



UNVEILING MENSTRUAL HYGIENE: AN ANALYSIS OF NFHS-5

Tehzeeb Anis^{1*}, Mohammad Akram²

¹Research Scholar, Department of Sociology, Aligarh Muslim University, Aligarh (U.P)

²Professor, Department of Sociology, Aligarh Muslim University, Aligarh (U.P)

*Corresponding Author

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ABSTRACT

Menstruation, a natural and inherent process, has long been shrouded in a veil of stigma and taboo. Despite being a phenomenon specific to females, it has always been shrouded in mystery and mystique in many countries. Proper menstrual hygiene is essential to ensure comfort, prevent infections, and maintain the overall well-being of individuals during their menstrual cycle. The objective of the study is to study the hygienic methods of protection during the menstrual period. To analyze this paper, reports of NFHS-5 (2019-2021), along with existing literature have been reviewed to understand the hygienic methods of protection adopted by the girls during their menstrual period. The findings suggest that adolescent girls and women are using sanitary napkins followed by cloth and locally prepared napkins, tampons, and menstrual cups. Many taboos, such as not bathing during periods, appear to be shattering. More and more women are taking baths during their menstrual cycle and they are even bathing in the same bathroom where others bath. To eliminate myths and taboos around menstruation and to make it a positive experience for girls rather than a stressful one, a thorough awareness effort must be launched at all levels of society

KEYWORDS: Menstruation, Hygiene, Sanitary Pads, Tampons, Bathing.

INTRODUCTION

Menstruation has been whispered behind closed doors for centuries, seen as something to be concealed and denied. Menstruation (commonly known as a "period") is a natural biological process that millions of women endure every month. A period occurs when the uterus excretes blood and tissue from the uterine lining and exits the body through the vagina. Menstrual health is defined as complete physical, mental, and social well-being in relation to the menstrual cycle¹. This definition illustrates the multidimensional character of menstruation and how menstruating women's lives can be influenced by their capacity to manage their menstrual health. Every month, 1.8 billion people worldwide menstruate. Millions of these girls, women, transgender men, and non-binary people struggle to regulate their menstrual cycle in a respectful and healthy manner². Menstruation brings in a new phase - and new vulnerabilities - in the lives of adolescents. During menstruation, however, many adolescent females experience shame, harassment, and social exclusion. The first menstrual changes occur among the girls during their adolescent period, between 11 and 15 years, with a mean of 13 years³. Although a natural process, menstruation has always been linked with misconceptions and practices, sometimes resulting in adverse health outcomes.

Access to safe menstrual periods has long been a struggle for Indian women, particularly those in rural regions and lower socioeconomic categories. Menstruation, a natural and inherent process, has long been shrouded in a veil of stigma and taboo. Despite being a phenomenon specific to females, it has always been shrouded in mystery and mystique in many countries. Menstruation taboos keep women and girls out of many parts of social and cultural life. Some of these are beneficial, while others may be dangerous⁴.

Restrictions On Women and Girls During Their Menstrual Period

Due to cultural, religious, and traditional beliefs, women and girls face a variety of restrictions throughout their menstrual period. The table below depicts examples of these restrictions in several Asian countries. Other countries throughout the world impose similar limitations.



Restrictions on girls during their menstrual period in Afghanistan, India, Iran and Nepal.

I can't eat certain foods	I can't attend a religious function	I am not allowed to cook	I do not wash my body/shower/bathe	I do not play/play sports	I have to sleep separately from other members of the family	I do not attend school	I do not have any restriction placed on me
Afghanistan 70% West Bengal 50% Nepal 13%	Nepal 67% West Bengal 71%	Nepal 46%	Afghanistan 70% Gujarat 98% Iran 52%	Nepal 10% West Bengal 43% Afghanistan 70%	Nepal 28 %	Afghanistan 29% West Bengal 16 % Nepal 3%	Nepal 11% West Bengal 15 % Afghanistan 15%

Source: HOUSE et al. (2012)

Girls' experiences of menstrual hygiene in school and their impact: Findings from Africa and Asia⁵

Days Missed From School Or Reduced Performance

- 95% of girls in Ghana sometimes miss school due to menstrual cycle.
- 86% and 53% of girls in Garissa and Nairobi (respectively) in Kenya miss a day or more of school every two months.
- In Malawi 7% of girls do not go to school on heavy days. Over a term, each girl misses 0.8 days.
- In Ethiopia 51% of girls miss between one and four days of school per month because of menses. 39% reported reduced performance.
- One study from Nepal indicated only 0.4 days were missed over the 180 days of the school year. Another study found only 3.4% of girls did not go to school when menstruating, but over half had been absent at least once due to menstruation.

Pain, Embarrassment, Fear, Shame

- 71% of girls in Iran and 54% of girls in Ethiopia experienced pain in their stomach or back during their period.
- 48-59% of girls in peri-urban areas and 90% in rural areas of Ghana felt ashamed during their period.
 - 43-60% of girls in peri-urban areas and 95% of girls in rural areas in Ghana experienced embarrassment during their last period.
 - 30% of girls in Malawi had been scared at menarche.
 - Of those who experienced pain during their menses in Iran, 52% were also nervous during their period.

Menstrual Hygiene Practices

- In Iran, 51% of girls wait eight days following the start of their period before taking a bath. In Afghanistan, 84% of girls never wash their genitals.
- 39% of girls in India and 80% of females in Afghanistan use water to wash their period but not soap protection.
 - In Malawi, 30% of females do not use the restroom while menstruating. 20% of respondents also mentioned this women in Indian societies.
 - In India, 60% of girls and 11% of females in Eithopia, change their menstrual cloth only once in a day.

Objective of the study

- To study the hygienic methods of protection during the menstrual period

Methodology

To analyze this paper, reports of NFHS-5 (2019-2021), along with existing literatures have been reviewed to understand the hygienic methods of protection adopted by the girls during their menstrual period. NFHS series provides information on population, health and nutrition in India. NFHS 5 data was collected from 636,699 households and 724115 women. The data was collected through survey questionnaires. The woman's questionnaires collected information from all eligible women aged 15-49, while for menstrual hygiene, women of age group 15-24 years were asked.



RESULT AND DISCUSSIONS

1.1 Menstrual Hygiene Methods

Menstrual hygiene protection methods refer to the various products and practices used by menstruating individuals to manage their menstrual flow in a clean, safe, and hygienic manner. The uterine lining sheds during menstruation, resulting in the release of blood and tissue from the vagina. Proper menstrual hygiene is essential to ensure comfort, prevent infections, and maintain the overall well-being of individuals during their menstrual cycle. There are several types of menstrual hygiene products available, including:

1. **Menstrual pads** are absorbent pads made of cotton or other materials worn in the underwear to absorb menstrual blood.
2. **Tampons:** Tampons are small, cylindrical devices made of absorbent materials that are inserted into the vagina to collect menstrual blood.
3. **Menstrual cups:** Menstrual cups are bell-shaped, reusable devices made of medical-grade silicone or rubber that are inserted into the vagina to collect menstrual blood. They can be washed and reused for several years.
4. **Period panties:** These are underwear specially designed with built-in absorbent layers to manage menstrual flow without the need for additional products.

Proper menstrual hygiene involves using the right menstrual products and includes changing them regularly (usually every 4 to 8 hours) to prevent the risk of infection. Additionally, washing hands before and after handling menstrual products is essential to maintain cleanliness. In some communities and countries, access to menstrual hygiene products and education about menstrual health can be limited, leading to challenges in managing menstruation safely and with dignity. Efforts are being made worldwide to improve menstrual hygiene management and ensure that all individuals have access to safe and effective menstrual hygiene products and information. National Family Health Survey 5 have also reported the different types of hygienic method adopted by the adolescents girls and women in India.

Table 1 shows the background characteristics and the types of hygienic method adopted by the girls in India. From the table, it is found that 64.5 percent of adolescent girls are using sanitary napkins while 49.3 percent and 15.2 percent of girls are using cloth and locally produced napkins respectively.

Table 1: Background characteristics and types of hygiene method adopted

Background characteristics	Cloth	Locally prepared Napkins	Sanitary Napkins	Tampons	Menstrual cup	% using hygiene method
Age						
15-19	49.3	15.2	64.5	1.7	0.3	78.0
20-24	50.0	14.7	64.2	1.6	0.3	77.2
Residence						
Urban	31.5	14.1	77.5	1.8	0.5	89.6
Rural	57.2	15.3	58.9	1.6	0.2	72.6
Religion						
Hindu	49.2	15.3	64.2	1.6	0.3	77.6
Muslim	56.2	13.4	62.0	2.0	0.3	74.7
Christian	36.1	11.0	77.0	1.1	0.5	85.7
Sikh	28.4	25.5	72.8	0.9	0.5	93.6

A total 78 percent of adolescent girls are using hygienic methods of protection during their periods. A significant increase of 78 percent can be seen from 58.3 percent about five years back in NFHS-4. A significant increase in the use of sanitary pads in the age group of 20-24 can also be seen. From Table 1, it is also found that sanitary napkins are the most used hygienic products among both the age groups. After sanitary napkins, cloth is the most used product. Almost 50 percent of adolescent girls and women are using clothes. Tampons and menstrual cups are the least used products by women. On the basis of residence, it is found that the use of hygienic methods is significantly lower in rural areas 72.6 with that of urban areas 89.6 percent. The urban women are more familiar with and aware of the use of sanitary napkins and in maintaining hygiene methods. Another factor is the numerous taboos and misconceptions surrounding menstruation, many of which cause shame and stigma, particularly in rural communities. Girls and women start to feel uncomfortable going to pharmacies to buy period products as a result, and they could be hesitant to urge the male family members to do the same. The greater differences in period-product usage between urban and rural populations may be due to these factors.



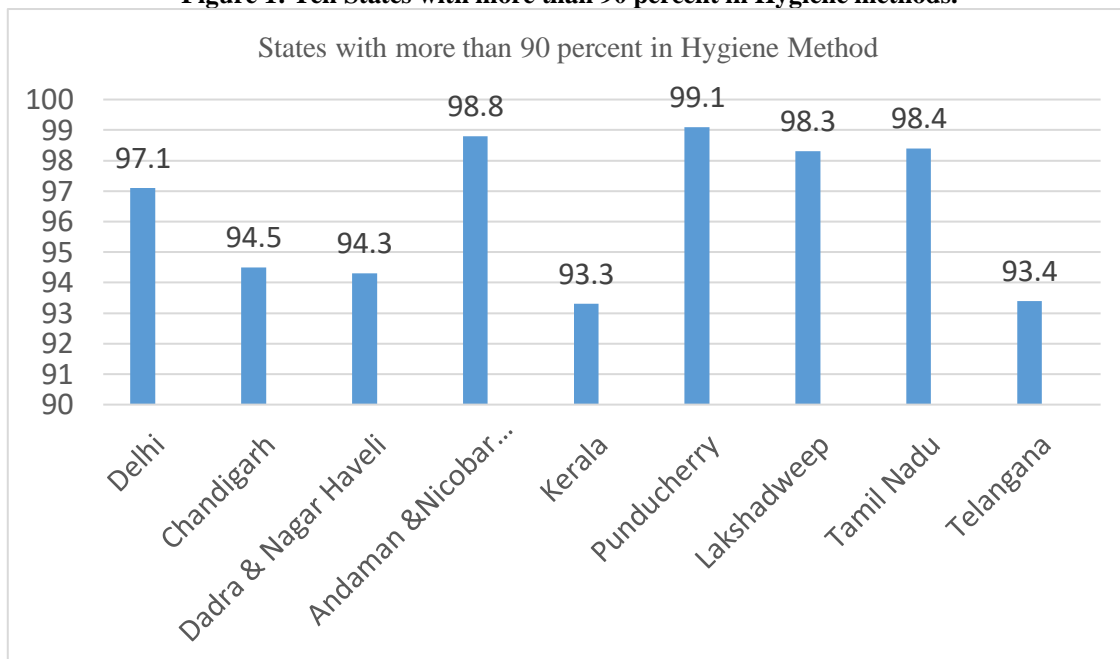
Differentials were also found on the basis of religion. It is found that Sikh 93.6 percent and Christian 85.7 percent are adopting hygienic methods followed by Hindu 77.6percent and Muslims 74.7 percent.

Table 1: Background characteristics and types of hygiene method adopted

Schooling	Cloth	Local napkins	Sanitary pads	Tampons	Menstrual cups	% using hygiene method
No schooling	80.0			1.1		
<5 years		11.0	32.6		0.1	43.3
5-7 years	73.7			1.1	0.3	
12 or more years	69.0	11.6	40.3	1.3	0.2	51.3
	35.2	13.5	46.8	1.9	0.4	59.4
		15.9	76.8			90.3
Caste						
SC	51.0	15.1	63.5	1.5	0.3	76.7
ST	60.8	13.9	52.9	1.9	0.3	65.6
OBC	51.2	15.9	63.6	1.7	0.3	77.7
Other	40.7	13.7	71.6	1.6	0.3	83.7
Wealth quintile						
Lowest	74.4	12.0	41.7	1.4	0.2	53.6
Second	61.9	15.3	56.8	1.7	0.2	71.1
Middle	47.6	16.3	68.0	1.6	0.2	82.1
Fourth	36.3	16.3	75.6	1.9	0.2	89.0
Highest	22.8	14.8	83.1	1.7	0.2	95.1

Education plays an important role in maintaining hygiene during the menstrual cycle. Students should be provided with adequate and timely information about menstrual hygiene and health. School can provide adolescent girls with knowledge, sanitary pads and facilities to understand and manage their periods. The above table shows that girls with higher than secondary level of schooling are more than twice as likely to be using a hygienic method than girls without any education level i.e. 90 percent versus 43 percent. The more the education the more chances of adopting a hygiene method during their menstrual cycle. On the basis of caste the use of hygienic methods is lower among the girls from scheduled castes and scheduled tribes than those belonging to other castes. Differentials can also be seen from the wealth quintile also. Those girls belonging to the highest wealth quintile are more likely to adopt hygienic method. It is found that 95.1 percent from the highest wealth quintile and 53.6 percent from the lowest wealth quintile are adopting hygienic method of protection.

Figure 1: Ten States with more than 90 percent in Hygiene methods.

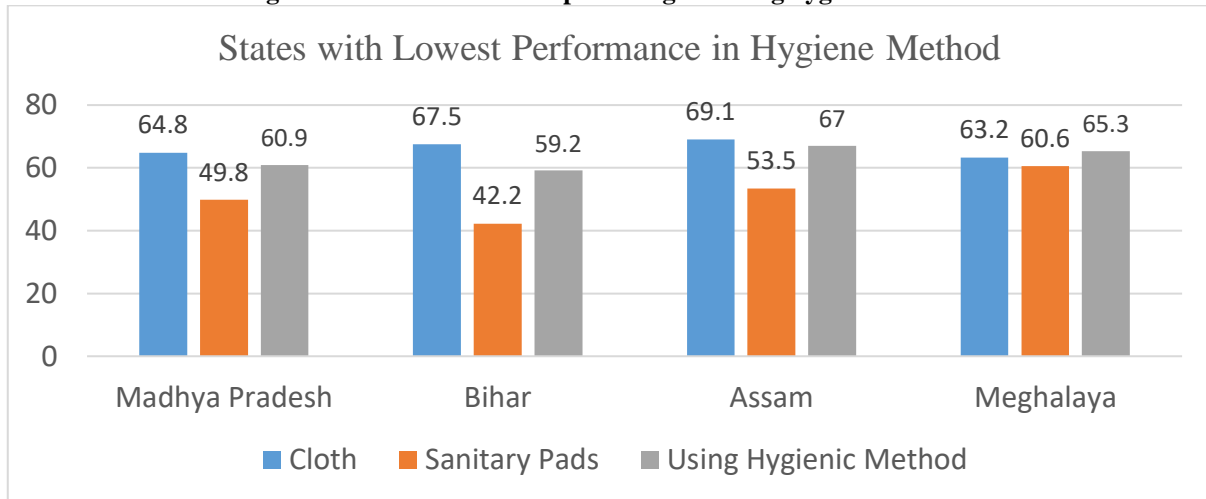


Source: NFHS-5 (2019-2021).



Figure 1 shows the percentage of women in India's states between the ages of 15 and 24 who use period products is 90% or more in 17 states and UTs reported using period products; in Puducherry and the Andaman and Nicobar Islands, the percentage was 99%. Figure 1 shows that in the national capital of India, Delhi 97.1 percent of women are adopting hygienic method during their menstrual cycle. Kerala, Tamil Nadu and Lakshadweep had 93.3, 98.4 and 98.3 respectively. The South Indian states are higher in hygiene management than other states because of the high literacy rate. The education of their children is a top priority in southern states. Compared to other costs, they spend more on education. This is also the reason why South India has a larger percentage of literate people than the rest of the country.

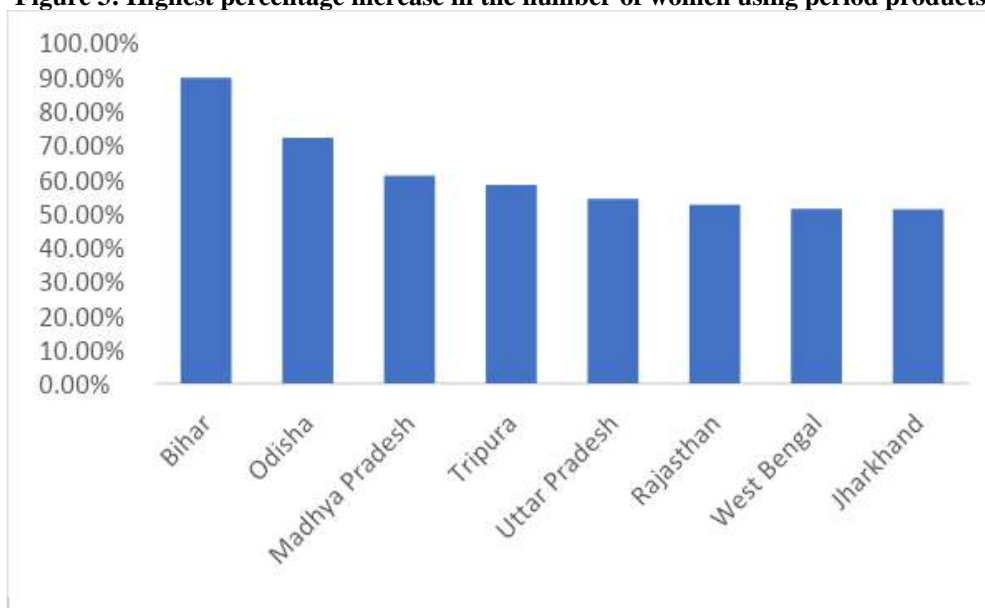
Figure 2: States with lowest percentage in using hygienic method



Source: NFHS-5 (2019-2021)

Figure 2 shows that some states are performing low in adopting hygiene methods. Women in seven states and UTs, including Tripura, Chhattisgarh, Assam, Gujarat, Meghalaya, Madhya Pradesh, and Bihar, used period products at a rate of 70% or less. The only state to register a figure less than 60% was Bihar. In these lowest-performing states, women are still using unhygienic methods of protection during their menstrual cycle. NFHS-5 data reveals that while sanitary napkins are the most popular product but still a larger portion of women use cloth as a method of protection during their menstrual period. In Madhya Pradesh, Bihar, Assam and Meghalaya 64.8, 67.5, 69.1 and 63.2 percent of women respectively use cloth as a method of protection during their periods.

Figure 3: Highest percentage increase in the number of women using period products.



Source: NFHS 4 & NFHS 5



The top eight states that reported a rise in the percentage of female users of period products from NFHS-4 to NFHS-5 are shown in Figure 2. In terms of the proportion of women using period products, Bihar and Madhya Pradesh were first and third from the bottom, respectively, however Bihar showed an astonishing 90% growth, followed by Odisha (72%) and Madhya Pradesh (61%).

A Decline in Taboo?

Menstruation is still regarded as unclean and disgusting on a cultural level in many parts of India. This myth's origins can be traced back to the Vedic era and is frequently connected to Indra's killing of Vritras. Because women are said to have shared some of Indra's guilt, it is said in the Veda that the guilt of killing a brahmana-murder is said to manifest itself every month as menstruation⁷. In some regions of India, rigorous dietary restrictions are also observed and menstruating girls typically avoid sour foods like curd, tamarind, and pickles^{8,9}. Apart from dietary restrictions, women must follow specific restrictions like bathing. In many parts of the country, women are not allowed to take a bath during their menstrual period or for the first two days of their period. Water is said to be the most typical purifying medium. Therefore, protecting water sources from contamination is of utmost importance, which is a physical incarnation of Hindu deities^{10,11}. This brings to light a potential explanation for why women are forbidden to bathe during their periods, especially during the first few days. The latest report of National Family Health Survey reveals that this bathing taboo seems to be broken. Table 2 shows that women from both rural and urban India are taking bath during their menstrual period. It is found that 96 percent of adolescent girls between ages 15-19 are taking baths during their periods while same percentage of women i.e. 90 percent women of age group 20-24 are taking baths during their menses. It is found that 94 percent of women with no schooling is taking bath while the percentage is higher among women with 12 or more years of education i.e. 97 percent women takes bath during their menstrual cycle.

The difference in bathing can also be seen in different religion also. Table 2 shows that 97 percent of Hindu women takes bath followed by the Christian and Sikh women while the percentage is lower among the Muslim women. It is found that compared to other religions 87 percent of Muslim women takes a bath during their menstrual period. Caste base differences can also be seen. It is found that more than 95 percent women from scheduled caste, schedule tribe and other backward caste takes a bath while approximately 94 percent women from other castes takes bath during their menstrual period.

Table 2: Bathing Practice during Menstrual Period.

Background Characteristics	Urban	Rural	Total	Bathing in the same bathroom(Total)
Age				
15-19	95.8	96.1	96.0	92.4
20-24	96.4	96.9	96.8	92.3
Schooling				
No Schooling	90.6	94.6	94.0	90.7
12 or more years	96.7	97.1	96.9	94.4
Religion				
Hindu	98.0	97.9	97.9	92.4
Muslim	88.7	87.8	88.2	91.3
Christian	97.6	96.0	96.5	91.9
Sikh	97.6	96.5	96.8	98.7
Caste				
SC	97.2	97.4	97.3	91.7
ST	97.3	97.0	97.0	86.8
OBC	96.1	96.6	96.5	93.7
Other	95.3	94.6	94.9	93.0

Source: NFHS-5 (2019-2021)

When it comes to having a bath in the same bathroom as other family members, it has been observed that 92 percent of women between the ages of 15 and 19 and 20 and 24 do so. Additionally, 94 percent of women with at least 12 years of education versus 90.7 percent of women with minimal education are found to take baths in the same bathroom. Table 2's religious breakdown reveals that Sikh women, who make up 98.7 percent of bathers, are followed by Hindu, Christian, and Muslim women. Caste is another way to view the differences. Scheduled tribes are found to be less likely to take a bath in the same bathroom, with an average of only 86 percent compared to 93.7, 93, and 91.7 percent for other backward castes, other castes, and scheduled castes, respectively.

In India, 96.3 percent of women take a bath during their menstrual period. In almost every state of India, more than 95 percent of women are taking a bath during their menstrual cycle except Jammu & Kashmir (42.7%), Ladakh (36.6%), Manipur (84.7%), and Meghalaya (84.0%). Previously, women were not permitted to bathe in the same bathroom as other family members, but as time goes on, this taboo is about to be overturned. According to the fifth round of National Family Health Survey it is seen that in the maximum states of the country, more than 95 percent women takes bath in the same bathroom used by other household members.



Some of the other states like Odisha (72.4%), West Bengal (74.8%), Assam (88.4%), Meghalaya (88.9%), Tripura (74.9%), Tamil Nadu (85.3%), Puducherry (87.7%) and Gujarat (88.2%) compared to other states, do poorly when it comes to members bathing in the same bathroom.

CONCLUSION

One of the most significant changes that occur in adolescent girls is the beginning of menstruation. Her health, personal cleanliness, and sense of empowerment and dignity depend on her using a healthy approach to menstrual management. Women use hygienic measures such as sanitary napkins, cloths, locally made napkins, tampons, and menstrual cups to prevent visible bloodstains during menstruation. During analysis of NFHS- 5 report, it was found that sanitary napkins were the most popular used product during the menstrual period, followed by cloth and locally made napkins. Menstrual cups and tampons were the least used products. Tampons and menstruation cups are less well known; therefore, there isn't a big enough market for store owners to stock up on them. Many women who might even be aware of such products are either too self-conscious to ask for them or could decide not to use them because of the stigma associated with them. Tampons and menstruation cups should no longer be considered taboo items, and women and girls should be encouraged to use reusable, hygienic goods. Many taboos, such as not bathing during periods, appear to be shattering. More and more women are taking baths during their menstrual cycle and they are even bathing in the same bathroom where others bath. To eliminate myths and taboos around menstruation and to make it a positive experience for girls rather than a stressful one, a thorough awareness effort must be launched at all levels of society. Additionally, it will support the empowerment of girls. In schools, students should be provided with reproductive health education in the classrooms that will raise their awareness of menstrual practices, sexuality, and puberty-related issues and eliminates traditional notions and myths about menstruation.

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