



Prevalence of menstrual symptoms and primary dysmenorrhea among medical undergraduates in south Indian population

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ABSTRACT

Dysmenorrhea is known as a painful period during menstruation. It is the widely prevalent and common complaint among young women, which affects their quality of life. The aim is to assess the prevalence of menstrual symptoms and primary dysmenorrhea during menstruation among medical undergraduates and its effects on the quality of their life. A cross-sectional study was conducted among 60 Medical undergraduates at Saveetha Medical college. The participants were asked to complete a self-reported questionnaire on menstrual symptoms and primary dysmenorrhea. Primary dysmenorrhea was reported in 43.9% (27) of participants. Abdominal pain was reported in 78% (46), and 52% (31) of girls felt weak and tired during menses. In 40% (24) of girls, there has been a family history of primary dysmenorrhea. Abdominal pain was found to be highly prevalent among adolescent girls. Family history, bleeding duration, tiredness are some of the risk factors associated with primary dysmenorrhea.

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INTRODUCTION

Painful menses in women with normal pelvic structures, usually beginning during adolescent ages defined as Primary Dysmenorrhea (Avasarala and Panchangam, 2008). The literature on the incidence of menstrual pain have shown that the factors involved include early menarche, genetic influence lower body mass index (BMI), prolonged or aberrant blood flow, and pelvic infections influencing the prevalence and severity of Dysmenorrhea (Unsal

et al., 2010). The most important factors for the increase in occurrence, duration, and severity of pain could be menarche at an earlier age and long menstrual periods. Being overweight was an important risk factor for menstrual cramps and doubled the odds of having a long pain episode (Harlow and Park, 1996). About 88% of adolescents with primary dysmenorrhea experience their first painful menstruation within the first 2 years after menarche (Dawood, 1985).

A normally menstrual pain begins a few hours before or just after the onset of menstruation. The menstrual cramps are more severe on the first or second day. Characteristically, the pains are spasmodic in nature. According to various studies, the pain was strongest over the lower abdomen, but they also radiate to the back and the inner aspects of the thigh (Dawood, 2006). Dysmenorrhea is a public health burden because of its high prevalence and is found to be one of the leading causes for absenteeism from school and work and diminished quality of life (Gagua et al., 2012). Emotional and behavioral problems may exacerbate menstrual cycle problems

and dysmenorrhea, and they might affect academics. The aim of the study was to assess the prevalence of menstrual symptoms and primary dysmenorrhea among medical undergraduates, its effects on the quality of their life, and to evaluate associated clinical factors of dysmenorrhea.

MATERIALS AND METHODS

This cross-sectional study was conducted among medical undergraduates in Saveetha Medical college and hospital. The study proposal was approved by the board of the institute. (SMC/IEC/2018/11/335). The study was performed on a total of 60 girls who volunteered to participate in the study. Sixty adolescent girls aged between 17 to 20 years participated actively in this study. They were informed on the purpose and protocol of the study prior to the distribution of the questionnaire. Informed consent of the participants was sought prior to data collection, and all the information were kept confidential.

Participants with endocrine disorders, bleeding disorders, and a history of hypothyroidism were excluded. The questionnaire included information related to age, education, anthropometric data (height, weight) were collected. Data on age of menarche, treatment modalities used, presence and absence of dysmenorrhea, details of pain (onset, location, type, duration, etc.), premenstrual symptoms, family history, menstrual irregularities were collected using standardized questionnaire.

RESULTS AND DISCUSSION

The majority of the participants, around 50% of the girls, were of 18 years, and in the remaining population, 22% were of 17 years, and the other 22% were of 19 years. A small population of 6% of the girls were of 20 years.

Age of menarche

The average age of the majority of the participants (34%) were between 12 and 13 years. Remaining 8% had started menstruating only at the age of 15 years and above. 30% of the population had started menstruating below 12 years itself. The onset of pain: The majority of the participants (40%) reported pain one day before the onset of menstruation. 32% reported pain on the first day. 22% Stated pain on the second day of menstruation, and only 6% of the population reported pain even after cessation of menses. Thus, the maximum number of girls were suffering from pain one day before the day of menstruation in the present study (Figure 1).

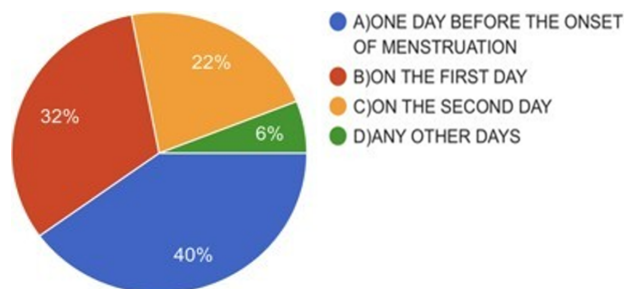


Figure 1: Graph showing the onset of pain (n=60)

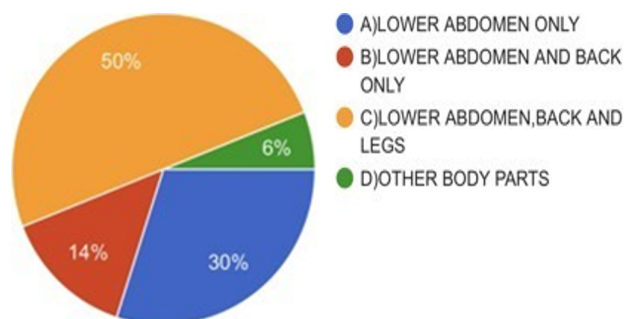


Figure 2: Graphical distribution showing the location of pain (n=60)

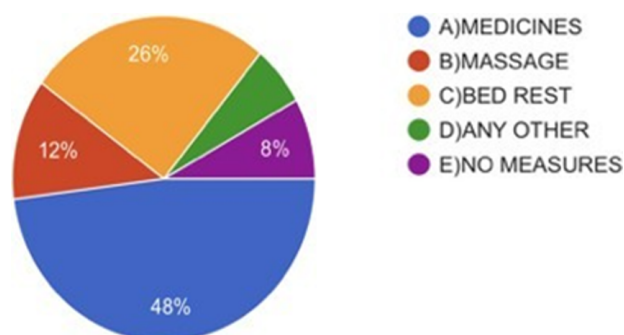


Figure 3: Graph showing the measures taken to get rid of the pain

Location of the pain

50% of the population reported pain in the lower abdomen, back, and legs. In the lower abdomen, 30% of the population felt pain, and only 6% of the population felt pain in other body parts (Figure 2). Presence of dysmenorrhea: 46.3% reported the presence of dysmenorrhea.

Measures taken to get rid of pain

Majority of the population (48%) take medicines to get rid of the pain. 20% of the population take bed rest and the only 8% did not take any measures to manage their pain (Figure 3).

Other health problems

28% of the population suffers from anaemia, and about 22% have a headache.

Duration of pain

Regarding the duration of pain, almost one third (46%) of the girls have informed pain duration for 2-3 hours.

Effect on daily activities

82% of the participants have reported that menstrual symptoms affect their daily routine.

Effect on academics

52% of the population feel weak and tired during menses. 24% of the population complain that they are not able to concentrate on studies, and 20% are suffering from lack of concentration.

The present study found a high prevalence of dysmenorrhea and menstrual symptoms (46.3%) among Medical undergraduates. This figure found to be similar with previous studies reporting rates between 89.5% and 28% (Adeyemi and Adekanle, 2007; Weissman et al., 2004). Many studies have explained that the incidence of dysmenorrhea showed a decrease with increasing age. The data also indicating that primary dysmenorrhea peaks in late adolescence and the late twenties. As age increases, there is a fall in incidence (Polat et al., 2009). However, this present study did not find any correlation between age groups and the prevalence of dysmenorrhea, probably as the undergraduate medical students in the age group may not be in a higher age of years.

The symptoms associated with menstrual pain include nausea, abdominal cramps, a feeling of tiredness, and dizziness (Schorge et al., 2008; Patel et al., 2006). In this study, the most common symptoms associated were a pain in the lower abdomen, back, and legs (50%), feeling weak and tired (52%), lack of concentration (20%), and not being interested in studies (24%). Similar patterns of symptoms were observed in a study where they found tiredness and back pain as the most common symptoms (Agarwal and Agarwal, 2010; Aziato et al., 2015). Primary dysmenorrhea itself is not a psychological disorder. But as such, drug management concerned the health care provider can enhance the overall efficacy of pharmacotherapy with proper handling of the reactive component of pain (Dawood, 2006).

To enumerate the limitations, the study was performed in a single college, and therefore, the sample may not be appropriate of all female medical undergraduates. The nature of self-reporting may have resulted in under-reporting of the conditions. Nevertheless, this study could provide useful information about reproductive health care among adolescent medical undergraduate girls.

CONCLUSIONS

To conclude the study, primary dysmenorrhea is highly prevalent among undergraduate medical females, and the findings suggest that family history, early menarche, and bleeding duration are some of the significant risk factors for dysmenorrhea. Increasing the awareness and change in lifestyle among medical undergraduates can help in alleviating the burden of this common health problem as it affects their daily activities, academics, and lowers the quality of their life.

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