

STUDY TO EVALUATE THE MENSTRUAL PATTREN AND PROBLEM AMOUNG ALLIED HEALTH SCIENCES STUDENTS OF UNIVERSITY

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Abstract

Background: Menstruation is a normal biological process and an indicator of reproductive health. University girls often experience menstrual irregularities and problems such as pain, irregular cycles, and excessive bleeding due to stress and lifestyle changes. These problems can affect academic performance and quality of life. Therefore, assessing menstrual patterns and problems among university girls is important for promoting reproductive health.

Objectives: Assess menstrual cycle patterns (regularity, duration, flow) and identify common menstrual problems (dysmenorrhea, PMS, menorrhagia).

Material and Methods: A cross-sectional study was conducted at Peoples University of Medical and Health Sciences for Women, Shaheed Benazirabad, including 287 randomly selected students. Data were collected using a validated questionnaire on demographics, menstrual patterns, and related problems. Data were analyzed using SPSS. Ethical approval was obtained from the university's IRB.

Results: Most participants were aged 21–23 years, unmarried, predominantly Muslim and Sindhi. Menarche typically occurred between 10–14 years, with cycles lasting 25–28 days for 2–5 days. Dysmenorrhea was the most common problem, accompanied by lower leg pain, whole-body pain, and premenstrual mood swings. Heavy menstrual bleeding affected nearly half of the students. These symptoms often required bed rest, reduced social activity, or caused missed lectures. Family history of menstrual problems was reported less frequently, indicating stronger lifestyle and environmental influences.

Conclusion: Menstrual disorders are prevalent among university girls and negatively impact health and academics. Awareness programs, supportive academic policies, and promotion of self-care—such as rest, light exercise, and heat therapy—are recommended. Further multi-university and longitudinal research is needed

INTRODUCTION:

Millions of women across the world suffer from menstrual problem among the most affected issues. Concern through (WHO) world health organization is the periods between the age of 10 to 19 years by physical and physiology change, Girls who have abnormal body mass index (BMI) experiences several problems. Menstruation is the way in which blood and endometrial tissues discharge from the uterus through the virgin and bleeding typically starts in adolescent age from 11 to 14 occurs every 28 days and least 7 days in a week. And the total loss of blood 20 -28 ml disturbances of menstruation is the most common gynecology issues among female between 20 to 24 ages. Menstruation is the stage of puberty and the stage of body growth like breast development, pubic hair, and height increase and finally the stage of periods (menarche), generally menarche phase influence by some factors such as genetics, nutrition, overall health, environment, and the most common factor mental status , Starting of first menarche 38% to 55% phases this problem.(77%) girls had menstrual problem, 92-73% Dysmenorrhea and 13-10.3% Oligomenorrhea and 6 - 4.8% and 10.3% some girls have combined disorders.gernally menstrual disturbance girls phases irregularities, dysmenorrhea, Oligomenorrhea, amenorrhea, menorrhagia and premenstrual syndrome. It observational study conducted in India result reveal 3 to 87 % menstrual disorders and 46 to 76% dysmenorrhea and 40 to 71 % premenstrual symptoms 3 to 14.14 %(PCOD) ,further study show that irregular lifestyle, family history ,place resistance factor. Observational study conduct in (North eastern Iran) 897 unmarried girls 14 to 13 found mean age had menarche and their periods were irregular and the most common symptoms include

Backache (60%), emotional sensitivity (13.8%) and common premenstrual symptoms leg Pain, tightness, and nausea, and (68.8%) girls experienced painful periods (Dysmenorrhea) that affect their lives. And half (47.6%) had premenstrual syndrome (PMC) those girls who had earlier periods phase over weight. There are various risk factor of menstrual problem like

Dysmenorrhea. Oligomenorrhea, ply menorrhea, amenorrhea one of them described , Dysmenorrhea is most frequent gynecological complaint impacting women and adult reproductive age characterized by symptom like abdominal cramps, back pain , life disturbed, risk factor involve high prevalence , self-medication , seek professional care. Heavy menstrual bleeding (HMB) is frequently gynecological concern in adolescents known to be negatively impact on health related life (HMB) associated with mood disorders, including depression .depression are a more frequent issue in public health around 21% in teenage girls and concern between depression and (HMB) contributing factors for example: sexual activity, hormonal contraception. Anemia is a more common health problem in adolescent girls during transition in puberty menarche is the age of 10 to 16 increases the risk of anemia due to loss of blood higher nutrition during growth. Anemia causes multifactorial including poor diet, infections, genetic, factors, prolonged menstruation. It is an observational study conduct in academic junior high school in (shanghai) 1,243 junior girls participated 80.7% had menstruation average age 12.8 .participate were from grades 6-9 with 28.0%, 27.% , 21.6% , and 23.3%, representation .overall 42.3% were underweight 70% were children only 70% girls parents are educated or above 32.1% had higher family rich 79.9% reported controllable and 8.9% uncontrollable learning burden , Girls with Menstruation tended to be older less under Wight and more report burden issues.

MATERIAL & METHODS

This cross-sectional study was conducted at People's university of Medical And Health Sciences For Women Shaheed Benazirabad, over a period of two months from 17 November to 17 January after obtaining approval from review board (IRB). The sample size was 287 calculated using Yamane's Formula with a 5% margin of error and 95%confidnce level. A non-probability sampling technique was used to select participants. Feale students who were 16-25 years and willing to participate were included while those not enrolled or unwilling to participate were excluded. Data

were collected using structured questionnaire consisting of demographic information and study

variables. Data were entered and analyzed by SPSS software.

RESULTS

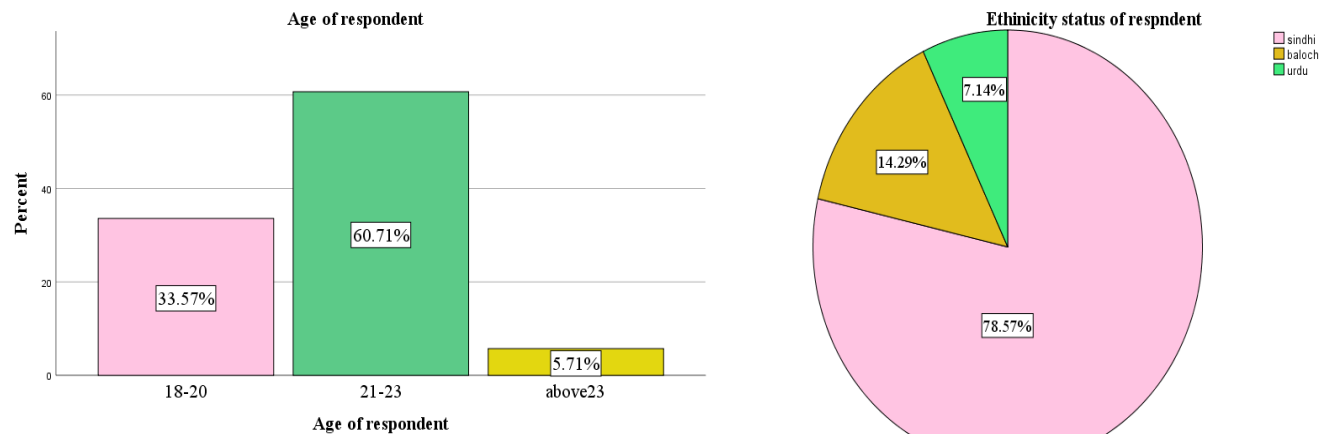


Table no 1. Religion of respondent

Religion	Frequency	Percentage
Hindu	37	13.2%
Muslim	240	85.4%
Others	4	1.5%
Total	280	100.0%

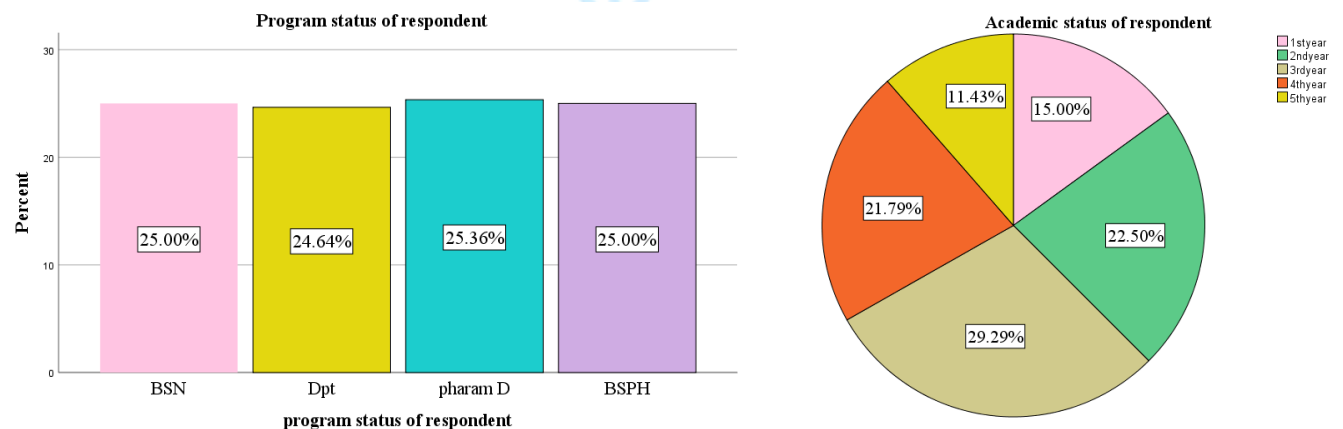


Table .2 Menstrual Patterns

How old when you got your first menstruation?	Frequency	Percentage
Less than 10 years	15	5.3%
Between 10 to 14	181	64.4%
More than 14 years	84	29.9%
Total	280	100.0%

Table 3: Regularity of Menstrual cycle regular

Describe the regularity of you menstrual cycle is regular?	Frequency	Percentage
21_24 days	82	29.2%
25_28 days	129	45.9%
29_31 days	44	15.7%
Total	255	90.7%

Table 4: Average Duration of Menstrual Cycle

What is the average duration between your menstrual cycles in days?	Frequency	Percentage
2_5days	125	44.5%
2_7days	93	33.1%
2_6 days	36	12.8%
Total	254	90.4%

Table 5: Regularity of Menstrual cycle

How will you describe the regularity of your menstrual cycle?	Frequency	Percentage
15_19 days	69	24.6%
19_22 days	65	23.1%
35_40 days	33	11.7%
More than 40 days	28	10.0%
Total	195	69.4%

Table 6: Mood Swing Before Menstruation

Have you noticed some mood swing before menstruation?	Frequency	Percentage
Sad	88	31.4%
Self-treatment	24	8.5%
Anger	80	28.5%
Depression or Irritability	88	31.4%
Total	280	100.0%

Table 7: Pads Changes in a Day

How many pads you change in a days?	Frequency	Percentage
Heavy need to change pads	117	41.6%
In every 6 hours	101	35.9%
Between in 6 hours	62	22.1%

Total	280	100.0%
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Table 8: Nipple Discharge during Menstruation

Do you notice any nipple discharge during menstruation?	Frequency	Percentage
Yes / Milk	40	14.2%
Yes / Bloody	32	11.4%
No	208	74.0%
Total	280	100.0%

Table 9: Before Menstruation changes

In the 10 days before menstruation did you experience these changes?	Frequency	Percentage
Body temperature	73	26.0%
Acne on face	79	28.1%
Increase or decrease of sleep	74	26.3%
Increase or decrease appetites	54	19.2%
Total	280	100.0%

Table 10: Nipple Discharge Before Menstruation

Have you noticed any nipple discharged before menstruation?	Frequency	Percentage
Yes/ Milky	23	8.2%
Yes/ bloody	8	2.8%
No	249	88.6%
Total	280	100.0%

Table 11: Behavior during Menstruation

Do you have any of the following behavior during your menstruation?	Frequency	Percentage
Taking medication	58	20.6%
Bed rest	136	48.4%
Avoid social activities	60	21.4%
Skipping of lectures	26	9.7%
Total	280	100.0%

Table.12: Menstrual Problem

Question	Yes	No
Do you think that your menstrual cycle is regular?	221(78.6%)	59(21.4%)
Do you have severe lower abdominal pain before menstruation?	177(63.4%)	103(38.6%)

Do you have pain before menstruation?	211(75.6%)	69(24.4%)
Have you had any surgery and infection in past?	20(7.5%)	260(92.5%)
Does any member of your family suffer from menstrual problem?	68(24.4%)	212(75.6%)

DISCUSSION:

In this study, the majority of respondents were aged between 21-23 years (60.5%), followed by 18-20 years (33.6%) while a small proportion were above 23 years (5.71%). Similarly, this study conducted in university students in Pakistan, India and Bangladesh, where menstrual problems were commonly reported among females' adolescence and early adulthood, likely due to hormonal fluctuations, academic stress, and lifestyle change. Most respondents were single (96.43%), with only a small proportion being married (3.57%). Similar patterns have been observed in other studies, suggesting that marital status does not significantly influence menstrual patterns in young adult students. Regarding religion and ethnicity, the majority of respondents were Muslim (85.4%) and Sindh (78.57%) reflecting the local population distribution. In the past study, ethnicity and religion may influence cultural practices related to menstruation. Current evidence suggests that biological and lifestyle factors play a larger role in determining menstrual health. The academic profile of respondents revealed that the majority were enrolled in Pharm-D programs (25.36%), followed by BSPH, BSN (25%), and DPT (24.64%), with most students in their third year of study (29.29%). Previous research has similarly reported that students in health science programs often experience higher levels of academic stress, which may contribute to irregular menstrual cycles and menstrual discomfort. This mean age at menarche in this study was predominantly between 10-14 years (64.4%) similarly studies reporting the normal age range for menarche in young females to be 12-13 years. Majority of participants reported having regular menstrual cycles (78.6%), while 21.45% experienced irregular cycles similarly this study conducted after 2020, which reported menstrual irregularities in approximately 20-30% of female university students. Most respondents reported a cycle length of 25-28 days (45.9%) and an average

menstrual duration of 2-5 days (44.5%), which are considered physiologically normal and comparable to recent studies from India and Ethiopia. However, a considerable number of participants reported prolonged or heavy menstrual bleeding (44.8%), consistent with previous research showing that heavy menstrual bleeding is common in young women and can affect physical well-being and academic performance. Premenstrual symptoms were prevalent, with 31.4% of respondents reporting sadness, depression, or irritability, and 28.5% reporting anger. Similar study was conducted in Pakistan and Saudi Arabia, which documented high prevalence of emotional and psychological symptoms prior to menstruation due to hormonal fluctuations and psychosocial stressors. The most frequently reported physical complaints included lower abdominal cramps (84.7%), lower leg pain (77.2%), and whole-body pain (64.8%), which mirrors findings from recent studies identifying dysmenorrhea as the most common menstrual problem among university students. Many students also reported disturbances in sleep (67.7%) and reduced social activity (63%), which has been previously linked to menstrual discomfort and reduced quality of life. The study also highlighted behavioral and academic impacts of menstruation. Nearly half of the respondents (48.4%) preferred bed rest during menstruation, 21.4% avoided social activities, 20.6% took medication, and 35.6% skipped lectures. Similarly, post-2020 studies showing that menstrual pain significantly affects daily functioning, social engagement, and academic attendance among female students. Furthermore, a small proportion reported a family history of menstrual problems (24.4%), and only 7.5% had a history of surgery or infection, indicating that most menstrual issues are likely functional rather than secondary to underlying pathology.

CONCLUSION:

This study concludes that menstrual problems are highly prevalent among university students. Although most participants reported having a regular menstrual cycle, a large proportion experienced menstrual pain, lower abdominal cramps, and mood changes, sleep disturbances, and reduced social and academic activities. Dysmenorrhea was the most common problem and significantly affected daily life, leading to bed rest, avoidance of social activities, and skipping of lectures. These findings indicate that menstrual problems negatively influence the quality of life and academic performance of university girls, highlighting the need for menstrual health awareness programs and accessible healthcare services at the university level.

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