

Menstrual Experiences of Adolescents in a Secondary School

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Received 29 November 2006; received in revised form 30 January 2007; accepted 02 February 2007;
published online 20 February 2007

Abstract

Objective: To determine the menstrual abnormalities experienced by adolescents and their health seeking behavior in response to these problems with a view to providing appropriate services for young girls in this situation.

Materials and Methods: A structured questionnaire was administered to adolescent girls at a secondary school in Kaduna, Nigeria between January and March 2006. Data obtained were analyzed using MINITAB and SPSS software packages.

Results: The girls ranged between 12 and 18 years of age and the mean age at menarche was 12.81 years. Irregular menstrual cycles were present in 30.1%. Dysmenorrhoea was present in 61.27% and significantly associated with older age. Self medication was practiced by 56.60% and was significantly associated with older age. The most common premenstrual symptom was breast pain (89.96%). School absenteeism occurred in 15% due to dysmenorrhoea and 8.09% due to premenstrual symptoms with more than half of these girls being absent every month. Doctors were consulted by 17.93% for dysmenorrhoea and 14.45% for premenstrual symptoms. Majority of the girls (75.72%) had discussed menstrual problems with someone, most commonly with their mothers (68.70%). There was a general lack of information about menstrual issues especially with regards to cycle length, duration of menses and age at menarche.

Discussion: There is a need to educate adolescent girls about menstrual issues in order to improve health seeking behavior regarding menstrual problems. Linkages between school health clubs and youth friendly services are required to increase access to appropriate services among adolescents.

Keywords: menstruation, dysmenorrhoea, premenstrual symptoms, adolescents

Özet

Ortaöğretimdeki Adölesanların Menstrüel Tecrübeleri

Amaç: Genç kızlara uygun hizmetleri sunabilmek amacıyla, bu dönemde tecrübe edilen menstrüel bozuklukları saptamak ve bu sorunları çözmek için başvuru sağlık davranışlarını belirlemek.

Materyal ve Metot: Ocak-Mart 2006 arasında Kaduna, Nijerya'daki bir ortaokulda adölesan kızlara bir anket uygulanmıştır. Veriler MINITAB ve SPSS yazılım paketleri kullanılarak analiz edilmiştir.

Sonuçlar: Kızların yaşı 12-18 arasında idi; menarştaki yaş ortalaması 12.81'di. Düzensiz âdet siklusu %30.1'inde mevcuttu. Dismenore daha çok yaşla bağlantılı ve %61.27'sinde mevcuttu. Kendi kendine ilaç alma özellikle daha ileri yaştaki kızların %56.60'ı tarafından uygulanmaktaydı. En yaygın premenstrüel belirti meme ağrısıydı (%89.96). Okul devamsızlığı kızların %15'inde dismenore ve %8.09'unda premenstrüel belirtilerden dolayı olurken bu, kızların yarısından fazlasının her ay devamsızlık yapmasına neden oluyordu. Kızların %17.93'ü dismenore, %14.45'i premenstrüel belirtiler nedeniyle doktora başvuruyordu. Kızların çoğunluğu (%75.72) menstrüel sorunlarını biriyle, genellikle de anneleriyle (%68.70) konuşmuştu. Özellikle siklus uzunluğu, mens süresi ve menarş yaşı gibi konularda olmak üzere, menstrüel konularla ilgili genel bir bilgi yetersizliği söz konusuydu.

Tartışma: Menstrüel sorunlarla ilgili sağlık arayış davranışlarını geliştirmek için, adölesan kızların menstrüel konularla ilgili olarak eğitilmesi gerekir. Okul sağlık merkezleri ve gençlik servisleri arasındaki bağlantılar genç kızların uygun servislerden yararlanmalarını artırmak için gereklidir.

Anahtar sözcükler: menstrüasyon, dismenore, premenstrüel belirtiler, adölesan

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Introduction

Menstruation is a normal physiological process that begins during adolescence and may be associated with various symptoms occurring before or during the menstrual flow. Dysmenorrhoea, usually of the primary type, is a common symptom and a common cause of school absenteeism among adolescents (1,2). It occurs more frequently among older adolescents who have ovulatory cycles (3,4). The pathogenesis of primary dysmenorrhoea is not clearly understood but is thought to be associated with excessive secretion of uterine prostaglandins although the underlying cause of this excessive secretion is not clear. Abnormalities of plasma steroid levels and/or plasma vasopressin levels have been suggested as possible causes of the excessive prostaglandin secretion (5). Dysmenorrhoea may be secondary to conditions such as pelvic inflammatory disease, intrauterine contraceptive devices, endometriosis, uterine fibroids, and adenomyosis (5), but these are not common among adolescents.

There are other symptoms that may be associated with menstruation, usually occurring within one week before the onset of menstrual flow and regressing with the onset of menstrual flow. Premenstrual symptoms may also affect adolescents (1,2,6) and have a negative impact on school attendance and performance (6). These premenstrual symptoms are numerous but the common ones include somatic symptoms (such as bloatedness, breast swelling and pain, pelvic pain, headache, skin disorders, and change in bowel habits) and psychological symptoms (such as irritability, aggressiveness, depression, anxiety, inability to concentrate, hypersomnia or insomnia, change in appetite, specific food craving, and poor coordination) (7). The causes of these symptoms are not clear but they may be due to changes in the levels of some hormones and their metabolites such as prolactin, oestrogen, progesterone, endorphins, and prostaglandins, and their interactions with neurotransmitters and neurohormonal systems such as serotonin, GABA, cholecystokinin and the renin-angiotensin-aldoosterone system (7,8).

Although it is a normal physiological process, many adolescents have little or no information about normal and abnormal menstruation (9), and most of what they know is often information obtained from their mothers and their peers (10). This, often results in self medication for various symptoms and delayed presentation to medical facilities when they have menstrual abnormalities (3,10,11). The most frequent problem for which adolescents and their parents seek medical attention is dysmenorrhoea (1), because of its painful nature. This study was carried out to determine the menstrual abnormalities experienced by adolescents and their health seeking behaviours in response to these problems with a view to improving adolescent reproductive health. This information will be useful in designing and/or modifying health care, promotion and education activities for young girls in this environment.

Materials and Methods

A structured questionnaire was administered to 400 adolescents in a secondary school in Kaduna, northern Nigeria by one of their female teachers between January and March 2006. The teacher was available to explain any questions that were not clear to the girls. The sample was one of convenience and only girls who had consented to take part in the study and had been permitted by their parents/guardians were included. A sample of the questionnaire is included as Appendix A. Information was obtained about their age and other biosocial characteristics, their menstrual history, self medication, medical attention for menstrual problems, and their perceptions of what constituted normal and abnormal menstruation. Rates and comparative analyses including student's *t*-tests and χ^2 tests were carried out on the data obtained using MINITAB and SPSS statistical software packages. The significance level for *p*-values was taken to be <0.05.

Results

Out of the 400 questionnaires that were distributed, 358 (89.5%) were filled out and returned. The girls ranged between 12 and 18-years of age with a mean of 15.64-years and a standard deviation of 1.26. The mean age at menarche was 12.81-years with a range of 10 to 16 years and a standard deviation of 1.31. Only 78 (22.54%) girls knew their cycle length. The mean cycle length was 27.41 days, the range was 21 to 31 days and the standard deviation was 2.72.

Most of the girls had started menstruating (346 girls, 96.65%) but 12 (3.35%) were premenarcheal. Dysmenorrhoea was present in 212 girls (61.27%) and absent in 134 girls (38.73%). Dysmenorrhoea resulted in absence from school of 52 girls (15.03%) and of these, the frequency of absence was every month in 69.23%, every 2 to 3 months in 23.08%, and every 4 months or more in 7.69%. Among girls who had dysmenorrhoea, 38 (17.93%) had seen a doctor about the problem and 120 (56.60%) used some form of self-medication for the dysmenorrhoea. Majority of these girls used paracetamol (30.83%), buscopan (30.83%), piroxicam (10%), ladinax (10%), and a combination of paracetamol and buscopan (8.33%). Other medications used include a combination of piroxicam and buscopan (3.33%), traditional medication (1.67%), roxiden (1.67%), indomethacin (1.67%), and a combination of traditional medication and aspirin (1.67%). Ladinax is a paracetamol preparation, roxiden is piroxicam and buscopan is hyoscine butylbromide. Menstruation, dysmenorrhoea and self medication were significantly associated with older age as shown in Table 1.

Premenstrual symptoms that were reported included breast pain (89.96%), abdominal pain (49.13%), breast swelling (34.60%), crying easily/being moody (14.45%), getting angry easily/being irritable (13.30%), headache (14.45%), and abdominal swelling/bloating (6.92%). Other symptoms included waist pain (2.31%), leg pain (1.16%), feeling uncomfortable (2.60%), pimples/acne (2.31%), general body

Table 1. *t* tests for association between mean age (years) and various variables

Variable	Yes	No	Difference	95% CI of difference	<i>t</i> value (<i>p</i> value)	<i>p</i> value after Bonferroni correction
Menstruation	15.72	13.50	2.22	1.57, 2.86	7.49 (<0.001)	<0.025
Dysmenorrhoea	15.83	15.35	0.48	0.21, 0.76	3.45 (0.001)	0.025
School absence ¹	15.92	15.59	0.33	-0.03, 0.68	1.81 (0.075)	>1
Seen doctor ¹	15.61	15.65	0.04	-0.47, 0.40	-0.17 (0.868)	>1
Self medication	15.93	15.50	0.43	0.17, 0.69	3.21 (0.001)	0.025
Abdominal pain	15.80	15.52	0.28	0.02, 0.54	2.12 (0.034)	0.85
Abdominal swelling/bloating	15.00	15.66	-0.66	-6.17, 4.86	-0.38 (0.730)	>1
Breast swelling	15.20	15.66	-0.46	-1.36, 0.43	-1.17 (0.271)	>1
Breast pain	16.31	15.60	0.71	0.25, 1.17	3.17 (0.004)	0.1
Moodiness	16.00	15.59	0.41	0.08, 0.73	2.50 (0.015)	0.375
Irritability	15.55	15.66	-0.11	-0.58, 0.34	-0.52 (0.607)	>1
Headache	15.44	15.68	-0.24	-0.64, 0.15	-1.23 (0.224)	>1
School absence ²	16.14	15.62	0.52	0.11, 0.93	2.56 (0.015)	0.375
Seen doctor ²	15.44	15.68	-0.24	-0.60, 0.11	-1.36 (0.178)	>1
Clots	15.80	15.65	0.15	-0.16, 0.45	0.95 (0.341)	>1
Weakness	15.87	15.63	0.24	-0.03, 0.51	1.74 (0.084)	>1
Ever discussed	15.59	15.81	-0.22	-0.53, 0.10	-1.35 (0.179)	>1
D/W mother	15.53	15.77	-0.24	-0.51, 0.02	-1.83 (0.068)	>1
D/W father	14.00	15.71	-1.71	-2.80, -0.61	-3.44 (0.006)	0.15
D/W aunt	15.44	15.66	-0.22	-1.13, 0.70	-0.50 (0.625)	>1
D/W sister	15.80	15.61	0.19	-0.11, 0.49	1.23 (0.221)	>1
D/W female cousin	15.73	15.64	0.09	-0.51, 0.68	0.29 (0.777)	>1
D/W female friend	15.62	15.67	-0.05	-0.33, 0.23	-0.36 (0.721)	>1
D/W male friend	15.50	15.65	-0.15	-1.10, 0.79	-0.51 (0.645)	>1
D/W others	15.53	15.68	-0.15	-0.59, 0.28	-0.72 (0.472)	>1

School absence¹: school absence due to dysmenorrhoea
 Seen doctor¹: seen doctor for dysmenorrhoea
 School absence²: school absence due to premenstrual symptoms
 Seen doctor²: see doctor for premenstrual symptoms
 D/W: discussed with
 Yes: presence of the variable, No: absence of the variable

weakness (0.58%), diarrhea (0.58%) and loose stools (0.58%). Premenstrual symptoms resulted in absence from school among 28 girls (8.09%) and of these, 75% were absent every month, 8.33% every 2 to 3 months and 16.67% every 4 months or more. Among girls who had started menstruating, 50 (14.45%) had seen a doctor about premenstrual symptoms.

Among girls who had started menstruating, dysmenorrhoea and premenstrual symptoms were considered normal by 134 (38.73%), 24 girls (6.94%) felt they were abnormal, while 180 girls (52.02%) did not know whether such symptoms were normal or not. The rest did not respond to the question. Similarly, 138 (39.88%) of these girls felt that these symptoms required treatment while 78 (22.54%) felt there was no need for treatment, 128 (36.99%) did not know and the rest did not respond to the question.

Most of the girls (47.40%) did not know their cycle length while 30.06% said that their cycles were irregular and only

22.54% knew their cycle length. The duration of menstrual flow was between 3 and 8 days in 75.72% of the girls, less than 3 days in 20.23% and more than 8 days in 1.73%. Some of the girls (31.21%) said that they bled heavily with clots while 38.73% said they were weak, dizzy or felt like fainting during their menses.

Among those who had started menstruating, 262 (75.72%) said they had ever discussed problems related to menses with someone. Menstrual issues were discussed with mothers (68.70%), female friends (54.20%), sisters (26.72%), female cousins (8.40%), aunts (6.87%), fathers (4.58%), brothers (1.53%), male friends (1.53%), male cousins (0.76%), uncles (0.76%), and grandmothers (0.76%). Some girls had discussed with more than one person. Among those who had discussed with their mother, 74 had also discussed with a female friend, 52 with a sister, 18 with a female cousin, 16 with an aunt, 10 with their father, 4 with a brother, 4 with a male friend, 2 with a male cousin and 2 with an uncle.

Table 2. Attitudes towards various menstrual disturbances among postmenarcheal girls

Menstrual disturbance	Needs treatment	Does not need treatment	Don't know
Menstrual pain of any kind	210 (60.69%)	50 (14.45%)	60 (17.34%)
Severe menstrual pain	260 (75.15%)	30 (8.67%)	42 (12.14%)
Heavy bleeding	252 (72.83%)	32 (9.25%)	50 (14.45%)
Bleeding lasting >8 days	218 (63.01%)	62 (17.92%)	50 (14.45%)
Cycle length of <21 days	120 (34.68%)	66 (19.08%)	122 (35.26%)
Cycle length of >35 days	152 (43.93%)	36 (10.41%)	126 (36.42%)
Menarche >16 years	184 (53.18%)	92 (26.59%)	48 (13.87%)
Menarche <9 years	168 (48.56%)	76 (21.97%)	62 (17.92%)

Most of the girls felt that menstrual pain of any kind, severe menstrual pain, heavy bleeding and prolonged bleeding, are problems that require treatment. The following table shows details of how they felt about various menstrual disturbances. Details are in Table 2.

A younger age at menarche was significantly associated with having seen a doctor for dysmenorrhoea and discussing menstrual problems with fathers, as shown in Table 3.

School absenteeism due to dysmenorrhoea was significantly higher among girls who had seen a doctor, those who practiced self medication, those who bled with clots, those who felt weak during menses and those who discussed menstrual problems with an aunt, a male cousin or a female friend. School absenteeism due to premenstrual symptoms was significantly higher among girls who had seen a doctor, those who had heavy menstrual flow with clots, and those who discussed with brothers, male cousins and male friends. Details are in Table 4.

There was no significant association between discussing with others and school absenteeism due to dysmenorrhoea ($\chi^2=0.347$, $p=0.556$) or school absenteeism due to premenstrual symptoms ($\chi^2=0.359$, $p=0.836$).

School absenteeism due to dysmenorrhoea was significantly associated with the attitude that menstrual pain of any kind ($p=0.03$ after Bonferroni correction) and heavy menstrual bleeding ($p=0.02$ after Bonferroni correction) are problems requiring treatment. There was no significant association between school absenteeism due to dysmenorrhoea and the duration of menses ($\chi^2=1.641$, $p=0.440$).

There was no association between school absenteeism due to premenstrual symptoms and the duration of menstrual flow ($\chi^2=1.448$, $p=0.485$). School absenteeism due to premenstrual symptoms was not significantly associated with attitudes towards any menstrual abnormality.

Seeing a doctor for dysmenorrhoea was significantly associated with self medication, feeling weak during menses, discussing menstrual problems with someone and discussing menstrual problems with female friends. Similarly, seeing a doctor for premenstrual symptoms was significantly associated with discussing menstrual problems with fathers. Details are shown in Table 5.

There was no significant association between duration of menstrual flow and seeing a doctor for dysmenorrhoea ($\chi^2=1.306$, $p=0.520$) or seeing a doctor for premenstrual symptoms ($\chi^2=3.608$, $p=0.165$). There was also no significant association between seeing a doctor for dysmenorrhoea and attitudes towards menstrual abnormalities. Seeing a doctor for premenstrual symptoms was significantly associated with the attitude that early onset of menstruation before the age 9-years ($p=0.03$ after Bonferroni correction), and symptoms associated with menstruation ($p\leq 0.01$ after Bonferroni correction) were problems that should be treated.

Discussion

The mean age at menarche among the girls in this study was 12.81-years, similar to what has been reported previously (12,13). Almost half of the girls did not know their cycle length and about a third of them reported that their cycles were irregular. Irregular cycles are common in adolescents as the initial cycles are anovulatory resulting in abnormal uterine bleeding that may be associated with varying amount of blood loss including menorrhagia (10,13). Symptoms suggestive of menorrhagia reported in this study include heavy menstrual flow with clots, feeling weak, dizzy or feeling like fainting during menses, and menstrual flow lasting more than 8 days. Dysmenorrhoea was reported by majority of the girls (61.27%) who had started menstruating. This figure is similar to what has been reported previously (2,9,14). Dysmenorrhoea was significantly associated with higher age most likely because menstrual cycles are commonly anovulatory for some time after puberty whereas dysmenorrhoea is associated with ovulatory cycles (14). A similar association between dysmenorrhoea and older age has been reported previously (3,4). The older girls are also more likely to have previously obtained information on how to treat dysmenorrhoea from others or from previous prescriptions hence the significant association between older age and self medication for dysmenorrhoea.

School absenteeism was 15.03% among girls who had dysmenorrhoea and of these, 69.23% were absent from school every month. It was significantly associated with having seen a doctor for dysmenorrhoea, practicing self medication, and having heavy menstrual flow with clots or feeling weak during menses. It was also significantly associated with discussing with their aunt, male cousin and female friend, and the belief that menstrual pain of any kind and heavy menstrual

Table 3. *t* tests for association between age at menarche and various variables

Variable	Yes	No	Difference	95% CI of difference	<i>t</i> value (<i>p</i> value)	<i>p</i> value after Bonferroni correction
Dysmenorrhoea	12.72	12.92	-0.20	-0.49, 0.10	-1.32 (0.188)	>1
School absence ¹	12.50	12.86	-0.36	-0.74, 0.02	-1.89 (0.063)	>1
Seen doctor ¹	12.16	12.89	-0.73	-1.15, -0.31	-3.51(0.001)	0.025
Self medication	12.71	12.88	-0.17	-0.46, 0.13	-1.12 (0.262)	>1
Abdominal pain	12.76	12.85	-0.09	-0.37, 0.19	-0.63 (0.530)	>1
Abdominal swelling/bloating	12.50	12.81	-0.31	-3.07, 2.46	-0.35 (0.746)	>1
Breast swelling	12.60	12.81	-0.21	-0.60, 0.18	-1.18 (0.261)	>1
Breast pain	13.46	12.75	0.71	0.12, 1.30	2.47 (0.020)	0.5
Moodiness	12.72	12.82	-0.10	-0.55, 0.35	-0.44 (0.660)	>1
Irritability	12.27	12.88	-0.61	-0.99, -0.23	-3.23 (0.002)	0.05
Headache	12.56	12.85	-0.29	-0.67, 0.10	-1.49 (0.141)	>1
School absence ²	12.57	12.83	-0.26	-0.79, 0.27	-1.00 (0.325)	>1
Seen doctor ²	12.32	12.89	-0.57	-0.91, -0.22	-3.27 (0.002)	0.05
Clots	12.69	12.83	-0.14	-0.47, 0.18	-0.88 (0.379)	>1
Weakness	12.74	12.84	-0.10	-0.39, 0.18	-0.71 (0.480)	>1
Ever discussed	12.75	12.96	-0.21	-0.53, 0.12	-1.25 (0.214)	>1
D/W mother	12.76	12.86	-0.10	-0.38, 0.18	-0.70 (0.485)	>1
D/W father	11.67	12.85	-1.18	-1.69, -0.67	-5.00 (<0.001)	<0.025
D/W aunt	12.89	12.80	0.09	-0.49, 0.67	0.32 (0.752)	>1
D/W sister	12.74	12.82	-0.08	-0.40, 0.24	-0.48 (0.630)	>1
D/W brother	12.50	12.81	-0.31	-1.25, 0.64	-1.03 (0.378)	>1
D/W female cousin	13.18	12.78	0.40	-0.12, 0.93	1.59 (0.125)	>1
D/W female friend	12.80	12.81	-0.01	-0.29, 0.29	-0.02 (0.985)	>1
D/W male friend	14.50	12.78	1.72	-1.05, 4.48	1.97 (0.143)	>1
D/W others	12.50	12.84	-0.34	-0.66, -0.02	-2.12 (0.038)	>1

School absence¹: school absence due to dysmenorrhoea
 Seen doctor¹: seen doctor for dysmenorrhoea
 School absence²: school absence due to premenstrual symptoms
 Seen doctor²: seen doctor for premenstrual symptoms
 D/W: discussed with
 Yes: presence of the variable, No: absence of the variable

flow are problems that need treatment. School absenteeism due to premenstrual symptoms was 8.09% and of these, 75% were absent every month. This was significantly associated with having seen a doctor for premenstrual symptoms, having heavy menstrual flow with clots and discussing with their brother, male cousin or male friend. These findings suggest that the menstrual symptoms were more distressing among girls who absented themselves from school. The fact that these girls also discussed the problem with other relations/friends apart from their mother, and feel that menstrual pain of any kind and heavy menstrual flow should be treated, further suggests the distressing nature of the problems experienced by these girls. School absenteeism due to menstrual problems has been reported previously among adolescents (2,6) and may have a negative impact on their academic performance (6). Only 17.93% of the girls who suffered from dysmenorrhoea had seen a doctor for the problem and this was significantly associated with lower age at menarche, self medication, feeling weak or dizzy during menses, discussing menstrual issues with someone and discussing with a female friend.

More than half of the girls who had dysmenorrhoea practiced self medication mostly with analgesics of various types. Among those who had premenstrual symptoms, only 14.45% had seen a doctor about it and this was significantly associated with discussing menstrual issues with their father and feeling that early onset of menses (before the age of 9 years) and menstrual symptoms are problems that should be treated. Previous studies have also found that only a small proportion of adolescent girls who have menstrual abnormalities seek medical attention (3,10), with most preferring to practice self medication (3,11,12). These findings suggest that girls with more distressing symptoms are more likely to seek medical care. Similarly, those who attain menarche at a younger age are more likely to seek medical care as they may not understand what is happening to them and their parents are more likely to get worried because of their young age.

There was general lack of accurate information about all menstrual abnormalities among the girls but especially with regards to cycle length, prolonged menstrual bleeding, and

Table 4. χ^2 tests for association school absenteeism due to dysmenorrhoea and various variables

Variable	School absenteeism due to dysmenorrhoea			School absenteeism due to premenstrual symptoms		
	χ^2 value	p value	p value after Bonferroni correction	χ^2 value	p value	p value after Bonferroni correction
Self medication	50.178	<0.001	<0.015	Not applicable		
Seen doctor	48.206	<0.001	<0.015	44.177	<0.001	<0.014
Clots	10.766	0.001	0.015	16.622	<0.001	<0.014
Weak	14.742	<0.001	<0.015	1.537	0.215	>1
Ever discussed	2.984	0.084	>1	0.354	0.552	>1
D/W mother	1.827	0.177	>1	1.920	0.166	>1
D/W father	0.038	0.845	>1	1.102	0.294	>1
D/W aunt	16.674	<0.001	<0.015	0.224	0.636	>1
D/W uncle	0.347	0.556	>1	0.178	0.673	>1
D/W sister	2.345	0.126	>1	1.271	0.259	>1
D/W brother	3.981	0.046	0.69	9.414	0.002	0.028
D/W male cousin	11.669	0.001	0.015	22.703	<0.001	<0.014
D/W female cousin	0.475	0.491	>1	3.170	0.075	>1
D/W female friend	10.406	0.001	0.015	4.241	0.039	0.546
D/W male friend	4.020	0.45	>1	9.485	0.002	0.028

D/W: discussed with

age at menarche. Previous researchers have also found that knowledge about menstrual abnormalities was very poor among adolescent schoolgirls (9). Most of the girls (75.72%) had discussed menstrual issues with someone, most often their mother (68.70%), in keeping with previous reports (10). Those who attained menarche at a younger age were significantly more likely to discuss menstrual issues with their father probably because they are yet to develop socially induced inhibitions about discussing such issues with members of the opposite sex. None of the girls mentioned that they

discussed such issues with any of their teachers suggesting that they were considered unapproachable or inaccessible for some reason.

The findings in this study suggest that although menstrual abnormalities (especially dysmenorrhoea) are common and frequently result in absence from school, adolescents lack accurate information on normal and abnormal menstruation, and how to deal with menstrual problems. This, in addition to the fact that self medication is common among the girls

Table 5. χ^2 tests for association between having seen a doctor for menstrual problems and various variables

Variable	Doctor seen for dysmenorrhoea			Doctor seen for premenstrual symptoms		
	χ^2 value	p value	p value after Bonferroni correction	χ^2 value	p value	p value after Bonferroni correction
Self medication	27.966	<0.001	<0.015	Not applicable		
Clots	2.438	0.118	>1	0.871	0.351	>1
Weak	10.023	0.002	0.03	8.166	0.004	0.056
Ever discussed	9.481	0.002	0.03	6.075	0.014	0.196
D/W mother	8.232	0.004	0.06	6.638	0.010	0.14
D/W father	6.151	0.013	0.195	12.589	<0.001	<0.014
D/W aunt	0.030	0.863	>1	1.479	0.224	>1
D/W uncle	0.253	0.615	>1	0.342	0.559	>1
D/W sister	1.067	0.302	>1	0.002	0.964	>1
D/W brother	0.513	0.474	>1	0.693	0.405	>1
D/W male cousin	0.253	0.615	>1	0.342	0.559	>1
D/W female cousin	0.030	0.863	>1	0.511	0.475	>1
D/W female friend	10.666	0.001	0.015	2.013	0.156	>1
D/W male friend	0.509	0.475	>1	0.688	0.407	>1
D/W cycle length	2.098	0.147	>1	0.946	0.331	>1

D/W: discussed with

may result in non-recognition of serious menstrual abnormalities and late presentation for medical care. Adolescents are increasingly being targeted for health education and promotional activities in the efforts to prevent HIV infection and such activities can be modified to include information on menstrual issues. There is also a need to educate parents, especially mothers, and teachers on these issues so that they can provide adequate support and information to these young girls. School health clubs consisting of both teachers and students will help to make teachers more accessible for discussion of such issues. Linkages between schools and youth friendly health centres will ensure that girls who have menstrual abnormalities receive prompt and appropriate care.

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Appendix A - Questionnaire

Menstrual and premenstrual experiences of adolescents

Age _____ Class _____

Have you started menstruating? Yes No

If yes, how old were you when you started menstruating? _____

Do you have pain during your menses? Yes No

Have you ever been absent from school because of menstrual pain? Yes No

If yes, how often? - every month every 2-3 months every 4 months or more

Have you ever seen a doctor because of menstrual pain? Yes No

Do you take any medicine for menstrual pain on your own? Yes No

If yes, what medicine? - panadol buscopan traditional medication other (specify) _____

Do you have any of these problems 1 week or less before your menses? (Tick as many as apply)

Abdominal pain Abdominal swelling Breast swelling
 Breast pain Feeling sad/crying easily Getting angry easily
 Headache Other (specify) _____

Have you ever been absent from school because of any of these problems? Yes No

If yes, how often? - every month every 2-3 months every 4 months or more

Have you ever seen a doctor because of any of these problems? Yes No

Do you think these problems are a normal part of menstruation? Yes No Don't know

Do you think any of these problems needs treatment? Yes No Don't know

How long is the interval between the first days of each of your menses?

_____ number of days I don't know My cycles are not regular

How many days does your menses last? 3 to 8 days less than 3 days more than 8 days

Do you bleed heavily with large clots? Yes No

Do you feel weak, dizzy, or feel like fainting during your menses? Yes No

Have you ever discussed problems related to menses with anyone? Yes No

If yes, who? - mother father aunt uncle
 sister brother male cousin female cousin
 female friend male friend other (specify) _____

Which of these do you think is a problem with menses that needs to be treated? (Tick as appropriate)

	Yes	No	Don't know
Menstrual pain of any kind.....			
Severe menstrual pain.....			
Heavy bleeding with weakness, dizziness or feeling faint.....			
Bleeding lasting more than 8 days.....			
An interval between the first days of each menses of less than 21 days.....			
An interval between the first days of each menses of more than 35 days....			
No menses up to the age of 16 years.....			
Menses starting before the age of 9 years.....			

Thank you for taking time to fill out this questionnaire.