

# Menstrual Patterns and Common Menstrual Problems Among Doctor of Physical Therapy Students

SADAF WARIS<sup>1</sup>, SAIMA RIAZ<sup>2</sup>, MUHAMMAD ASIF JAVED<sup>3</sup>, REHAN RAMZAN KHAN<sup>4</sup>, TAUSIF AAMIR<sup>5</sup>, MUHAMMAD SULMAN<sup>6</sup>

<sup>1</sup>Demonstrator, University of Management and Technology, Sialkot, Pakistan.

<sup>2</sup>Assistant Professor, Riphah College of Rehabilitation and Allied Health Sciences, Riphah International University, Lahore, Pakistan.

<sup>3</sup>Senior Lecturer, Riphah College of Rehabilitation and Allied Health Sciences, Riphah International University, Lahore, Pakistan.

<sup>4</sup>Assistant Professor, Multan College of Physiotherapy, Multan Medical & Dental College, Multan, Pakistan.

<sup>5</sup>Physiotherapist, Shifa International Hospital, Islamabad, Pakistan.

<sup>6</sup>Lecturer, University of Sialkot, Pakistan.

Correspondence to: Dr. Sadaf Waris, MS-NMPT, Email: [Sadaf.waris@skt.umt.edu.pk](mailto:Sadaf.waris@skt.umt.edu.pk), Cell: 03088112501

## ABSTRACT

**Objective:** To observe the patterns and disorders of menstruation among physiotherapy undergraduates in Lahore city.

**Methods:** A cross sectional survey was conducted at Riphah International University, Lahore from January 2020 to June 2020 after obtaining ethical approval. The data was collected through convenience sampling technique from two hundred physiotherapy undergraduate students by using anonymous questionnaire containing questions related to menstrual pattern, associated symptoms and heaviness of day wise bleeding. Informed consent was taken from all participants before data collection. Data was entered and analyzed on SPSS 21.

**Results:** Menarche was found among 60% of undergraduates between the age of 13 and 14 and 24% of undergraduates between the ages of 15 and 17. A total of 71% of undergraduates had a regular menstruation cycle while 23% had irregular periods. 71% of undergraduates had a menstrual cycle of range between 21-28 days, 17% had irregular cycles, and 14% did not know how to go their menstrual duration. Most undergraduates have Bleeding for up to 1 week, with standard, medium, and restrained Bleeding. In 72% of undergraduates exploiting contains lumps, though 28.5% undergraduates do not experience exploiting. Because of their menses, 29% of undergraduates were incompetent to join university. 24% of undergraduates take leave from university because of painful menstruation whereas 9% take leave from university because of extreme blood flow. Dysmenorrhea signs were prevalent. Menses had a massive influence on societal lives and performances primarily on undergraduates.

**Conclusion:** Dysmenorrhea and regular indiscretions were communal and mostly undergraduate's responsiveness to menstruation signs was scarce. In its outcomes, there is entail for a teaching based program on menarche and menstrual issues.

**Keywords:** Menarche, Dysmenorrhea, Undergraduates

## INTRODUCTION

Menarche is the most initial phase of the pubescence in females and it indicates about biological evolution of the physique. Reliant on physical, nutritional, culture and cast, it happens virtually two to three years after the onset of pubescence in ninety five percent of adolescents between eleven and fourteen (1). First, menstruation is rare earlier in Tanner stage III of breast growth and generally happens two to three years after the larches in the Tanner stage IV of breast growth. At the age of fifteen, 98 percent of girls had got first menstruation (2).

Menses is the internal coating concealing blood and mucosal excess of the uterus into the vaginal passage on a fixed basis (3). Menses blood, including sloughed-off mucosal tissue lining runs out of the body by a thin hole in the cervix and after by the vagina. Menses duration usually lasts three to five days. The menses cycle is the term used for this time of period. The menses period, which occurs after regular intervals, symbolizes the healthy menstrual cycle. The menses period permits us to stay healthy (4). The cycle of adults has occurred between 21 to 31 days, whereas adolescent females cycles occur between twenty one to 45 days (3). About 80% of females reported some symptoms before starting menses (5). Menses is noticeable through acne, breast painfulness, exhaustion, mood

changes, swelling and low grade fever (6). In the first half of the cycle, the level of estrogen begins to increase. Single egg or ovum among the ovaries matures alongside the growth of the lining of the womb. Egg leaves the ovary at about 14th of an average 28-day cycle. This phase is called ovulation. After ovulation, egg moves through the Fallopian tube to the uterus. An increase in hormones level prepares the uterus lining for pregnancy. Woman's chance to get pregnant is greater during 3 days before or on ovulation day. Women may ovulate before or after 14th day, depending upon the duration of cycle (4). If fertilization occurs, a woman probably gets pregnant and the fertilized egg attaches to the uterine wall. If fertilization does not occur, egg breaks followed by a drop in hormone levels and thickened lining of the uterus is sloughed off during menstruation (4). Every month we may happen to have some changes in our menstrual cycle. It may vary among women. Periods may be heavy, moderate or light depending upon the blood flow out of the vagina. The duration of the period may also vary. The length of most periods ranges from 3 to 5 days. However, normal considerations are from 2 to 7 days. More extended periods are common within the first few years after menstruation starts (4). Average blood loss during the period of menstruation is 40 ml; normal range between 25

and 69 ml (7). In young adolescents, dysmenorrhea is an utmost usual gynecologic disease. It is defined as back or genital pain triggered through menses and it might also contain annoyances, diarrhea, back soreness, sickness and nausea. When teenagers arrive at their ovulatory phases, which usually occur initially after menarche, significant and initial dysmenorrhea grows. First, menstruation is supposed to be triggered through an escalation in prostaglandin (PG) movement in the endometrium throughout the ovulatory period. PG makes myometrium reduction and native vasoconstriction, which originates menses release to be banished from the uterine hole. Increased level of prostaglandin was found in plasma and menstrual effluent in women experiencing dysmenorrhea (8).

Enduring genital pain, irregular periods, dyspareunia, and mid-cycle pain are likewise extra likely to escort secondary dysmenorrhea. Despite facing either recurring or acyclic pain only, youngsters with endometriosis were more likely to have both symptoms (9). The objective of this study was to observe the patterns and disorders of menstruation among physiotherapy undergraduates in Lahore.

**METHODS**

A cross-sectional study design was used. Data was collected from the 200 Doctor of Physical Therapy students of Riphah International University, Lahore from January to June 2020. Ethical approval was taken from the Research Review Committee of Riphah International University, Lahore. The convenience sampling technique was used. Only physiotherapy students were included in the present study. Participants who had any physical disability or psychological illness were excluded from the current research. The anonymous questionnaire containing questions related to menstrual pattern, associated symptoms and heaviness of day wise bleeding was used for data collection (10, 11). Informed consent was taken from all participants before data collection. The data was analyzed by using SPSS 21.

**RESULTS**

Data was collected from 200 students through a questionnaire. Table-1 showed the age of menarche, menses pattern and general menses issues.

Table-1: Menarche Age and Menstrual Patterns

Parameters	Percentage (n)
Menarche age	
10 or <12yrs	17% (34)
13 or <14yrs	60% (120)
15 or <17yrs	24% (46)
Regular periods	71% (141)
Irregular periods	23% (45)
Cycle length	
Cycle length between 21-28 days	70% (140)
Irregular periods	17% (33)
didn't know their usual cycle length	14% (27)
Bleeding contains clots	72% (143)
Prolonged menstrual Bleeding (> 7Days)	9.5% (19)

Table-II: Related Signs among Undergraduates with Dysmenorrhea

Symptoms	Prevalence (n)
Stomach pain	78.5% (157)
Back pain	71% (142)
Sadness	36% (72)
Fatigue	48.5% (97)
Polyuria	13.5% (27)
Increase appetite	20.5% (41)
Less appetite	23.5% (47)
Diarrhea	13.5% (27)
Annoyance	27% (54)
Nausea	19.5% (39)

Table-III: Heaviness of Day Wise Bleeding

Heaviness of Bleeding	Light	Medium	Heavy	No bleeding
1 <sup>st</sup> Day	32.6% (65)	21.4% (43)	45% (92)	—
2 <sup>nd</sup> Day	5.4% (11)	38% (78)	54% (110)	0.5% (1)
3 <sup>rd</sup> Day	10% (22)	51% (104)	37% (73)	0.5% (1)
4 <sup>th</sup> Day	36% (71)	43% (85)	14% (30)	6% (14)
5 <sup>th</sup> Day	57% (113)	16% (34)	3% (5)	24% (48)
6 <sup>th</sup> Day	46% (91)	3% (6)	1% (2)	51% (101)
7 <sup>th</sup> Day	22% (44)	—	—	78% (156)

The information regarding related signs among undergraduates with dysmenorrhea is presented in Table-II. The heaviness of Bleeding is shown day-wise in Table-III. Undergraduates utilized medicines, heating pads, rest and good sleep to delight their uneasiness.

Menses had a significant influence on the societal lives and conduct of undergraduates. Mothers were the initial source of information regarding menses and menarches in 78% of undergraduates, 16.5% have friends, 4.5% of females got information through social media and 5% of females consulted doctors.

**DISCUSSION**

In females, puberty is a stage of fast physiological and hormonal changes. Instead of this rationale, biological reproductive pathologies are infrequent throughout this period; menses diseases are common and can trigger more difficulties for teenagers and their parents. Menarche age is determined through diverse aspects containing overall wellbeing, heredities, socioeconomic rank and dietary status. It generally persists between 12-13 years, but it has reduced numerous people in current era because of modifications in dietary status and everyday well-being (12).

In the present study, investigators revealed that 17% of undergraduates had their first menstruation at ten to twelve years. First happened in 59.5 percent of females between the ages of 13-14 and occurred in 23.5 percent of females between the ages of 15-17.

Cakir et al. (2007) revealed that the mean age of first menstruation was 12.8 years, constant with other studies directed throughout that era (10). Their results though changed from those of a report directed in Ankara 10 years before. The mean age of first menstruation was thirteen years and two months mentioned in a report after four months (13). Menses irregularities affect up to 75% of females and it is the critical reason for continuing instant absentees from school in teenagers (14). In 2009, a study was done by Begum J, et al. According to that study, the

frequency of dysmenorrhea and irregular menstruation was high and most adults have inadequate information about menstrual issues. Hence, an awareness campaign is required at the primary schools about menarche and menstrual problems (15). Investigators in current study revealed that 70.5% of undergraduates had regular menses, 22.5% had abnormal menses and 70% of undergraduates had periods extending from 21 to 28 days in the present study. 13.5% of undergraduates were not aware of the duration of their regular menses.

Cakir et al. (2007) revealed that 89.5 percent of undergraduates suffer from dysmenorrhea with about 10% recognizing their signs as risky. Campbell and McGrath also described a high occurrence of dysmenorrhea (10). In 2017, Ambade R et al. researched age at first menstruation and the menstrual pattern in secondary school adolescents in central India. They reported that menarcheal age was delayed and varied by residence. Dysmenorrhea was a prevalent issue in school adolescents causing school absenteeism (16).

In the current research, investigators revealed prolonged menses bleeding was regular with 44% undergraduates suffering from it for up to 1 week and 9.5 percent experiencing it for greater than one week. Dysmenorrhea is a state which creates many physical symptoms. Stomach pain, back pain, and anxiety were the utmost usual related signs. The pain and the signs that go along with it make it problematic to function regularly. In 2018, Abu Helwa et al. reported that a high percentage of female university students had dysmenorrhea and more than half of dysmenorrheic females had moderate to severe pain which causes them to miss academic classes because of painful menstruation. Skipping breakfast was the best predictor of dysmenorrheic pain severity among the numerous nutritional and lifestyle factors studied. In addition, the role of academic specialization and menstrual irregularity as predictors of dysmenorrheic pain severity should be explored further (17). The symptoms of dysmenorrhea were also explored in the current research (stomach pain, back pain, nausea). 78.5% of females have abdominal pain, 71% have back pain, 19.5% have nausea, and 13.5% have diarrhea in the present study.

## CONCLUSION

Dysmenorrhea and regular indiscretions were communal and mostly undergraduate's responsiveness to menstruation signs was scarce. In its outcomes, there is entail for a teaching-based program on menarche and menstrual issues.

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