual experiences which is shown in the table 2.

Table 2

Experiences during menstruation

S.N.	Categories	Sub-categories	Number of respondents	Percentage (%)
1	Age at first menstruation (years)	11-12	33	55.00
		13-14	21	35.00
		15 and above	6	10.00
		Total	60	100
		Mother	34	56.66
2	Source of information	Sister	10	16.67
		Other family members/ relatives	4	6.67
		Friends	6	10.00
		School Teachers	2	3.33
		Media	4	6.67
3	Feeling towards first menstruation	Total	60	100
		Scared	26	43.40
		Embarrassed	14	23.30

		Guilty	8	13.30	
		No feelings at all	12	20.00	
		Total	60	100	
	4	Regularity of menstruation	Regular	46	76.67
			Irregular	14	23.33
			Total	60	100
	5	Menstrual flow	2-3 days	25	41.67
			4-5 days	28	46.67
			6-7 days	7	11.66
		Total	60	100	
	6	Symptoms during menstruation	No symptoms	12	20.00
			Mild symptoms	32	53.33
			Severe symptoms	9	15.00
			Severe bleeding	7	11.67
		Total	60	100	
	7	Family restrictions	No restrictions at all	21	35.00
			Not allowed to cook, touch certain things and touch male family members	2	3.33
			Not allowed to attain religious activities	9	15.00
			Not allowed to cook and touch and attain religious activities	28	46.67
		Total	60	100	

Source: Field survey, 2024

The mean age of menarche of Nepalese girls is between 12-13 years (Sunuwar et al., 2010), however it is considered normal to have the first menstruation (menarche) up to 16 years of age in the global perspective (Marques et al., 2022). Most of the participant (90%) reported menarche before the age of 15. Among them 33 participants (55%) experienced their first menstruation between years 11 and 12, and 21 individuals, which is 35%, experience it between ages 13 and 14. Only 10% of respondents (6 participants) had their first period at 15 years or older.

Since menstruation is typically considered a taboo subject in Nepal, with many people hesitating to talk or share their experiences, the awareness of people around the topic is generally restricted. However, the survey did show that that all respondents were given information about menstruation before their first period. The majority of 48 students (80%) were informed by their family members. Mothers were the major member of family (for 34 respondents, 56.66%), followed by sister (for 10 females, 6.67%), while 4 of the participants (6.67%) were informed by other family members/ relatives. Other sources of knowledge included friends for 6 participants

(10%), the media for 4 individuals (6.67%), and school teachers for 2 students (3.33%). This indicates that menstrual-related discussions are becoming more prevalent in the household.

The vast majority of 48 respondents (80%) reported that they were fearful, embarrassed or guilty when they start having their first menstruation, despite knowing what to expect. This means that despite prior understanding, many young people struggle to cope with their first menstruation. 26 participants (43.4%) were reported being scared, followed by 14 respondents (23.3%) who were embarrassed and the least number of 8 females (13.3%) feeling guilty. 12 individuals reported that they did not feel anything at all and treated their first menstruation no differently. With regard to menstrual regularity, 46 number of respondents (76.67%) reported having periods with a cycle duration of 25 to 32 days, which is consider to be regular normal cycle in this study. The duration is within the general variability of the menstrual cycle (Reed & Carr, 2000). 14 people (23.33%) reported that their periodic cycle doesn't fall with the range of 25 to 32 days. The duration of menstrual flow was also fluctuating, with 28 females (46.67%) bleeding for 4-5 days, 25 participants (41.67%) for 2-3 days, and 7 respondents (11.66%) for 6-7 days. These are also in line with the average duration of monthly bleeding, which ranges from 2 to 7 days (Reed & Carr, 2000).

Out of 60 respondents, 12 (20%) reported having no symptoms during their menstrual cycle. However, the majority of 32 individuals (53.33%) expressed to experience mild symptoms, which include craving for food, headache, backpain, mood swings, bloating and minor cramps. A handful of 9 participants (15%) reported having severe symptoms which include intense abdominal pain, severe back and thigh pain. Finally, 7 respondents (11.67%) said they have had severe bleeding which can complicate menstruation management and requires more attention to menstrual hygiene.

Cultural taboos around menstruation generally result in various family-imposed restrictions (Mukherjee et al., 2020). When asked about these restrictions, 39 respondents which make up the majority of 65% declared they experience some type of exclusion, while 21 of them (35%) had no restrictions at all. The most common limitations included being prohibited from cooking, touching particular goods, touching male family members or taking part in religious activities. Interestingly, the largest portion with no restriction at all were from the Janajati ethnic group, while those with restrictions were from the Brahmin/Chhetri community. Out of a total of 65% who faced restrictions, 46.67% (28 subjects) reported being not allowed to cook, touch certain goods, touch male family members and attend any kind of religious practice when menstruating.

Care and sanitation during periods

Participants in this study reported using a range of sanitary habits and care measures during their period. Women usually endure physical discomfort during this period; thus, care and sanitation are crucial. Since menstruation involves the discharge of blood, good sanitation habits are essential for preserving overall health and well-being during this time.

Table 3*Care and Sanitation Strategies*

S.N.	Categories	Sub-categories	No. of respondents	Percentage (%)
1	Care strategies	Stay away from heavy work	27	45.00
		Simple remedies at home	19	31.67
		Take a full day rest	1	1.67
		Consult medical person	2	3.33
		Not anything special	11	18.33
		Total	60	100
2	Use of sanitary pad	When outside of home	13	21.67
		Both at home and outside	47	78.33
		Total	60	100
3	Access of sanitary pads in locality	Yes	53	88.33
		No	7	11.33
		Total	60	100
4	Information of access of sanitary pads in college	Yes	51	85.00
		No	9	15.00
		Total	60	100
5	Use of sanitary pads available in college	Yes	24	40.00
		No	36	60.00
		Total	60	100
6	Change of sanitary pads/cloth	Twice a day	36	60.00
		2-3 hours	8	13.33
		Depends on the bleeding	16	26.67
		Total	60	100

Source: Field Survey, 2024

Participants in the study were asked about their menstrual care habits and the answers are divided into five main categories. The most common strategy, given by 27 participants (45%), was to avoid heavy physical activities. This reflects a basic tendency to save energy and reduce discomfort while menstruating. Another large proportion of respondents (19, 31.67%) use easy home treatments to relieve period pain and discomfort, such as drinking hot water, applying heat using hot bags, or eating nutritious foods. Only one participant (1.67%) stated taking a full day off, while two individuals (3.33%) reported seeing a medical professional during menstruation. Finally, 11 respondents (18.33%) stated that they did not use any special care strategies and instead treated the day as regular.

When asked about the use of sanitary pads, 13 respondents (21.67%) reported only using them when they left their houses, whereas the majority (47 respondents, 78.33%) used them on a

regular basis, both at home and outside. This indicates that the most of participants prefer modern menstrual hygiene products, while some still use older techniques like as cloth at home.

Access to sanitary pads was found to be relatively high, with 53 participants (88.33%) stating that sanitary pads were easily accessible in their locality. However, a small but significant number (7 participants, 11.67%) reported that they did not have easy sanitary pads, highlighting poor menstruation product availability in some localities. Access to sanitary pads in the college premises was further examined, with 85% of participants (51 respondents) knowing that Dhankuta Multiple Campus provides sanitary pads to students. Despite this awareness, only 40% of respondents (24 participants) reported using campus-provided sanitary pads, while the majority (36 participants, 60%) did not use them. The reasons given for not utilizing the sanitary pads included embarrassment, a lack of availability in accessible areas, and inadequate toilet facilities, emphasizing the need for improved accessibility and facilities.

Another important component of sanitation behaviors was how frequently individuals changed their sanitary pads or cloths while menstruating. The majority of respondents (36 respondents, 60%) said they changed their pads twice a day, which is consistent with typical menstrual hygiene recommendations. A smaller group (8 participants, 13.33%) reported more frequent changes, every 2-3 hours, while 16 respondents (26.67%) stated that their number of pad changes varied according on the intensity of their menstrual flow. This variation in sanitary habits indicates a widespread understanding of the significance of maintaining hygiene, but it also demonstrates the impact of individual preferences and menstrual flow patterns on these activities.

Conclusion

The findings indicate a mixed awareness of menstruation health, with some concerns regarding cultural aspect and access to resources. All the respondents were pre-informed about menstruation before their menarche with mothers being the main source of information. Unpleasant emotional reactions, including fear, embarrassment, and guilt, during their first period is found common among participants. Although having high level of awareness among the family, the taboo surrounding menstruation remaining as a challenge in shaping the mentality regarding menstruation. Family-imposed restrictions like restriction on cooking, touching and involving in religious activities particularly among the ethnic group of Brahmin/ Chhetri and Hindu religious community.

While access and awareness of sanitary pads is found high but most of the respondents don't use due to shame or a lack of availability in convenient locations. This implies the need for the providing awareness towards use of campus provided sanitary pads which might also help with their mental attitude towards menstrual hygiene.

While most respondents change their sanitary pads twice a day, which inline the recommended hygiene practices, a notable number of participants vary their changing frequency

depending on their menstrual flow, indicating person's physical condition and awareness level plays an important role in menstrual health management.

References

- Babbar, K., Martin, J., Ruiz, J., Parray, A. A., & Sommer, M. (2022). Menstrual health is a public health and human rights issue. *The Lancet Public Health*, 7(1), e10–e11. [https://doi.org/10.1016/S2468-2667\(21\)00212-7](https://doi.org/10.1016/S2468-2667(21)00212-7)
- Benshaul-Tolonen, A., Zulaika, G., Sommer, M., & Phillips-Howard, P. (2020). *Measuring Menstruation-Related Absenteeism Among Adolescents in Low-Income Countries* (pp. 705–723). https://doi.org/10.1007/978-981-15-0614-7_52
- Bramwell, R., & Zeb, R. (2006). Attitudes towards and experience of the menstrual cycle across different cultural and religious groups. *Journal of Reproductive and Infant Psychology*, 24(4), 314–322. <https://doi.org/10.1080/02646830600973990>
- Hennegan, J., Winkler, I. T., Bobel, C., Keiser, D., Hampton, J., Larsson, G., Chandra-Mouli, V., Plesons, M., & Mahon, T. (2021). Menstrual health: A definition for policy, practice, and research. *Sexual and Reproductive Health Matters*, 29(1), 1911618. <https://doi.org/10.1080/26410397.2021.1911618>
- Khadka, N. (2020). Chhaupadi Pratha: Women's Experiences and Perceptions about Social Suffering. *Molung Educational Frontier*, 81–92. <https://doi.org/10.3126/mef.v10i1.34031>
- Marques, P., Madeira, T., & Augusta, G. (2022). Menstrual cycle among adolescents: Girls' awareness and influence of age at menarche and overweight. *Revista Paulista de Pediatria*, 40. <https://doi.org/10.1590/1984-0462/2022/40/2020494>
- Morrison, J., Basnet, M., Bhatta, A., Khimbanjar, S., & Baral, S. (2018). *The Role of WASH in Schools* (ANALYSIS OF MENSTRUAL HYGIENE PRACTICES IN NEPAL, p. 116). UNICEF Nepal.
- Mukherjee, A., Lama, M., Khakurel, U., Jha, A., Ajose, F., Acharya, S., Tymes-Wilbekin, K., Sommer, M., Jolly, P., Lhaki, P., & Shrestha, S. (2020). Perception and practices of menstruation restrictions among urban adolescent girls and women in Nepal: A cross-sectional survey. *Reproductive Health*, 17. <https://doi.org/10.1186/s12978-020-00935-6>
- Reed, B. G., & Carr, B. R. (2000). The Normal Menstrual Cycle and the Control of Ovulation. In K. R. Feingold, B. Anawalt, M. R. Blackman, A. Boyce, G. Chrousos, E. Corpas, W. W. de Herder, K. Dhatariya, K. Dungan, J. Hofland, S. Kalra, G. Kaltsas, N. Kapoor, C. Koch, P. Kopp, M. Korbonits, C. S. Kovacs, W. Kuohung, B. Laferrère, ... D. P. Wilson (Eds.), *Endotext*. MDText.com, Inc.
- Sharma, A., McCall-Hosenfeld, J., & Cuffee, Y. (2022). Systematic review of menstrual health and hygiene in Nepal employing a social ecological model. *Reproductive Health*, 19. <https://doi.org/10.1186/s12978-022-01456-0>
- Sumpter, C., & Torondel, B. (2013). A Systematic Review of the Health and Social Effects of Menstrual Hygiene Management. *PloS One*, 8, e62004. <https://doi.org/10.1371/journal.pone.0062004>
- Sunuwar, L., Saha, C., K.C., A., & Upadhyay Dhungel, K. (2010). Age at menarche of subpopulation of Nepalese girls. *Nepal Medical College Journal : NM CJ*, 12, 183–186.
- Thiyagarajan, D. K., Basit, H., & Jeanmonod, R. (2024). Physiology, Menstrual Cycle. In *StatPearls*. StatPearls Publishing.