

Prevalence of Dysmenorrhea Among Adolescents School Girls: An Institutional Based Study

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ABSTRACT

Background: Dysmenorrhea or painful menstruation is defined as painful cramps that begin a few hours before the onset of bleeding and may persist for hours or days. The present study was conducted to assess prevalence of dysmenorrhea among adolescents' schoolgirls.

Materials and Methods: This present study was carried out among 400 adolescent school going girls in the age group of 13-17 years. The tool developed was a pretested semistructured questionnaire. Complete history was taken which included presence and absence of dysmenorrhea, its duration, amount of blood loss. The recorded data was compiled, and data analysis was done using SPSS (SPSS Inc., Chicago, Illinois, USA). P-value less than 0.05 was considered statistically significant.

Results: In the present study a total of 400 girls participated in the study of age group between 13-17 years. The dysmenorrhea was reported in 290 (72.5%) of the total girls, whereas absent in 110 (27.5%) adolescent girls. 66.89% dysmenorrhic girls had onset of pain on Day 1 of menses, 11.03% on Day 2 or 3 of menses and 22.06% had onset of pain before menses. 29.65% of the dysmenorrhic girls reported to have pain for 1 day, 44.82% reported to have pain for 2 days, 18.27% for 3 days and 7.24% had pain for more than or equal to 4 days. 64.13% of the dysmenorrhic girls reported to

experience moderate pain, 24.13% had mild pain and 11.72% reported to experience severe pain during periods.

Conclusion: The present study concluded that prevalence of dysmenorrhea was reported to be 72.5% of the total girls. In maximum adolescent girls' onset of pain was on Day 1 of menses. In maximum adolescent girls' pain was reported for 2 days. In maximum adolescent girls' moderate pain was reported.

Keywords: Dysmenorrhea, Adolescent Girls, Menstruation.


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INTRODUCTION

Adolescence is a transition period from childhood to adulthood and is characterized by a spurt in physical, endocrinal, emotional, and mental growth, with a change from complete dependence to relative independence. The period of adolescence for a girl is a period of physical and psychological preparation for safe motherhood. As the direct reproducers of future generations, the health of adolescent girls influences not only their own health, but also the health of the future population. Almost a quarter of India's population comprises of girls below 20 years.¹

Dysmenorrhea is one of the most common menstrual disorders among females of reproductive age. It is characterized by pelvic pain beginning shortly before or at the onset of menses and lasting 1–3 days.² In fact, dysmenorrhea can be categorized into two types: primary and secondary. Dysmenorrhea is classified as primary when there is no evidence of pelvic or hormonal pathology

but is secondary when the pain is due to identifiable pathological conditions including endometriosis, ovarian cysts, pelvic inflammatory disease or intrauterine devices.^{2,3}

It is commonly associated with associated symptoms such as lower back pain, nausea, vomiting, headache, diarrhea, and fatigue. The cause of primary dysmenorrhea has yet to be established. It has been attributed to uterine contractions with ischemia and production of prostaglandin.⁴

Dysmenorrhea is frequently associated with sickness absenteeism, decrease in academic performance, and decrease in physical and social activities in adolescents. In spite of the frequency and severity of dysmenorrhea, most girls do not seek medical treatment for this condition because they feel it is a normal part of the menstrual cycle.⁵ There is a wide variation in the estimate of dysmenorrhea from studies around the world

reporting a range between 28% and 71.7%.^{6,7} The present study was conducted to assess prevalence of dysmenorrhea among adolescents' schoolgirls.

MATERIALS AND METHODS

This present study was carried out among 400 adolescent school going girls in the age group of 13-17 years. Written consent was taken from the parents/guardian after explaining the study. The tool developed was a pretested semistructured questionnaire. Complete history was taken which included presence and absence of dysmenorrhea, its duration, amount of blood loss. The following criteria were used to define dysmenorrhoea⁸: Onset of pain within 6–12 hours after menarche, Lower abdominal or pelvic pain associated with onset of menses and lasting for 8–72 hours, Lower back pain during menses and Medial or anterior thigh pain. The recorded data was compiled, and data analysis was done using SPSS Version 20.0 (SPSS Inc., Chicago, Illinois, USA). P-value less than 0.05 was considered statistically significant.

RESULTS

In the present study a total of 400 girls participated in the study of age group between 13-17 years. The dysmenorrhea was reported in 290(72.5%) of the total girls, whereas absent in 110 (27.5%) adolescent girls. 66.89% dysmenorrhic girls had onset of pain on Day 1 of menses, 11.03% on Day 2 or 3 of menses and 22.06% had onset of pain before menses. 29.65% of the dysmenorrhic girls reported to have pain for 1 day, 44.82% reported to have pain for 2 days, 18.27% for 3 days and 7.24% had pain for more than or equal to 4 days. 64.13% of the dysmenorrhic girls reported to experience moderate pain, 24.13% had mild pain and 11.72% reported to experience severe pain during periods.

Table 1: Prevalence of dysmenorrhea in adolescent schoolgirls.

| DYSMENORRHEA | N(%) |
|--------------|------------|
| Present | 290(72.5%) |
| Absent | 110(27.5%) |
| Total | 400(100%) |

Table 2: Distribution of Pain characteristics of girls with Dysmenorrhea

| PARAMETERS | N=290 (%) |
|------------------------------|-------------|
| ONSET OF PAIN | |
| Before menses | 64(22.06%) |
| Day 1 of Menses | 194(66.89%) |
| Day 2 or 3 of Menses | 32(11.03%) |
| NO. OF PAIN DAYS | |
| 1 day | 86(29.65%) |
| 2 days | 130(44.82%) |
| 3 days | 53(18.27%) |
| More than or equal to 4 days | 21(7.24%) |
| SEVERITY OF PAIN | |
| Mild (2-4) | 70(24.13%) |
| Moderate (4-7) | 186(64.13%) |
| Severe (7-10) | 34(11.72%) |

DISCUSSION

A dysmenorrhea incidence of 33.5% was reported by Nag (1982)⁹, among adolescent girls in India. A study done in Sweden showed that more than 50% of all menstruating women experience some discomfort.¹⁰ It has also been reported by a senior obstetrician that probably 5 – 10% of girls in their late teens suffer from severe spasmodic dysmenorrhea interrupting their educational and social life.¹¹

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The prevalence of dysmenorrhea was 76.0%. Prevalence was higher compared to studies conducted among school and college girls in other parts of India such as Tamil Nadu,¹² Andhra Pradesh,¹³ Karnataka,¹⁴ and Madhya Pradesh (MP),¹⁵ where the prevalence rates were 51%, 56.2%, 65%, 67.5%, and 73.8%, respectively.

The study revealed that majority of girls 47 (44.8%) of the dysmenorrhic girls reported to have pain for 2 days, 33 (31.4%) for 1 day, 21 (20.0%) and 04 (3.8%) for 3 days and more than or equal to 4 days respectively.¹⁶

In a study conducted by Ortiz in 1539 students of Mexican University, author concluded that dysmenorrhea was mild in 36.1%, moderate in 43.8% and severe in 20.1%.¹⁷

Maitri shah et al., have found that 18%, 40% and 42% of students had mild, moderate, and severe pain (dysmenorrhea), respectively.¹⁸

CONCLUSION

The present study concluded that prevalence of dysmenorrhea was reported to be 72.5% of the total girls. In maximum adolescent girls' onset of pain was on Day 1 of menses. In maximum adolescent girls' pain was reported for 2 days. In maximum adolescent girls' moderate pain was reported.

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