



A study of the menstrual pattern and problems among rural school going adolescent girls of Ganjam district of Odisha, India

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Abstract

Background: Beginning of feminine cycle is considered as a milestone in the development and improvement of an immature girl. The period of beginning and the example of menstrual cycles shift on various elements. After menarche numerous pre-adult young ladies faces issues of sporadic feminine cycle, over the top draining and dysmenorrhea and some more. Present investigation was conveyed in this line to discover issues. Goals: To think about the menstrual example and issues among school going immature young ladies in rustic region of Ganjam region of Odisha.

Materials and methods: The Prospective observational examination was done among chose 435 Secondary and higher secondary girls understudies (12-16 years old) of Ner Pinglai by purposive inspecting strategy. The investigation was done in the month August 2013 to February 2014. Measurable investigations were finished utilizing SPSS 16.0 adaptation.

Results: Total 435 immature young ladies had accomplished menarche. The mean period of menarche was 13.5 (1.0) years. 17.9% of adolescent young ladies announced premenstrual disorder. 81.3% young ladies had stomach torment amid monthly cycle pursued by 28.5% issue, 11% were awkward, 11% had spinal pain, 6.6% had migraine and 2.5% young ladies had despondency. 3.4% of the youthful young ladies were did not have any side effects amid menses. Dysmenorrhoea was the most well-known menstrual protest revealed by 62.3% young ladies. 33.5% young ladies have announced utilization of sterile cushions amid monthly cycle. 41.6% young ladies have detailed utilization of old garments amid feminine cycle. 21.8% had unpredictable menstrual cycle.

Conclusions: Menstruation is an essential achievement for juvenile young ladies and menstrual issues are normal among adolescent young ladies. The mean time of menarche was 13.1 ± 1.0 of years. There were 1.5 menstrual side effect per pre-adult young ladies commonest being stomach torment. Dysmenorrhoea was seen in 62.3% of the pre-adult young ladies. 33.5% young ladies have announced utilization of sterile cushions amid monthly cycle. 41.6% young ladies have revealed utilization of old garments amid monthly cycle.

Keywords: Adolescent girls, dysmenorrhea, menstruation, school going, rural

Introduction

Twenty-five percent of the populaces of India were a juvenile in 2011 [1]. Menstruation is a typical physiological procedure yet the beginning of monthly cycle is a remarkable wonder for immature young ladies. In India it is viewed as unclean, and young ladies are limited from taking part in family unit and religious exercises amid monthly cycle. These confinements stretch out to eating certain sustenances like jaggery and papaya as well [2, 3]. Menarche is a complex of growing up. From both restorative and social viewpoints, usually considered as the focal occasion of female adolescence, as it recommends the likelihood of fruitfulness. The time of beginning of the menstrual cycle fluctuates from 9-18 years, with the normal age in the United States being around multi year in India; it is somewhat lower and has been accounted for to associate with 12 years [4]. Awareness about feminine cycle before menarche was observed to be low among both urban and rustic young people in Odisha state [5]. Lack of menstrual cleanliness was found to result in unfavorable results like

conceptive tract infections [6]. Better information about menstrual cleanliness diminished this danger of regenerative tract infections [7]. According to a multicounty review, menstrual aggravations were among first and fourth most regularly announced reasons for dismalness among grown-up women [8, 9]. In provincial India, where a female kid and its issues are ignored, there is an earnest and neglected need to comprehend menstrual example and issues of youths and incorporate it into essential social insurance program. Present had following goals.

1. To investigation the menstrual examples among school going juvenile young ladies.
2. To examination the occurrence of different menstrual issues among them and their methodology towards that.

Methods

Study design and setting

Prospective observational study among 435 secondary and higher secondary girls students (12-16 years of age) by purposive sampling method school children was carried out

in rural area of Ganjam from August 2013 to February 2014 in rural area.

Data collection

The adolescent girls those who have attended menarche were included in the study. Effort was made to examine the students who were absent on a particular day at the next visit. After taking permission from the school authority, the class teachers of class were explained the purpose of the study and rapport was built up with the girl students and verbal consent was obtained from them. Briefing was done to the students regarding the questionnaire provided to them. Data on socio-demographic variables were collected using a pre designed questionnaire. Information on various aspects of menstruation was obtained from adolescent girls who have attended menarche by lady Medical Social worker with the help of pretested and validated questionnaire. The information about personal details, age of menarche in years, menstrual cycle pattern and whether they experience any menstrual problems was collected. They were also asked to indicate whether they had sought medical advice or treatment for their menstrual problems.

Data analysis

All the data were collected, entered and analyzed in SPSS 16.0. The data was analyzed using percentages and proportions through tables.

Results

Total 435 girls had attained menarche. The mean age of menarche was 13.5 (1.0) years with 10 and 17 years being the lowest and highest age for attaining menarche respectively. Majority of girls (81.1%) had attained menarche at 13-15 years of age, followed by 14.5% at the age of 10-12 years and 4.4% at 16-18 years of age. (Table 1) Out of total 435 respondents, 357 (82.1%) girls were free from premenstrual symptoms 78 (17.9%) reported premenstrual syndrome. 81.3% girls had abdominal pain during menstruation followed by 28.5% cramp, 11% were uncomfortable, 11% backache, 6.6% headache and 2.5% girls had depression. 3.4% did not have any symptoms during menses. The average number of menstrual symptom per adolescent girl was 1.5 (Table 2 & 3). Dysmenorrhoea was the most common menstrual complaint reported by 271 (62.3%) girls. 33.5% girls have reported use of sanitary pads during menstruation. 41.6% girls have reported use of old clothes during menstruation (Table 4 & 5).

Table 1: Distribution of adolescents according to age of menarche.

| Age of menarche No. (%) (years) | | | |
|---------------------------------|-----|--|-------|
| 10-12 | 63 | | 14.5 |
| 13-15 | 353 | | 81.1 |
| 16-18 | 19 | | 4.4 |
| Total | 435 | | 100.0 |

Table 2: Distribution of adolescents according to premenstrual tension.

| Premenstrual tension | No. | Percentage |
|----------------------|-----|------------|
| Never | 357 | 82.1 |
| Occasionally | 60 | 13.8 |
| frequently | 9 | 2.1 |
| Always | 9 | 2.1 |
| Total | 435 | 100.0 |

Table 3: Distribution of adolescent girls according to menstrual symptoms.

| Menstrual symptoms | No. | Percentage |
|--------------------|-----|------------|
| Abdominal pain | 354 | 81.3 |
| Cramp | 124 | 28.5 |
| Uncomfortable | 58 | 13.3 |
| Backache | 48 | 11 |
| Body ache | 16 | 3.6 |
| Headache | 29 | 6.6 |
| Irritability | 20 | 4.6 |
| Depression | 11 | 2.5 |
| No symptoms | 15 | 3.4 |
| Multiple response | | |

Table 4: Prevalence of dysmenorrhoea among adolescents.

| Dysmenorrhoea | No. | Percentage |
|---------------|-----|------------|
| Never | 164 | 37.7 |
| Occasionally | 17 | 3.9 |
| Frequently | 75 | 17.2 |
| always | 179 | 41.1 |
| Total | 435 | 100.0 |

Table 5: Distribution of adolescents according to type of material used during menstruation.

| Type of material used during | Frequency | Percentage |
|------------------------------|-----------|------------|
| Sanitary pads | 146 | 33.5 |
| New cloths | 68 | 15.6 |
| Old cloths | 181 | 41.6 |
| All | 40 | 9.3 |
| Total | 435 | 100 |

Most of them (78.2%) had regular menstrual cycle and 21.8 had irregular cycle. The duration of blood flow was within 5 days in 75.8% of girls with 24.2% having prolonged menses (>5 days) (Figure 1 & 2).

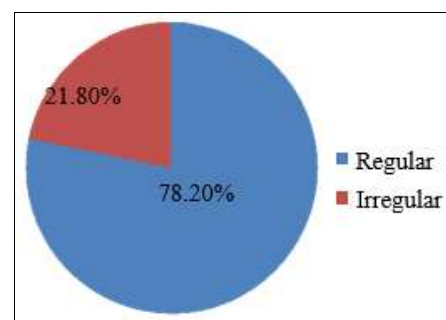


Fig 1: Menstrual patterns among the adolescents (Menstrual cycle).

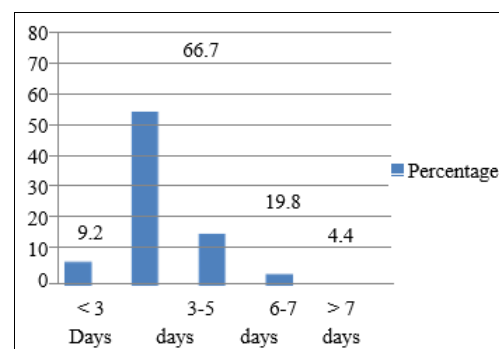


Fig 2: Showing number of days of menstrual cycle.

Discussion

Pre-adulthood is a time of change from pubescence to early adulthood. Progress stage includes major physical and enthusiastic changes in the person. In a customary family setting in creating nations, moms are normally the guardians of their little girls amid these basic periods of physical and enthusiastic improvement. In a traditionalist society and in provincial populace, the subject of period and its cleanliness is as yet thought about an unthinkable subject for exchange. In present examination the mean period of menarche was 13.5 years. Beena Sachan ^[10], in concentrate on school-going immature young ladies of a North Indian locale watched the mean age at menarche to be 13.6 years. Joseph ^[11]. In an investigation on pre-adult young ladies in provincial India, watched the mean age at menarche to be 13.9 years. In the examination by P. B. Verma ^[12], the mean period of menarche was 14 (13.99, SD 1.8). Nair, ^[13] in concentrate on unmarried females in country territory of Delhi, watched the mean age at menarche to be at 13.6 years, which were practically like the mean age at menarche (13.5 years) in our investigation. The Result of other investigation by Singh MM ^[14], the mean period of menarche was 13.6. In another investigation in rustic Orissa, the mean time of menarche was observed to be 12.97 (SD 0.99) ^[15]. Chaturvedi ^[16], announced 13.7 years as the mean period of menarche. Patil MS ^[17] and Durge PM ^[18] have detailed mean age at menarche as 13.45 and 13.5 years separately.

The discoveries of the present investigation demonstrated a high pervasiveness of dysmenorrhea 62.3%. Comparative finding were accounted for by Suresh K. Kumbhar. (65.02%) ^[19], Sharma P, Malhotra C, Taneja DK. (67.2%) ^[20], Sharma M and Gupta S. (67%) ^[21], Mckay and Diem (67%) ^[22], Pragya Sharma. (67.2%) ^[23] Sundell G, Milsom I, Andersch B (67%) ^[24], Jayashree R, Jayalakshmi VY. (74%), ^[25] and Harlow and Park (71.6%) ^[26]. Comparatively lower pervasiveness had been accounted for by Sharma A, Taneja DK, Sharma P, (33%) ^[27], Verma. (50.6%) ^[12] and consider by Atchuta Kameswararao Avasarala (56%) ^[28].

Twenty two percent youthful young ladies had unpredictable cycle. It is because of the hormonal change occurring in peri-pubertal and peri-menopausal period of ladies. The span of blood stream was inside 5 days in 75.8% of juvenile young ladies with 24.2% having drawn out menses (>5 days). Comparable investigation by Patil MS ^[17] demonstrates that 7.5% young lady had unpredictable cycle. 81.3% young ladies had stomach torment amid monthly cycle pursued by 28.5% issue, 11% were awkward, 11% spinal pain, 6.6% cerebral pain and 2.5% young ladies had sorrow. 3.4% did not have any indications amid menses. The normal number of menstrual manifestation per pre-adult young lady was 1.5. 33.5% of the young ladies have revealed the utilization of clean napkins amid monthly cycle, 41.6% announced the utilization of old fabrics and 15.6% were utilized new materials amid menstrual period. Destitution, staggering expense of sterile cushions and obliviousness might be the purposes behind present finding. The investigation by creator Kirti Jogdand in urban ghetto zone of Guntur area detailed 34.63% young ladies utilized of old garments amid menstruation ^[29].

Conclusion

Attainment of menarche at right age is an important milestone during adolescence, 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 adolescents. The use of old cloths as absorbent was prevalent in majority of adolescent girls. The cycle was regular in majority of girls.

Recommendation

1. Adolescent girls may feel shy and embarrassed to discuss aspects of menstruation like dysmenorrhoea consequently leading to ill health. It was suggested that a strong need exists for strong health educational activities among the adolescent girls for effective management of menstrual problems.
2. Education regarding reproductive health and hygiene should be included as a part of school curriculum. Better hygienic practices can be adopted by making sanitary pads available at affordable prices. ASHA and Anganwadi worker should take responsibility to encourage the adolescent girls about the benefit of scheme by making available subsidized sanitary napkins to adolescent girls in the age group of 10-19 years in rural area. It will help in their development as healthy and responsible adults.

References

1. UNICEF. The state of world's children: adolescence, an age of opportunity. In: UNICEF, eds. UNICEF Report. New York: UNICEF, 2011.
2. Drakshavani DK, Venkata RP. A study on menstrual hygiene among rural adolescent Indian girls. Andhra Pradesh. Indian J Med Sci. 1994; 48(6):139-43.
3. Deo D, Ghataraj DC. Perceptions and practices regarding menstruation: a comparative study in urban and rural adolescent girls. Indian J Community Med. 2005; 30:33-4.
4. Khaldilkar VV, Stanhope RG, Khadilkar V. Secular trends in puberty. Indian Pediatr. 2006; 43:475-8.
5. Deo D, Ghataraj DC. Perceptions and practices regarding menstruation: a comparative study in urban and rural adolescent girls. Indian J Community Med. 2005; 30:33-4.
6. Naik MK. A study of the menstrual problems and hygiene practices among adolescents in secondary school. Thiruvanthapuram Indian J Pediatr. 2012; 1:79.
7. Dasgupta A, Sarkar M. Menstrual hygiene: how hygienic is the adolescent girl? Indian J Community Med. 2008; 33(2):77-80.
8. Kumar R, Singh M, Kaur A, Kaur M. Reproductive health behavior of rural women. J Indian Med Assoc. 1994; 93:128-31.
9. Bhatia JC, Cleland J. Reported symptoms of gynecological morbidity and their treatment in South India. Stud Fam Plann. 1995; 26:203-16.
10. Beena Sachan, Mohammad Zafar Idris, Savita Jain, Reema Kumari, Ashutosh Singh. Age at menarche and menstrual problems among school-going adolescent girls of a North Indian district. J Basic Reprod Sci. 2012; 1(1):56-9.

11. Joseph GA, Bhattacharji S, Joseph A, Rao PS. General and reproductive health of adolescent girls in rural South India. *Indian Pediatr.* 1997; 34:242-5.
12. Verma PB, Pandya CM, Ramanuj VA, Singh MP. Menstrual pattern of adolescent school girls of Bhavnagar (Gujarat). *NJIRM.* 2011; 2(1):38-40.
13. Nair P, Grover VL, Kannan AT. Awareness and practices of menstruation and pubertal changes amongst unmarried female adolescents in a rural area of East Delhi. *Indian J Community Med.* 2007; 32:156.
14. Singh MM, Devi R, Gupta SS. Awareness and health seeking behaviour of rural adolescent school girls on menstrual and reproductive health problems. *Indian J Med Sci.* 1999; 53(10):439-43.
15. Dutta Himansu Sekhar. Sexual health status of adolescent girls in rural Orissa, 2001. Available at: <http://www.orissavha.org/studies/shstudy/202001-2.doc>.
16. Chaturvedi S, Kapil U, Gnanasekaran, Sachdev HP, Pandey RM, Bhanti T. Nutrient intake amongst adolescent girls belonging to poor socio-economic group of rural area of Rajasthan. *Indian J Pediatr.* 1996; 33(3):197-201.
17. Patil MS, Angadi MM. Menstrual pattern among adolescent girls in rural area of Bijapur. *Al Ameen J Med Sci.* 2013; 6(1):17-20.
18. Durge PM, Waradpande U. Impact assessment of health education in adolescent. *J Obstet Gynecol India.* 1993; 43(5):768-72.
19. Suresh Kumbhar K, Mrudula Reddy, Sujana B, Roja Reddy K, Divya Bhargavi K, Balkrishna C. 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.* 2011; 2(2):265-8.
20. Sharma P, Malhotra C, Taneja DK, Saha R. Problems related to menstruation amongst adolescent girls. *Indian J Pediatr.* 2008; 75(2):125-9.
21. Sharma M, Gupta S. Menstrual pattern and abnormalities in the high school girls of Dharan: a cross sectional study in two boarding schools. *Nepal Med Coll J.* 2003; 5(1):34-6.
22. McKay L, Diem E. Concerns of adolescent girls. *J Pediatr Nurs.* 1995; 10:19-27.
23. Pragya Sharma, Chetna Malhotra, Taneja DK, Renuka Saha. Problems related to menstruation amongst adolescent girls. *Indian J Pediatr.* 2008; 75:125-8.
24. Sundell G, Milsom I, Andersch B. Factors influencing the prevalence and severity of dysmenorrhea in young women. *Br J Obstet Gynaecol.* 1990; 97:588-94.
25. Jayashree R, Jayalakshmi VY. Socio-cultural dimensions of menstrual problems. *Health Educ South East Asia.* 1997; 12:21-6.
26. Harlow SD, Park M. A longitudinal study of risk factors for the occurrence, duration and severity of menstrual cramps in a cohort of college women. *Br J Obstet Gynaecol.* 1996; 103:1134-42.
27. Sharma A, Taneja DK, Sharma P, Saha R. Problems related to menstruation and their effect on daily routine of students of a medical college in Delhi, India. *Asia Pac J Public Health.* 2008; 20(3):234-41.
28. Atchuta Kameswararao Avasarala, Saibharghavi Panchangam. Dysmenorrhoea in different settings: are the rural and urban adolescent girls perceiving and managing the dysmenorrhoea problem differently? *Indian J Community Med.* 2008; 33(4):246-9.
29. Keerti Jogdand, Pravin Yerpude. A community-based study on menstrual hygiene among adolescent girls. *Indian J Maternal Child Health.* 2011; 13(3):1-6.