

Menstrual Characteristics of Young Adults

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Abstract: Menstrual health plays a key role in women's sexual and reproductive life. The purpose of this study is to understand the age at menarche and menstrual characteristics of young adults in a rural area of West Bengal. The present cross-sectional descriptive survey was conducted among one hundred and one young adult females of age 18 to 23 years. Data were collected on age, age at menarche and menstrual characteristics by using questionnaire. The mean age at menarche of the study participants was 12.07 (1.37) years. Duration of average menstrual discharge and number of days of peak discharge of the studied population was 4.84 (1.38) days and 3.03 (1.5) days, respectively. The result also revealed that menstruation skipped in 16.83 per cent girls in last one year. When menstrual discharge problems were considered, it was observed that majority (74.25%) of the girls feels some degree of pain and discomfort. However, 8.91 per cent of the girls had irregular periods. Premenstrual syndrome was observed in most (91.09%) of the girls, of which majorities reported abdominal pain (58.41%), followed by back pain (38.61%) and weakness (32.67%). An overwhelming majority (74.25%) of the girls reported the nature of menstrual discharge to be in the form of a mixture of fluid and clots. Interestingly, gynaecological problem was observed in all girls. The findings of this study would help health care professionals to devise future health care programs on menstrual health. [*Menstrual characteristics, young adult, West Bengal*]

Introduction

Menarche is the onset of menstruation and is one of the most significant milestones in a woman's life (Zegeye et al., 2009). It is an important maturity indicator to assess the developmental status of a pubertal female (Blondell et al., 1999; Cameron and Nadgdee, 1996). Menstrual cycle is a natural phenomenon that occurs throughout the reproductive years of every woman, and is characterized by the cyclical shedding of endometrium in response to hormones (Omidvar and Begum, 2011). Menstrual cycle is not only linked with woman's fecundity but it is also associated with the risk of chronic diseases including cardiovascular disease, cancer, osteoporosis and thus increased overall mortality (Godbole et al., 2013; Mukherjee et al., 2014).

Menstrual health plays a key role in women's sexual and reproductive life (Godbole et al., 2013). Changes in the menstrual pattern of woman may affect her physical, psychological and social well-being and may result in work-related problems. Menstrual disorders or its irregularities are a major gynecological problem among female and can be the cause of a significant amount of stress and anxiety to both the patients and their parents (Amaza et al., 2012; Deligeoroglou

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and Creatsas, 2012; Godbole et al., 2013). However, a number of studies from different parts of the world revealed that a large proportion of women experienced menstrual problems which remain mostly unattended by medical experts (Poureslami and Osati-Ashtiani, 2002; Dutta and Ray, 2006; Sanyal and Ray, 2008). Thus, knowledge of menstrual pattern is necessary for patient education and also for identifying deviations from the normal to guide clinical evaluation of gynecological problems, and this will make womanhood easier for adolescent women and adults (Harlow and Campbell, 2004; Zegeye et al., 2009). The purpose of this study is therefore, to understand the age at menarche and menstrual characteristics of young adults in a rural area of West Bengal.

Materials and Methods

This is a cross-sectional descriptive survey carried out in a rural area of West Bengal, India. A total of one hundred and one young adult female participated in the survey; their ages range from 18-23 years. Questionnaires were designed and administered to the respondents to complete. Participants were briefed on the objective of the study and duly completed questionnaires were collected and analyzed. The questionnaire included data such as; age, age at menarche and menstrual characteristics including duration of menstrual discharge, number of days of peak discharge, skipped cycle during the one year period prior to the date of survey, menstrual discharge problems during the last three months prior to the date of interview, irregular periods, premenstrual syndrome (PMS) and types of PMS during the last three months prior to the date of interview, nature of discharge and types of gynecological problems during the last three months prior to the date of interview. Age at menarche was ascertained by asking the participants to recall the actual date of the incident, if not, then the nearest month. The following criteria (Ray et al., 2010) are used to define some menstrual variables in the present study: irregular period, when consecutive menstrual cycles do not take place at a similar interval of time; skipping of menstruation, when menstrual cycle skips during a particular month or for some months; premenstrual syndrome (PMS), women may encounter certain problems (e.g. pain in abdomen, flatulence and nausea) just prior to the days of menstrual discharge; peak days of discharge, number of days during which maximum amount of menstrual blood is discharged; duration of discharge, number of days during which menstrual blood is discharged from the body; nature of menstrual discharge, whether the menstrual blood is fluid only or a mixture of fluid and clot; gynecological problems, white discharge, burning sensation during urination, increased frequency of urination, leakage of urine and itching around genitalia, etc. The data were analyzed manually and tabulated in per centages.

Table 1: Characteristics of the studied participants

Variables	Mean	SD
Age (years)	20.1	1.59
Age at menarche (years)	12.07	1.37
Duration of menstrual discharge (days)	4.84	1.38
Number of days of peak discharge (days)	3.03	1.5

Table 2: Menstrual characteristics of the studied participants

Characteristics	N	%
Skipped menstruation		
Yes	17	16.83
No	84	83.16
Menstrual discharge problems		
Some degree of pain and discomfort	75	74.25
Periods with heavy discharge	29	28.71
Periods with scanty discharge	12	11.88
Others	2	1.98
None of these	5	4.95
Irregular periods		
Yes	9	8.91
No	92	91.08
Premenstrual syndrome (PMS)		
Yes	92	91.09
No	9	8.91
Types of PMS		
Vomiting	7	6.93
Back pain	39	38.61
Headache	2	1.98
Diarrhea	2	1.98
Weakness	33	32.67
Feel heavy body	9	8.91
Abdominal pain	59	58.41
Acne	5	4.95
Flatulence	1	0.99
Others	10	9.9
Nature of discharge		
Fluid	26	25.74
Fluid and clot	75	74.25
Types of gynaecological problems		
White discharge	100	99.00
Itching around genital area	22	21.78
Burning sensation during urination	26	25.74
Increased frequency of urination	7	6.93
Leakage of urine	5	4.95
Difficulty in controlling urine during coughing and sneezing	6	5.94
Others	2	1.98

Results and Discussion

Menstrual health is one of the major areas of concern in reproductive health and affects a large number of women throughout their reproductive life. It also have a direct consequences in fertility (Sanyal and Ray, 2008). However, in order to understand the menstrual characteristics of young adults, the results of the present study revealed that the mean age of the studied population was

20.1 (1.59) years. The mean age at menarche was 12.07 (1.37) years. Duration of average menstrual discharge and number of days of peak discharge of the studied population was 4.84 (1.38) days and 3.03 (1.5) days, respectively (Table 1). Similarly, a previous study (Mondal and Dasgupta, 2014) was also observed 12.12 (1.2) years as mean age at menarche in Bengali adolescent girls. In another study, Gumanga and Kwame-Aryee (2012) also observed that the mean age at menarche of adolescent girls in Ghana was 12.5 (1.28) years and the mean duration of menstrual flow was 4.9 days. Studies demonstrated that age at menarche is determined by number of factors including, region, ethnicity, heredity, environmental conditions, socioeconomic status, nutritional and health status and psychological well-being (Ayatollahi et al., 1999; Koo et al., 2002). However, mean duration of menstrual flow of non-athletes adolescent of West Bengal (Mukherjee et al., 2014) and adolescents of North West Ethiopia (Zegeye et al. 2009) was 5.26 (1.25) days and 4 (1.3) days, respectively. A previous study by Zegeye et al. (2009) observed no significant association of residence or age at menarche with the mean duration of flow. In compare to the present study, mean number of days of peak discharge in urban adolescent girls was 3.57 (1.25) days (Ray et al. 2010).

Menstrual characteristics of the studied population are shown in table 2. It revealed that menstruation skipped in 16.83 per cent girls in last one year. When menstrual discharge problems were considered, it was observed that majority (74.25%) of the girls feels some degree of pain and discomfort and 28.71 per cent of the girls experienced periods with heavy discharge. Were as, 11.88 per cent of the girls had periods with scanty discharge. Similar higher incidence of menstrual discharge problem was also observed in Nigerian girls (Amaza et al., 2012). However, 8.91 per cent of the girls had irregular periods. Irregular menstrual cycle in the study participants was comparatively lower than that of Nigerian (Amaza et al., 2012) and Northwest Ethiopian (Zegeye et al., 2009) girls. Study shows that the most common cause of irregular menstrual cycles is polycystic ovary syndrome (Wang et al., 2011). Irregular menstrual cycle is also associated with an adverse cardiovascular risk profile (Wang et al., 2011) and has a significant impact on infertility (Fox, 2004; Peyromusavi et al., 2015).

Premenstrual syndrome was observed in most (91.09%) of the girls, of which majorities reported abdominal pain (58.41%), followed by back pain (38.61%), weakness (32.67%), feel heavy body (8.91%), vomiting (6.93%), acen (4.95%), headache (1.98%), Diarrhea (1.98%), and flatulence (0.99%). Study by Sanyal and Ray (2008) also observed back and abdominal pain as a form of premenstrual problem in majorities of the study participants. Higher incidence of premenstrual problem was also observed in Northwest Ethiopian adolescents and among them abdominal cramp was the most common form of premenstrual problem (Zegeye et al., 2009). An overwhelming majority (74.25%) of the girls reported the nature of menstrual discharge to be in the form of a mixture of fluid and clots. Fluid as a nature of discharge was observed in 25.74 per cent of the girls. Higher incidence of (>92%) of menstrual discharge in the form of fluid and clot was also observed in adolescent Bengali girls (Sanyal and Ray, 2008). Interestingly, gynaecological problem was observed in all girls in the present study, which includes white discharge (99%), burning sensation during urination (25.74%), itching around genital area (21.78%), increase frequency of urination (6.93%), difficulty in controlling urine during cough and sneezing (5.94%) and leakage of urine (4.95%). A previous study in adolescent girls of West Bengal also observed white discharge as a dominant gynaecological problem (Sanyal and Ray, 2008). However, the main limitation of the present study was small sample size. Further investigations in large sample along with other bio-social information are necessary for understanding their association with menstrual characteristics. Because, appropriate and early management of the patient is necessary in order to minimize the possibility of future complications regarding woman's reproductive ability.

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