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Menstrual Knowledge and Hygiene Practices among Students

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Abstract

The objective of this study is to explore the menstrual knowledge in menstruation hygiene practices among the students. These are critical components of women's health, yet several barriers hinder effective menstrual management across various regions. Despite increased awareness in some areas, misconceptions, cultural taboos, and lack of access to education and resources continue to perpetuate poor menstrual hygiene. These barriers contribute to a range of adverse health outcomes, social stigmatization, and psychological distress for menstruators. In many communities, menstruation remains a subject of silence, with misinformation and cultural taboos obstructing open conversations. Descriptive and exploratory research design is used similarly data are collected through discussions, interviews, and questionnaire above 87 boys and girls student of bachelor level in education from Central Departments of Education, Graduate School of Education, Midwest University. This lack of accurate knowledge results in the use of unhygienic materials and improper disposal practices, heightening the risk of infections and other health complications. Furthermore, socio-economic constraints, such as poverty and limited access to sanitation facilities, exacerbate these challenges, particularly in rural or underserved urban areas. Educational institutions and healthcare systems often fail to adequately address menstrual hygiene management, leaving individuals without essential guidance. Cultural perceptions also influence menstrual practices, where traditional methods and beliefs may conflict with modern hygiene standards. Additionally, many menstruators face difficulties in accessing sanitary products due to high costs or limited availability, which further complicates the management of menstrual hygiene.

Keywords

Menstruation hygiene Management, Barriers, Knowledge, Disposal.

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1. Introduction

Menstrual knowledge includes an understanding of the menstrual cycle, hygiene practices, health implications, and socio-cultural factors. It includes biological processes, appropriate product use and disposal, recognition of menstrual health concerns, and awareness of societal norms and stigma. Comprehensive menstrual knowledge promotes informed self-care, hygiene, and reproductive health. On the contrary, limited menstrual knowledge hinders proper hygiene management, increasing the risk of infections due to inadequate cleaning, product use, and disposal (Girigoswami *et al.*, 2024). Misconceptions about menstrual products may lead to misuse to adopt safe alternatives.

Lack of awareness prevents recognition of abnormal symptoms, delaying medical intervention for infections or disorders. Cultural taboos and misinformation during menstruation practice contribute to stigma, discouraging open discussions and leading to secrecy in hygiene management (OLUSEGUN, 2024).

Insufficient knowledge about available products or menstrual health rights further limits access to essential resources. Strengthening menstrual knowledge is crucial for improving hygiene practices, promoting health, and reducing stigma (Olson *et al.*, 2022).

Menstrual hygiene in Karnali Province remains poor due to inadequate menstrual knowledge, restrictive social and cultural practices, and persistent taboos (Thakuri *et al.*, 2021). Limited awareness contributes to improper hygiene management and reinforces restrictive norms that negatively impact the well-being of menstruating individuals (Tohit, & Haque, 2024). Therefore, it is essential to assess the level of menstrual knowledge and its influence on hygiene practices to inform interventions that promote safe and dignified menstruation.

2. Literature Review

Menstrual hygiene practices refer to the behaviours and actions taken to maintain cleanliness and health during

menstruation (Nwoye, 2024). This includes using clean menstrual products (such as pads, tampons, menstrual cups, or cloths), changing these products regularly to avoid bacterial growth and odor, and washing the genital area with mild soap and water. Proper disposal of used menstrual products and maintaining clean hands before and after handling menstrual products are essential components of menstrual hygiene. These practices help prevent infections, skin irritation, and other health complications while ensuring comfort and dignity during menstruation.

The average duration of a menstrual cycle is typically around 28 days (Schmalenberger *et al.*, 2021) but a normal cycle can range anywhere between 21 to 35 days. The menstrual cycle begins on the first day of menstruation (bleeding) and ends the day before the next period starts. While 28 days is often cited as the standard, variations within this range are considered normal and depend on individual hormonal patterns and health factors. Cycles that are consistently shorter than 21 days or longer than 35 days may indicate irregularities, such as hormonal imbalances, and could require medical attention. Understanding one's cycle length is important for maintaining reproductive health and identifying any potential issues early.

The primary cause of menstruation is the hormonal changes that occur in the body as part of the menstrual cycle (Thiyagarajan, Basit & Jeanmonod, 2024). Each month, the hormones estrogen and progesterone, regulated by the brain's hypothalamus and pituitary gland, prepare the uterus for a potential pregnancy by thickening its lining (Gadekar *et al.*, 2025). If fertilization does not occur, the levels of these hormones drop, signaling the body to shed the uterine lining, which results in menstrual bleeding. This natural process is essential for reproductive health and typically repeats every 21-35 days in a healthy cycle.

The safest materials to use for menstrual hygiene are those that are clean, absorbent, and non-toxic, ensuring both comfort and health (Bindal, Goyal & Garg, 2025). Commonly recommended options include commercially available sanitary pads, which are disposable and designed for hygiene, and menstrual cups made of medical-grade silicone or rubber, which are eco-friendly and reusable when cleaned properly. Additionally, organic cotton tampons or pads are safer for sensitive skin as they avoid harmful chemicals. Reusable cloth pads can also be safe if they are thoroughly washed,

dried in sunlight, and stored hygienically. Unsafe materials like unclean cloth, tissue paper, or newspaper should be avoided, as they can cause infections. Regardless of the material, regular changing and proper hygiene are essential for maintaining safety and preventing health issues.

A menstrual pad should be changed every 4 to 6 hours during a period (Becon, n.d.) though the frequency may vary depending on the flow. On days with heavier flow, it is recommended to change the pad more frequently, such as every 2 to 4 hours, to prevent leakage and ensure hygiene. Prolonged use of a single pad can lead to bacterial growth, unpleasant odors, and an increased risk of skin irritation or infections. Regular changing helps maintain comfort, prevents health issues, and ensures cleanliness throughout the menstrual period. Proper disposal of used pads is also important for maintaining hygiene and environmental care.

During menstruation, maintaining proper hygiene is essential to prevent infections and ensure comfort (Tian, 2023). The most important practice is regularly changing menstrual products: pads and liners every 4-6 hours (U by Kotex, n.d.), Nua. (n.d.), and tampons every 4-8 hours (Healthline, n.d.). Daily hygiene should include washing the genital area with mild, unscented soap and water, avoiding douching to maintain natural flora. Menstrual products must be wrapped and disposed of in a bin, not flushed. Wear clean, breathable cotton underwear and change if soiled. Wash hands before and after handling products, and ensure the area remains dry to prevent irritation and infections. These practices promote menstrual health and overall well-being.

The proper disposal of menstrual hygiene products is essential for hygiene and environmental sustainability (Aujla *et al.*, 2024). Disposable items like pads and tampons should be wrapped in tissue or the product's wrapper and placed in a covered waste bin, never flushed, to avoid plumbing issues and environmental harm. For reusable products like menstrual cups, empty the contents into the toilet or sink and thoroughly wash the cup before reuse. Biodegradable products may be composted where permitted by local guidelines, though they should be separated from non-biodegradable waste. In public restrooms, use sanitary disposal units or biodegradable disposal bags when available. Adhering to proper disposal practices helps maintain cleanliness and minimizes environmental impact.

Handwashing before and after changing menstrual products is crucial for hygiene and infection prevention (Nabwera *et al.*, 2021). Washing before removes dirt, reducing the risk of urinary or vaginal infections, while washing after prevents contamination. Regularly changing pads, tampons, or menstrual cups prevents infections like toxic shock syndrome (TSS). Daily washing of the genital area with mild, unscented soap is recommended, while douching or scented products should be avoided to preserve vaginal flora. Staying hydrated, exercising, and using over-the-counter pain relievers for cramps further promote health during menstruation.

A safe practice during menstruation is maintaining proper hygiene and using menstrual products correctly (Bulto, 2021). This includes regularly changing sanitary pads, tampons, or menstrual cups according to their recommended usage time to prevent infections such as toxic shock syndrome (TSS) or irritation. Washing the genital area daily with warm water and mild, unscented soap is safe, while douching or using scented products is not, as they can disrupt the natural vaginal flora. Drinking plenty of water, staying active with light exercise, and using over-the-counter pain relievers for cramps as needed are also safe practices and menstruation is safe and comfortable.

Regularly changing menstrual products is crucial for preventing bacterial growth, reducing the risk of infections like toxic shock syndrome (TSS), and maintaining hygiene. It also prevents odors, skin irritation, and leaks, supporting overall menstrual health. For reusable cloths, ensure thorough cleaning with hot water and mild, unscented soap, followed by rinsing to remove residue. Dry in sunlight or with a hot iron, and store in a clean, dry, breathable container. Regularly inspect for wear and replace as needed to maintain hygiene.

A harmful practice during menstruation includes neglecting hygiene (Girigoswami, 2024) or using inappropriate methods to manage the flow. Not changing menstrual products like underwear, pads, tampons, or menstrual cups regularly can lead to bacterial growth, unpleasant odors, and serious infections such as toxic shock syndrome (TSS). Using unsanitary materials, such as dirty or unwashed reusable cloths, increases the risk of infections. Douching is another harmful practice, as it disrupts the natural vaginal flora and can cause irritation or infections. Additionally, flushing menstrual products can clog plumbing and harm the environment. Neglecting hand hygiene before and after changing menstrual

products further increases the risk of bacterial contamination. Avoiding these practices is essential to ensure good menstrual health and overall well-being.

Tracking the menstrual cycle is important for several reasons related to both health and well-being (Patel, 2024) that helps to understand the body's natural rhythm, allowing to identify any irregularities or changes, such as missed periods, heavy bleeding, or unusual symptoms, which can be early signs of underlying health issues like hormonal imbalances, polycystic ovary syndrome (PCOS), or thyroid problems. Further, it provides insight into your fertility window, which is valuable for those trying to conceive or avoid pregnancy. Additionally, tracking the menstrual cycle can help to manage symptoms like menstrual pains, mood swings, or inflammation by anticipating when women might occur and planning accordingly. Overall, understanding of menstrual cycle can empower to take proactive steps in managing reproductive health and general well-being.

Traditional perception about menstrual practice guides to harm among menstruate (Munro, 2021). Concept of menstruation as curse women's menstrual suffering (Gottlieb, 2020). Further, menstruating girls and women are considered as impure and untouchable and suffer from silence during menstruation (Chaudhary, 2023). Therefore, perception of menstruation practice seems neglects to maintain of hygiene during menstruation.

3. Methodology

This study adopts a descriptive research design to analyze the menstrual knowledge that impacts in menstruation hygiene practices. The universe for this study consists of Bachelor of Education (Bed) students of Graduate School of Education Mid-West University, Surkhet Nepal. From this universe, the total population of girls and boys of Bed students is 748. Using a sample size calculator with 95% confidence level, 10% margin of error and a population proportion of 50%, the fixed sample size for this study is determined to be 87 students. The sample was purposively selected from the identifies graduate school to ensure representation from the interested population. Data were collected through Google Forms, featuring both closed-ended questions to capture quantitative and qualitative insight efficiently. For data analysis, qualitative data were processed using thematic analysis, identifying patterns and key

themes from interviews and focus groups. Quantitative aspects such as demographic data were analyzed using descriptive statistical methods. This combined approach ensured a comprehensive understanding of the research problem. Participation was voluntary, with informed consent obtained from all respondents. Data confidentiality and anonymity were ensured and the study was adhered to institutional ethical guidelines.

4. Data Presentation and Analysis

Data collected from the selected respondents are presented in the following tables:

Table-1 Demographic Information

Characteristics	Categories	Frequency	Percentage
Gender	Male	25	28.73
	Female	62	71.26
Marital Status	Single	68	78.2
	Married	19	21.8
Age group	15-25	69	79.31
	26-35	18	20.68
	36-45	—	—
	46 Above	—	—
Class	High	34	39.08
	Middle	50	57.47
	Low	3	3.44
Religion	Hindu	73	83.90
	Buddhist	2	2.29
	Christian	12	13.79
	Others	—	—
Caste/Ethnicity	Brahamin	17	19.54
	Chhetri	22	25.28
	Janajati	24	27.58
	Dalit	10	11.49
	Others	14	16.09

Table-1 highlights demographic data, the majority of respondents of young and female, with 71.26% identifying as female and 79.31% of respondents being between the ages of 15 and 25. The majority are middle class (57.47%) and single (78.2%), with a sizable percentage in the upper class (39.08%). The sample is ethnically diverse, with considerable representation from the Janajati (27.58%) and Chhetri (25.28%) communities. The majority religion is Hinduism (83.90%). Along with a low proportion of respondents from lower socioeconomic levels and minority castes like Dalit (11.49%).

Table-2: Basic Biological Knowledge

Characteristics	Categories	Frequency	Percentage
Menstruation cycle	15-20 days	27	31.03
	21-35 days	58	66.66
	40-90 days	1	1.14
	60-90 days	1	1.14
Cause of Menstruation	Hormonal changes in the body	68	78.16
	Poor diet	5	5.74
	Stress	6	6.89
	Lack of Physical activity	8	9.19
Total		87	100

The above table shows data on menstruation cycles that most respondents (66.66%) had cycles between 21-35 days, with a smaller minority (31.03%) experiencing cycles of 15-20 days. Longer cycles of 40-90 or 60-90 days are reported by just 2.28% of respondents. Regarding the reasons of menstruation, hormonal changes are the predominant issue, indicated by 78.16% of participants, whereas lifestyle variables including poor food (5.74%), stress (6.89%), and lack of physical activity (9.19%) are less generally reported. This implies that lifestyle factors have a minor impact on menstrual cycles in the sample, while hormonal changes are the primary influence. Data regarding the knowledge about various menstruation hygiene practices of selected respondents are depicted in the Table-3 on next page.

Table-3: Knowledge of Menstruation Hygiene Practices

Characteristics	Categories	Frequency	Percentage
Changing Hours	Every 2-4 hours	63	72.41
	Once a day	4	4.59
	Every 6-8 hours	17	19.54
	Only when it feel full	3	3.44
Disposal	Flush them down toilet	20	22.98
	Wrap and throw in a designated bin	49	56.32
	Leave them exposed in the trash	5	5.74
	Bury them in the ground	13	14.94
Best use of product	Tight synthetic underwear	31	35.63
	Loose cotton underwear	44	50.57
	Underwear made of wool	10	11.49
	No underwear	2	2.29
No recommend for hygiene	Using a menstrual cup	19	21.83
	Changing sanitary product after 6-8 hours	27	31.03
	Cleaning the genital area with plain water	8	9.19
	Using scented products to mask odor	33	37.93
Importance of wash	To keep your hands dry	32	36.78
	To avoid staining hands	48	55.17
	It is not necessary to wash hands	7	8.04
Safe Practice	Using the same pad or tampon for the entire day	15	17.24
	Washing the genital area with plain water regularly	57	65.51
	Avoiding all physical activity	8	9.19
	Wearing tight synthetic clothing	7	8.04

Status of MHP	Access menstrual materials and sanitation	18	20.68
	Changing privacy and disposal	3	3.44
	Menstrual education	13	14.94
	Respect and dignity	4	4.59
	Above all	49	56.32

The above table highlights common menstrual hygiene practices among the sample, with most respondents (72.41%) changing their products every 2-4 hours and the majority (56.32%) disposing of them by wrapping and throwing them in a designated bin. Loose cotton underwear is preferred by 50.57%, whereas tight synthetic underwear is worn by 35.63%. In terms of hygiene procedures, 37.93% utilize scented items to cover odor, while 31.03% change products every 6-8 hours. Handwashing is important to avoid staining (55.17%) and keep hands dry (36.78%). Safe practices involve washing the vaginal area regularly (65.51%), and 56.32% of respondents see access to menstruation supplies and sanitation as the main concern for period health and protection. It reveals an emphasis on hygiene, product disposal and access to menstrual resources, though practices and preferences differ across individuals.

Table-4: Social and Cultural Belief

Characteristics	Categories and Frequency		Percentage	
	Yes	No		
Feel Hesitate	29	58	33.33	66.66
Menstruation as Paap	22	65	25.28	74.71
To cook	42	45	48.27	51.72
To enter kitchen room	40	47	45.97	54.02
To enter worshipping room	58	29	66.66	33.33
Participate in cultural & religious function	49	38	56.32	43.67
To enter kitchen garden	38	49	43.67	56.32
To sleep bedroom	39	48	44.82	55.17
To go to temple	50	37	57.47	42.52
To eat dairy foods	36	51	41.37	58.62
To go to water resources	42	45	48.27	51.72

Table-4 shows significant cultural restrictions and taboos surrounding menstruation, with notable variation in social practices. While 66.66% of respondents report no hesitation regarding menstruation, 33.33% still feel hesitant. Furthermore, 25.28% consider menstruation a “sin” (*paap*), indicating the influence of cultural and religious norms. Restrictions on participation in religious and cultural activities are prevalent, with 33.33% prohibited from entering worship spaces and 43.67% restricted from attending events. Additionally, 54.02% face limitations in cooking or entering the kitchen, and 58.62% are restricted from consuming dairy products. However, fewer restrictions exist concerning sleeping in the bedroom or accessing water. These findings underscore the persistence of menstruation-related taboos, particularly in domestic and religious contexts, highlighting the need for continued cultural change and education.

Table-5: Health and Medical Aspects

Characteristics	Categories	Frequency	Percentage
Safe Material	Cloth without washing	12	13.79
	Commercially available sanitary pad	70	80.45
	Tissue Paper	3	3.44
	Newspaper	2	2.29
Healthy Practice of Reusable Cloth	Using the cloth without washing it first	17	19.54
	Drying the cloth in sunlight after washing	57	65.51
	Storing the cloth in a damp place	3	3.44
	Washing the cloth with plain water only	10	11.49
Harmful Practice	Using clean sanitary pads	13	14.94
	Using scented products in the genital area	62	71.26
	Washing hands before and after changing menstrual products	7	8.04
	Staying hydrated and eating nutritious food	5	5.74

Reason of Track Cycle	To predict your next period	14	16.09
	To identify irregularities in your cycle	11	12.64
	To prepare for managing hygiene and health	9	10.34
	All of the above	53	60.91
Importance of Hygiene Practice	Washing the genital area with soap every time change a pad and tampon	47	54.02
	Changing pad or tampon at regular intervals	35	40.22
	Avoiding baths to prevent infections	2	2.29
	Wearing the same pad or tampon for as long as possible to reduce waste	3	3.44
Reason for Changing	To prevent leakage	11	12.64
	To avoid unpleasant odor	5	5.74
	To reduce the risk of infections	12	13.79
	All of the above	59	67.81

The above table indicates a predominant preference for commercially available sanitary pads (80.45%) for menstrual hygiene, with minor use of cloth (13.79%), tissue paper (3.44%), and newspaper (2.29%). Among reusable cloth users, 65.51% dry it in sunlight, while 19.54% use unwashed cloth and 3.44% store it damp. Harmful practices are prevalent, with 71.26% using scented products in the genital area, and only 8.04% consistently wash hands before and after changing menstrual products. A majority (60.91%) track their menstrual cycle for hygiene management. Regarding hygiene, 54.02% wash the genital area with soap when changing pads, and 40.22% change pads regularly. The primary reasons for product change are to prevent leakage, avoid odors, and reduce infection risk (67.81%). Overall, the data reflects a combination of appropriate and problematic hygiene practices, particularly regarding material choice and the use of scented products.

Table-6: Awareness, Engagement and Perception of Menstrual Health Programs and Policies

Characteristics	Categories	Frequency	Percentage
Involvement in Program	Yes	50	57.47
	No	37	42.52
Know Menstrual Policy	Yes	44	50.57
	No	43	49.42
Need Menstrual Health Program	Yes	78	89.65
	No	9	10.34
Given advice	Yes	7	88.50
	No	10	11.49
Mark in which issue	Public Issue	18	20.68
	Private issue of individual	15	17.24
	Both	54	62.06

The above table outlines individuals' participation in menstrual health initiatives, awareness of related policies, and perceptions of menstrual health programs. Findings show that 57.47% have engaged in menstrual health programs, while 50.57% are aware of existing policies. A majority (89.65%) emphasize the importance of such programs. Regarding guidance, 88.50% provide advice, and 11.49% do not. Views on menstrual health vary, with 20.68% considering it a public concern, 17.24% a private matter, and 62.06% seeing it as both. These results underscore the need for improved education, policy awareness, and comprehensive interventions addressing menstrual health as both a personal and societal issue.

The major finding from the demographic data is the predominantly young and female population, with 79.31% of respondents aged 15-25 and 71.26% identifying as female. The sample reflects a middle-class majority (57.47%), with a notable portion from the high class (39.08%). Hinduism is the dominant religion (83.90%), and the sample is ethnically diverse, with significant representation from Janajati (27.58%) and Chhetri (25.28%) groups. However, a notable gap is the absence of older individuals (36-45 and 46+ age groups), along with underrepresentation of lower socio-economic classes and minority castes such as Dalit (11.49%), indicating that the sample may not fully capture the perspectives of these groups.

The major finding from the data on menstruation cycles is that hormonal changes are the primary factor influencing menstruation cycles, cited by 78.16% of respondents. Most individuals (66.66%) have cycles between 21-35 days, and a smaller portion (31.03%) have cycles between 15-20 days. Lifestyle factors such as poor diet (5.74%), stress (6.89%), and lack of physical activity (9.19%) are reported less frequently, suggesting that hormonal changes are the dominant cause, with lifestyle factors having a minor impact on menstruation cycles.

The major finding from the data on menstrual hygiene practices is that most respondents prioritize hygiene and proper disposal, with 72.41% changing their products every 2-4 hours and 56.32% disposing of them responsibly by wrapping and throwing them in a designated bin. A key focus is on regular genital area washing (65.51%), and access to menstrual materials and sanitation is considered the top priority for menstrual health by 56.32% of respondents. However, the data also highlights variability in practices, with some individuals using scented products (37.93%) and changing products less frequently (31.03% change every 6-8 hours), suggesting a mix of safe and less ideal hygiene habits.

The major finding from the data on cultural restrictions and taboos surrounding menstruation is that determined societal taboos still influence the lives of menstruating individuals, especially in religious and domestic spaces. While 66.66% of respondents report no hesitation regarding menstruation, a significant portion (33.33%) still feels hesitant. Cultural and religious practices show a division in participation, with 33.33% restricted from entering worshipping rooms and 43.67% restricted from participating in cultural and religious functions. Cooking (54.02%) and eating dairy foods (58.62%) are also restricted for a considerable number of respondents, indicating the ongoing impact of traditional practices. However, activities like accessing water resources and sleeping in the bedroom face fewer restrictions. These findings highlight the continued cultural stigma surrounding menstruation in certain aspects of daily life.

The major finding from the data on menstrual hygiene practices is the dominant reliance on commercially available sanitary pads (80.45%), with some problematic practices observed, such as the use of scented products in the genital area (71.26%) and improper handling of reusable cloth (e.g., using unwashed cloth or storing it in

damp places). While 60.91% of respondents track their menstrual cycle, and a majority change their pads at regular intervals, harmful hygiene practices like infrequent handwashing (8.04%) and the use of scented products point to areas that require improvement. The data indicates a combination of healthy and unhealthy practices, emphasizing the need for better hygiene education and awareness, particularly regarding product use and hand hygiene.

The major finding from the data on engagement with menstrual health initiatives is the strong support for menstrual health programs, with 89.65% of respondents emphasizing their necessity. A significant portion (57.47%) has participated in such programs, and 50.57% are aware of existing menstrual policies. Additionally, 88.50% offer guidance on menstrual health, indicating active knowledge sharing. The data also reveals that 62.06% view menstrual health as both a public and private issue, highlighting the need for enhanced education, policy awareness, and comprehensive interventions to address menstrual health as a critical societal concern.

5. Discussion

The findings reveal several key insights into menstruation cycles, hygiene practices, cultural taboos, and engagement with menstrual health initiatives. The sample is predominantly young (79.31% aged 15-25) and female (71.26%), with an underrepresentation of older individuals and lower socio-economic classes. Hormonal changes are identified as the primary factor influencing menstrual cycles (78.16%), with lifestyle factors having minimal impact. Menstrual hygiene practices are generally good, with 72.41% changing products every 2-4 hours where 45.9% (Bulto, 2021) changes sanitary pad three or more times during menstruation per day, but harmful practices such as using scented products (37.93%) and infrequent product changes (31.03%) highlight areas for improvement. Cultural taboos continue to affect menstruating individuals, particularly in religious and domestic contexts, with restrictions on activities like cooking (54.02%) and consuming dairy (58.62%). While sanitary pads are the most commonly used product (80.45%) whereas 66.3% used disposable sanitary pad (Bulto, 2021) but issues like improper handling of reusable cloth and infrequent hand washing (8.04%) point to gaps in hygiene education. The data highlighting the persistence of societal taboos and discomfort

surrounding the topic where 26% of participants reported feeling hesitate to talk about menstruation whereas 12.4% reported that they were no talk menstrual issues with parents because of shamefulness (Bulto, 2021), 38.2% reported comfortable talk about menstruation with mother (Shah *et al.*, 2023). This reluctant may stem from cultural stigma, lack of open conversations, or inadequate menstrual education ultimately affecting knowledge sharing and support system among individual. Engagement with menstrual health initiatives is strong, with 89.65% supporting such programs, though awareness and participation remain lower than desired. These findings suggest a need for better education on menstrual hygiene, more inclusive and accessible menstrual health initiatives, and efforts to challenge cultural taboos surrounding menstruation.

6. Conclusion

In conclusion, the data presents important insights into menstrual health, hygiene practice, and cultural point of view. While the sample is primarily made up of young, middle-class, and female individuals, there are significant disparities in representation from older age groups and lower socio-economic strata. Hormonal changes are clearly recognized as the key factor regulating menstrual cycles, with lifestyle factors having a minor impact. Menstrual hygiene practices are in general valued, however detrimental practices, such as the use of scented products and infrequent product changes and feel hesitate talk about menstruation, highlight the need for further menstrual education and awareness. Cultural restriction around menstruation continues to have an effect on daily life, mostly in religious and household settings where limitations on activities such as cooking and dairy consumption are common. Despite the widespread usage of sanitary pads, there are worries regarding their environmental impact. Despite the widespread usage of sanitary pads, there are concerns regarding the environmental effect and poor hygiene habits associated with reusable items. Engagement with menstrual health activities is high, indicating a desire for more educational programs, but awareness and involvement can still be increased. Overall, these findings highlight the significance of improving menstrual hygiene education, increasing access to menstrual health initiatives, and tackling enduring cultural taboos in order to promote a more inclusive and informed approach to menstruation health.

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