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A STUDY OF MENSTRUAL PROBLEMS AMONG THE FEMALE JUNIOR COLLEGE STUDENTS FROM RURAL AREA OF SANGLI DISTRICT

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ABSTRACT

Background: The various studies have found out significant amount of menstrual problems among adolescent girls. Some of the most common problems are dysmenorrhoes, premenstrual syndrome, abnormal uterine bleeding, amennorhoea, etc. The situation is especially worse in rural areas. These problems aggravate the psychological problems like depression.

Objective: To study the menstrual problems, among female students of junior college students from rural area of Sangli District.

Methodology: It was cross-sectional study conducted in randomly selected higher secondary college in rural area from Western Maharashtra, during September 2012 to October 2012. The calculated sample size for the study was 121. The sampling technique used was stratified ramdom sampling. A self administered questionnaire was used for data collection. Analysis was done using percentage and chi – square test.

Results: Total 186 girl students participated in the study. Total 119 (64%) students were suffering from some menstrual problems. Dysmenorrhea was the commonest menstrual problem, and was present in 42.5% students. It was followed by weakness & giddiness during menstruation, menorrhagia, irregular menstruation etc. Primary amenorrhoea was present in 33 students. While 32 were suffering from premenstrual syndrome. Depression was present in 34.4% of students. Among those suffering from any menstrual problems only 43 (36.13 %) had consulted to doctor at some point of time.

Conclusion: Menstrual Problems are present among majority of the adolescent girls, which highlights the need for proper professional counseling.

Keywords: Adolescents; Premenstrual Syndrome; Menstrual Distrubances; Depression.

BACKGROUND

The word adolescent derived from of the Latin word, *adolescere* meaning "growing to maturity"[1]. WHO defines this phase from 10 years of age to 19 years [2]. The onset of puberty has long been accepted as the starting point of adolescence, and key social-role transitions such as completion of education, employment, marriage, and childrearing historically signalled the end [3]. Puberty is initiated in late childhood through a cascade of endocrine changes that lead to sexual maturation and reproductive capability. Human puberty is accompanied by major physical growth and substantial brain

maturational changes, features that are unique in the animal world [4]. Beginning of menstruation i.e. Menarche, marks the most important step in the pubertal growth of a girl. The age of menarche is generally between 10-16 years; however it may vary depending on Geographic variation, environmental condition, nutritional status etc [5].

Menstrual problems are very common especially in late adolescence [6]. Dysmenorrhea is the commonest problems, among all other menstrual problem in adolescents [7, 8]. Similarly amenorrhea, abnormal/excessive uterine bleeding, Premenstrual Syndrome, etc. are some of the important complains among the adolescents [9]. Many times the menstrual irregularities can be attributed to incomplete maturation of Hypothalamic-pituitary-ovarian axis. This may take more than two years for complete maturation after menarche [9]. This often leads to anxiety, depression and other such psychological problems among the adolescents [10]. Similarly awareness among the girls related to this topic is very limited [11].

Over the period of time it has been observed that age of menarche is decreasing among girls across the globe, while the psychosocial maturation is taking place at later ages [4]. This further aggravates the need for better research and approach towards this problem. The studies related to the topic, from rural area are scarce. Hence the study was planned to obtain the data on the problems of menstruation in late adolescent residing in the rural area of Sangli district, Western Maharashtra.

METHODOLOGY

A Cross-Sectional study was conducted in the a randomly selected higher secondary college from rural area of Palus Taluka of Sangli District of Western Maharashtra. The study was conducted from Sept. 2012 to Oct. 2012, within two months. The reason for selection of this particular area for conducting the research was that, Rural Health Training Centre of Bharati Vidyapeeth Medical College & Hospital, Sangli, is located in this area. Hence it is feasible to plan and execute further interventional programmes, if required in this area.

The stratified random sampling was the technique of sampling utilized in the study. After obtaining proper ethical clearance, a higher secondary college from Palus taluka was selected by lottery methods. The head of the institute was approached and after giving proper information regarding the study, permission was obtained. Only the students of 11th and 12th Standard were included in the study. On reaching the classes the male students were requested to wait in another class, and the female students were briefed about the nature and need of the study, without giving reference to actual questions in the study. Then they were handed a consent form, containing brief information about the study, its importance as well complete assurance regarding anonymity of the personal identity. And they were requested to get the consent form duly filled by their guardian. Next day visit was made and girls who were voluntarily ready to participate and also having duly filled consent form, from their guardians were included in this study were included in the study. Data was collected in one visit only

Self Administered Questionnaire was prepared with the help of experienced faculty and published literature [9, 12, 13, 14, 15]. Appropriate pilot studies were conducted in nearby areas and required changes were made before finalizing the questionnaire. Questionnaire was completely free from any reference to name, address or even name of institution to conceal the identity of participant. DASS-21 scale was included to identify the subjects with depression [13, 14].

All the students not having consent from parents or unwilling to participate were requested to leave the classroom. The subjects were seated on individual benches with every alternate bench kept vacant to ensure privacy. All the questionnaires were distributed and collected at same time to avoid spread of the information and subsequent bias in reporting.

Statistical analysis was done using percentage and chi – square test. The questionnaires incompletely filled were not included in the final analysis.

RESULTS

Out of total 297 female student approached for the study, 212 participated in the final study. Among them 186 questionnaires were completely and properly filled, hence included in the final analysis. All the subjects participating in the study belonged to age group 15-19 years. Mean age of participants was 16.76 (± 0.792) years.

None of the students were living in hostels. According to modified Prasad's socioeconomic classification, 7% students belonged to class –I, 32.3% to class –II, while 24.2%, 21.5% and 15.1% belonged to class – III, class – IV and Class – V respectively. Age of menarche varied from 11 - 16yrs of age (Table 1). Commonest age of menarche was 15 (22.6%) followed by 14 (21%) and 13 (20.4%). Mean age of Menarche was 13.73 (± 1242) years.

Primary Amenorrhea was present in 33 (17.7%) students. Their age distribution is as per Table 2. One or more problems related to menstrual cycle were reported by 119 i.e. 63.98% students.

Table 1: Age of menarche of the students

Age of Menarche	Student (%)
Primary amenorrhoea	33 (17.7)
11	6 (3.2)
12	21 (11.3)
13	38 (20.4)
14	39 (21.0)
15	42 (22.6)
16	7 (3.8)
Total	186 (100.0)

Table 2 : Age distribution of students, with Primary amenorrhoea

Age	Frequency (%)
15	1 (3.0)
16	14 (42.4)
17	16 (48.5)
18	2 (6.1)
Total	33 (100.0)

As shown in Table 3, the most common reported problem during the menstruation was pain, i.e. dysmenorrhea. It was reported by 79 students i.e. 42.5 %. Amongst the students suffering for dysmenorrhea, 20% had been experiencing it almost every cycle. Followed by Dysmenorrhea, weakness easy fatiguability or breathlessness were the second most common set of complaints.

Excessive bleeding (i.e. 4-5 pads per day during menstrual bleeding phase) was reported by 37(19.9%) students. While complaints like headache, joint pain and constipation were observed by more than 17% students. Irregular Menstruation means cycle less than 20 days or of greater than 40 days or missing of 1-2 periods. It was reported by 27 (14.5%) students. A set of complaints like swelling of feet, breast tenderness etc, were reported by 8 (4.3%) students. College was missed during last six months due to some menstrual problem by 21% students. One or more symptoms of Premenstrual Syndrome be were present in 119 i.e 64% students. While premenstrual syndrome was present in 32 (17.2%) students.

Depression was present in 64 (34.4%) students. As shown in **Table no. 4,** depression was not associated with any of the menstrual problems.

Table 3: Problems during menstruation as reported by students

Problems during menses	Student (%)
Dysmenorrhoea	79 (42.5)
Suffering from weakness, giddiness, breathlessness	54 (29.0)
Menorrhagia	37 (19.9)
Headache, Joint Pain or constipation	33 (17.7)
Irregular periods	27 (14.5)
Swelling of feet, breast tenderness	8 (4.3)
Premenstrual syndrome	33 (17.2)
Any one menstrual problem	119 (64)
Missed college due to menstrual problems	39 (21.0)

Table 4: Relation of Depression with Menstrual Problems

Menstrual Problems	Depression		Total	P value
	Absent (n=122)	Present (n=64)		
Dysmenorrhoea	54 (44.26)	25 (39.06)	79	0.496
Weakness, giddiness, breathlessness	36 (29.51)	18 (28.13)	54	0.843
Menorrhagia	27 (22.13)	10 (15.63)	37	0.291
Headache, Joint Pain or constipation	25 (20.49)	8 (12.50)	33	0.175
Irregular periods	20 (16.39)	7 (10.94)	27	0.316
Swelling of feet, breast tenderness	5 (4.10)	3 (4.69)	8	0.851
Premenstrual syndrome	23 (18.85)	9 (14.06)	32	0.411
Any one of the menstrual problem	78 (63.93)	41 (64.06)	119	0.986

Statistically significant association was not present between menstrual problems and other variables like age, age of menarche, socioeconominc status etc. For any menstrual problem ony 35.8% students had consulted doctor. While 64.5% students were comfortable with discussing the menstrual problems with their mother, only one student (0.5%) was comfortable to discuss with teachers. Nearly 12% students were not comfortable about discussing such problems with anyone. 15% students were embarassed about menstrual problems. 42.5% students stressed the need for reproductive health education in curriculum while more than 70% supported the need of health councilor or health cell in college.

DISCUSSION

Slap GB (2003) observed that, Problems associated with menstruation affect 75% of adolescent females [18]. Thakre et al [19] observed menstrual problems among 71.8% adolescent girls. However in present study menstrual problems were observed among 64% girls. The difference is present but it is less and can be attributed to difference in attitude, locality and reporting differences.

Age of menarche depends on multiple factors like nutrition, geographical conditions, health-status etc. The studies done by Singh A et.al [7] in New Delhi, India or Zegeye DT et.al [10] in Ethiopia observed the mean age of menarche as 12.5 yrs and 14.8 yrs respectively. Similarly Verma et al., (2011) [20] conducted study in Bhavnagar, they observed that mean age of menarche was 14. During this study the observed mean age of menarche was 13.73 yrs. observed difference was probably due to Geographical variation and socio – economic variation in the study subjects. Similarly it may be the case, as suggested by Zegeye DT et.al [10], that the age of menarche of the inhabitants of rural area higher than their urban counterparts, hence observed mean was higher that results of study of Singh et. Al [7].

Singh A et.al [7] observed that 73.83% subjects complaining dysmenorrhea. While observed dysmenorrhea in Sharma P et.al [8] study and or Zegeye DT et.al [10] study was 67.2% and 72% respectively. While in this study, though it was the most common complaint, yet it was reported by 42.5% subjects. This is much lower than what is observed in above mentioned studies.

However the results are much closer to observed result of 50.6% dymenorrhoea among girls from Bhavnagar, by Verma et al [20]. The dysmenorrhea and its severity are perceptive. Similarly it depends on personal threshold for pain; social environment in one is brought up. Generally it is accepted that threshold for pain among the inhabitants increases from Metropolitan to rural environment. This may be the reason for observed differences in the results. Jacks TH [17] observed increased tendency of irregular menses with early onset of menarche. But no association of age of menarche and development of irregular menstruation observed in this study.

Sharma et al (2008) [8], found that among the adolescent girls from New Delhi, (63.1%) had one or the other symptoms of Pre-menstrual syndrome (PMS). While in current study the prevalence of atleast one symptom of Pre-menstrual syndrome (PMS), was 63.98%. Hence the observation was in accordance.

CONCLUSION

Compared to studies carried out abroad or in Urban region in India, menarcheal age was found to be delayed in the present study. Dysmenorrhea was the commenest menstrual problem in late adolescents. One or the other symptom of Premenstrual syndrome was present in majority of girls. Menstrual problems were apparently not causing depression among the study subject. The need for proper knowledge, guidance and counseling is unmet. While the need for specialized support in college is large, the actual involvement of teachers seems very low. The medical consultation for the menstrual problems is very low. Proper and early intervention,through well established channel like health counsilor is required to ensure decrease in the extent of the problem.

Limitations of the study

Study popualtion is college students hence results cannot be applied to all the adoelscents population. Similarly, study was limited to one college in rural area, so wider applicability is compromised. More such studies with greater reach are required to for the better conclusion regarding the topic.

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