Comparative study on Dysmenorrhoea Initial management system by Indian student and Zambians student in ITM University

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Abstract:

Dysmenorrhea is a common menstrual complaint with a major impact on women's quality of life, work productivity, and health-care utilization. A comprehensive review was performed on longitudinal or case-control or cross-sectional studies with community-based samples to accurately determine the awareness and/or management strategies adopted and effect of dysmenorrhea. Dysmenorrhea is a common menstrual complaint with a major impact on women's quality of life, work productivity, and health-care utilization. In this study, 150 female students having dysmenorrhea were examined for menstrual pattern, self treatment strategies and management and various symptoms of dysmenorrhea with questionnaire. 119(79.5%) females suffered from dysmenorrhea inside of having regular menstrual cycles. Fixed drug combination of mefenamic acid and dicyclomine was mainly used by Zambians students while paracetamol is mainly preferred by Indian students. Self medication was generally practiced by Zambians female students while home remedy was practiced by Indian female students.

Introduction:

Dysmenorrhea is defined as gynaecological difficulty in young adult females. Dysmenorrhea is characterised as periodic, spasmodic lower abdominal menstrual pain which alter routine activities of adult females. Dysmenorrhea is a general problem but it is poorly understood and it is rarely taken into the consideration when inspecting a young adult female. General symptoms of dysmenorrheal are pain or cramping in lower abdomen in association with headache, backache and leg pain. Dysmenorrhea is generally classified into two classes: Primary dysmenorrhea And Secondary dysmenorrhea.

Primary dysmenorrhea generally detected in the females of 17-22 years age group. It is categorised as painful menstrual cycle in adult female with normal pelvic anatomy and it is generally began from menarche. On the other hand secondary dysmenorrhea is related to painful menstruation because of certain pathological condition such as endometriosis, pelvic inflammatory disease, intra-uterine devices, irregular menstrual cycles or infertility problems, ovarian cyst, adenomyosis, uterine myomas or polyps, intra-uterine adhesions and cervical stenosis. Most of the action of dysmenorrhea is by uterine prostaglandins, particularly PGF2α. During endometrial sloughing, endometrial cell release PGF2α menstruation begins; PGF2α stimulates myometrium contraction, ischemia and sensitization of nerve ending. Due to lack of information menstruation leads to negative gesture and and misunderstanding for natural physiological process and which leads to adverse health effects. To manage such
discomfort situation adult females take self medication. Self medication is defined as the utilisation of medicament specifically designed and labeled for the use without the advice of physician or prescription \[1\].

Primarily dysmenorrheal affect the quality of female life and in case of severity it may lead to disability and inefficiency. While in some females it can lead to psychological problems which are result in their loneliness and inactive participation in different social activities\[2\][4].

A comparative study was done among Indian girls and Zambians girls at undergraduate level. The study was basically designed to determine:

1. The awareness towards dysmenorrheal and other menstrual disorder among Indian and Zambians girls.
2. The management strategies adopted by Indian and Zambians girls to treat or get relief from dysmenorrhea.
3. Effect of dysmenorrhea on health and normal daily activities like academic performance.

Methodology:

A cross-sectional was conducted in ITM University campus, Gwalior from November 2017 to February 2018 with prior permission from institution ethics committee. The study was conducted in between Indian and Zambians females students aged more than 18 years. The data collected were: Demographic parameters (age, body mass index), duration of dysmenorrhea, severity of menstrual flow, the discomfort experienced during dysmenorrhea by students.

Like leg and abdominal cramps, headache, generalised body ache, mood disturbance, acne and remedial methods. Practiced such as self medication, home remedies, physical exercise, hot water bath, sleep and rest. Different parameter are evaluated to analyse the impact of dysmenorrhea on daily routine, social activity, insomnia, increased stress, college absenteeism and academic performance severity of pain was analyzed using the pain scale of 0-10, with 0 representing no pain and 10 representing the worst pain imaginable experienced by the participants. The volunteers were asked if they use home remedies or allopathic medicine or both to alleviate the pain.

Question from volunteers were also asked about the analgesic used to get relief from pain like paracetamol, ketoprofen, ibuprofen, mefenamic acid, diclofenac and the use of such medicament had any effect on the menstrual blood flow i.e., increased, decreased or had no effect and they get any relief from the symptoms of dysmenorrhea. The cause of dysmenorrhea as perceived by student, source of information for self medication. The collected data was analysed by SPSS version 20. Frequency and percentage were measured for categorical variables like Indian students or Zambians students, absent from college due to dysmenorrhea, menstrual cycle length, frequency of associated symptoms, prevalence and treatment of dysmenorrhea and activities affected by this condition.

Result:

A total of 150 females (75 Indian students and 75 Zambians students) were participated in the study. The mean age of 150 female students with dysmenorrhea was 20.75. The mean age in Indian female students was 20.24 and 21.26 in Zambians female group.

Out of total 61 (40.6%) volunteers having dysmenorrhea practiced self medication, 92 (61.2%) used fixed drug combination (FDC) of mefenamic acid and dicyclomine, 30 (20.1%) used paracetamol while 13 (8.5%) used ibuprofen. On the other hand 17 (11.7%) used dicyclomine and 2 (1.5%) used hyoscine. Fixed drug combination of mefenamic acid and dicyclomine was mainly used by Zambians students while paracetamol is mainly preferred by Indian students. Use of single drug by 53(35.6%) volunteers, while combinations of two to three types of drugs were used by 14(9.2%) volunteers. Only single dose of drug was used by 119(79.5%) volunteers during the period of discomfort.

Home remedies were used by 61(40.6%) of the volunteers to get relief from dysmenorrhea while
92(61.2%) volunteers used allopathic medicine. Preferentially analgesic is used to get relief from the discomfort during menstrual period. Effect of analgesic drugs on menstrual blood flow was also considered. 128(85.2%) of volunteers reported no effect on blood flow while 22 (15%) of volunteers had decreased blood flow. On the other hand 2(1.5) reported increase in blood flow as they take aspirin as analgesic.

Various symptoms are associated with dysmenorrhea are: Headache was reported in 78(52%) volunteers and vomiting in 42(28%) volunteers. Mood swing was reported in 93(62%) while difficulty in concentrating on studies was present in 87(58%). On the other hand sleep disturbance was seen in 93(62%) breast tenderness was present in 45(30%) volunteers, abdominal bloating was reported in 39(26%) volunteers and decrease participation in the social activities.

Menstruation parameter includes regularity of menstrual cycle, duration of menstrual period and amount of flow during period was noted. The general symptoms related with menstrual discomfort were backache, abdominal pain, mood disturbance, anxiety, nausea, vomiting, headache, leg cramps, leg swelling, sweating, breast heaviness, myalgia and diarrhoea.

A total of 150 adult females students having dysmenorrhea out of which 64 (42.5 %) volunteers explained their menstrual discomfort as stressful, 28 (18.6%) volunteers had difficulty in doing their social activities and 19 (12.5%) volunteers had insomnia due to dysmenorrhea. 38 (25.2%) students experienced problem in doing their routine activities, 16(10.7%) volunteers had to absent themselves from college because of dysmenorrhea and 14(9.2%) students recorded decreased academic performance.

It was found that student with primary dysmenorrhea is due to hormonal changes, stress. To regain the health in students with dysmenorrhea they mainly practiced self medication, home remedy and exercise. Self medication was generally practiced by Zambians female students while home remedy was practiced by Indian female students. On the other hand some students use different method to get relief like hot water bath, rest and sleep. It was as reported in 99(66%) of the volunteers. Decreased in the participation was reported due to combined effect of dysmenorrhea and associated menstrual symptoms.

Data for Dysmenorrhea
In this study, 150 female students having dysmenorrhea were examined for menstrual pattern, self treatment strategies and management and various symptoms of dysmenorrhea with questionnaire. 119(79.5%) females suffered from dysmenorrhea inslide of having regular menstrual cycles. The Zambians students are more aware of term dysmenorrhea as compared to Indian students. In majority of female's students the etiology of dysmenorrhea is found to be hormonal changes and stress. The other menstrual discomfort is related with leg cramps, abdominal pain, headache, backache, nausea, vomiting, mood swing gives a stressful duration for adult females and it also reduced their routine activities. Because of dysmenorrhea and discomfort during menstrual

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**Management Strategies for Dysmenorrhoea**

- Self Medication: 40%
- Home Remedies: 40%
- Physician Advice: 15%
- No Treatment: 5%

**Drugs Preferred in Dysmenorrhea**

- Mefenamic acid and Dicyclomine: 70%
- Paracetamol: 20%
- Ibuprofen: 5%
- Dicyclomine: 5%
- Hyoscine: 0%
period adult female life was affected, absent from college and this leads to decrease in academic performance. Zambians students showed greater percentage of limitation in routine activity because of dysmenorrhea as compare to Indian student. The health and activity in adult female was restored by self medication practice because dysmenorrhea was a general difficulty which comes with each menstrual cycle in students, due to economic burden to seek medical or physician advice each time they use to treat them self with home remedies or by self medication.

Conclusion:

The work had identified that self medication is common among Zambians students while home remedies are preferred by Indian students, facilitated by the easily available drugs and information from textbooks / internet, seniors or family. Huge quantities of students are unaware of term dysmenorrhea and the adverse effects of medicament that they are taken by themselves or from the suggestion of others. This study gives a view to create an awareness among students to use drug only in severe condition and only after prescription by a physician. By the study it was found that dysmenorrhea is a general problem among Indian and Zambians students and they go through various emotional and physical symptoms related to dysmenorrhea. Non-steroidal anti-inflammatory drugs (mefenamic acid and paracetamol) were commonly consumed drugs for self medicament in dysmenorrhea. Due to less information about dysmenorrhea and its management among students, majority of them suffer from various symptoms of dysmenorrhea and other menstrual discomfort.

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