ORIGINAL ARTICLE

EFFECTS OF DYSMENORRHEA ON QUALITY OF LIFE IN YOUNG GIRLS

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ABSTRACT

Objectives: To determine the effect of dysmenorrhea in terms of associated symptoms among unmarried young girls studying at Peshawar.

Material and Methods: This cross sectional survey was carried out at various departments of University of Peshawar and Khyber Medical College, Peshawar from January 2014 to December 2014 on 1472 subjects meeting predetermined selection criteria. Requisite data was collected using a self-administered structured questionnaire.

Results: Among all the patients 46.05% of the subjects had mild dysmenorrhea while moderate and severe dysmenorrhea was reported by 33.22% and 20.73% subjects respectively. Associated main symptoms and their frequencies were: general discomfort (59.10%), low backache (45.51%), changes in dietary habits (23.23%) and mental disturbance (17.18%).

Conclusion: Dysmenorrhea is a disorder in young females. It affects a considerable number of girls behaviorally, psychologically and physiologically.

Key Words: Dysmenorrhea, Body Mass Index, Psychological effect, young girls.

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INTRODUCTION

Menstrual cycle in human females is characterized by monthly cyclical vaginal discharge of blood along with shedding of endometrium for 3-5 days after the attainment of puberty.[1] The bleeding episode is termed as menstruation because, interestingly enough, its duration and periodicity equals that of a calendar month.[2-3] The menstrual cycle has been the subject of many traditional tales, myths and mystery. Its disorders may affect some women physically, psychologically, behaviorally and socially to the extent of altering their normal day to day functioning. Menstrual patterns are influenced by a number of host and environmental factors.[4] Rigid adherence to traditional norms and practices, ignorance about menstruation and inadequacy of separate health care facilities for unmarried girls are some of the factors that restrict their treatment seeking behavior.[5]

Exact origin of the word dysmenorrhea is not known, but it has been mentioned in the ancient literature world-wide.[6] Dysmenorrhea refers to the occurrence of painful cramps of uterine origin before and/or during menstruation. Typically duration of the pain is usually 8 to 72 hours. It is a common gynecological condition with considerable morbidity and disturbed quality of life.[7] Primary dysmenorrhea refers to dysmenorrhea without evident pelvic pathology as opposed to secondary dysmenorrhea in which the pain is due to a known pathology in the patient's reproductive system.[8-9] The etiology of primary dysmenorrhea has been the source of debate.[10] The initial onset of primary dys-

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menorrhea is usually at or shortly after 6 to 12 months of menarche, when ovulatory cycles are established. Historically, dysmenorrhea with associated features like vomiting, giddiness, mood changes was identified around middle of 19th century.[11] It is a major cause of activity restriction and school absenteeism in adolescent girls. Nevertheless, the condition is often considered as physiological pain and generally ignored.[12] Knowledge regarding the factors influencing menstrual symptoms is important in order to manage it effectively and help the women to make up the days less troublesome and tolerable. We designed the present study to determine the occurrence of various physical, physiological, psychological and behavioral effects of dysmenorrhea in young girls studying in various institutions of University of Peshawar and Khyber Medical College, Peshawar, Khyber Pakhtunkhwa, Pakistan.

MATERIAL AND METHODS

This cross sectional study was conducted from January 2014 to December 2014, at various institutions of University of Peshawar and Khyber Medical College Peshawar, Khyber Pakhtunkhwa, Pakistan. 1472 unmarried female subjects studying at graduate and postgraduate level participated in this study. Purposive sampling was adopted to select the subjects. Females ranging from 18 to 26 years of age having normal menstrual cycles were included in the study. Those with known pelvic and reproductive pathology or who experienced menstruation disorders such as irregular cycles or having cycles beyond 24-35 days duration were excluded from the study. Females with any chronic illness or chronic use of any medications were also excluded from the study. Written and informed consent was obtained from each participant. A structured proforma was prepared with questions seeking information on age, weight, height, duration of menstrual cycle and menstrual blood, presence of dysmenorrhea, any known reproductive disorder or chronic illness and use of medications. Severity of pain on three point scale as mild, moderate or severe dysmenorrhea and other associated symptoms were also asked. The questionnaires were distributed among the target students by our female investigators who also collected the data back from them on the same day. Body mass index (BMI) was calculated using formula height using the formula; weight in kilograms divided by height in meters square. Data was recorded as reported by the respondents. SPSS version 20 was used to analyze the data that was represented as numbers, means and percentages.

RESULTS

Mean age of 1472 girls was 21 years ±1.9 SD. All the participants showed some degree of dysmenorrhea from mild to moderate to severe. Frequency distribution of these degrees of severity is shown in Figure 1. Dysmenorrhea of 1 or less than 1 day duration was seen in 30.57% of the subjects, 1.1-2 days in 25.67%, 2.1-3 days in 35.39% and more than 3 days duration in 8.35% of the total female subjects. Mean duration of dysmenorrhea was 1.83±0.8 days. Table 1 reveals the prevalence of associated symptomatology. General discomfort, low backache and change in dietary habits being the most frequent complaints other less common symptoms are mood changes, mental disturbance, vomiting, anxiety, abdominal pain, and general weakness. Table 2 shows the distribution of females suffering from dysmenorrhea on the basis of BMI.

Table 1: Physical and Psychological effect of Dysmenorrhea

S. No.	Symptoms	No. of subjects & percentage
1.	Change in mood	213 (14.47)
2.	General discomfort	870 (59.10)
3.	Mental disturbance	253 (17.18)
4.	Change in dietary habits	342 (23.23)
5.	Vomiting	145 (09.85)
6.	Anxiety	110 (07.47)
7.	Upper abdominal pain	200 (13.58)
8.	Low back pain	670 (45.51)
9.	General weakness	154 (10.46)

Table 2: Body Mass Index (BMI)

S. No.	Weight Status	No. of subjects & percentage
1.	Under weight (BMI <18.5 kg/m2)	432 (29.35)
2.	Normal weight (BMI 18.5–24.9 kg/m2)	365 (24.80)
3.	Over weight (BMI 25–29.5 kg/m2)	234 (15.90)
4.	Obese (BMI ≥30 kg/m2)	441 (29.95)

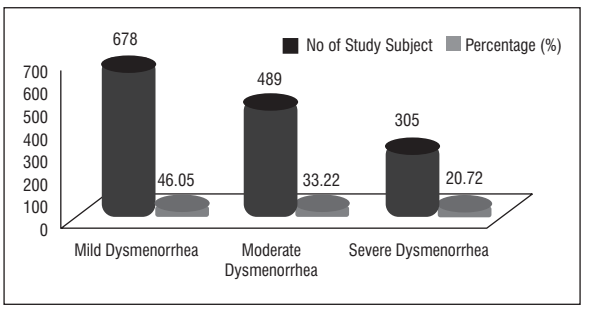

Figure 1: Severity of Dysmenorrhea

DISCUSSION

Dysmenorrhea is a common menstrual disorder in women. Recently, it has become an important public health problem in young female population. Dysmenorrhea in the young girls is usually primarily associated with normal ovulatory cycle. Students may remain absent from school or college because of dysmenorrhea which may lead to poor academic performance. Lee and colleagues reported that 69.4% of Malaysian adolescent girls experience dysmenorrhea.[13] In the present study, interestingly; each and every participant reported some degree of dysmenorrhea.

Pain is extremely subjective symptom and it has been very difficult to quantify pain.[14] Pain of dysmenorrhea was assigned a 3 points scale. Our study revealed 46.05%, 33.22% and 20.72% of students had respectively mild, moderate and severe dysmenorrhea. In a study conducted by Ortiz in 2010 on 1539 students of Mexican University, it was concluded that dysmenorrhea was mild in 36.1%, moderate in 43.8% and severe in 20.1% cases.[15] Unsal A and co-workers conducted a study on 623 female students in Turkey University found that 66.6% of students were having moderate and severe dysmenorrhea.[16] Our findings are similar when compared to the study of Qritz but less than the study of Unsal A et al[16].

We surveyed how the adolescent students were affected by dysmenorrhea. It was revealed that 45.51% of students experienced low back pain. Low backache is a commonly referred pain of uterine origin which may become a cause of reducing day to day functioning hours. Its occurrence in our study is in consonance with the studies of Loveleen and co-workers (41.8%)[17] and Thomson (50%)[18] but more frequent than the results obtained by Sheldrake and Cormack (26%).[19] General discomfort and changes in dietary habits are other effects seen with considerable frequencies (59.10% and 23.23% respectively). For these findings unaccustomed attitudes due to younger age itself, lack of sufficient education about reproductive health as well as inaccurate layman information are the possible contributing factors.[20-21] In the current study we also categorized the subjects having dysmenorrhea on the basis of BMI. It was found that they were underweight in 29.35% cases, normal weight in 24.80%, and obese in 29.95% cases. This apparently shows lack of any correlation with weight status. The findings are in accordance with the work done by Kurk K.[22] However comparatively lower percentage of overweight females with dysmenorrhea requires further evaluation such as at biochemical level or impact of environmental influences.

Dysmenorrhea like many other menstrual problems is not a trivial complaint. Because of its high prevalence and adverse impact, girls should not hesitate to approach the health care provider so that effective measures can be taken to ameliorate their symptoms and enhance their working capability and quality of life.

CONCLUSION

Dysmenorrhea affects women of younger age group physically, physiologically, behaviorally and psychologically with or without interfering their normal life.

Recommendations

For this purpose, first strategy should be to educate parents and teachers about female adolescent issues. Role of media can be vital in this regard. Apart from education by parents and teachers, print and electronic media can be used to help reduce the adverse impact.

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AUTHOR'S CONTRIBUTION

Following authors have made substantial contributions to the manuscript as under:

Ikramullah: Main idea, data collection.

Ahmed Z: Critical review.

Rahman S: Manuscript writting.

Habib A: Bibliography.

Gul B: Statistics.

Khan MA: Analysis.

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.