Physical Discomfort and Remedial Actions for Pain Management of Adolescent Girls.

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Abstract

Menstruation is a natural, biological process and an important part of reproductive life. The main theme of this study is physical discomfort and remedial actions for pain management during menstruation. It primarily addresses the menstrual discomfort, highlighting common symptoms such as cramping, abdominal pain, backaches, headaches, and fatigue. Managing this pain may involve using hot water bottles to comfort cramps, resting in a quiet room for relaxation, and nourishing the body with warm soup, as the right combination of these remedies can offer comfort and relief. The objective of this study is to examine the situation of physical discomfort and remedial actions for Pain management during the time of menstruation of bachelor level girl's students in Surkhet Multiple Campus. This study is based on quantitative and descriptive methods, the study surveyed 340 out of 2,294 bachelor-level female students at Surkhet Multiple Campus, selected through convivence sampling technique. A closed-ended questionnaire was utilized as the primary tool for data collection. The findings highlight the significance of comprehensive menstrual health education and the impact of cultural beliefs on menstrual experiences. The study showed that 87 percent of respondents experience pain in the back, legs, and stomach during menstruation. A majority of respondents (27.6%) reported that their menstrual bleeding lasts for 7 days. Additionally, 88 percent of respondents reported experiencing headaches and tiredness during menstruation. To manage pain, 42 percent of respondents consume additional nutritious food, such as eggs, meat, soup, and paneer, while 72 percent reported consuming hot soup. So, supportive environment and providing nutritious food is essential for menstruating adolescent girls and women.

Keywords: Accurate information, Myth, Pain management, Physical discomfort, Remedial actions,

Background

Menstruation is a natural and biological process experienced by girls and women of their reproductive age, involving the shedding of the uterine lining (Adhikari, 2025). It is also known as a period, is a natural process of every woman or girl that occurs in the female body as a part of the menstrual cycle. Many girls feel scared, confused, and worried when they first experience menarche (Karki et al., 2017). Similarly, Adhikari and Adhikari (2023) claimed that menstruation, driven by hormonal changes, is a key aspect of the menstrual cycle and fertility. It is often accompanied by physical and emotional symptoms like cramps, mood swings, and fatigue maintaining proper menstrual knowledge and hygiene practices is essential for women's health during this time.

Menstruation is a natural and biological part of life, it is sign of womanhood, still it is often considered as various socio-economic taboo, myths and customs that can sometimes negatively affect adolescents' health (Dasgupta & Sarkar, 2008; Upadhya, 2025).

However, Menstruation is deeply shaped by socio-cultural restriction, taboo and stigma during the time of misinformation (Gurung, 2023; Upadhya, 2024). Adequate support and access to hygiene products are crucial for managing menstruation effectively Addressing these issues can improve menstrual health and well-being Promoting understanding and eliminating stigma around menstruation are essential for gender equality and health (Sood et al., 2020).

During this time, premenstrual syndrome (PMS) may occur, relating symptoms such as poor sleep, mood swing, irritation headache and abdominal pain. It also increase the risk of serious health conditions of reproductive problems (Himalini et al., 2023).

A menstrual pad is a hygiene product used to absorb menstrual blood during the time of menstruation (Adhikari, 2024). It's an important tool for maintaining hygiene practices, cleanliness, preventing infections, and allowing women to go about their daily activities comfortably and confidently. Arability of pads in schools and work places is important for every menstruater. Which helps ensure that girls and women can attend regular school and work without disruption. Among them, Cloth pads are traditional and environmentally friendly menstrual products used to absorb menstrual blood. However, their use is gradually declining, especially in urban areas, where disposable sanitary pads are becoming more popular due to their convenience and easy availability (Van Eijk et al., 2016).

Menstrual pain and discomfort are common experiences for many women during their monthly periods. The pain can range from mild to severe, often affecting daily activities. Women often experience pain as a natural part of their biological processes, such as menstruation and childbirth. These are common life events for many women, and the pain associated with them is usually considered normal. However, the intensity of the pain can vary from person to person (Hoffmann & Tarzian, 2001).

Menstrual problems are common among girls and can significantly hinder their ability to focus on education and career development. Support from parents is essential during this time, as understanding and guidance can help girls manage these challenges more effectively. However, if parents are too tolerant or unconcerned, it can make it harder for them to cope, potentially impacting their long-term goals and success (Upadhya, 2024).

Research Methods

This study employed a quantitative, descriptive research design conducted within Surkhet Multiple Campus, Surkhet. According to the record of Surkhet Multiple Campus of Surkhet, there are 2294 girl's students at the bachelor's level, among them, 340 were selected using conveniences sampling technique. The sampling process from the population is based on the Yamane's formula, $n = \frac{N}{1+Ne^2.}$. A methodical and precise approach was employed to carefully select participants for the study. Data collection was facilitated using a closed-ended, self-administered questionnaire. In quantitative survey studies, the primary goal is to ensure that findings can be generalized from the sample to a larger population, emphasizing broad applicability (Lapan, 2014). Similarly, Cross and Belli (2004) also claimed that, quantitative survey studies, the primary concern is to select respondents so that responses are representative of some defined population of interest (p.291. The researcher personally visited respondents on campus and conducted face-to-face interviews to gather the necessary data. Afterward, the data were initially entered into Epi Data 3.1 software before being transferred to the Statistical Package for Social Sciences (SPSS) software, version 20.0, for further analysis. The data were then subjected to descriptive analysis and the results were organized into tables for presentation.

Ethical Considerations

As the researchers, we ensured that, ethical considerations were strictly followed, beginning, during and after the study. Before the collection of information, oral consent was taken from all respondents. During the study, respondents were treated with respect and dignity providing objectives of study, its whole process and privacy. After the completion of study, collected information were securely stored and only used for research process and the results were presented honestly and accurately.

Results

Table 1. *Demographic Characteristic of Respondents*

Variable	Category	n	%
Age of respondents	Below 20	110	32.4
	20–22	170	50
	23–24	60	17.6
	Total	340	100
Age at menarche	10–13 years	199	58.5
	14–17 years	141	41.5
Mean age at menarche	12.8 years	-	-
	Total	340	100
Caste/ethnicity	Brahmin	124	36.5
	Chhetri	109	32.1
	Janajati	75	22.1
	Newar	7	2.1
	Dalit	25	7.4
	Total	340	100
Religion	Hindu	318	93.5
	Buddhist	5	1.5

	Christian	17	5
	Total	340	100
Marital status	Married	155	45.6
	Unmarried	185	54.4
	Total	340	100

Table 1. Showed that 32 percent of the respondents are below 20 years, 50 percent are between 20 and 22 years, and 18 percent are between 23 and 24 years. Regarding the age at menarche, 59 percent of the respondents experienced menarche between 10 and 13 years, while 41 percent experienced it between 14 and 17 years. The mean age of menarche is 12.8 years.

In terms of ethnicity, 36 percent of the respondents are Brahmin, 32 percent are Chhetri, 22 percent are Janajati, 2 percent are Newar, and 7 percent are Dalit. In terms of religious majority of respondents are Hindu, with 94 percent identifying as such, followed by 1 percent Buddhist and 5 percent Christian. Lastly, the marital status of the respondents shows that 46 percent are married and 54 percent are unmarried. Overall, the data provides a comprehensive overview of the respondents' demographic profile.

Problems Faced by Girls during Menstruation

Menstrual problems that can vary depending on their socio-cultural norms' taboos. It is essential to recognize the diverse experiences of individuals and various challenges faced by adolescent girls. So, it is necessary to address these challenges and create a more inclusive and equitable environment in which every individual have equal rights and opportunities, regardless of gender. To tackle with various issues, the focus should on promoting education, raising awareness, challenging gender norms, ensuring legal protection, and fostering supportive environments for girls and women.

Table 2. *Premenstrual Syndrome Occurred*

Premenstrual syndrome duration (days)	n	%
1 day	122	35.9
2–3 days	148	43.5
4 or more days	70	20.6

Total	340	100

Table 2 reveals that the premenstrual syndrome (PMS) includes a range of physical and emotional symptoms that many women experience few days before the time of menstruation. During PMS, the common symptoms are mood swings, irritability, depression, anxiety, fatigue, bloating, breast tenderness, and headaches. The severity of PMS can vary widely. Some women experience mild discomfort while others endure symptoms that could disrupt daily activities. The cause of PMS is believed to be linked with hormonal fluctuations during the menstrual cycle. Lifestyle changes, dietary adjustments, exercise, and medication can help to manage and alleviate PMS symptoms. Premenstrual syndrome of the data reflect that 35.9 percent of respondents experienced PMS for 1 day, 43.5 percent for 2-3 days, 20.6 percent for 4 or more days. The data highlights the importance of recognizing and addressing PMS symptoms, as they can significantly impact individuals' well-being and quality of life during the premenstrual period. Healthcare providers and individuals can benefit from increased awareness and education about PMS, including management strategies and available support options.

Table 3. *Duration of Menstrual Flow*

Menstrual period (days)	n	%
1 day	3	0.9
2 days	17	5
3 days	64	18.8
4 days	147	43.2
5 days	87	25.6
6 days	17	5
7 days	5	1.5
Total	340	100

Table 3 examined that the number of days of menstruation flow refers to the duration in which a woman experiences menstrual bleeding during her menstrual cycle. This duration can vary widely among individuals, typically lasting between 4 days or more 7 days, though shorter or longer periods are also possible. The length of menstruation flow is influenced by various factors including hormonal balance, age, and overall health. Regular menstrual cycles with consistent flow durations are often considered indicative of reproductive health. Changes in the duration or

pattern of menstrual flow can sometimes signal underlying health issues and may warrant medical attention for diagnosis and management. Understanding the typical range and variations in menstrual flow duration helps individuals monitor their reproductive health and seek appropriate care if needed.

The table on the menstruation period presents the frequency and percentage of respondents experiencing different durations of their menstrual cycles. The data indicates that 0.8 percent of respondents have a menstruation period of 1 day, 2.8 percent for 2 days, 6.8 percent for 3 days, 17.2 percent for 4 days, 32.4 percent for 5 days, 8.4 percent for 6 days, and 27.6 percent for 7 days.

Table 4. *Complications Faced by Respondents during Menstruation*

Complication during menstruation	Yes		No	
	Number	Percentage	Number	Percentage
Pain in the back legs and Stomach	295	87	45	13
Experience high blood flow and admission	55	16	285	84
Absent in classroom due to physical discomfort and weakness	270	79	70	21
Itching and burning in the genital area	65	19	275	81
Irregular menstruation	95	28	245	72
Reproductive tract infection	65	19	275	81
Pain in the lumbar area	280	82	60	18
Headache and tiredness	300	88	40	12

Table 4 observed that complications during menstruation for respondents can encompass a variety of physical and emotional challenges. Common complications include severe menstrual cramps (dysmenorrhea), excessive bleeding (menorrhagia), fatigue, headaches, back pain, gastrointestinal disturbances, and mood swings. These symptoms can vary in severity and impact, affecting daily activities, work, and social interactions. Managing these complications often involves a combination of medical treatments such as pain relievers, hormonal therapies, lifestyle adjustments like exercise and diet modifications, and sometimes counseling or emotional support to cope with the psychological effects. Understanding and addressing these complications are essential for improving the quality of life and well-being of individuals

experiencing menstrual difficulties. The table embodies the complications experienced by respondents during menstruation, comparing the number and percentage of those who experience specific complications against those who do not. It shows that 87 percent of respondents experience pain in the back, legs, and stomach, while 13 percent do not. High blood flow and hospital admission are experienced by 16 percent of respondents, with 84 percent not experiencing this. Physical discomfort and weakness leading to classroom absence affect 79 percent of respondents, whereas 21 percent do not face this issue. Itching and burning in the genital area are reported by 19 percent of respondents, while 81 percent do not report these symptoms. Irregular menstruation is a problem for 28 percent of respondents, compared to 72 percent who do not experience it.

Table 5. *Remedial Actions for Pain Management during Menstruation*

Remedial Action	Yes		No	
	Number	Percentage	Number	Percentage
Take medicine	99	29	241	71
Using hot bag	167	49	173	51
Consumption of nutritious food	168	49	172	51
Taking a rest	191	56	149	44
Having hot soup	245	72	95	28
Having dark chocolate	46	14	294	86

Table 5 shows that remedial actions for managing pain during menstruation often involve a combination of practical and comforting approaches. Using a hot water bag or heating pad on the lower abdomen or lower back can effectively soothe muscle cramps and reduce discomfort. Warm soups can provide hydration and comfort, while nutrient-rich foods such as fruits, vegetables, lean proteins, and whole grains can help replenish essential nutrients, rest and support overall well-being. Ensuring adequate intake of fluids, particularly water, helps maintain hydration levels and may alleviate symptoms like bloating and headaches. Additionally, practicing relaxation techniques such as deep breathing, gentle stretches, or meditation can help manage stress and reduce muscle tension associated with menstrual pain. Incorporating these remedies into a routine tailored to individual needs can contribute to a more comfortable and manageable menstrual experience.

The table presents the remedial actions for menstrual problem, shows that 29 percent of respondents take medicine to alleviate symptoms, while 71 percent do not. Using a hot water bag is a remedy for 49 percent of respondents, whereas 51 percent do not use this method. Similarly, 49 percent of respondents consume nutritious food as a remedial action, with 51 percent not doing so. Resting is a common remedy during menstruation, with 56 percent of respondents taking rest, while 44 percent do not. Having hot soup is the most common remedial action in that time, with 72 percent of respondents adopting this practice and 28 percent not.

Finally, 14 percent of respondents consume dark chocolate during menstruation, while 86 percent do not. This data provides insight into the various approaches respondents take to manage menstrual discomfort and its symptoms.

Table 6**.** *Knowledge of Nutritional Requirements at the Time of Menstruation*

Knowledge of Nutritional Needs	Yes		No	
	Number	Percent	Number	Percent
Body weakness	203	60	137	40
High flow of blood	193	57	147	43
Information by parents	154	45	186	55
From study	134	39	206	61

Table 6 found that knowledge of nutritious foods and their necessity among respondents during menstruation. The data on nutritious foods reflect differences in thoughts among individuals, which are influenced by factors such as education, cultural beliefs, and access to information. It is necessary to understand the need and importance of nutritious foods, because the lack of it especially during menstruation and overall life, leads to health problems and impact overall impact overall well-being. Education and awareness campaigns play a crucial role in empowering individuals to make informed dietary choices that support their health during this physiological phase.

The table presents respondents' knowledge regarding the need for nutritious food during menstruation, comparing the number and percentage of those who are aware of specific reasons against those who are not. It shows that 60 percent of respondents recognize body weakness as a reason for the need for nutritious food, while 40 percent do not. High blood flow as a reason is known by 57 percent of respondents, with 43 percent not being aware. Information provided by

parents is acknowledged by 45 percent of respondents, whereas 55 percent have not received this information from their parents. Additionally, 39 percent of respondents have learned about the need for nutritious food from their studies, while 61 percent have not. This data provides insight into the sources and extent of knowledge about the importance of nutrition during menstruation among the respondents.

Parental Support for Nutrition

Food practices during menstruation can vary among individuals based on cultural beliefs, personal preferences, and resource access. It is important to note that individual dietary needs and preferences can vary, and there is no one-size-fits-all approach. It is always recommended to listen to the body, consult with a healthcare professional or registered dietitian, and make choices that align with overall health goals and cultural beliefs.

Table 7**.** *Parents Provide Additional Foods during Menstruation*

Take Nutritious Food During Menstruation	Frequency	Percent
Yes	307	90
No	33	10
Total	340	100

The table 7 provides information on whether respondents consume nutritious food during menstruation, along with the frequency and percentage of respondents who do so. It shows that most of the respondents' 90 percent of respondents, or 307 individuals, consume nutritious food during menstruation, while 10 percent, or 33 individuals, do not. So, the data in this table indicate that the respondents showed awareness and practiced the consumption of nutritious food during the time of menstruation.

Table 8. *Dietary Practices during the Time of Menstruation*

Type of food during menstruation	Frequency	Percent
Mainly rice, pulses, and vegetables as usual in daily	197	58
Additional or nutritious food like egg, meat, soup and, paneer	143	42
Total	340	100

The table 8 indicated that the types of food consumed by respondents during menstruation, providing the frequency and percentage of those who stick to their usual diet versus those who consume additional or more nutritious food. It shows that 58 percent of respondents primarily eat rice, pulses, and vegetables as part of their daily routine during menstruation. In contrast, 42 percent of respondents consume additional or nutritious food such as eggs, meat, soup, and paneer. This data highlights the dietary habits of respondents during menstruation and the proportion who opt for more nutritious options.

Discussion

The findings of the study reflect that, many adolescent girls face significant challenges premenstrual syndromes, which is vary from person to person. This results is similar to the study done by Hoffmann and Tarzian (2001), they claimed that, premenstrual syndrome is different by person to person. Present study explored that, socio-cultural taboo, myth and lack of access to accurate information often prevent girls from fully restrict participating in some kind of social and religious activities during menstruation. Which leads to poor menstrual hygiene management and finally leads to reproductive tract infection and other gynecological problems. This results consistent to the study done by Evans and Alvarez (2019), they also claimed that, unhygienic menstrual management leads to reproductive tract infection and other gynecological health problems. Results further shows that many adolescent girls and women are face challenges in managing their menstrual hygiene due to a lack of accurate knowledge, limited access to sanitary materials, private changing spaces, toilets with lock systems and clean water. This situation leads to unhygienic practices that can impact their health and well-being. This results is similar to the study done by Karki et al. (2017), they also explored the same situation in their study. Inadequate menstrual facilities and accurate and timely knowledge is the main indicators to affect the health of menstruating girls.

In this time it is essential to give accurate knowledge for adolescent girls and women, because lack of adequate knowledge about menstrual hygiene, and improper use of sanitary pads during menstruation can lead to health issues such as reproductive tract infections and cervical cancer (Choudhary, 2022). This suggests better awareness and access to hygiene products, though some challenges like cost and proper disposal still remain. Some girls and women experience the problem of menorrhagia, which means to menstrual bleeding that is longer or heavier than normal,

often lasting more than 5 to 7 days. It can be caused by hormonal changes due to infections, puberty, thyroid issues, or diet changes (Asumah, 2022). This study found that 27.6 percent of adolescent girls experienced menstrual bleeding lasting up to 7 days, which created a barrier to their regular school attendance. Therefore, it is necessary for them to receive proper health services and knowledge about appropriate remedies. Scholar like Zhang (2024) also claimed that women often experience various health-related problems during this time, such as anxiety, irritability, and anger before or during their periods. These mood changes are often be linked to hormonal fluctuations, and lower estrogen levels can make them more sensitive to pain during menstruation.

Conclusion

Menstruation is still often surrounded by various socio-cultural taboos, myths, and customs that can negatively affect the health of adolescent girls. The findings of this study indicate that pre-menstrual syndrome was most commonly experienced by all adolescent girls. So, to break these harmful socio-cultural taboos and promote healthy behavior active support is needed from families, schools, and teachers. Most respondents suffered from physical discomfort such as, headache, abdominal pain, back pain, tiredness and mood swing during the time of menstruation. Such kind of problems negatively affect their daily activities and regularity in schools.

To manage this discomfort, it is necessary to adopt remedial action necessary to taking rest, using hot water bags to relief of abdomen pain, drinking hot soup, and consuming warm and nutritious foods like eggs, meat, and paneer. Knowledge regarding nutritious foods was found to be satisfactory among respondents. This study found that most of respondents (90%) had awareness nutritious food during menstruation. However, only 42 percent of adolescent girls reported consumed additional foods like eggs, meat, hot soup, and paneer during the time of menstruation.

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