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A Cross-sectional Study on Menstrual Coping among Reproductive Age Group Women in Chengalpattu, Tamil Nadu

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ABSTRACT

Context: Menstruation is one of the important indicators of women's reproductive health. As menstruation-related problems are becoming increasingly common both globally as well as in India, dealing with problems during menstruation has become a challenge in the life of women belonging to the reproductive age group.

Aims: The present study is designed to assess menstrual coping and various coping mechanisms adopted by women during menstruation.

Setting and Design: This study was conducted amongst adolescents/women of reproductive age (Women who are currently menstruating) who visited SRM medical college hospital and its field practice areas (both rural and urban)

Materials and Methods: A questionnaire was developed specifically for this study, comprising of questions about the socio-demographic characteristics of the study population as well as menstrual history, emotional coping during menstruation & perception about menstruation.

Statistical Analysis: Descriptive statistics and chi-square analysis were used to analyze the data.

Results: More than 2/3rd of the participants (87.38%) reported regular menstrual cycles with a majority of women (90.03%) experiencing 3-5 days cycles. Some of the prominent symptoms experienced by the participants during menstruation were pain (80.73%), backache (29.90%), and headache (23.59%).

Conclusions: In the present study, 40% of the women were having emotional problems during menstruation and factors like frequency of symptoms, commitments during menstruation, taking off during menstruation, and responsibility-sharing during menstruation were found to have a significant effect on emotional problems during menstruation.

Key Words: Menstrual coping, Emotional problems during menstruation, Menstrual coping mechanisms, Menstrual coping amongst women in Chengalpattu, Emotional coping during menstruation, Emotional coping mechanisms during menstruation

INTRODUCTION

Menstruation is one of the important indicators of women's reproductive health. The adolescent period is the transition between puberty and adulthood and menarche happens to be one of the most important markers of puberty. For most girls in the country, menarche happens between the ages of 10 to 16 years, however, this shows a remarkable range of variation. The normal range for ovulatory cycles is between 21 and 35 days. While most periods last from 3 to 5 days,

the duration of menstrual flow normally ranges from 2 to 7 days¹. The pattern of menstruation can be affected by various factors such as ethnicity, family history, smoking, stress, physical activities, and dietary habits². Globally 75% of girls are experiencing problems associated with menstruation. The World Health Organization reports that 18 million women aged 30–55 years perceive their menstrual bleeding to be excessive³. The major abnormalities are dysmenorrhea, premenstrual syndrome (PMS), and menstrual irregularities.

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These disorders may lead to problems in daily activities such as academic excellence, achievements in sports, and loss of self-confidence⁴ which in turn may lead to mental and emotional stress amongst women.

Dysmenorrhea is one of the most prevalent menstrual problems during adolescence and can even cause women to become bedridden. Dysmenorrhea is an important public health problem among various ethnic groups and is associated with loss of school days and poor quality of life⁵. Menstrual disorders such as menorrhagia, abnormal uterine bleeding, and polymenorrhea contribute to almost 12% of gynecology referrals and are usually associated with a very high chance of surgical intervention². Premenstrual syndrome (PMS) is a collection of emotional symptoms with or without physical symptoms related to a woman's menstrual cycle, the prevalence of PMS has been reported in 20 to 32 % of premenopausal and 30-40% of the reproductive female population. Premenstrual syndrome (PMS) affects women's quality of life, economic productivity, and social performance to a degree that affects their daily lives⁶. Irregular menstruation is an indicator of health in women, the prevalence of irregular menstruation varies from 5% to 35.6% depending on age, occupation, and country of residence. Irregular menstruation can occur as a result of hormone imbalances and stress. Irregular menstruation is related to a mental health condition such as depression⁷.

As menstruation-related problems are becoming increasingly common both globally as well as in India, dealing with problems during menstruation has become a challenge in the life of women belonging to the reproductive age group. Addressing the physical and psychological needs related to menstruation is the need of the hour as far as the reproductive health of women is concerned. Although various researchers have been conducted in the areas of menstrual disorders and their prevalence, very little is known about how women cope with menstruation-related problems and how to help women improve to adapt to menstrual changes both physically and psychologically. Hence the present study is designed to fill in the gaps related to menstrual coping and various coping mechanisms adopted by women during menstruation.

MATERIALS AND METHODS

This study was a cross-sectional study. The sample size was calculated to be 264 using a prevalence of 22% for emotional stress and absolute precision of 5%. To account for non-participation amongst the participants a non-participation rate of 10% was considered. Hence, 27 participants (10%) were added and the final minimal sample size was estimated to be 291. The study population included adolescents/women of reproductive age (Women who are currently menstruating) who visited SRM medical college hospital and its field

practice areas (both rural and urban). Data were collected between May 2020 to August 2020. Women who are currently pregnant, women who are on oral contraceptive pills & IUDs, women with premature surgical menopause & physiological menopause were excluded from the study.

A questionnaire was developed specifically for this study, comprising of questions about the socio-demographic characteristics of the study population as well as menstrual history, emotional coping during menstruation & perception about menstruation. Questions such as age, residence, education, SES, Marital status, occupation, and type of family were asked related to the socio-demographic characteristics. Questions such as age at menarche, regularity and duration of cycles, symptoms experienced and commitments during menstruation were some of the questions included in the questionnaire. Regarding the emotional coping and perception about menstruation, questions such as coping methods, a distraction from symptoms, communication with others during menstruation, and family support were included in the questionnaire. Data were entered and analyzed using a Microsoft Excel spreadsheet. Descriptive statistics and chi-square analysis were used to analyze the data. Each study subject was approached individually and written informed consent was obtained for the study. Institutional ethical committee approval was obtained (Institutional Ethical Committee clearance number –1898/IEC/202) and confidentiality of the study participants was maintained throughout the study.

RESULTS

For the present study, a total of 301 women who are in the reproductive age group and presently menstruating were included. The mean age of the participants was 27.90 (± 8.01) yrs (Refer Table-1). The majority of the participants (55.48%) were currently married and less than a half of the participants (43.52%) were single. Minorities of the study participants were divorced (0.33%) and widowed (0.66%). More than half of the participants were living in urban areas (54.15%) and the rest (45.85%) of the participants were living in rural areas. As far as the educational qualifications of the women are concerned, a majority of the participants (39.87%) had qualified for an undergraduate degree followed by the participants who had a secondary school education (15.61%).

A proportion of (13.29%) women had completed higher secondary school education followed by participants who had qualified a postgraduate degree (8.64%). Of the 301 participants, a proportion of (11.63%) were illiterates. A majority of (82.39%) of the participants belonged to a nuclear family and the rest (17.61%) were from joint families. Most of the participants (33.22%) were housewives and were not employed which was followed by the proportion of students (33.2%) and working women (32.89%). A majority of

(80.73%) of the participants belonged to the Hindu religion which was followed by Christians (14.62%) and Muslims (4.65%). The social economical class was classified according to BG Prasad's scale, the highest proportion of women belonging to the middle class (32.56%) followed by upper lower class (20.27%) and upper class (17.28%).

Regarding the menstrual history of the participants, the mean age at menarche of the participants was 12.61(\pm 1.79) yrs (Refer Table-2). More than 2/3rd of the participants (87.38%) reported regular menstrual cycles with a majority of women (90.03%) experiencing 3-5 days cycles. Some of the prominent symptoms experienced by the participants during menstruation were pain (80.73%), backache (29.90%), and headache (23.59%). The majority of the participants (35.22%) had a moderate frequency of symptoms followed by women who had symptoms often (33.89%). Most of the participants (77.74%) happened to be tracking their cycles regularly. The majority of the participants (86.38%) followed hygienic practices like the usage of sanitary pads during menstruation. Of all the commitments that participants had during menstruation, family commitments constituted the major proportion (38.21%).

Regarding the emotional coping mechanisms adopted by the participants during menstruation, it was found that more than half of the participants (53.16%) had some form of emotional problems during menstruation. A proportion (32.22%) of the women had an outburst as a method of coping during menstruation. The majority of the participants (44.85%) had mobile phones as a means to distract from these symptoms. More than 2/3rd of the participants (75.75%) had family support during menstruation.

Regarding the association between socio-demographic and menstrual factors with self perceived emotional problems during menstruation, we found frequency of symptoms during menstruation ($p=0.000$), commitments during menstruation ($p=0.042$), taking off from work during menstruation ($p=0.012$) and responsibility sharing ($p=0.017$) to be statistically significant, Refer (Table.4).

DISCUSSION

The present study was conducted amongst 301 women participants, all the participants included were in the reproductive age group and presently menstruating. The mean age of the participants was 27.90 (\pm 8.01) yrs and the mean age at menarche of the participants was 12.61(\pm 1.79) which was similar to the study done amongst adolescent girls by Omidvar S et al.¹2018. The majority of the participants had graduated with an undergraduate degree (39.87%) and belonged to the middle class (32.56) nuclear families (82.39%) as the majority of the participants were residents of urban areas (54.15%). According to the results of the present study

(12.62%) of women were having menstrual irregularities which are close to the study findings of Kwak Y et al. 2019 which was conducted amongst women aged (19-54) on the prevalence of menstrual irregularities in South Korea that reported that (14.2%) women were having menstrual irregularities. This minor variation could be due to the differences in country of residence⁷.

Regarding the duration of the menstrual cycle, the present study results show that a majority of the women had a duration of 3-5 days cycle (90.03%) followed by >5 days cycle (5.98%) and <3days cycle(3.99%). A similar study conducted by Godbole G et al. 2013 to find out the pattern of the menstrual cycle in young adults in Maharashtra also reported similar results⁸. Pain during menstruation happened to be the major symptoms experienced by women in the present study (80.73%). A study was done by Kural M et al. 2015 to find out the menstrual characteristics and prevalence of dysmenorrhea among college-going girls reported a similar result of (84.2%) women experiencing pain during menstruation in their study⁹.

Regarding hygienic practices during menstruation, a majority of the women (62.1%) reported that they used sanitary pads during menstruation. In a study conducted by Bhatia A to find out the usage of sanitary pads and attitude towards acceptance of low-cost sanitary pads in Mumbai it was found that (62%) of the women were using sanitary napkins during menstruation which is similar to the results of the present study¹⁰. About (40.2%) of the women in the present study reported that they had family and household chores as a major commitment during menstruation, Refer (to Table.3). A study conducted by Mathiyalagan P et al. 2017 to find out the menstrual hygiene and perceived reproductive morbidity amongst adolescent girls in union territory of India reported that (33.1%) women had household chores during menstruation in their study. The differences in results could be attributed to differences in socio-demographic characteristics between the subjects in both the studies¹¹. Regarding the emotional problems experienced during menstruation, (40%) of the women experienced some sort of emotional problems during menstruation. Negi P et al. 2018 in their study reported a similar result of (40.2%) women experiencing emotional problems in their study⁴. Regarding the association between socio-demographic variables and menstrual factors with self-perceived emotion problems amongst the participants, frequency of symptoms, commitments during menstruation, taking off during menstruation, and responsibility-sharing during menstruation were found to be statistically significant.

There are a few strengths and limitations for this present study. This study was done amongst 301 subjects chosen from both rural and urban areas and the sample size is fairly large enough. However, Emotional problems reported by the

subjects are self-perceived and we could not grade the severity of emotional problems due to the lack of a standardized tool for grading. Since this is a study done in a single medical college and its rural and urban centers, this may not be a true representative sample from the community.

CONCLUSION

Emotional problems during menstruation are becoming increasingly common both in India and worldwide. In the present study, 40% of the women were having emotional problems during menstruation, and factors like frequency of symptoms, commitments during menstruation, taking off during menstruation, and responsibility-sharing during menstruation were found to have a significant effect on emotional problems during menstruation.

It is recommended that health education regarding menstrual problems and how to cope with them should be given to school-going girls from the beginning of their high school period. More health programs to create awareness amongst women of reproductive age groups regarding menstruation-related problems and where to seek help regarding them should be put in place.

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Conflict of Interest

None declared

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Authors Contribution

Study conception and design, critical revision – Dr.Chitharaj Rajan Rushender

Analysis and interpretation of data, Drafting of the manuscript Dr. Vijayakrishnan G

Acquisition of data - Dr. Ameenah Anwar Hussain Siraja

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Table 1: Socio-demographic profile of the study participants (N=301)

S. No	Socio-demographic factor		N (%)
1	Age	Mean = 27.90365	S.D = 8.015445
2	Residence	Rural	138 (45.85)
		Urban	163 (54.15)
3	Religion	Hindu	243 (80.73)
		Muslim	14 (4.65)
		Christian	44 (14.62)

Table 1: (Continued)

S. No	Socio-demographic factor		N (%)
4	Education	Primary school	33 (10.96)
		Secondary school	47 (15.61)
		Higher secondary school	40 (13.29)
		Undergraduate	120 (39.87)
		Postgraduate	26 (8.64)
		Illiterate	35 (11.63)
5	Occupation	Student	100 (33.22)
		Housewife	102 (33.89)
		Working women	99 (32.89)
6	SES (BG Prasad 2019)	Upper class	52 (17.28)
		Upper Middle class	47 (15.61)
		Middle class	98 (32.56)
		Upper Lower class	61 (20.27)
		Lower class	43 (14.29)
7	Type of Family	Nuclear family	248 (82.39)
		Joint family	53 (17.61)
8	Marital status	Single	131 (43.52)
		Married	167 (55.48)
		Divorced	1 (0.33)
		Widowed	2 (0.66)

Table 2: Menstrual history of the study participants (N=301)

S. No	Factors related to Menstrual cycle		N (%)
1	Age at Menarche	Mean = 12.61462	S.D = 1.797494
2	Regularity of cycles	Regular	263 (87.38)
		Irregular	38 (12.62)
3	Duration of cycles	<3 days	12 (3.99)
		3-5 days	271 (90.03)
		>5 days	18 (5.98)
4	Plan/Track your cycle	Yes	202 (67.1)
		No	99 (32.9)
5	Symptoms experienced	Pain	243 (80.73)
		Headache	71 (23.59)
		Bloating	24 (7.97)
		Diarrhoea	20 (6.64)
		Mood swings	40 (13.29)
		Backache	90 (29.90)
		Others	8 (2.66)
6	Frequency of symptoms	None	48 (15.95)
		Rarely	53 (17.61)
		Moderate	106 (35.22)
		Often	102 (33.89)
7	Hygiene during menstruation	Never	40 (13.29)
		Sanitary pads	187 (62.1)
		Cloth	114 (37.9)

Table 2: (Continued)

S. No	Factors related to Menstrual cycle		N (%)
8	Commitments during menstruation	Studies	85 (28.24)
		Work	95 (31.56)
		Family	121 (40.2)
9	Take off during menstruation	Always	17 (5.65)
		Sometimes	78 (25.91)
		Very rarely	74 (24.58)
		Never	132 (43.85)
10	Responsibility sharing/take over during menstruation	Yes	196 (65.12)
		No	105 (34.88)

Table 3: Emotional coping during menstruation (N=301)

S. No	Emotional factors		N (%)
1	Emotional problems	Yes	120 (40)
		No	181 (60)
2	Coping method	Under control	146 (48.50)
		Outburst	97 (32.22)
		Not expressive	35 (11.63)
		Positive self-talk	23 (7.65)
3	Distraction from symptoms	Mobile/TV	135 (44.85)
		Go out with friends / family	30 (9.97)
		Exercise	2 (0.66)
		Rest & eat more	131 (43.52)
		Normal work	3 (1.00)
4	Communication with others during menstruation	Yes (I feel confident)	209 (69.44)
		No (I don't feel confident)	92 (30.56)
5	Family support	Yes	228 (75.75)
		No	73 (24.25)

Table 4: Association between Socio-demographic and menstrual factors with the self perceived emotional problems among the study participants (N=301)

S. No	Study characteristics		Self perceived emotional problems		X ²	p-value
			Yes (160) n(%)	No (141) n(%)		
1	Residence	Rural(138)	74(46.2)	64(45.4)	0.022	0.881
		Urban(163)	86(53.8)	77(54.6)		
2	Socio-economic Status	Upper(52)	30(18.8)	22(15.6)	2.661	0.616
		Upper Middle(47)	24(15.0)	23(16.3)		
		Middle(98)	56(35.0)	42(29.8)		
		Lower Middle(61)	31(19.4)	30(21.3)		
		Lower(43)	19(11.9)	24(17.0)		
3	Family type	Nuclear(248)	131(81.9)	117(83.0)	0.063	0.802
		Joint(53)	29(18.1)	24(17.0)		
		Hindu(243)	132(82.5)	111(80.7)		
4	Religion	Muslim(14)	6(3.8)	8(5.7)	0.905	0.636
		Christian(44)	22(7.3)	22(7.3)		

Table 4: (Continued)

S. No	Study characteristics	Self perceived emotional problems		X ²	p-value	
		Yes (160) n(%)	No (141) n(%)			
5	Marital status	Single(131)	76(47.5)	55(39.0)	2.199	0.138
		Married(170)	84(52.5)	86(61.0)		
6	Regularity of cycles	Regular(263)	138(86.2)	125(88.7)	0.392	0.531
		Irregular(38)	22(13.8)	16(11.3)		
		Rarely(53)	14(8.8)	39(27.7)		
7	Frequency of symptoms	Moderate(106)	67(41.9)	39(27.7)	21.351	0.000
		Often(102)	60(37.5)	42(29.8)		
		Never(40)	19(11.9)	21(14.9)		
8	Planning of cycles	Yes(202)	111(69.4)	91(64.5)	0.794	0.373
		No(99)	49(30.6)	50(35.5)		
9	Hygiene practice during menstruation	Sanitarypad(260)	140(87.5)	120(85.1)	0.365	0.546
		Cloth(41)	20(12.5)	21(14.9)		
10	Commitments during menstruation	Studies(85)	55(34.4)	30(21.3)	6.348	0.042
		Work(95)	46(28.7)	49(34.8)		
		Family(121)	59(36.9)	62(44.0)		
11	Take off during menstruation	Always(17)	7(4.4)	10(7.1)	10.872	0.012
		Sometimes(78)	48(30.0)	30(21.3)		
		Very Rarely(74)	47(29.4)	27(19.1)		
12	Responsibility sharing	Never(132)	58(36.2)	74(52.5)	5.567	0.017
		Yes(196)	114(71.2)	82(58.2)		
13	Communication during menstruation	No(105)	46(28.7)	59(41.8)	1.055	0.304
		Yes(209)	107(66.9)	102(72.3)		
14	Family support during menstruation	No(92)	53(33.1)	39(27.7)	1.051	0.305
		Yes(228)	125(78.1)	103(73.0)		
		No(73)	35(21.9)	38(27.0)		