PREVALENCE OF USE OF MEDICATIONS FOR MENSTRUAL PAIN AMONG FEMALE STUDENTS IN TERTIARY INSTITUTIONS IN ABA, ABIA STATE, NIGERIA.

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ABSTRACT

Background:

Dysmenorrhea (Menstrual Pain) is one of the commonest gynecological complaints and when severe can interfere with normal activity and absence from school. It is common practice to seek ways to alleviate this pain.

Aims and Objectives:

The aim of this study was to assess the use of medications for managing dysmenorrhea among females in tertiary institutions in Aba.

Materials and Methods:

This was a cross-sectional study conducted among 400 female students from four tertiary institutions in Aba; Abia State University Teaching Hospital, Abia State Polytechnic, Rhema University and Temple Gate Polytechnic. Research instruments were structured, self-administered and pretested questionnaires. Data collected were analyzed using Statistical Package for Social Sciences (SPSS).

Result:

Dysmenorrhea was reported in 288 (72%) participants with majority (53.8%) taking medications for the pain. The most commonly used medication reported was Paracetamol (35.5%) and information about the medications were mostly gotten from parents (35.5%). The medications used were easily purchased over the counter from patent medicine stores (69.3%) with or without a prescription from a doctor. Major effects of dysmenorrhea were interference with daily activities (80.7%) and inability to concentrate in class (79.1%). Findings revealed a statistically significant relationship between the age of respondents and their method of management dysmenorrhea (p=0.009).

Conclusion:

Findings from this study indicate the need to educate females on how to properly manage menstrual problems.

Keywords: Dysmenorrhea, medications, tertiary institutions.

Introduction.

The major cause of dysmenorrhea is still not clear but it is said that prostaglandins(PGF2α) have a well-recognized pathophysiological role by inducing intense uterine contractions, decreasing uterine blood flow, increased peripheral nerve hypersensitivity resulting in pain and cramps.[1] Peri-menstrual symptoms which include abdominal pain, mood swings, depression, irritability, crying spells, withdrawing from friends and family, insomnia, angry outbursts, difficulty in concentration etc. have been linked to changing levels of oestrogen, serotonin and progesterone.

Many conservative treatment options have been tried to alleviate menstrual pain in women with primary dysmenorrhea such as Non-steroidal anti-inflammatory drugs (NSAIDs) and combined oral contraceptives (OCs).[2] Till date, pharmacotherapy is the most reliable and effective treatment in relieving dysmenorrhea.[3] In a study carried out among a group of 269 physical therapy students from Cairo University, with regard to pharmacological control of dysmenorrhea, 62.4% of participants used analgesics, whereas 37.6% did not.[4] In another study carried out among 250 female medical and paramedical students from Bangalore Medical College and Research Institute, dysmenorrhea was reported in 210 participants with self-medication practice among 131(62.98%) students. Drugs commonly used were fixed dose combination of Mefenamic acid and Dicyclomine (60.1%), followed by Paracetamol (14.9%) and Ibuprofen (9.21%).[5]

However, in the study carried out in Ibadan, of those who use medications, 49.7% used painkillers/pain relievers to reduce pain caused by dysmenorrhea. A few respondents (11.6%) also used herbal mixtures in managing dysmenorrhea. Those that used herbal mixtures were of the view that NSAIDs sometimes are not effective in relieving dysmenorrhea. It is of import to note that a few (2.3%) respondents admitted having used oral contraceptive pills to manage dysmenorrhea.[6] In a study carried out in South-West Nigeria, it was discovered that 1 out of 4 female university students practiced self-medication with antibiotics to treat a variety of menstrual symptoms. The drugs mostly used were Ampicillin, Tetracycline, Ciprofloxacin and Metronidazole. These results

are alarming because menstrual cycle occurs monthly and low doses of antibiotics on a regular basis expose the normal gut bacterial flora to sub-inhibitory doses that favour the selection of resistant bacteria.[7] In that study carried out by Tobi et al in Ibadan, respondents sought help from different places whenever they experienced dysmenorrhea; some of these places included trado-medical centers, religious centers, family members and hospitals. Those who preferred to seek help at religious centers were of the view that it is only God who soothes the pain whenever it becomes unbearable and those that sought help from the trado-medical centre gave the reason that these centres give them herbal mixtures that are effective as well as adequate treatment and care.

Materials and methods.

This was a descriptive, cross sectional study carried out at four (4) selected tertiary institutions in Aba, (Abia State University Teaching Hospital and Abia state Polytechnic,Temple gate Polytechnic and Rhema University). Self-administered questionnaire were used in obtaining information from consenting participants. Information was collected on the demographic features, prevalence, and method of managing menstrual pain among the participants. A total of 500 questionnaires were randomly administered to females undergraduates in various levels of study. Of the questionnaires retrieved, only 400 that were correctly filled were included in the study.Data were analyzed using Statistical Package for Social Science (SPSS) software.

Results.

Table 1: Socio-demographic Variables of Respondents

VARIABLE	FREQUENCY (N=400)	PERCENTAGE (%)
Age group (in years)		
15-20	123	30.8
21-26	222	55.5
26+	55	13.8

Marital status		
Single	362	90.5
Married	37	9.3
Widowed	1	0.3
Religion		
Christianity	392	98.0
Islam	5	1.3
Others	3	0.8
Level		
1st Year	100	25.0
2nd Year	57	14.3
3rd Year	56	14.0
4th Year	114	28.5
5th Year and above	73	17.3
Age of First Menstrual Experience		
8-10	26	6.5
11-13	218	54.5
>13	156	39.0

Mean age= 22 ± 3.0 years

Table 1 above shows the socio-demographic variables of the respondents. Majority of the study participants (55.5%) were in the age bracket of 21 – 26 years, with a mean age of 22±3.0 years. Most were single (about 362 respondents, 90.5%). Nearly all the respondents, 339 respondents (84.7%), were Igbo with 392 (98%) Christians. A higher proportion of respondents (114, 28.5%) were 4th year students. A total of 218 (54.5%) respondents had their first menstrual experience at age 11 – 13years.

Table 2: Prevalence of Dysmenorrhoea

Dysmenorrhoea	Frequency (n=400)	Percentage (%)
No	112	28
Yes	288	72

Out of 400 participants in this study, 112 (28%) females reported to not experience menstrual pain while 288 (72%) experience menstrual pain.
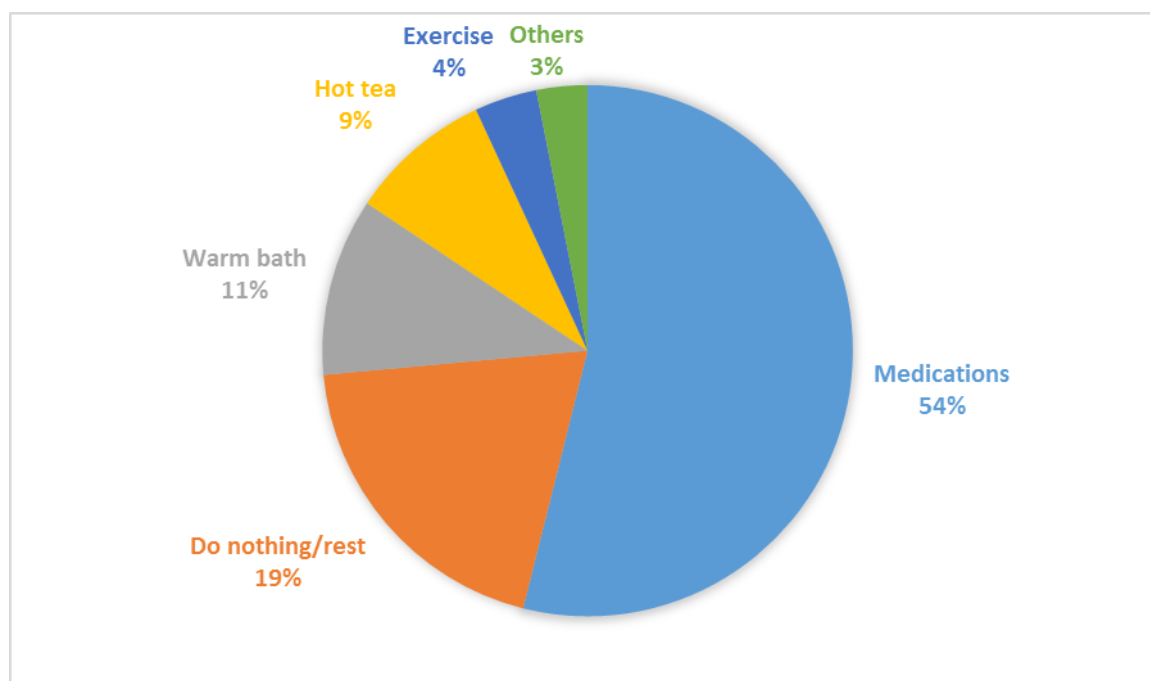

Figure 1: Method of Managing Dysmenorrhea

In managing menstrual pain, 56 (19.6%) of the students did nothing but rest to ease the pain. In those who made effort to manage the pain, majority; 156 respondents (53.8%) used medications to relief the pain, 31 respondents (10.8%) had a warm bath, 25 respondents (8.7%) resorted to taking hot tea, 11 respondents (3.8%) exercised as a means to relieve the pain, while 9 respondents (2.1%) tried other means including prayers.

Table 4: Commonly Used Medications

Medication used	Frequency	%
Paracetamol	60	35.5
Diclofenac	12	7.2
Ibruprofen	29	17.5
Piroxicam (Feldene)	46	27.1
Others	21	12.7

Among the 400 female students in this study, table 4 shows that 156 used medications for pain relief; Paracetamol was the most commonly used medication in 60 students (35.5%), followed by Piroxicam (feldene) in 46 students (27.1%).

Table 5: Use of Non-pain Medications

Antibiotics	Frequency (n=250)	%
Yes	24	9.6
No	226	90.4
Relief?		
Yes	22	91.7
No	2	8.3
Use of oral contraceptives		
Yes	20	8
No	230	92
Relief?		
Yes	18	90

No	2	10
Use of herbal medication		
Yes	25	9.9
No	225	90.1
Relief?		
Yes	25	100
No	0	0

From the table above, use of antibiotics in the management of menstrual pain was reported by 24 respondents (9.6%). Also, 22 (91.7%) of the respondents who used antibiotics achieved relief from the pain while 8.3% did not. Hormonal therapy in the form of oral contraceptives was used by 20 (8%) respondents in the management of menstrual pain. 18 (90%) of these respondents were reported to have achieved relief from the pain. Use of herbal medications was reported in 25 (9.9%) of the respondents in the management of menstrual pain. All 25 (100%) of these respondents achieved relief from the pain.

Table 6. Effect of Socio-Demographic Variables on Method of Dysmenorrhea Management

VARIBLES	Other methods N=132 (%)	Medication N=156 (%)	X^2	P- value
Age group (in years)				
15 – 20	48(56.5)	37(43.5)	9.465	**0.009***
21-26	70(38.9)	110(61.1)		

26+	14(60.1)	9(39.1)		
Marital status				
Single	117(46.8)	133(53.2)	1.419	0.492
Married	13(41.9)	18(58.1)		
Widowed	1(100.0)	8(0.0)		
Religion				
Christianity	129(45.9)	152(54.1)	2.218	0.529
Islam	1(33.3)	2(66.7)		
Others	1(100.0)	0(0.0)		
Level				
1st year	39(47.6)	43(52.4)	2.736	0.741
2nd year	22(56.4)	17(43.6)		
3rd year	15(41.7)	51(58.3)		
4th year	33(41.8)	46(58.2)		
5th year and above	22(44)	28(56)		
Age at first menses				
8-10	11(50)	9(45)		
11-13	63(42.6)	85(57.4)	1.800	0.407
>13	56(49.1)	58(50.9)		

*Statistically Significant

Relationship between sociodemographic variables and method of managing dysmenorrheal is shown in table 6. There is a statistically significant association between the age of the participants and the method of managing dysmenorrhea.

Discussion

In this study, we aimed at determining the prevalence of dysmenorrhea and the use of medications in the management of dysmenorrhea. The result of our study revealed that 288 (72%) participants experienced dysmenorrhea. This is similar to the prevalence of 78.1% reported in the study done among female students in Babcock University, Ogun state, Nigeria[10]. However, this appears to be higher than the 62.4% reported in the study carried out in Mexico among 1539 University Students and lower than the 85.1% prevalence recorded among 956 female students in An-Najah National University, Palestine.[8,9]. This could be attributed to racial differences in pain threshold.

Findings from this study show that 156 (53.8%) participants use medications for managing dysmenorrhea. This was low compared to 71.4% and 91.2% prevalence reported from the studies carried out among Nursing undergraduates in Greece and Spain respectively.[10,11] The increased prevalence of use of pain relievers recorded among these students may be attributed to greater knowledge of medications available for managing dysmenorrhea. A lower prevalence of 44.4% was gotten in a study conducted in Jouf University, Saudi Arabia among 366 female students.[12]

The most commonly used medication among the participants in our study is Paracetamol 60 (35.5%) and this is similar to the 41.3% prevalence obtained in the study done in Tamale campus of the University for Development studies, Ghana.[13] A lower prevalence rate of 14.9% was reported in Bangalore College and Research Institute.[5] In a study done in the University of Hong Kong, a higher number (57%) of the participants who use medications, use Paracetamol[14]. Compared to the findings of the study conducted in Tamale campus which reported that 18.3% of the participants who took medications for dysmenorrhea used Diclofenac[13] a lower result was obtained in our study where 12 (7.2%) participants use the same medication but similar (3.1%) to the lower rate obtained in a study conducted among Mexican University students.[8] In this study 46 (27.1%) participants, use Ibuprofen while a lower result was gotten from another study in Tamale campus. Also the use of Piroxicam in this study is lower (12.7%) compared to a 31.4% prevalence gotten from a study carried out among female students at a teaching hospital in South-Western Nigeria.[7]

Aside pain relievers, the use of other medications such as antibiotics and oral contraceptives have been implicated in other studies as well as ours. In this study, prevalence of the use of antibiotics is 9.6% which is low when compared to the study done in South West Nigeria where 1 out of every 4 female students (25%) use antibiotics for managing dysmenorrhea.[7] Concerning the use of oral

contraceptives, 20 (8%) of the participants reported to have used this medication while 2.3% use oral contraceptives in the study at Ibadan.[6] However, a higher prevalence rate of 74% for the use of oral contraceptives was reported among Australian women.[15] This could be as a result of easier access to oral contraceptives in these places than in our environment.

Despite how excruciating and incapacitating dysmenorrhea can be, 56 (19.6%) of respondents in our study did nothing to manage the pain. This discrepancy between the use of pharmacological and non-pharmacological methods may be as a result of inherent resistance in young women towards the use of pharmacological analgesics, lack of knowledge of pharmacological therapies for dysmenorrhea or difficulties in purchasing or gaining easy access to prescription drugs in these countries.

Conclusion

From this study, use of medications was the most resorted means of managing menstrual pain by female undergraduates. Though fewer respondents reported use of Oral Contraceptives (OCPs), majority of those who used them reported relief from the pain. Further studies in our clime on use of OCPs for dysmenorrhea is advocated.

Acknowledgements

Conflict of Interest

The authors declare that there is no conflict of interests regarding the publication of this paper.

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