

Prevalence and Level of Stress During the Menstrual Cycle Among Post-Menorrhoeal School Girls in Kuppam

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ABSTRACT

BACKGROUND : Cultural taboos, and inadequate access to healthcare services further contribute to the problem. Therefore, understanding the prevalence and level of stress during the menstrual cycle among post-menorrhoeal school girls is essential for early identification, appropriate intervention, and promotion of adolescent health and well-being.¹ Adolescence is a critical period marked by significant physical, psychological, and emotional changes, among which the onset of menarche represents an important milestone in a girl's reproductive life.

MATERIAL AND METHODS: A quantitative research approach with a descriptive cross-sectional research design data were collected using a structured tool consisting of three sections: section a included demographic variables, section b included menstrual variables, and section c consisted of the modified perceived stress scale (mpss). Data were collected through direct interaction with participants after obtaining consent, and each participant took approximately 20–25 minutes to complete the questionnaire.

RESULTS: The socio-demographic characteristics showed that the majority 69 (69%) of the post-menarcheal school girls belonged to the age group of 14–15 years, 38 (38%) were studying in 8th standard, 95 (95%) attended government schools, 63 (63%) studied in Telugu medium, 87 (87%) belonged to the Hindu religion, 51 (51%) resided in urban areas, 54 (54%) belonged to nuclear families, 62 (62%) had 4–6 family members, 65 (65%) were second-born children, 62 (62%) of fathers and 61 (61%) of mothers had primary school education, 38 (38%) of fathers were farmers, 71 (71%) of mothers were homemakers, and 86 (86%) received information regarding menstruation from their mothers. Regarding menstrual characteristics, the majority 58 (58%) attained menarche at 14–15 years, 56 (56%) had attained menarche 1–2 years previously, 95 (95%) had regular menstrual cycles, 56 (56%) had a menstrual cycle length of less than 21 days, 93 (93%) had menstrual flow lasting 3–5 days, 99 (99%) used disposable sanitary pads, 84 (84%) used 3–4 pads per day, 56 (56%) changed pads every 4–6 hours, 68 (68%) did not perform exercise before menstruation, 61 (61%) did not perform any exercise during menstruation, 78 (78%) had moderate menstrual flow, 89 (89%) experienced dysmenorrhea, 78 (78%) had moderate menstrual pain, 52 (52%) reported lower abdominal pain as the most common associated symptom, 68 (68%) did not use medication for menstrual pain, 60 (60%) had no activity restrictions, 69 (69%) did not miss school during menstruation, and 79 (79%) had moderate perceived stress. Statistical analysis revealed a significant

association between the level of perceived stress and age in years ($p = 0.037$), class/standard studying ($p = 0.000$), type of school ($p = 0.000$), father's education ($p = 0.0426$), monthly family income ($p = 0.000$), source of information about menstruation ($p = 0.000$), duration since menarche ($p = 0.000$), number of pads used per day ($p = 0.000$), and frequency of changing pads ($p = 0.012$)

KEY WORDS: Prevalence, Stress Level, Menstrual Cycle, Post Menarcheal School Girls.

INTRODUCTION

Adolescence is a crucial developmental period marked by rapid physical, psychological, emotional, and social changes. Menarche, the first menstrual period, signifies the beginning of reproductive maturity and is an important milestone in a girl's life. Menstruation is a normal physiological process regulated by hormonal changes, and maintaining good menstrual health is essential for the overall well-being of adolescent girls. However, inadequate knowledge regarding menstruation, menstrual hygiene, and menstrual health continues to be a major concern, particularly in developing countries. Stress during the menstrual cycle is one of the most common yet often neglected problems among post-menarcheal school girls. Hormonal fluctuations during menstruation, especially changes in estrogen and progesterone levels, may influence emotional stability and increase stress levels. Physical symptoms such as dysmenorrhea, lower abdominal pain, back pain, fatigue, headache, and sleep disturbances, along with psychological symptoms including anxiety, irritability, mood swings, and poor concentration, can interfere with the daily activities of adolescent girls. Several biological, psychological, and socio-cultural factors contribute to menstrual stress. Academic pressure, lack of menstrual knowledge, embarrassment, fear, inadequate family support, cultural restrictions, and poor menstrual hygiene practices further aggravate stress during menstruation. In many communities, menstruation remains a sensitive topic, preventing girls from discussing their problems openly or seeking timely healthcare support. Menstrual-related stress has a considerable impact on the health and quality of life of adolescent girls. It can lead to decreased academic performance, reduced classroom participation, school absenteeism, emotional distress, social withdrawal, and poor self-confidence. If left unrecognized, prolonged stress may also contribute to mental health problems and negatively affect reproductive health. Globally, menstrual health remains an important public health issue. In India, particularly in rural and semi-urban areas, limited awareness, inadequate menstrual hygiene facilities, lack of access to sanitary products, and prevailing social stigma continue to challenge effective menstrual health management. Therefore, assessing stress during the menstrual cycle is essential to identify the extent of the problem and to develop appropriate interventions. The present study was undertaken to assess the level of stress during the menstrual cycle among post-menarcheal school girls in Kuppam. The findings of the study are expected to provide evidence for planning effective health education, counseling, and stress management strategies to promote better menstrual health, improve psychological well-being, and enhance the quality of life among adolescent school girls.

NEED FOR STUDY:

According to the World Health Organization (WHO, 2022), menstrual health is a fundamental component of adolescent health and well-being. However, menstrual-related problems such as dysmenorrhea, fatigue, mood changes, and stress remain common among adolescent girls, affecting their physical, psychological, and social health. Studies report that nearly 70–80% of adolescent girls experience menstrual-related problems, while about 30–50% experience moderate to high levels of stress during menstruation. These

problems can adversely affect concentration, emotional well-being, school attendance, and academic performance. In India, menstrual health continues to be challenged by inadequate awareness, poor menstrual hygiene practices, social stigma, and limited access to menstrual health resources, particularly in rural and semi-urban areas. According to WHO and UNICEF (2024), inadequate water, sanitation, and hygiene (WASH) facilities in schools further contribute to poor menstrual hygiene management and increased stress among adolescent girls. Many girls hesitate to discuss menstrual problems due to cultural taboos, resulting in delayed care and poor coping strategies.

Although several studies have assessed menstrual health, limited research has focused on the level of stress during the menstrual cycle among post-menarcheal school girls, especially in regions such as Kuppam. Therefore, the present study was undertaken to assess the level of stress during the menstrual cycle among post-menarcheal school girls. The findings of the study will help in planning appropriate health education, counseling, and stress management interventions to improve menstrual health and the overall well-being of adolescent girls.

OBJECTIVES OF THE STUDY

1. To assess the prevalence and stress experienced during menstrual cycle among post-menarcheal school girls
2. To associate the findings with the selected demographic variables during menstrual cycle among post-menarcheal school girls.

MATERIALS AND METHODS

Research Approach And Design : A quantitative research approach with a descriptive cross-sectional research design was adopted to assess the prevalence and level of stress during the menstrual cycle among post-menarcheal school girls. The study was conducted in selected schools of Kuppam, Chittoor district, Andhra Pradesh, specifically at Z.P girls high school, Kuppam.

Setting and population : The target population included post-menarcheal school girls aged 12–18 years, while the accessible population comprised those who were present during the data collection period, met the inclusion criteria, and consented to participate. A total of 100 participants were selected using a non-probability purposive sampling technique, based on their availability and willingness to participate at Z.P girls high school, Kuppam.

Sample and sampling technique : The sample consisted of post-menarcheal school girls who fulfilled the inclusion criteria and were available at the time of data collection. A non-probability purposive sampling technique was used to select participants based on their availability and willingness to participate during the data collection period.

Inclusion criteria:

- Schoolgirls Who Have Attained Menarche.
- Schoolgirls Aged 12–18 Years.
- Schoolgirls Studying In Selected Schools Of Kuppam.
- Schoolgirls Who Are Willing To Participate And Present During Data Collection.

Exclusion criteria:

- Schoolgirls Who Have Not Attained Menarche.
- Schoolgirls Absent At The Time Of Data Collection.
- Schoolgirls With Known Psychiatric Illness.

VARIABLES:

- a. **Independent Variables:** Menstrual Variables Including Age At Menarche, Cycle Duration, Menstrual Flow, Dysmenorrhea, School Absenteeism, And Activity Restrictions.
- b. **Dependent Variable:** Level Of Stress During Menstruation Among Post-Menorrhoeal School Girls.
- c. **Demographic Variables:** Age, Class, Type Of School, Religion, Area Of Residence, Type Of Family, Parents' Education And Occupation, Monthly Family Income, And Source Of Information.

TOOL DEVELOPMENT AND DESCRIPTION

Data were collected using a structured questionnaire developed by the investigator based on an extensive review of literature and validated by experts. The tool consisted of three sections:

Section I : Socio demographic variables

This section included items related to age, class/standard, type of school, medium of instruction, religion, place of residence, type of family, number of family members, birth order, father's education, mother's education, father's occupation, mother's occupation, monthly family income, and source of information regarding menstruation.

Section II : Menstrual variables

This section included items related to age at menarche, duration since menarche, regularity and length of the menstrual cycle, duration and amount of menstrual flow, presence and severity of menstrual pain, associated menstrual symptoms, use of medication for pain relief, type of menstrual absorbent used, number of pads used per day, frequency of changing pads, exercise before and during menstruation, restriction of activities during menstruation, school absenteeism, and perceived stress during menstruation.

Section III : Modified Perceived Stress Scale (MPSS)

Assesses stress-related items such as difficulty concentrating in class, anxiety about exams during menstruation, inability to complete assignments, mental exhaustion while studying, fear of poor academic performance, missing classes due to menstrual problems, reduced confidence in academic ability, difficulty remembering studied content, pressure to perform academically. Each item was scored as never = 0, rarely = 1, sometimes = 2, often = 3, always = 4. The total score ranged from 0 to 40 and was interpreted as follows: 0–13 = Low perceived stress, 14–26 = Moderate perceived stress, and 27–40 = High perceived stress.

VALIDITY AND RELIABILITY:

The tool was given for nursing experts of health department. A few were modified on the basis of expert's suggestions and 100% agreement was included in the tool, there by content validity was ascertained. The reliability of tool was assessed based test retest method the obtained r value was 0.92, it should the tool was highly reliable to collect the data

ETHICAL CONSIDERATIONS:

Ethical clearance was obtained from the institutional human ethics committee at the tertiary teaching hospital, Andhra Pradesh, and formal permission was secured from the headmasters of ZP girls high school, Kuppam, and ZP high school, Beggilipalle.

DATA COLLECTION PROCEDURE

The data collection process was conducted over a three-week period, from 4th march to 27th march 2026.

The investigator visited the selected schools daily and identified participants who met the inclusion criteria using a non-probability purposive sampling technique. Before data collection, the purpose, scope, and benefits of the study were explained to the participants, and oral consent was obtained. Data collection included two steps: first, gathering demographic information and menstrual history through a structured proforma, and second, assessing stress levels during the menstrual cycle using the modified perceived stress scale, which took approximately 20–25 minutes for each participant to complete. Throughout the process, confidentiality of all responses was strictly maintained, and the investigator ensured participants felt comfortable and expressed sincere thanks for their cooperation.

RESULTS:

Table 1 Frequency And Percentage Distribution Of The Socio - Demographic Variables Among Post-Menorrheal School Girls.

S.no	Sociodemographic variables	Frequency (f)	Percentage (%)
1.	Age in years		
	a. 12 to 13 years	7	7.00
	b. 14 to 15 years	69	69.00
	c. 16 to 17 years	24	24.00
2.	Class / standard studying		
	a. 7 th standard	9	9.09
	b. 8 th standard	38	38.38
	c. 9 th standard	18	18.18
	d. 10 th standard	34	34.34
3.	Types of school		
	a. Government	95	95.00
	b. Private	5	5.00
4.	Medium of instruction		
	a. Telugu	63	63.00
	b. English	37	37.00
5.	Type of religion		
	a. Hindu	87	87.00
	b. Muslim	8	8.00
	c. Christian	5	5.00
6.	Place of residence		
	a. Rural	49	49.00
	b. Urban	51	51.00
7.	Type of family		
	a. Nuclear	54	54.00
	b. Joint	46	46.00

The table 1 represents the frequency and percentage distribution of socio-demographic variables among post-menarcheal school girls. The majority 69 (69%) belonged to the age group of 14–15 years, 38

(38.38%) were studying in 8th standard, 95 (95%) attended government schools, and 63 (63%) studied in Telugu medium. Most of the participants 87 (87%) belonged to the Hindu religion, 51 (51%) resided in urban areas, and 54 (54%) belonged to nuclear families. The majority 62 (62%) had 4–6 family members, while 65 (65%) were second-born children. Regarding parental education, 62 (62%) of fathers and 61 (61%) of mothers had primary school education. Most fathers 38 (38%) were farmers, whereas the majority of mothers 71 (71%) were homemakers. Regarding monthly family income, 10 (10%) of the families had an income below ₹10,000, followed by 9 (9%) with an income of ₹10,000–₹20,000, 8 (8%) with ₹20,000–₹30,000, and 2 (2%) with an income above ₹30,000. The majority 86 (86%) of the participants reported their mothers as the primary source of information regarding menstruation.

Table 2 frequency and percentage distribution of maternal variables among post-menorrheal school girls.

S.no	Sociodemographic variables	Frequency(f)	Percentage (%)
1.	Age at menarche (years)		
	a. Below 10 years	1	1.00
	b. 10 to 11 years	23	23.00
	c. 14 to 15 years	58	58.00
	d. Above 15 years	18	18.00
2.	Duration since menarche		
	a. Less than 1 year	34	34.00
	b. 1 to 2 years	56	56.00
	c. 3 to 4 years	9	9.00
	d. More than 4 years	1	1.00
3.	Regularity of menstrual cycle		
	a. Regular	95	95.00
	b. Irregular	5	5.00
4.	Length of menstrual cycle (days)		
	a. Less than 21 days	56	56.00
	b. 21 to 28 days	40	40.00
	c. 29 to 35 days	1	1.00
	d. More than 35 days	3	3.00
5.	Duration of menstrual flow		
	a. 1 to 2 days	7	7.00
	b. 3 to 5 days	93	93.00
6.	Type of menstrual pad or absorbent usually use		
	a. Disposable sanitary pad	99	99.00
	b. Menstrual cup	1	1.00
7.	No. of pads used per day during menstruation		
	a. 1 to 2 pads	3	54.00
	b. 3 to 4 pads	84	46.00

	c. 5 or more pads	13	13.00
8.	Frequency of changing pad		
	a. Every 4 hours	43	43.00
	b. Every 4 to 6 hours	56	56.00
	c. More than 6 hours	1	1.00
9.	Exercise before menstrual cycle		
	a. Yes	32	32.00
	b. No	68	68.00
10.	Type of exercise performed during menstruation		
	a. Walking	34	34.00
	b. Yoga / stretching	3	3.00
	c. Sports	1	1.00
	d. Meditation / relaxation	1	1.00
	e. No exercise	61	61.00
11.	Amount of menstrual flow		
	a. Scanty	8	8.00
	b. Moderate	78	78.00
	c. Heavy	14	14.00
12.	Presence of menstrual pain (dysmenorrhea)		
	a. Yes	89	89.00
	b. No	11	11.00
13.	Severity of menstrual pain		
	a. Mild	13	13.00
	b. Moderate	78	78.00
	c. Severe	9	9.00
14.	Associated symptoms during menstruation		
	a. Lower abdominal pain	52	52.00
	b. Back pain	43	43.00
	c. Headache	1	1.00
	d. Nausea / vomiting	2	2.00
	e. Irritability / mood changes	1	1.00
	f. No symptoms	1	1.00
15.	Use of medication for menstrual pain		
	a. Yes	32	32.00
	b. No	68	68.00
16.	Restriction of activities during menstruation		
	a. Yes	40	40.00
	b. No	60	60.00
17.	School absenteeism during menstruation		

	a. Yes	31	31.00
	b. No	69	69.00
18.	Perceived stress during menstruation		
	a. No stress	3	3.00
	b. Mild stress	41	41.00
	c. Moderate stress	56	56.00

The above table represents the frequency and percentage distribution of menstrual characteristics among post-menarcheal school girls. The majority 58 (58%) attained menarche at 14–15 years, 56 (56%) had attained menarche 1–2 years previously, and 95 (95%) had regular menstrual cycles. Most participants 56 (56%) had a menstrual cycle length of less than 21 days, while 93 (93%) had menstrual flow lasting 3–5 days. The majority 99 (99%) used disposable sanitary pads, 84 (84%) used 3–4 pads per day, and 56 (56%) changed their pads every 4–6 hours. Most girls 68 (68%) did not perform exercise before menstruation, and 61 (61%) did not perform any exercise during menstruation. The majority 78 (78%) had moderate menstrual flow, 89 (89%) experienced menstrual pain (dysmenorrhea), and 78 (78%) reported moderate pain. Lower abdominal pain was the most common associated symptom, reported by 52 (52%) of the participants. Most girls 68 (68%) did not use medication for menstrual pain, 60 (60%) had no restriction of activities during menstruation, and 69 (69%) did not miss school during menstruation. Regarding stress, the majority 56 (56%) reported moderate stress during menstruation, while 79 (79%) had moderate perceived stress, followed by 18 (18%) with low perceived stress and 3 (3%) with high perceived stress.

Table 3 frequency and percentage distribution of level of stress during the menstrual cycle among post-menorrheal school girls in kuppam.

S.no	Level of knowledge	Frequency	Percentage
1	High perceived stress	3	3
2	Low perceived Stress	18	18
3	Moderate perceived stress	79	79

Table 3 shows the level of perceived stress among post-menarcheal school girls. Majority 79 (79%) of the post-menarcheal school girls had moderate perceived stress, followed by 18 (18%) who had low perceived stress, and only 3 (3%) had high perceived stress.

Table 4 Association of the demographic and maternal variables with levels of stress during the menstrual cycle among post-menorrheal school girls in kuppam.

Si. No	Socio demographic, menstrual variables	Level of stress			Chi ² Value	“p” Value	Result
		High perceived stress	Low percieved stress	Moderate perceived stress			
1	Age (in years)						
	12 – 13 years	0 (0.00)	4 (22.22)	3 (3.80)	10.2161	0.037	signific

	14 – 15 years	3(100.00)	1(266.67)	54(68.35)			ant
	16 – 17 years	0 (0.00)	2 (11.11)	22(27.85)			
2	Class / standard studying						
	7 th standard	1 (33.33)	6 (33.33)	2 (2.56)	24.1679	0.00	signific ant
	8 th standard	2 (66.67)	8 (44.44)	28(35.90)			
	9 th standard	0 (0.00)	1 (5.56)	17(21.79)			
	10 th standard	0 (0.00)	3 (16.67)	31(39.74)			
3	Type of school						
	Government	3 (100.00)	13(72.22)	79(100.0)	23.9766	0.000	signific ant
	Private	0 (0.00)	5 (27.78)	0(00.00)			
4	Medium of instruction						
	Telugu	0 (0.00)	13(72.22)	50(63.29)	5.7677	0.056	ns
	English	3 (100.00)	5 (27.78)	29(36.71)			
5	Religion						
	Hindu	3 (100.00)	15(83.33)	69(87.34)	0.7229	0.948	ns
	Muslim	0 (0.00)	2 (11.11)	6 (7.59)			
	Christian	0.(0.00)	1 (5.56)	4 (5.06)			
6	Place of residence						
	Rural	3 (100.00)	6 (33.33)	40(50.63)	4.9746	0.083	ns
	Urban	0 (0.00)	12(66.67)	39(49.37)			
7	Type of family						
	Nuclear	0 (0.00)	8 (44.44)	46(58.23)	4.7519	0.093	ns
	Joint	3 (100.00)	10(55.56)	33(41.77)			
8	Number of family members						
	Less than 4	0 (0.00)	4 (22.22)	28(35.44)	7.5348	0.110	ns
	4 - 6	2 (66.67)	14(77.78)	46(58.23)			
	More than 6	1 (33.33)	0 (0.00)	5 (6.33)			
9	Birth order						
	First child	1 (33.33)	4 (22.22)	16(20.25)	4.5336	0.339	ns
	Second child	2 (66.67)	14(77.78)	49(62.03)			
	Third child	0 (0.00)	0 (0.00)	14(100.0)			
10	Father's education						
	No formal education	0 (0.00)	4 (22.22)	11(13.92)	5.9722	0.0426	signific ant
	Primary school	1 (33.33)	11(61.11)	50(63.29)			
	Secondary school	2 (66.67)	2 (11.11)	15(18.99)			
	Intermediate	0 (0.00)	1 (5.56)	3 (3.80)			
11	Mother's education						
	No formal education	1 (33.33)	5 (27.78)	9 (11.39)	9.3569	0.154	ns
	Primary school	0 (0.00)	10(55.56)	51(64.56)			
	Secondary school	2 (66.67)	3 (16.67)	16(20.25)			
	Intermediate	0 (0.00)	0 (0.00)	3 (3.80)			
12	Father's occupation						

	Farmer	0 (0.00)	5 (27.78)	33(41.77)	8.0011	0.238	ns
	Daily wage worker	3 (100.00)	8 (44.44)	23(29.11)			
	Private employee	0 (0.00)	1 (5.56)	7 (8.86)			
	Business	0 (0.00)	4 (22.22)	16(20.25)			
13	Mother's occupation						
	Homemaker	2 (66.67)	12(66.67)	57(72.15)	0.2424	0.886	ns
	Daily wage worker	1 (33.33)	6 (33.33)	22(27.85)			
14	Monthly family income						
	Below rs.10000	0 (0.00)	1 (5.56)	9 (11.39)	35.7015	0.000	signific ant
	Rs.10000 - 20000	2 (66.67)	14(77.78)	64(81.01)			
	Rs. 20000 - 30000	0 (0.00)	3 (16.67)	5 (1.00)			
	Above rs.30000	1 (33.33)	0 (0.00)	0 (0.00)			
	Above rs.30001	0 (0.00)	0 (0.00)	1 (1.27)			
15	Source of information about menstruation						
	Mother	1 (33.33)	9 (50.00)	76(96.20)	37.2925	0.0000	signific ant
	Sister	2 (66.67)	6 (33.33)	2 (2.53)			
	Friend	0 (0.00)	3 (16.67)	1 (1.27)			
16	Age at menarche (years)						
	Below 10 years	0 (0.00)	0 (0.00)	1 (1.27)	3.5549	0.737	ns
	10 – 11 years	0 (0.00)	4 (22.22)	19(24.05)			
	14 – 15 years	3 (100.00)	12(66.67)	43(54.43)			
	Above 15 years	0.(0.00)	2 (11.11)	16(20.25)			
17	Duration since menarche						
	Less	2 (66.67)	5 (27.78)	27(34.18)	36.1463	0.000	signific ant
	1 – 2 years	0 (0.00)	12(66.67)	44(55.70)			
	3 – 4 years	0 (0.00)	1 (5.56)	8 (10.13)			
	More than 4 years	1 (33.33)	0 (0.00)	0 (0.00)			
18	Regularity of menstrual cycle						
	Regular	2 (66.67)	17(94.44)	76(96.20)	5.3224	0.070	ns
	Irregular	1 (33.33)	1 (5.56)	3 (3.80)			
19	Length of menstrual cycle (days)						
	Less than 21 days	1 (33.33)	5 (27.78)	50(63.29)	11.2327	0.081	ns
	21 – 28 days	2 (66.67)	13(72.22)	25(31.65)			
	29 – 35 days	0 (0.00)	0 (0.00)	1 (1.27)			
	More than 35 days	0 (0.00)	0 (0.00)	3 (3.80)			
20	Duration of menstrual flow						
	1 – 2 days	0 (0.00)	0 (0.00)	7 (8.86)	2.0008	0.368	ns
	3 – 5 days	3 (100.00)	18(100.0)	72(91.14)			
21	Type of menstrual pad or absorbent usually use						
	Disposable sanitary pad	3 (100.00)	18(100.0)	78(98.73)	0.2685	0.874	ns
	Mesntrual cup	0 (0.00)	0 (0.00)	1 (1.27)			

22	Used number of pads per day during menstruation						
	1 -2 pads	0 (0.00)	0 (0.00)	3 (3.80)	23.6820	0.000	significant
	3 – 4 pads	0 (0.00)	18(100.0)	66(83.54)			
	5 or more pads	3 (100.00)	0 (0.00)	10(12.66)			
23	Frequency of changing pads						
	Every 4 hours	3 (100.00)	2 (11.11)	38(48.10)	12.8306	0.012	significant
	Every 4 – 6 hours	0 (0.00)	16(88.89)	40(50.63)			
	More than 6 hours	0 (0.00)	0 (0.00)	1 (1.27)			
24	Exercise before menstrual cycle						
	Yes	1 (33.33)	7 (38.89)	24(32.38)	0.4903	0.783	ns
	No	2 (66.67)	11(61.11)	55(69.62)			
25	Type of exercise performed during menstruation						
	Walking	0 (0.00)	8 (44.44)	26(32.91)	12.0724	0.148	ns
	yoga / stretching	1 (33.33)	0 (0.00)	2 (2.53)			
	sports	0 (0.00)	0 (0.00)	1 (1.27)			
	meditation / relaxation	0 (0.00)	0 (0.00)	1 (1.27)			
	no exercise	2 (66.67)	10(55.56)	49(62.03)			

The table 4 represents the association between the level of perceived stress during the menstrual cycle and selected socio-demographic and menstrual variables among post-menarcheal school girls. A statistically significant association was observed between the level of perceived stress and age in years ($p = 0.037$), class/standard studying ($p = 0.000$), type of school ($p = 0.000$), father's education ($p = 0.0426$), monthly family income ($p = 0.000$), source of information regarding menstruation ($p = 0.000$), duration since menarche ($p = 0.000$), number of pads used per day during menstruation ($p = 0.000$), and frequency of changing pads ($p = 0.012$). No statistically significant association was observed between the level of perceived stress and medium of instruction, religion, place of residence, type of family, number of family members, birth order, mother's education, father's occupation, mother's occupation, age at menarche, regularity of menstrual cycle, length of menstrual cycle, duration of menstrual flow, type of menstrual absorbent used, exercise before menstruation, and type of exercise during menstruation ($p > 0.05$).

SUMMARY

The present study was conducted to assess the level of stress during the menstrual cycle among post-menarcheal school girls in Kuppam. The analysis of the level of perceived stress revealed that, among 100 post-menarcheal school girls, the majority 79 (79%) had moderate perceived stress, followed by 18 (18%) who had low perceived stress, and 3 (3%) who had high perceived stress.

CONCLUSION

The findings of the present study revealed that the majority of post-menarcheal school girls experienced moderate perceived stress during the menstrual cycle. Menstrual-related stress can adversely affect the physical, psychological, and academic well-being of adolescent girls. Therefore, it is essential to improve awareness regarding menstrual health, stress management, and healthy coping strategies through regular health education programs. Nurses, teachers, parents, and other healthcare professionals should play an

active role in providing appropriate guidance, counseling, and support to adolescent girls. School health education, awareness campaigns, and adolescent-friendly health services can contribute significantly to reducing menstrual-related stress and promoting healthy menstrual practices, thereby improving the overall quality of life and well-being of post-menarcheal school girls.

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