

PREVALENCE OF DYSMENORRHOEA IN MAIDUGURI, NORTH EASTERN NIGERIA

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INTRODUCTION

Dysmenorrhoea is defined as periodic pelvic pain occurring with or just prior to menses¹. It is classified as primary when the pain is in the setting of normal pelvic anatomy and physiology, and as secondary dysmenorrhoea when associated with underlying pelvic pathology^{2, 3}. Geographic variations do exist in the prevalence of dysmenorrhoea most probably due to under reporting, as most females regard pain during menses as the price for their gender. Yet the prevalence of dysmenorrhoea is still very high among adolescents and young adults ranging from as low as 33% - 38.7% in India⁴, Turkey⁵ to as high as 68.7%- 74.6% in Hong kong⁶, Malaysia⁷, Nigeria⁸ and Egypt³.

Dysmenorrhoea is the commonest gynaecologic problem that necessitates women to seek medical attention and often associated with severe disturbing social consequence manifesting in frequent absenteeism in school and workplace among young females and women in their active reproductive age^{9, 10}. Reported identifiable risk factors to dysmenorrhoea are smoking, nulliparity and heavy menses⁹. The severity of the pains often vary from mild requiring no medication, to moderate requiring medication without interfering in routine activities and severe often resulting in absenteeism in schools and workplace^{3, 10}.

This study was undertaken to establish the prevalence, epidemiology and risk factors to dysmenorrhoea among females in our Maiduguri.

METHODOLOGY

This is a cross sectional descriptive study, which was carried out among female students in six tertiary institutions (simple) in Maiduguri, Borno

ABSTRACT

Background: Dysmenorrhoea is the most common gynaecologic complaint among adolescents and young females. It is often regarded by many as normal, seeking medical attention only when it is unbearable.

Objective: To determine the prevalence, risk factors and effects of dysmenorrhoea among women in Maiduguri.

Methods: This is a cross sectional descriptive study among female students in six tertiary institutions in Maiduguri, Borno state. Three hundred structured questionnaires were administered to ascertain the epidemiology, associated risk factors and possible effect of dysmenorrhoea.

Results: About 63% currently had pain during menses and 69.7% had experienced primary dysmenorrhoea in the past. One third each of such pain were moderate (35%) to require medication and severe (31.7%) as to restrict routine activities, in 8.3% the menstrual pain was so severe to warrant admission in the hospital. There was significant association between current dysmenorrhoea and previous primary dysmenorrhoea, positive family history of dysmenorrhoea, past history of D& C and other gynaecological problems, while smoking was not shown to have any statistically significant relationship. There was an inverse relationship between previous pregnancies and current episode of dysmenorrhoea

Conclusion: Dysmenorrhoea is prevalent among women, yet many do not seek medical attention unless it became unbearable.

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state. Three hundred structured questionnaires were self administered to randomly selected (simple random selection) females in the study area. The confidentiality of the information was guaranteed and verbal consent obtained. Information pertaining to the socio demographic characteristics, current and past history of dysmenorrhoea, previous pregnancies {viable

(those that have reached 28 weeks of gestation and beyond) and miscarriages, pregnancies lost before 28 weeks of gestation), and other associated risk factors were obtained through the questionnaire. History relating to other gynaecological problems, severity and possible effect of dysmenorrhoea were also obtained. The data was analysed using the statistical package SPSS version 11.0, while chi square test was used for test of significance

RESULTS

A total of 300 participants responded to the questionnaires with age range of 16 - 50 years and mean of 25.0 ± 2.3. Majority (66.7%) of the respondents were unmarried. Previous pregnancies were reported by 96 (32%) of the respondents out of which more than 80% were viable pregnancies and the remaining were lost as miscarriages. The last child birth were within 1-3 years in about 70% of the respondents, only 6.4% had their last deliveries above 7 years, as shown on table I. Table II illustrates the social factors associated with dysmenorrhoea. Dysmenorrhoea was experienced by 129 (43%), 104 (34.7%) and 19 (6.3%) of their friends, sisters and mothers respectively. Smoking as a social habit was noted only among 4 (1.3%) of the respondents. History of dilatation and curettage (D&C) was found among 34 (11.3%) and it was done for incomplete abortion in 67.6% and induce abortion in 32.4% of the cases as shown on table III.

Menorrhagea, lower abdominal pain outside menses and vaginal discharge were the common gynaecological problems encountered in 17.7%, 16.7% and 12% of the respondents respectively. One hundred and eighty nine (63%) were currently experiencing pain during menses and 209 (69.7%) had experienced primary dysmenorrhoea in the past. About one third each of such pain was moderate (35%) to require medication and severe (31.7%) as to restrict routine official and domestic activities, in 8.3% of the respondents, the menstrual pain was so severe to

warrant admission in the hospital. Table V showed the relationship between current history of dysmenorrhoea and associated risk factors. There was an observed significant association between current dysmenorrhoea with past episode of primary dysmenorrhoea, and positive family history of dysmenorrhoea and other gynaecological problems, $X^2 = 70.730$ $P = 0.000$, $X^2 = 14.66$ $P = 0.000$ and $X^2 = 29.38$ $P = 0.000$ respectively. There was an inverse relationship between previous pregnancies and the frequency of current episode of dysmenorrhoea $X^2 = 13.779$ $P = 0.000$ shown on the same table V. However contraceptive used and smoking were not shown to have any statistically significant relationship with dysmenorrhoea.

Table I: Sociodemographic characteristic

Marital status	number	%
Single	200	66.7
Married	90	30.0
Divorced	7	2.7
Widow	3	1.0
Total	300	100

Pregnancy history

Yes	96	32
No	204	68
Total	300	100

Pregnancy outcome (n=96)

Live birth	78	81.2
Miscarriage	18	18.8
Total	96	100

Last child birth (in years) (n = 78)

1-3	55	70.5
4-6	18	23.1
7+	5	6.4
Total	78	100

Table II: Associated social factors for dysmenorrhoea

History of Dysmenorrhoea in	number	%
Friends	129	43
Sister	104	34.7

Nil	48	16
Mother	9	6.3
Total	300	100

Smoking

Yes	4	1.3
No	296	98.7
Total	300	100

Table III Gynaecological factors associated with Dysmenorrhoe

Previous D&C

Yes	34	11.3
No	266	88.7
Total	300	100

Reason for D&C (n= 34)

Incomplete abortion	23	67.6
Induce abortion	11	32.4

Other gynae problems

Nil	135	45.0
Menorrhagea	53	17.7
Abdominal pain	50	16.7
Vaginal discharge	36	12.0
Inter menstrual bleeding	19	6.3
Uterine fibroid	1	.3
Total	300	100

Table IV: history and severity of dysmenorrhoea

Current Menstrual pain	number	(%)
Yes	189	63
No	111	37
Total	300	100

Previous primary dysmenorhoea

Yes	209	69.7
No	91	30.3
Total	300	100

Severity of the current menstrual pain n= 189

Mild	63	33.3
Moderate	66	35
Severe	60	31.7
Total	189	100

Admission for dysmenorrhoea

Yes	25	8.3
No	275	91.7

Total	300	100
*Other symptoms		
Breast fullness/pain	117	39.0
Nausea/vomiting	30	10
Headache	21	7.0
Diarrhoea	20	6.7
Dizziness	16	5.3
* multiple responses.		

Ever pregnant		
No	61	143
Yes	50	46
Total	111	189
	X² = 13.779	P = 0.000

Other gynaec problems		
Yes	38	127
No	73	62
Total	111	189
	X² = 29.38	P = 0.000

Table V: Relationship between Current menstrual pain and Associated risk factors

	Current menstrual pain	
	No	Yes
Primary Dysmenorrhoea		
No	66	25
Yes	45	164
Total	111	189
	X² = 70.730	P = 0.000

D&C		
No	93	173
Yes	18	16
Total	111	189
	X² = 7.306	P = 0.026

Smoking		
No	111	186
Yes	1	3
Total	111	189
	X² = 3.468	P = 0.177

History		
Friends/1st degree relative	81	171
Nil	30	18
Total	111	189
	X² = 14.66	P = 0.000

Contraceptive ever used

Hormones	22	31
IUCD	5	1
Nil	84	157
Total	111	189
	X² = 6.46	P = 0.039

DISCUSSION

The prevalence of dysmenorrhoea in this study was found to be 63% which is similar to earlier reports^{3, 6, 7, 8, 11}, but much higher than findings of Sharma⁴, Demir⁵ and Loto¹². Notable risks factors for dysmenorrhoea reported from previous studies were young age, nulliparity, smoking, menstrual irregularities and history of primary dysmenorrhoea^{9, 12, 13, 14}. In this study however previous primary dysmenorrhoea, positive family history of dysmenorrhoea previous D & C and co-existing gynaecological problems were found to have statistically significant relationship with current episode of dysmenorrhoea. Smoking was not a risk factor to dysmenorrhoea probably, because smoking is not common among females in the study population. There was a significant

protective effect of parity and combined oral contraceptive (COCP) used to prevalence of dysmenorrhoea. Severity of dysmenorrhoea is generally assumed as menstrual pain sufficient enough to seek medical attention and also interfere with routine official/domestic activities in this study 31.7% of those cases of dysmenorrhoea reported were severe enough to prevent them from attending lectures and routine domestic activities. This falls within the range of 14.8% - 53% earlier reported^{3, 15, 16, 17, 18, 19}. In 8.3% the pain was so severe that necessitated admission in hospital for care which is much higher than reported in Egypt³. Other symptoms associated with dysmenorrhoea observed in this study were breast tenderness, headache, dizziness, diarrhoea and nausea and vomiting. Though reported with varying frequency this symptoms collaborates with previous findings^{3, 20, 21, 22}.

Conclusion

Dysmenorrhoea, though under reported among women the prevalence is till high among our women, and yet many do not seek medical attention unless it became unbearable. Our women should be encouraged to promptly seek medical attention for their gynaecological problems. And our gynaecologists should effectively evaluate and manage risks factors and other gynaecological problems in our women, this will assist to minimise preventable gynaecological complications.

REFERENCES

- Pearce JM. Disturbances of the menstrual cycle. In: clinical gynaecology. Varma TR, eds, London Arnold 1991;100-117.
- Rapkin AS. Pelvic pain and dysmenorrhoea In: Bereks JS, Adashi EY, Hillard PA eds Novaks gynaecology 12th edi (middle east edition) Giza Egypt, mass publishing Co 1996: 399.
- EL- Gilany A-H, Badawi K and El-Fedawy S. Epidemiology of dysmenorrhoea Among adolescents students in Mansoura, Egypt. Eastern Mediterranean Health Journal 2005;1(2):155- 163.
- Sharma A, Taneja DK, Sharma P, Saha R. problems related to menstruation and their effect on daily routine of students of a medical college in Delhi India. Asia Pae J Public Health 2008, 20(3): 234-241.
- Demir SC, Kadayy'fey' TO, Vardar M. Dysfunctional bleeding and other menstrual problems of secondary school students in Adana, Turkey. J pediater Adolesc Gynaecol 2000;13(4): 171-5.
- Chan SS, Yiu KW, Yuen PM, Sahota DS, Chung TK. Menstrual problems and health seeking behaviour in Hong Kong Chinese girls. Hong Kong Med J 2009; 15(1): 18-23
- Lee LK, Chen PC, Lee KK, Kaur J. Menstruation among adolescents girls in Malaysia : a cross sectional school survey. Singapore Med J 2006; 47(10):869-874.

8. Odujinrin OM, Ekunwe EO. Epidemiologic survey of menstrual patterns amongst Adolescents in Nigeria. *West Afr J Med* 1991; 10(3-4): 244- 249
 9. French L. Dysmenorrhoea in adolescents: diagnosis and treatment. *Paediatr Drugs* 2008; 10(1):1-7
 10. Harel Z. dysmenorrhoea in adolescents *Ann NY Acad Sci* 2008; 1135:185-195
 11. Houston AM, Abraham A, Huang Z, D'Angelo LJ. Knowledge, attitudes, and consequences of menstrual health in urban Adolescents females. *Paediatr Adolesc Gynaecol* 2006; 19(4): 271- 5
 12. Loto OM, Adewunmi TA, Adewuya AO. Prevalence and correlates of dysmenorrhoea among Nigerain college women. *Aust NZ J Obstet Gynaecol.* 2008; 48(4):442.444
 13. Jacks TH, Obed JY, Agida ET, Petrova GV. Dysmenorrhoea and menstrual abnormalities among post menarchael secondary school girls in Maiduguri. *Afr J Med Sci.* 2005; 34(1):87- 89
 14. Sule ST, Umar HS, Madugu NH. Premenstrual Symptoms and dysmenorrhoea among Muslim women in Zaria, Nigeria. *Ann Afr Med* 2007; 6(2): 68-72
 15. Harlow SD, Campbell OMR. Menstrual dysfunction: a missed opportunity for improving reproductive health in developing countries. *Reproductive health matters.* 2000; 8(15): 142-7
 16. Banikarim C, Chacko MR, Keider SH. Prevalence and impact of dysmenorrhoea on Hispanic female adolescents. *Archives of paediatrics & adolescents medicine* 2000; 154(12): 1226- 9
 17. Andersch B, Milsom J. An epidemiologic study of young women with dysmenorrhoea. *American journal of obstetric and gynaecology* 1982; 144(6): 655- 60
 18. Di cintio E et al. Dietary habits, reproductive and menstrual factors and risks of dysmenorrhoea. *European journal of epidemiology* 1997; 13(8): 925- 30
 19. Adeyemi AS, Adekanle DA. Management of dysmenorrhoea among medical students: *The Internet Journal of Gynecology & Obstetrics* 2007; 7(1): ISSN: 1528-8439
 20. Herbst AL et al. comprehensive gynaecology 2nd edition Chicago, Mosby Year Book Medical Publishers, 1996; 1063.
 21. Ryan KJ, Barbieri RC. The menstrual cycle in: Ryan KJ, Berkowitz R, Barbieri RC eds, *kistners gynaecology: principles and practice*, 6th ed. Chicago, Mosby Year Book Medical Publishers, 1995; 15.
- Thomas KD, Okonofua FF, Chiboko O. A study of the menstrual patterns of adolescents in Ile Ife, Nigeria. *International journal of gynaecology and obstetrics* 1990; 33(1): 31- 34.