



THE PRACTICE OF SELF-MEDICATION IN PRIMARY DYSMENORRHEA AMONG MEDICAL STUDENTS.

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ABSTRACT

INTRODUCTION: Dysmenorrhoea is the most common gynaecological complaint in young adult females which not only affects the quality of life but also reduces productivity. It is a common observation that medical students are involved in the practice of self-medication which is the use of medicines by individuals to treat self-recognized illnesses or symptoms. The study was carried out with an aim to evaluate the pattern of self-medication for self-diagnosed dysmenorrhoea among medical students.

MATERIALS AND METHODS: This was a cross-sectional study conducted among 60 female students with dysmenorrhoea in the department of physiology, SKIMS medical college. Data was collected with a structured questionnaire having three parts. Data was collected and analysed using descriptive statistics.

RESULTS: The average age of menarche of the participants was 13.15± 0.23 years. Two thirds of the participants i.e. 68.3% practiced self-medication, 11.6% used heat application in form of a hot water bottle or taking a hot bath as a relieving measure, 10% used home remedies like turmeric milk, dietary ginger etc., 6.6% rested or slept and only 3.3% consulted a doctor. The drugs used for self-medication were fixed drug combination of mefenamic acid and dicyclomine (70.73%), paracetamol and dicyclomine (21.95%), or paracetamol alone (7.31%).

CONCLUSION: The practice of self-medication for dysmenorrhoea is very common among medical students with drugs like mefenamic acid, paracetamol and dicyclomine.

KEYWORDS : Dysmenorrhoea, Self-medication, Medical students.

INTRODUCTION

Dysmenorrhoea is the most common gynaecological complaint in adolescent and young adult females which affects 50–90% of the general population^{1,2} varying considerably across different populations and ethnic groups.³

Primary dysmenorrhoea which appears within 1–2 years of menarche refers to menstrual pain without any pelvic pathology. The pain is usually spasmodic in character and felt mainly in the lower abdomen, but it may radiate to the back and along the thighs. It is accompanied by some other symptoms and complications such as nausea, vomiting, diarrhoea, headache, fatigue, dizziness, and in severe cases syncope. Secondary dysmenorrhoea is associated with pelvic pathology (endometriosis, adenomyosis, subacute endometritis, pelvic inflammatory diseases, intrauterine devices, and ovarian cyst).^{1,4,5} In short dysmenorrhoea is a symptom-complex which not only affects the quality of life but also reduces productivity like among students it has a negative impact on academic and daily activities.^{6,7}

The aetiology of primary dysmenorrhoea is not precisely understood but most symptoms can be explained by the action of uterine prostaglandins, particularly PGF_{2α} which stimulates myometrial contractions, ischemia and sensitization of nerve endings.⁸ Different methods are used for treatment of primary dysmenorrhoea. Non-pharmacological home remedies commonly used are heat application, rest, sleep, exercise, warm beverages, dietary ginger, vitamin B1, and herbal treatment.⁹ Pharmacological measures include NSAIDs (mefenamic acid, diclofenac) which inhibit cyclooxygenases leading to a reduction in PGs production and antispasmodics (dicyclomine, drotaverine).⁹ Those nonresponsive to NSAIDs are given hormonal therapy (OCPs).¹⁰

It is a common observation that medical students are involved in the practice of self-medication which is the use of medicines by individuals to treat self-recognized illnesses or symptoms¹¹ without complete knowledge about the therapy they are taking.¹² Hence, this study was carried out with an aim to evaluate the pattern of self-medication for self-diagnosed dysmenorrhoea among medical students.

MATERIALS AND METHODS

This was a cross-sectional study conducted in the department of physiology, SKIMS medical college, Srinagar from June 2017 to December 2017. Female medical students in the age group of 18–24

years who willingly gave consent after being informed about objectives participated in the study. Sixty female students with dysmenorrhoea were included in the study. A structured questionnaire consisting of three parts was used to collect data from the participants. The first part consisted of questions regarding socio-demographic data, the second part included questions about age of menarche, menstrual history, verbal rating scale (VRS) measuring the pain intensity, presentation of dysmenorrhoea, and its associated symptoms and the third part asked for information about the various remedial measures adopted to relieve dysmenorrhoea like self-medication, home remedies, hot water bath, sleep, rest, physical exercise and consultation with doctor. Data were collected and grouped using MS Excel. Mean and standard deviation were calculated. Data was collected and analysed using descriptive statistics.

RESULTS

In this cross-sectional study, 60 female students with dysmenorrhoea were analysed for menstrual pattern and treatment practices adopted by them. All the medical students were aware of the term dysmenorrhoea. The average age of menarche of the participants was 13.15± 0.23 years. Most of the participants, i.e. 60%, had started menstruating between 13–14 years of age. The average duration of the menstrual cycle was 29.67± 2.52 days and 64.3% had regular cycles (Table 1).

Table 1: Menstrual Characteristics of Participants

S.No.	Characteristic	Number	%
1	Age at menarche		
	<12 years	13	21.66
	13–14 years	36	60.00
2	Regularity of cycles		
	Regular	39	64.33
	Irregular	21	36.66
3	Duration of cycles		
	1–2 days	9	15.00
	3–5 days	31	51.66
4	Interval between cycles		
	<21 days	7	11.66
	21–35 days	47	78.33
	>35 days	6	10.00

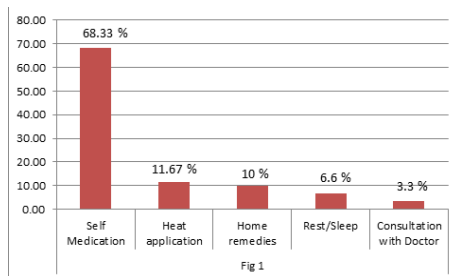
The most common dysmenorrhea symptom was abdominal pain (73.3 %) followed by backache (61.6%). Some participants experienced single symptom while others suffered from two or more symptom (Table 2).

Table 2: Symptoms of Dysmenorrhea among participants.

S.No	Symptom	Number	%
1	Abdominal Pain	44	73.33
2	Backache	37	61.66
3	Myalgias	18	30.00
4	Head Ache	8	13.33
5	Nausea/ Vomiting	7	11.66
6	Diarrhea	9	15.00
7	Breast Tenderness	11	18.33
8	Others	15	25.00

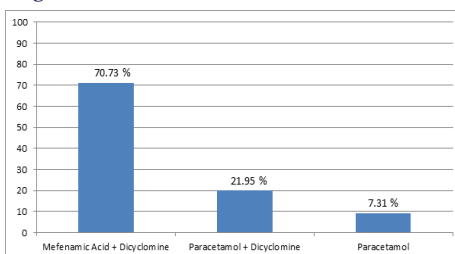
Majority of participants (68.3%) used pharmacological methods to relieve the dysmenorrhea symptoms and only 31.6 % used non-pharmacological methods. Fig 1 shows the remedial measures adopted by the participants. Two thirds of the participants i.e. 68.3% practiced self-medication, 11.6% used heat application in form of a hot water bottle or taking a hot bath as a relieving measure, 10 % used home remedies like turmeric milk, dietary ginger etc., 6.6% rested or slept and only 3.3 % consulted a doctor. None of the participants engaged in physical exercise.

Fig 1: Measures Adopted to Relieve Pain



The drugs used for self-medication by the participants with dysmenorrhoea who relied on pharmacological measures were fixed drug combination of mefenamic acid and dicyclomine (70.7%), paracetamol and dicyclomine (21.9%), or paracetamol alone (7.3%) (Fig.2). The main sources of information of drugs for dysmenorrhoea among the participants were from seniors mostly, family members like elder sisters or cousins, fellow students, books and internet.

Fig.2: Drugs used for self-medication



DISCUSSION

Dysmenorrhea is a major personal and public health concern as it is a leading cause of disability among women of reproductive age group.¹³ The present study was conducted among 60 female students having dysmenorrhea. Results have revealed the mean age at menarche as 13.15+0.23 years, which is similar to other studies.^{5,10-16} Dysmenorrhea associated symptoms manifesting either as abdominal pain, backache, myalgias, nausea, vomiting and others constituted the most common medical problems among the participants in this study, this seems to be in agreement with previously conducted studies.^{10,14} Majority of participants (68.3%) used pharmacological methods to relieve the dysmenorrhea symptoms and the source of information being seniors, family, friends, books and internet. The students used mainly fixed drug combination of mefenamic acid and dicyclomine (70.7 %), paracetamol and dicyclomine (21.9%), or paracetamol alone (7.3%). Hence analgesics and antispasmodics were commonly used. This is in accordance with earlier studies.^{5,17-19}

Though non-pharmacological methods are safer, cost effective and readily available but most of them have low feasibility and are slow in providing relief like a student cannot use a hot water bottle during classes. As medical education is very demanding involving extremely competitive academic environment and long hours of study taking a day off to rest and relax is not an option for them. Thus in spite of having a good knowledge about the possible side effects relying on pharmacological methods becomes a necessity for medical students due to convenience of use, easy availability and their ability to provide rapid relief. The need of the hour is to search for and create more awareness among students about availability of safer options (like certain dietary modifications, exercises etc) and also encourage their use whenever possible alone or in combination with pharmacological options in order to minimise the high dependence of students on latter.

The limitations of our study were that it was a cross-sectional study and the self-reporting nature of the questionnaire may have resulted in under or over reporting of the problem. Also as the study was conducted in a single college, therefore the sample may not be representative of all female population, therefore the results cannot be generalised. The strength of our study is that all participants experienced symptoms of dysmenorrhea.

CONCLUSION

The practice of self-medication for dysmenorrhea is very common among medical students which is most likely due to better understanding of the condition, greater accessibility to information about drugs (books and seniors), easy procurability of drugs and demanding nature of medical education.

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