



RESEARCH ARTICLE

MENSTRUAL PATTERN AND PROBLEMS AMONG RURAL ADOLESCENT GIRLS OF
BHILWARA DISTRICT, RAJASTHAN

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ABSTRACT

Adolescence, the transitional phase of physical and mental development between childhood and adulthood, is characterized by immense hormonal changes. Owing to the immaturity of the hypo-thalamo-pituitary-ovarian axis, menstrual cycles tend to be rather irregular. This variability poses a dilemma for physicians treating these girls and may result in a delay in the diagnosis and treatment of underlying problems. Though the present study has been planned to study the menstrual pattern and menstrual problem among rural adolescent girls. A cross-sectional community based study was conducted in the rural area of Bhilwara district, Rajasthan. A sample of 420 rural adolescent girls were selected. Information on various aspect of menstruation was obtained from adolescent girls with the help of pretested and validated questionnaire. All the data were collected and analyzed in Microsoft Excel. Results of the study reveals that out of 420 adolescent girls 314 had attained menarche. The mean age of menarche was 13.4±1.2 years. Dysmenorrhea was the most common problem complained by the subjects (63.03%). Followed by dysmenorrheal, weakness, easy fatigability or breathlessness were the second most common set of complaint. Premenstrual symptoms were present in 36.30 % subjects. 80.89% girls had abdominal pain during menstruation followed by 28.34% cramp, 12.73% were uncomfortable, 19.74% backache, 6.05% headache and 11% had constipation. Menstrual problem among adolescent female are common and a significant source of morbidity in this population. However, adolescent girls are reluctant to seek medical treatment, leading to delay in diagnosis and treatment. Appropriate health education measures need to be put into place to prevent this trend.

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INTRODUCTION

Menstruation is a normal physiological process but the onset of menstruation is a unique phenomenon for adolescent girls. It is considered as a landmark in the growth and development of an adolescent girl. The age of the onset and the pattern of menstrual cycle vary on different factors. The age of menarche is generally between 10-16 years; however it may vary depending on geographic variation, environmental condition, nutritional status etc. From both medical and social perspectives, it is often considered as the central event of female puberty, as it suggests the possibility of fertility. After menarche many adolescent girls face problems of irregular menstruation, excessive bleeding and dysmenorrhea (Thakre et al, 2012).

Adolescence is a period of transition from puberty to early adulthood. Transition phase involves major physical and emotional changes in the individual. In a traditional family

setting in developing countries, mother is usually the care taker of their daughter during this critical phase of physical and emotional development. In a conservative society and in rural population, the subject of menstruation and its hygiene is still considered a taboo subject for discussion.

Lack of menstrual hygiene was found to result in adverse outcomes like reproductive tract infection. Better knowledge about menstrual hygiene reduced the risk of reproductive tract infection. According to a multicounty survey, menstrual disturbances were among first and fourth most commonly reported causes of morbidity among adult women (Verma et al, 2011). In rural India, where a female child and its problem are neglected, there is an urgent and unmet need to understand menstrual pattern and problems of adolescent girls and include it into primary health care program. Though the present study has been planned to study the menstrual pattern and menstrual

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problem among rural adolescent girls of Bhilwara district, Rajasthan.

METHODOLOGY

A cross-sectional community based study was conducted in the rural area of Bhilwara district. A sample of 420 rural adolescent girls were selected from 21 randomly selected anganwadi centers of Suwana panchayat samiti of Bhilwara district, Rajasthan. The adolescent girls those who attended menarche were included in the study. Written permission was taken from the CDPO, Bhilwara and verbal consent was obtained from the subjects. Information on various aspects of menstruation was obtained from adolescent girls with the help of pretested and validated questionnaire. All the data were collected and analyzed in Microsoft Excel.

RESULTS AND DISCUSSION

Out of 420 adolescent girls 314 had attained menarche. The mean age of menarche was 13.4±1.2 years with 10 and 17 years being the lowest and highest age of menarche respectively. Similar finding were reported by Solanki et al, 2012(13.5 years), Sachan et al, 2012(13.6 years), Patil et al, 2011(13.45 years) and Wasnik et al, 2015(13.5 years). In another study in Maharashtra (Pune city), the mean age of menarche was found to be 12.62 +/-1.05 year and in rural Orissa, the mean age of menarche was found to be 12.97 years, which is less as compared to our study (Suresh et al,2011 and Naik,2012).

Table -1 show that majority of girls (80.90%) had attained menarche at 13-15 year of age, followed by 14% at the age of 10-12 years and 5.1% at 16-18 years of age.

Table-1 Distribution of adolescent girl according to age of menarche

Age of menarche(years)	No.	Percentage
10-12	44	14
13-15	254	80.9
16-18	16	5.1

Most of them (66.24%) had regular menstrual cycle and 33.76% had irregular cycle. The most common menstrual pattern found among girls was >30days followed by 28-30 days. Most of them (74.8%) had 3-5 days duration of flow and 16.2 % had 5-7 days (Table-2). Similar study by Wasnik et al (2015) shows that the duration of blood flow was within 5 days in 75.85 of adolescent girls with 24.2% having prolonged menses(>5 days).

Table-2 Information regarding menstrual pattern

Variables	No.	Percentage
Menstrual cycle length		
25-28 days	69	22
28-30 days	64	20.4
>30 days	181	57.64
Duration of flow		
<3 days	19	6
3-5 days	235	74.8
5-7days	51	16.2
>7 days	9	2.9
Menstruation		
Regular	208	66.24
Irregular	106	33.76

Irregular menstruation means cycle less than 20 days (Polymenorrhea) was found in 10 % girls and cycle greater than 40 days (Oligomenorrhea) was found in 23.90 %. Oligomenorrhea was the most frequently reported problem (23.90%) and polymenorrhea was much less prevalent (10%). Menorrhoeia was found in 18.89% girls. It is due to hormonal fluctuation taking place in peri-pubertal and peri-menopausal age of women (Table-3).

Table-3 Distribution of subjects according to menstruation problems

Problems during menstruation	No.	Percentage
Dysmenorrhea	198	63.06
Premenstrual symptoms	114	36.3
Oligomenorrhea	75	23.9
Polymenorrhea	31	10
Menorrhagia	59	18.89
Abdominal pain	254	80.89
Cramp	89	28.34
Body ache	62	19.74
Backache	21	6.79
Headache	40	12.73
Uncomfortable	19	6.05
Irritability	15	4.8
Weakness	124	39.5
Breathlessness	73	23.25
Breast tenderness	14	4.4
Constipation	35	11.15

The finding of the present study showed a high prevalence of dysmenorrhea 63.06% (Table-3). Amongst the subjects suffering from dysmenorrhea, 20% had been experiencing it almost every cycle. Wasnik et al (2015) also reported a high prevalence (62.3%) of dysmenorrhea among rural adolescent girls of Amravati, Maharashtra. Similar finding were reported by Waghachavare et al, 2013 (63.4%), Suresh K. Kumbhar et al, 2011 (65.02%), and Patil et al, 2011 (64.56%), Sharma et al, 2011 (67.2%). Comparatively lower prevalence had been reported by Sharma et al, 2011 (33%), Verma et al, 2011 (50.6%) and study by Kameswararao et al, 2008 (56%).

Followed by dysmenorrhea, weakness, easy fatigability or breathlessness were the second most common set of complaint. Premenstrual symptoms were present in 36.30 % subjects. 80.89% girls had abdominal pain during menstruation followed by 28.34% cramp, 12.73% were uncomfortable, 19.74% backache, 6.05% headache and 11% had constipation. A set of complaints like swelling of feet, breast tenderness were reported by 4.4% of the subjects (Table-3). Similar findings was reported by Wasnik et al (2015) among rural school going adolescent girls of Amravati district of Maharashtra and Pati et al (2011) reported among rural adolescent girls in Bijapur. Twenty three percent of the girls reported the use of sanitary napkins during menstruation, 51.8% reported the use of old cloth and 15.6% were used new cloths during menstruation. The study by Jogdand and Yerpud (2011) in rural area of Guntur district reported 34.63% girls used old cloth during menstruation.

CONCLUSION

Attainment of menarche at right is an important milestone during adolescent, which signifies the normal functioning of the female reproductive system. Study revealed that majority of adolescent girls had attained menarche at appropriate age. Dysmenorrhoea was the commonest problem among the adolescent adolescents followed by weakness, easy fatigability

or breathlessness were the second most common set of complaint. The cycle was irregular in majority of girls. Menstrual problem among adolescent female are common and a significant source of morbidity in this population. However, adolescent girls are reluctant to seek medical treatment, leading to delay in diagnosis and treatment. Appropriate health education measures need to be put into place to prevent this trend.

References

- Avasarala, A.K. and Panchangam, S.2008. Dysmenorrhoea in different settings are the rural and urban adolescent girls perceiving and managing the dysmenorrhoea problem differently? *Indian J Community Med.* 33(4):246-9.
- Jogdand,K. and Yerpude, P.2011. A community based study on menstrual hygiene among adolescent girls. *Indian J Maternal Child Health.*13(3):1-6.
- Kumbhar, S.K., Reddy,M., Sujana, B., Reddy , R.K, Bhargavi, D.K.and Balkrishna,C.2011. Prevalence of dysmenorrhea among adolescent girls (14-19 years) of Kadapa district and its impact on quality of life: a cross sectional study. *Natl J Community Med.* 2(2):265-8.
- Naik, M.K. 2012.A study of the menstrual problems and hygiene practices among adolescents in secondary school. Thiruvanthapuram. *Indian J Pediatr.*1:79.
- Patil, M.S. and Angadi, M.M. 2013. Menstrual pattern among adolescent girls in rural area of Bijapur. *Al Ameen J Med Sci.*6(1):17-20.
- Sachan,B., Idris,M.J., Jain,S., Kumari,R. and Singh,A.2012. Age at menarche and menstrual problems among school-going adolescent girls of a North Indian district. *J Basic Reprod Sci.*1(1):56-9.
- Sharma, A, Taneja DK, Sharma P, Saha R.2008. Problems related to menstruation and their effect on daily routine of students of a medical college in Delhi, India. *Asia Pac J Public Health.* 20 (3): 234-41.
- Sharma,P., Malhotra,C., Taneja, D.K. and Saha, R.2008. Problems related to menstruation amongst adolescent girls. *Indian J Pediatr.* 75:125-8
- Solanki,H., Gosalia,V., Patel, H., Vora,F. and Singh, M.P.2012. A Study of Menstrual Problems & Practices among Girls of Mahila College. *NJIRM* 3(4): 24-27
- Thakre, S.B., Thakre, S.S., Ghade, S.U. and Thakre, A.D. 2012. Urban-Rural differences in Menstrual Problems and Practices of Girl students in Nagpur, India. *Indian Pediatr.*49:733-6.
- Verma, P.B., Pandya, C.M., Ramanuj, V.A. and Singh, M.P.2011.Menstrual pattern of adolescent school girls of Bhavnagar (Gujarat). *NJIRM.* 2(1):38-40.
- Waghachavare, V.B., Chavan, V.M. and Dhumale, G.B. 2013. A A Study of Menstrual Problem among the Female Junior College Students from Rural area of Sangli District. *National Journal of Community Medicine.* 4(2) 238--41
- Wasnik, V. R., Dhumale, D. and Jawarkar, A. K. 2015. A study of the menstrual pattern and problems among rural school going adolescent girls of Amravati district of Maharashtra, India. *International Journal of Research in Medical Sciences.* 3 (5), 1252-56
