PERCEPTION ON MENSTRUATION AMONG MALE UNDERGRADUATE STUDENTS IN DHANGADHI SUB-METROPOLITAN CITY, NEPAL

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ABSTRACT

Menstruation is a natural biological process in females. It is often associated with stigmas and misconceptions, particularly among the males. Understanding male perception towards menstruation is crucial for promoting awareness and reducing gender-based biases. Despite its significance, men's perceptions on menstruation are generally poorly understood, which can impact societal views and relationships. This study aimed to find the perception and knowledge of menstruation among male undergraduate students in Dhangadhi Sub-metropolitan City, Nepal. The rationale was to address the gap in understanding male perception, which significantly influence societal views on menstruation. A cross-sectional survey of 350 students was conducted using semi-structured questionnaire to assess socio-demographic characteristics, perceptions, knowledge, and experiences related to menstruation. The study revealed that 52.3% of students held negative perception, while 47.7% had positive views. A significant proportion (56.3%) lacked adequate knowledge about menstruation. Socio-demographic factors like ethnicity, family type, and educational level were significantly associated with the perception. The study highlights the need for awareness programs to improve menstrual health literacy and reduce stigma. Significance: The findings underscore the importance of involving the males in menstrual health awareness to combat societal stigma and promote men's involvement in women's sexual and reproductive health.

KEYWORDS

Perception, menstruation, male undergraduates, Nepal

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INTRODUCTION

Menstruation is a natural biological process occurring in women of reproductive age group, yet it is often shrouded in stigma and misconceptions. These negative perceptions can lead to social isolation, health risks, and gender-based inequalities.[1] Understanding male attitudes towards menstruation is crucial for promoting awareness and reducing gender-based biases, as men often play significant roles in shaping societal views and influencing family decisions.[2]

Despite its significance, men's perceptions of menstruation are generally poorly understood, which can impact societal views and relationships.[1] Therefore, it is essential to explore male perceptions and knowledge about menstruation to develop effective strategies for promoting menstrual health literacy and reducing stigma.

The facts regarding menstruation have long been covered in myth, mystery, and superstition. In India, discussing the subject has historically been considered taboo, and cultural and social pressures continue to hinder progress in the field. Social norms around menstruation could restrict a girl child's growth and make her feel abnormal. Teenage girls are a particularly vulnerable population in India, where female children are often ignored.[3]

Chhaupadi is a religio-cultural practice and a deeply rooted tradition. In the *Chhaupadi* tradition, women and girls are not allowed to touch other people or objects and are excluded from social gatherings and a variety of everyday home tasks. Women and girls are banished by *Chhaupadi* tradition to live and sleep in menstruation huts or animal shelters. These behavior lead to poor menstrual hygiene and negative physical and mental health consequences, such harmful beliefs and practices that are currently prevalent in western Nepal.[4]

Qualitative research on male learning experiences in high- and low-income nations has revealed that proper knowledge on menstruation health is not often provided in schools for boys. This leads to misconceptions, stigma, and a fragmented approach to acquiring knowledge. A survey of 287 female and 269 male students in Taiwan found that adolescent men have more negative opinions towards menstruation than women. However, it also revealed that men's ignorance about the menstrual cycle is not associated with negative opinion.[5]

MATERIALS AND METHODS

A cross-sectional descriptive study was conducted to study the perception of males on menstruation among male undergraduate students of Dhangadhi Sub-metropolitan City, Nepal, from May to October 2023. The sample size was determined based on previous research conducted in similar demographic areas, resulting in a total of 350 students selected using stratified random sampling across various institutions. This study aimed to explore perceptions regarding menstruation among male students, as well as the associated socio-demographic and behavioral factors influencing these perceptions.

Data collection involved a self-administered questionnaire that assessed participants' socio-demographic characteristics, knowledge about menstruation, and personal experiences related to menstrual health. The questionnaire was initially developed in English and subsequently translated into Nepali to ensure comprehension among respondents. Quantitative data analysis focused on understanding the associations between male perceptions of menstruation and factors such as ethnicity, family type, and educational background. Ten percent of the total sample size was taken for pre-testing. Some necessary modification of the questionnaire and terminology was done following the pre-testing.

Validity and reliability were ensured by adopting standardized and literature-based questionnaires, pre-testing, and assessing reliability using Cronbach's alpha 0.75. Face validity was confirmed through expert review, and the researcher directly managed data collection and analysis. Ethical approval was obtained from the IRC of Nobel College Ref. No: 080/81/346, with informed consent from respondents. Data were cleaned, coded in Epi-data, and analyzed in SPSS-20 using descriptive statistics and chi-square tests, with a p-value <0.05 considered significant. Confidentiality and anonymity were maintained throughout the study.

RESULTS

Table 1 outlines the socio-demographic characteristics of the study participants, presenting frequencies and percentages for various variables. The majority of respondents were aged 18-25 years (95.4%), while a smaller portion fell within the 26-32 years age groups (4.6%). More than 9 out of 10 follow Hindu (97.1%), with minor representations from

Table 1: Socio- demographic characteristics of the respondents

Variables	n	%
Age (in years)		
18-25 years	334	95.4
26-32 Years	16	4.6
Religion		
Hindu	340	97.1
Buddhist	8	2.3
Christian	2	0.6
Ethnicity		
Brahmin	154	44
Chhetri	127	36.3
Janjati	32	9.1
Madhesi	13	3.7
Dalit	24	6.9
Marital Status		
Married	16	4.6
Unmarried	334	95.4
Family Type		
Joint	206	58.9
Extended	40	11.4
Nuclear	104	29.7
Educational Level		
1st year	166	47.4
2nd year	117	33.4
3rd year	39	11.1
4th year	28	8

Buddhist (2.3%) and Christian (0.3%). The largest ethnic group was *Brahmin* (44%), followed by *Chhetri* (36.3%), *Janjati* (9.1%), *Madhesi* (3.7%), and *Dalit* (6.9%). A significant majority were unmarried (95.4%), with only 4.6% married. Family structures varied, with most respondents living in joint families (58.9%), while 11.4% lived in extended families and 29.7% in nuclear families. In terms of academic year, 47.4% were first-year students, followed by second-year (33.4%), third-year (11.1%), and fourth-year students (8.0%).

About 47.7% of responses came above the median, which suggests a positive perception of, whereas the remaining 52.3% had a negative perception of respondents towards menstruation. About 43.7% of responses came above the median, which suggests Adequate knowledge of, whereas the remaining 56.3% had inadequate knowledge of respondents towards menstruation.

Table 2 shows the study results provide important insights into family practices and perceptions about menstruation. A sizable

Table 2: Respondents experience on menstruation

Variables	n	%
Does your sister/mother practice menstruation restrictions?		
Yes	296	84.6
No	54	15.4
Do they do the following during menstruation?		
Touches fruits, plants and vegetables	39	11.1
Touch other family member	23	6.6
Touch male member	11	3.1
Share same bathroom as others	27	7.7
Wear specific clothes	4	1.1
Cook food	11	3.1
All of the above	179	51.1
None of them	56	16
Who encourages your sister/mother to practice menstrual restrictions?		
Mother	105	30
Sister	24	6.9
Husband	10	2.9
You/yourself	36	10.3
other female relatives	119	34
Others	56	16
Who cooks food in your family when the females are menstruating?		
Mother	58	16.6
Sister	32	9.1
Father	56	16
you/yourself	117	33.4
Brother	54	15.4
Others	33	9.4
Have you ever purchased sanitary pads for your mother/sister/friend?		
Yes	264	75.4
No	86	24.6
If yes, how did you feel about buying these products? (n=264)		
Comfortable	191	72
Uncomfortable	73	28
Do the females purify things on 4th day of menstruation?		
Yes	318	90.9
No	32	9.1
If yes, what things do, they purify? (n=318)		
Bed	143	44.9
Kitchen	18	5.4
Whole house	120	38
Others	37	11.7

majority (84.6%) of respondents reported that their sisters or mothers follow menstrual restrictions, indicating a widespread cultural norm. Among individuals who follow these rules, 51.1% avoid touching fruits, plants, and vegetables, while other activities such as sharing toilets or cooking food were also banned. When it comes to household obligations during menstruation, 33.4% of respondents cook for themselves, while mothers and fathers share equal proportions (16.6% and 16.0%, respectively).

Table 3: Association between socio- demographic characteristics and Level of Knowledge regarding menstruation

Variables	Knowledge		Chi-square	p-value
	Adequate knowledge (n/%)	Inadequate knowledge (n/%)		
Age (in years)				
18-25	148(96.70)	186(94.40)	1.966	0.374
26-32	5(3.30)	11(5.60)		
Religion				
Hindu	147(96.10)	193(98.00)		
Buddhist	5(3.30)	3(1.50)	3.243	0.356
Christian	1(0.70)	1(0.50)		
Ethnicity				
Brahmin	70(45.80)	84(42.60)		
Chhetri	50(32.70)	77(39.10)		
Janjati	19(12.40)	13(6.60)	17.316	**0.02***
Madhesi	10(6.50)	3(1.50)		
Dalit	4(2.60)	20(10.20)		
Marital status				
Married	12(7.80)	4(2.00)	6.67	**0.01***
Unmarried	141(92.2)	193(98.00)		
Family type				
Joint	96(62.70)	110(55.80)		
Extended	11(7.20)	29(14.70)	4.983	0.083
Nuclear	46(30.10)	58(29.40)		
Educational level				
1st year	73(47.70)	93(47.20)		
2nd year	51(33.30)	66(33.50)	1.131	0.77
3rd year	19(12.40)	20(10.20)		
4th year	10(6.50)	18(9.10)		

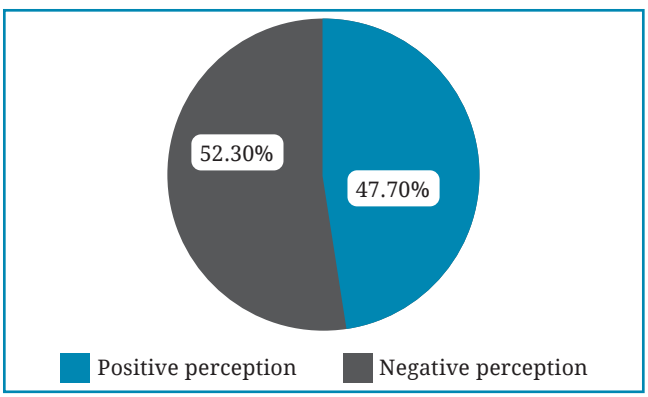

Fig. 1: Perception of respondents towards menstruation

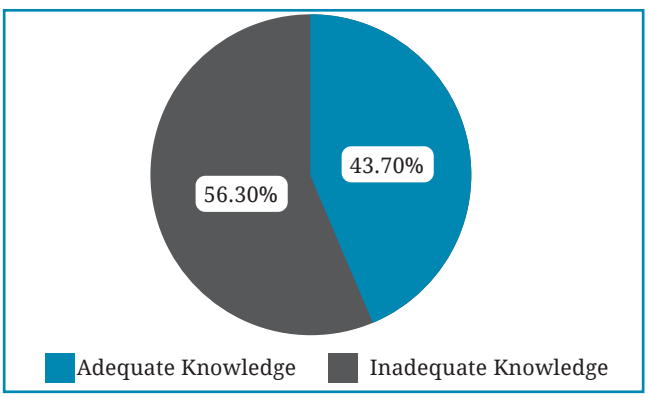

Fig. 2: Knowledge of respondentstowards menstruation

Almost 75.4% of respondents have purchased sanitary pads for their mothers, sisters, or friends, with the majority (72.0%) feeling comfortable doing so, indicating that menstruation hygiene is becoming increasingly acceptable to discuss and manage. 90.9% of participants reported performing purification rituals on the fourth day of menstruation, with the majority focusing on washing the bed (44.9%) and the entire house (38.0%).

Table 3 analyzes the relationship between demographic variables and knowledge levels. Significant associations were found between ethnicity and marital status with knowledge levels, as indicated by p-values less than 0.05. Ethnicity showed a chi-square value of 17.316 (p = 0.02), while marital status had a chi-square of 6.67 (p = 0.01). Other variables like age, religion, family type, and educational level did not show significant associations with knowledge levels at the chosen significance threshold.

Table 4 shows the finding of menstrual perceptions across different demographic characteristics particular in terms of ethnicity, family type, and educational level. The chi-square test show that there is a significant association with perceptions regarding menstruation and ethnicity *(p=0.029),* with *Brahmin* and *Chhetri*

Table 4: Association between Socio- demographic characteristics and perception regarding menstruation

Variables	Perception		Chi - Square	P-value
	Positive perception (n/%)	Negative perception (n/%)		
Age (in years)				
18-25 years	160 (95.80)	174 (95.10)	1.859	0.395
26-32 years	7 (4.20)	9 (4.9)		
Religion				
Hindu	161 (96.40)	179 (97.80)		
Buddhist	4 (2.40)	4 (2.20)	2.226	0.527
Christian	1 (0.6)	1 (0.6)		
Ethnicity				
Brahmin	73 (43.70)	81 (44.30)		
Chhetri	50 (29.90)	77 (42.10)		
Janjati	20 (12.00)	12 (6.60)	10.806	**0.029***
Madhesi	8 (4.80)	5 (2.70)		
Dalit	16 (9.60)	8 (4.40)		
Marital status				
Married	7 (4.20)	9 (4.90)	0.106	0.745
Unmarried	160 (95.80)	174 (95.10)		
Family type				
Joint	102 (61.10)	104 (56.80)		
Extended	10 (6.00)	30 (16.40)	9.654	**0.008***
Nuclear	55 (32.90)	49 (26.80)		
Educational level				
1st year	61 (36.50)	105 (57.40)		
2nd year	59 (35.30)	58 (31.70)	25.128	0.001*
3rd year	31 (18.60)	8 (4.40)		
4th year	16 (9.6)	12 (6.60)		

Table 5: Association between perception and level of knowledge regarding menstruation

Variables	Perception		Chi- square	P – value
	Positive perception (n/%)	Negative perception (n/%)		
Knowledge				
Adequate knowledge	60 (35.90)	93 (50.80)	7.87	**0.005***
Inadequate knowledge	107 (64.10)	90 (49.20)		

Table 6: Perceptions regarding menstruation in relation to the practice of menstruation restrictions				
Variables	**Perception**			
Experience	**Positive perception(n/%)**	**Negative perception(n/%)**	**Chi-square**	**P-value**
Do your sister/mother practice menstruation restrictions?				
Yes	128 (76.60)	168 (91.80)	15.373	**0.001***
No	39 (23.40)	15 (8.20)		

Table 7: Perception regarding menstruation in relation to purchase of sanitary pads for your mother/sister/friends				
Variables	**Perception**			
Experience	**Positive perception (n/%)**	**Negative perception (n/%)**	**Chi-square**	**P-value**
Have you ever purchased sanitary pads for your mothers/sisters/ friends?			13.967	**0.001***
Yes	123 (46.59)	141 (53.40)		
No	60 (69.76)	26 (30.23)		

groups having slightly different positive and negative attitudes. Particularly, a greater proportion of *Chhetri* respondents (42.1%) indicated negative perceptions than Brahmins (44.3%). Furthermore, family type has a strong link with perceptions *(p=0.008),* with people from joint families having a higher favorable opinion (61.1%) than those from extended families (16.4%). This indicates that familial relationships may influence perception towards menstruation. A further important factor is respondents' educational level, which has a highly significant association *(p=0.001).* First-year students have a significantly larger percentage of negative perception (57.4%) than their third-year (4.4%) and fourth-year (6.6%) colleagues, implying that increased education correlates with more positive perceptions of menstruation. While age, religion, and marital status have no significant associations, the findings highlight the importance of ethnicity, family structure, and education in establishing opinions about menstruation.

Table 5 shows the perceptions related to menstruation in relation to knowledge levels reveals a statistically significant association, as indicated by the chi-square test (p = 0.005).

Table 6 shows the analysis of perceptions regarding menstruation in relation to the practice of menstruation restrictions reveals a significant association, as indicated by the chi-square test *(p = 0.001).*

Table 7 shows the analysis of perception regarding menstruation in relation to have you ever purchased sanitary pads for your mother/sister/friends reveals a significant association, as indicated by the chi-square test *(p=0.001)*

DISCUSSION

The descriptive cross - sectional study design to investigate the perception regarding menstruation among male undergraduate students of Dhangadhi sub - metropolitan city, Nepal. The primary objective of this study was to identify the perception and its associated factors regarding menstruation among male undergraduate students with 350 sample size.

This research shows that about 52.3% of respondents have negative perception which is comparatively similar to the study of Oklu *et al*[6] which shows that the majority 166 (60.8%) of the schoolboys had a poor perception of menstruation as compared to their counterparts.

This study found that 52.3% of male students held negative perceptions about menstruation, and 56.3% had inadequate knowledge regarding it. This is consistent with research conducted in India, where a significant number of male adolescents also exhibited limited understanding and negative attitudes towards menstruation, often viewing it as a taboo topic.[7]

The study shows that 43.7% of male undergraduate students had adequate knowledge about menstruation. This finding aligns with the study by Sreenivasa *et al*[8] who reported that 46.7% of participants had good knowledge regarding menstruation. Similarly, research conducted by Mohammed and Emil Larsen-Reindorf in Ghana found that about 86% of boys had experience purchasing sanitary pads from shops, comparable to our study where 75.4% of participants reported

doing so.[9] Both studies indicate that while boys may demonstrate supportive behaviors, they generally have limited knowledge about menstruation.

In the Indian study, most participants had limited and superficial knowledge, often viewing menstruation as a "girl's problem" and associating it only with bleeding. Some even believed it to be a purification process, reflecting deep-seated cultural myths.[10] Similarly, this study found that 56.3% of male undergraduate students had inadequate knowledge, with misconceptions such as menstruation being a curse (3.7%) or a disease (7.7%).[11]

In contrast, the American study by Fishman (2014) indicated that men primarily learned about menstruation informally, through family members, media, or middle school sex education, which many recalled as inadequate and uncomfortable. Some men in that study expressed that they were "too young" to learn about menstruation, leading to avoidance and discomfort in later years.[12]

Although extensive research has been conducted on menstrual knowledge and hygiene among girls, very few studies have explored menstruation perception and its associated factors among boys. Such studies are important to help increase boys' knowledge and promote supportive attitudes towards menstruating girls.

In conclusion, the study highlighted that nearly half of the students have positive perception towards menstruation. The study also showed the significant association between ethnicity, family type and educational level with perception regarding menstruation. Level of knowledge regarding menstruation is significantly associated with ethnicity and marital status. Finally, there was a significant Association between perception and level of knowledge regarding menstruation.

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