



A STUDY ON IMPACT OF PREMENSTRUAL SYNDROME ON SCHOLASTIC PERFORMANCE OF SCHOOL GOING ADOLESCENT GIRLS IN VIZIANAGARAM DISTRICT, ANDHRA PRADESH.

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ABSTRACT

OBJECTIVES To study the prevalence of premenstrual syndrome among adolescent girls in one rural and one urban school with its impact on scholastic performance. **METHODOLOGY** An observational study was carried out among a convenient sample of 265 adolescent school girls aged between 13-16 years belonging to one rural and one urban girls' school in the Vizianagaram district of Andhra Pradesh during a period of one month during 2016. **RESULTS** The overall prevalence of premenstrual syndrome is 42.6%. About 51.9% of girls in the rural school and 35% of girls in the urban school are experiencing backache before and during menstrual period. Missing classes during menstruation is very high i.e 33.6% in rural school girls and 24.4% in urban school girls.

KEYWORDS : Adolescent girls, Premenstrual syndrome, Dysmenorrhoea, Scholastic performance.

INTRODUCTION

WHO defines adolescence as the period between 10 – 19 years of life.[1] Premenstrual syndrome (PMS) which is also known as premenstrual tension is very common in the middle aged females. About 75-85% of such persons complain of such illness for a varied period of their reproductive life. The unique phenomenon of menarche takes place during this period. But a sizeable proportion of these persons complain of a number of symptoms prior to the menstrual period that create a lot of problem to the person and to the family as well. The premenstrual syndrome is described as a symptom complex primarily recognised by cyclic changes during the luteal phase of the ovulatory cycles. Classically PMS includes increasing breast tenderness, headache, loss of sleep, abdominal discomfort and cramps, fatigue, emotional irritability, mood changes, depression, fluid retention and gain of body weight beginning 7-14 days prior to menses. As menstruation approaches the symptoms may aggravate and it may so happen that 5% of them may suffer from severe symptoms which influence their daily activity. [2] Since the adolescent girls are going to academic institutions so there is likelihood of occurrence of a lot of hindrances to their study. Thus it is important to know the impact of premenstrual syndrome on scholastic performance of these adolescent girls.

OBJECTIVES

- (1) To study the prevalence of premenstrual syndrome among adolescent girls in one rural and one urban school.
- (2) To study the impact of premenstrual syndrome on school attendance of the girls.
- (3) To study the impact of premenstrual syndrome on scholastic performance of the girls.

MATERIALS & METHODS

1. STUDY DESIGN – Observational study
2. STUDY PARTICIPANTS – Adolescent girl students of 8th, 9th & 10th classes of one rural girls' high school and one urban girls' high school. All of them belonged to the age group of 13-16 years.
3. STUDY PERIOD – 1 month (15th October 2016 to 14th November 2016)
4. SAMPLE SIZE – 125 girl students from the rural school and 140 girl students from the urban school were included in the study.
5. SAMPLING TECHNIQUE – Although the schools taken up for the study have been selected randomly, the respondents from the

selected schools have been included from 8th, 9th and 10th classes as convenient sample.

6. INCLUSION CRITERIA – Girls who have attained menarche and studying in classes 8th, 9th & 10th have been included in the study. All the girl students of 9th and 10th classes informed that they have attained menarche.

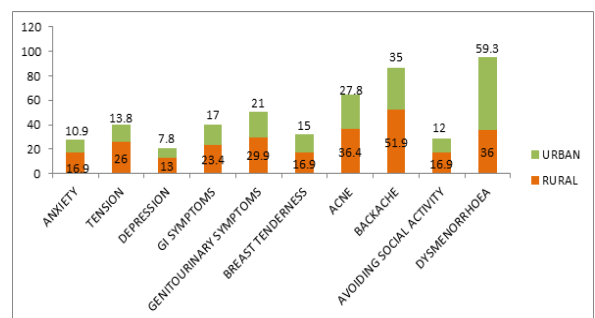
7. EXCLUSION CRITERIA - Those girl students who have not attained menarche have been excluded from the study.

8. DATA COLLECTION PROCEDURE – Interview of the participants was carried out using a close and open ended questionnaire which was predesigned and pretested. Surprisingly there was no refusal among the girl students for inclusion in the study.

9. DATA ANALYSIS – The collected data were analysed in the Department of Community Medicine, Maharajah's Institute of Medical Sciences, Nellimarla, Vizianagaram using SPSS Version 21.0. The interpretation of the results was carried out in the form of percentages and appropriate statistical tests of significance were applied wherever necessary.

RESULTS

FIGURE 1: PREVALENCE OF PREMENSTRUAL SYMPTOMS AMONG RURAL AND URBAN SCHOOL GIRLS
n=265



It is observed from the Figure no. 1 that different types of symptoms are being experienced by school girls before menstruation in both the rural and urban areas. About 51.9% of girls in the rural school and 35% of girls in the urban school are experiencing backache before and

during menstrual period. Dysmenorrhoea is seen in 59.3% of urban and 36% of rural school girls. Whereas about 13% and 7.8% of girls in the rural and urban school respectively are observed to be going into depression. Other symptoms like anxiety, tension, gastrointestinal symptoms, genitourinary symptoms, acne, breast tenderness and avoiding social activity were also reported to be experienced by the girls of both rural and urban school to variable extent. But all these symptoms were remarkably seen in higher percentage in girls of rural school than that of urban school.

TABLE 1: ASSESSMENT OF ATTENDANCE AND SCHOLASTIC PERFORMANCE OF GIRLS BEFORE AND AFTER ATTAINING MENARCHE
n = 265

LOCATION OF SCHOOL	MISSING SCHOOL DURING MENSTRUATION	MISSING CLASSES DURING MENSTRUATION	MISSING EXAMINATION DURING MENSTRUATION	NO WELL PERFORMANCE IN EXAMS APPEARED DURING MENSTRUATION
RURAL n ₁ =125	29 (23.3%)	42 (33.6%)	9 (7%)	25(19.8%)
URBAN n ₂ =140	15 (11%)	34 (24.4%)	4 (3%)	12 (8.9%)
TOTAL n=265	44 (16.6%)	76 (28.6%)	13 (4.9%)	37 (13.9%)
Z SCORE	2.66(Significant)	1.49 (Not Significant)	1.65 (Not Significant)	2.53 (Significant)

It is observed in Table no: 1 that the extent of missing school, missing classes, missing examinations and no well performance in examinations which occurred during menstrual period is higher in the girls of rural school than that in urban school. Further it is seen that missing classes during menstruation is high (33.6%) in rural school girls whereas that is 24.4% in urban school girls. Missing examination during menstruation is seen to be low in rural school girls (7%) and that in urban school girls is 3%. That is why the z scores for missing school, missing examination and no well performance in the examination are significant for rural school students. Missing examination during menstruation is not significant probably because each and every student will have the intention to appear the examination anyhow irrespective of any difficult situation.

DISCUSSION

In the present study it has clearly come out that a substantial number of girls in both rural and urban areas suffer from premenstrual and menstrual symptoms, the prevalence being 42.6% as against a prevalence of 71.83% among the school going girls at Nagpur as studied by Thakre SB in 2011.[3] Further it is also concluded from the above study that the prevalence of premenstrual syndrome was higher among rural school girls (51.6%) than that in the urban school girls (35.1%), the difference was highly significant with a SE of difference between two proportions being 6 and the observed difference between the two proportions being 16.5. In another study conducted by Valvaikar KS and Shah HK in North Goa, to compare the menstrual pattern and menstrual problems among 384 rural and urban school girls of 7th, 8th and 9th classes it was found that symptoms of PMS were significant in the rural area (p < 0.05).[4] Further in a study carried out by Thakre SB, et al at Nagpur in 2011 it is seen that there was a significant difference in proportion of menstrual problems in rural (34.9%) and urban (68.4%) school going girls. The prevalence of dysmenorrhoea in the present study is 36% in rural and 59.3% in urban school girls whereas in another study carried out by Sinha S, et al at Lucknow during 2013-14 on 640 school going adolescent girls to know the menstrual pattern and prevalence of dysmenorrhoea, the overall prevalence of dysmenorrhoea was found to be 73.9% with 74.4% girls in urban schools and 72.7% girls in rural schools.[5]

With regard to comparison of missing attendance in the school and

scholastic performance among these girls it is observed that a higher proportion of rural girls are coming in these two aspects than the counterpart of urban girls. The percentage of missing classes during menstruation is very high (33.6%) in rural school girls and that is 24.4% in urban school girls. But in the study conducted by Tenkir A et al in Jimma University, Ethiopia on Premenstrual syndrome prevalence and effect on academic and social performances of students it was observed that missing examination during menstruation period was low in rural school girls (7%) than that in urban school girls (3%). About 14% of these study participants frequently missed classes and 15% missed examinations or scored a lower grade at least once because of PM symptoms.[6] In the Nagpur study it was observed that school absenteeism was 13.7% among urban and 38.3% among rural girls (p<0.001)[3]

CONCLUSION

It is concluded from the above study that the prevalence of symptoms of premenstrual syndrome was higher among rural school girls than urban school girls. Lower attendance in school due to symptoms of premenstrual syndrome among rural school girls than urban school girls may be due to poor health care facilities and practice of seclusion during menstrual period in rural areas. Although premenstrual and menstrual symptoms are regulated by hormonal activities in the females, yet the influence of socio-cultural background and level of perception carry a lot of importance in determining the actual experience.

Every adolescent girl must be aware of premenstrual syndrome and its effect on their scholastic performance. This may be due to attaching less importance to study and school activities among rural girls than the urban girls. It might have been guided by the influence of socio-cultural background prevalent in the rural areas.

IMPLICATIONS OF THE STUDY:

- 1) Precise impact of premenstrual syndrome on school attendance and scholastic performance could be known.
- 2) There is scope of intervention in the form of reproductive health care and health education for the adolescent girls in the school as well as in domestic settings.
- 3) There is need of free flow of medical advice to alleviate the symptoms of premenstrual syndrome as a part of school health program.
- 4) Improvement in school attendance and scholastic performance is possible by improvement of participants' awareness level and improvement of their reproductive health practices.

RECOMMENDATION

Vigorous training of health care delivery staff and lady school teachers is a prerequisite for increasing prompt identification of girls having symptoms of premenstrual syndrome. Referral of the affected student to the nearest health care facilities for proper management is recommended especially in rural areas.

LIMITATIONS OF THE STUDY

The study is confined to a convenient sample size of 265 girl students studying in rural and urban government schools in Vizianagaram district. So the results represent only a small proportion of the entire adolescent girl population of the district. Further studies need to be conducted which could be projected to the entire adolescent girl population of the district.

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