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RESEARCH ARTICLE

"PREVALENCE OF DYSMENORRHEA AND IT'S EFFECTS ON QUALITY OF LIFE IN COLLEGE GOING GIRLS"

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ABSTRACT

Introduction Dysmenorrhea is painful cramps of uterus during menses. It is a common gynecological condition that can affect as many as 50% of women. This situation not only has a significant effect on the quality of life (QoL) and but also on personal health.

Objectives To find out prevelence of Dysmenorrhea in college going students. To find out effect of Dysmenorrhea on quality of life in college going students. To estimate the prevalence of dysmenorrhoea in adolescent girls to assess the use of drugs for dysmenorrhoea.

Method College going girls selected based on inclusion & exclusion criteria. MDQ and Q-LES-Q- SF were asked to individual participants and score were filled by a student. Data analysis was done by using graph prism software.

Result Correlation analysis was done by using Sperman test and it shows there is significant effect of dysmenorrhea on Quality of Life (p=0.00465).

Conclusion Study concluded that there is significant correlation between MDQ during menstrual cycle and Q-LES- Q-SF statistically but there is observable correlation of MDQ during menstrual cycle on Q-LES- Q-SF.

INTRODUCTION

Menstrual cycle is defined as cyclic events that take place in a rhythmic fashion during the reproductive period of a women's life. Menstrual cycle starts at the age of 12 to 15 years, which marks the onset of puberty. The commencement of menstrual cycle is called menarche. Menstrual cycle ceases at the age of 45 to 50 years. Permanent cessation of menstrual cycle in old age is called menopause. Duration of menstrual cycle is usually 28 days. But, under physiological conditions, it may vary between 20 and 40 days.

During each menstrual cycle, series of changes occur in ovary and accessory sex organs. These changes are divided into 4 groups:

- ✓ Ovarian changes
- ✓ Uterine changes
- ✓ Vaginal changes
- ✓ Changes in cervix.

Dysmenorrhea is painful cramps of uterus during menses. It is a common gynecological condition that can affect as many as 50% of women.[2] Almost 10% of these women suffer severely, which is enough to render them incapacitated for 1–3 days during each menstrual cycle.[3] This situation not only has a significant effect on the quality of life (QoL) and personal health but also may have a global economic impact.

Figure 1

Two categories of dysmenorrhea are primary and secondary dysmenorrhea. **PRIMARY DYSMENORRHEA** is menstrual pain without any organic pathology.[4] the onset of primary dysmenorrhea is usually shortly after menarche. Women with primary dysmenorrhea have a greater endometrial production of prostaglandins compared with asymptomatic women.[5] Primary dysmenorrhea is an important clinical cause in young girls for work absenteeism, thus having negative effect on QoL.

When the pelvic pain is associated with an identifiable pathological condition, such as endometriosis, ovarian cysts, pelvic inflammation, myomas or intrauterine devices it is

considered to be **SECONDARY DYSMENORRHOEA**. This category is more likely to occur years after the onset of menarche and can occur premenstrually as well as during menstruation. As described above, dysmenorrhoea with an identifiable cause is termed as secondary, where as one without any identifiable cause are primary.[6]

The following criteria - used to define Dysmenorrhoea.[7]

- 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
- Medial or anterior thigh pain.

Multi dimensional Scoring system (MSS) - Grading of pain

Grade 0 Menstruation is not painful and daily activities are not affected.

Grade 1 (mild): Menstruation is painful but seldom inhibits normal activity. Pain killers are rarely required.

Grade 2 (moderate): Menstruation is moderately painful and it affects daily activities. Pain killers are required; however they give sufficient relief so that absence from class is unusual.

Grade 3 (severe): Menstruation is extremely painful and associated with vegetative symptoms (headache, fatigue, vomiting and diarrhea). Daily activities are clearly inhibited. Pain killers provide no relief.

Pathophysiology

Advances in the last three decades and current understanding suggest that in primary dysmenorrheal there is abnormal and increased prostanoid and possibly eicosanoid secretion, which in turn induces abnormal uterine contractions. The contractions reduce uterine blood flow, leading to uterine hypoxia.

That increased vasoactive prostanoid secretion is responsible for the etiology of primary dysmenorrheal is supported by 1) the striking similarity between the clinical symptoms of primary dysmenorrhea and the uterine contractions and adverse effects observed in prostaglandin-induced abortion and labor, 2) substantial evidence demonstrating and correlating the amount of menstrual prostanoids in women with primary dysmenorrhea compared with eumenorrheic women, and 3) many clinical trials demonstrating the efficacy of cyclooxygenase (COX) inhibitors in relieving the pain of primary dysmenorrhea through prostaglandin suppression and quantitative decrease of menstrual fluid prostaglandins.[12]

A widely prevalent and common complaint among young women, primary dysmenorrhea is estimated to be present in 40–50% of them,[7] with severe forms giving rise to work or school absenteeism in 15% and the mild forms requiring no medication or occasional over-the-counter (OTC) analgesics in about 30%. In spite of advances in the treatment of Primary dysmenorrhea, a recent study of 1,546 menstruating Canadian women found that 60%were having the disorder.[8] Sixty percent of the dysmenorrheic women were having severe or moderate pain. Fifty-one percent reported limitation of activities, and 17% reported absenteeism.

The prevalence of primary dysmenorrhea decreases with increasing age: prevalence is highest in the 20- to 24-years old age group and decreases progressively there after.[9] Dysmenorrhea is increased with smoking.[8] Primary dysmenorrhea occurs only during ovulatory cycles. [10]

Need of the Study

Generally so many girls are having difficulties during their regular menstrual cycle. So need of the present study is to find out prevelance of dysmenorrhea among college going girls and effect of dysmenorrhea on their ADL's and quality of life.

To plan out and to established standerized treatment (after finding prevalence and impairment) in the community to help out females suffering from dysmenorrea.

Aim & Objectives

Aim Prevalence of Dysmehorrhea and It's Effects on Quality of Life in College Going Girls.

Objectives

- ✓ Find out prevelence of Dysmenorrhea in college going students.
- ✓ To find out effect of Dysmenorrhea on quality of life in gollage going students.
- ✓ To estimate the prevalence of dysmenorrhoea in adolescent girls to assess the use of drugs for Dysmenorrhea.

Hypothesis

To find out correlation between dysmenorrhea and MDQ on quality of life in college going girls.

METHODOLOGY

Study Design: Cross sectional observational study

Study Setting: School of physiotherapy, R. K. University

Sampling Technique: convenient method

Study Population: Female age group between 16 to 25 years

Study Duration: 1 month

Study Sample: 100 girls who were complaining before or during menstrual cycle

Target population: College going girls

Inclusion Criteria

Gender – female
Age – 16 to 25 years

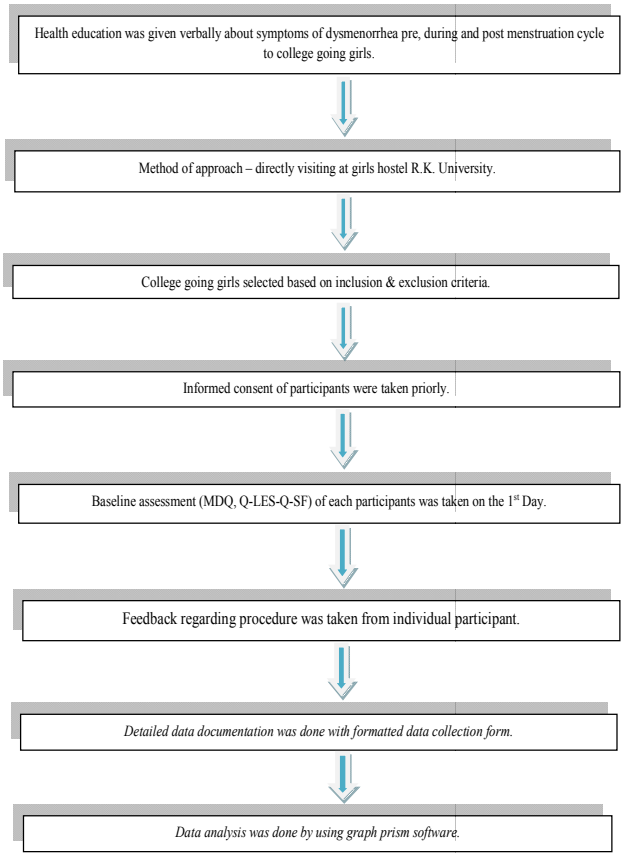
Exclusion criteria

Previous history of gynecological surgery
History of hypothyroidism
Bleeding disorder
Age group below 18 years and above 22 years
Psychological disorders

Materials Used In the Study

Pen
Weight machine
Height machine
Data collection form
MDQ (Menstrual distress questionnaire)
Q-LES-Q-SF (Quality of life enjoyment and satisfaction questionnaire- short form)

METHOD



Outcome Measures

MDQ (Menstrual distress questionnaire)
Q-LES-Q-SF (Quality of life enjoyment and satisfaction questionnaire- short form)

RESULTS

Result analysis was done by using graph prism software, mean and SD were taken by using Microsoft excel. Statistical analysis of MDQ and Q-LES-Q-SF of during menstrual cycle are analyzed by spearman test.

Table 1 Age distribution in analysis of MDQ and O-LES-O-SF

AGE GROUP	NO of Girls
16-17	5
18-19	58
20-21	33
22-23	4

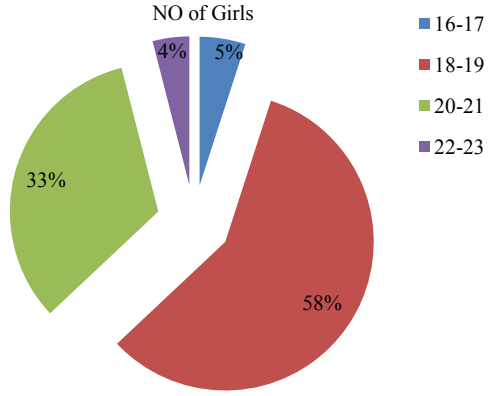


Figure 1

Table 2 Mean difference of pre menstrual cycle MDQ, during menstrual cycle MDQ, post menstrual cycle MDQ and Q-LES-Q-SF. - (Graph Presentation)

QUESTIONNAIRE	MEAN
PRE MC - MDQ	13.21
DURING MC - MDQ	17.26
POST MC - MDQ	3.34

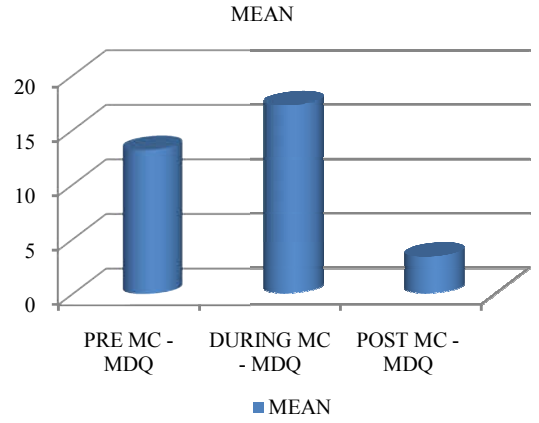


Figure 2

This graph represents during menstrual cycle the severity of MDQ is higher than pre menstrual cycle and post menstrual cycle.

Co-rrelation between mdq during menstrual cycle and q-les-q-sf. – (graph presentation)

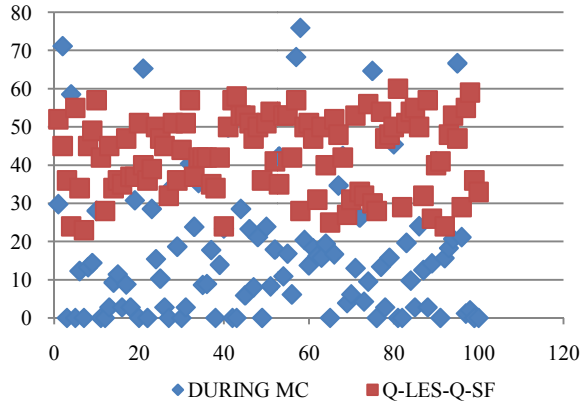


Figure 3

Table 2 Co-rrelation between MDQ during menstrual cycle and Q-LES-Q-SF were done through spearman test

Number of XY Pairs	100
Spearman r	0.005811
95% confidence interval	-0.1457 to 0.2572
P value (two-tailed)	0.00465
P value summary	s

DISCUSSION

The present study was designed to determine the prevalence of dysmenorrhea and its effect of quality of life in college going girls by pre during and post menstrual MDQ and Q-LES-Q-SF. The findings of the present study showed a high prevalence of dysmenorrhea, that is 65.2% Dysmenorrhea was found to be an important clinical cause in young girls for being absent in college and reduced physical activity, thus having negative effect on QoL.In our population of college going girls aged 16-23 years.

Dysmenorrhea was found to have significant effect on daily activities, thus having negative effect on QoL, can leads to absenteeism, reduced physical activity, loss of concentration, and poor social relationship. This indicates that dysmenorrhea is disturbing the life of girls when compared with the lives of girls who are without dysmenorrhea. Other studies where the researchers have explained the effects of dysmenorrhea on physical functioning and emotional disturbances.Similar findings were also observed by Adeyemi and Adekanle.

In this study prevalence of dysmenorrhea determinded by MDQ in pre, during and post menstrual cycle. The 47 symptoms in the MDQ were intercorrelated and factor analyzed for the total sample of 100 college going girls separately for the premenstrual, during menstrual and post menstrual phases of the most recent cycle and for the worst menstrual cycle.

The quality-of-life during dysmenorrhea is comparatively poor among dysmenorrhic girls; loss of physical activity and work satisfaction, personal relationships, confidence & concentration at work also suffers. This clearly indicates that dysmenorrhea is disturbing their life more when compared with the lives of the non dysmenorrhic girls. In our study the most frequent symptoms associated with dysmenorrhoea were fatigue, headache, backache, mood swing, disturbed sleep, depression, irritability, emotional disturbance, inability to concentration, dizziness and anorexia/ vomiting.

Limitations of the Study

- Psychological and functional assessment has not be involved.
- Conducted in single college.
- Possible causative factors of dysmenorrhea, i.e. the prostaglandins did not collect

Further Recommendation

- Study can be done involving different group of population.

CONCLUSION

Hence from the current study it can be concluded that there is significant correlation between MDQ during menstrual cycle and Q-LES-Q-SF statistically as well as clinically.

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