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A Study on Menstrual Hygiene and Dysmenorrhea of Adolescent Girls in a Rural Population of West Bengal

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Abstract:

Background: Learning about hygiene during menstruation is a vital aspect of health education for adolescent girls, as patterns that are developed in adolescence are likely to persist into adult life. Studies related to these aspects among the rural population are still scanty. With this in view this study was undertaken.

Objectives: To find out the prevalence of dysmenorrhoea, its severity and practice of menstrual hygiene among the adolescent girls. **Methods:** A rural hospital based

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cross sectional study**.** 86 adolescent girls, attending the Adolescent Clinic during the study period, were included in the study and data was collected by interview method using a pre designed semi structured schedule. Analysis was done using MS Excel 2010 and Epi Info 7. P value < 0.05 was considered statistically significant. **Results:** Most of the girls were student (56.9%) and belonged to poor socio-economic group (69.7%) . 61.2% girls attained menarche at 14 years and 48.3% experienced dysmenorrhoea and the pain is mild in nature (40.4%). 61.6% were aware about menstruation before menarche and the informant were mothers (60.4%). 41.8% girls used sanitary pads and discarded (63.9%) thereafter. **Conclusion:** Health communication regarding menstruation and other issues of reproductive health is recommended.

Key words: Adolescence, dysmenorrhoea, menstruation

Introduction:

Dysmenorrhoea is a painful or cramping sensation in the lower abdomen often accompanied by other biologic symptoms, including fatigue, dizziness, sweating, headaches, backache, nausea, vomiting, diarrhoea, all occurring just before or during the menses.[1,2] Dysmenorrhoea could be primary or secondary on the basis of absence or presence of pathology. Primary dysmenorrhoea is seen only in ovulatory cycles usually developing within 6 to 12 months of menarche with no pathology or organic basis.[1,2,3] Learning about hygiene during menstruation is a vital aspect of health education for adolescent girls. Studies related to these issues among the rural population are still scanty. With this in view this study was undertaken.

Objectives:

1. To find out the prevalence of dysmenorrhoea, its severity, and
2. To find out practice of menstrual hygiene among the adolescent girls

Materials and Methods:

After obtaining ethical clearance from the Institution Ethics Committee the study was conducted. This was a hospital based cross sectional study conducted in the Adolescent Clinic of Chittaranjan Rural Hospital, Bhatar, West Bengal. The Adolescent Clinic of the hospital runs 1 day a week and data was collected in the all the OPD days during the study period (August 2014 to September 2014). All the adolescent girls were included in the study except those who were unwilling and those who had not attained menarche. In total 86 girls were interviewed using a pre designed semi structured schedule. Weight and height were taken and body mass index (BMI) was calculated as per WHO classification.[4] Analysis was done using MS Excel 2010 and Epi Info 7. P value < 0.05 was considered statistically significant. The severity of dysmenorrhoea was determined by subjective assessment using a 3 graded scales such as mild (free of pain or painful but can manage without analgesic), moderate (painful, requiring analgesic) and severe (painful, not relieved by analgesic).[5] The menstrual hygiene was assessed by asking the materials used during menstruation, frequency of cleaning, use of soap and water for cleaning and disposal of pads. Frequency of cleaning of external genitalia ≥2/day was taken as satisfactory and 0-1/day was taken as non-satisfactory. [6]

Results:

Majority of the girls were in the age group of 15-19 (74.4%) and the mean age was 16 years. Most of the girls were student (56.9%) and educated up to higher secondary level (66.3%). Among the study population most of them belong to poor socio-economic group (69.7%) and Hindu families (61.6%). 13.9% of the adolescent girls were married (Table 1).

Table 1: Socio demographic characteristics of study subjects (n=86)

Demographic Factors		**Number**	**Percentage (%)**
Age Group (years)	10-14	22	25.6
	15-19	64	74.4
Education	Primary	5	5.8
	Secondary	57	66.3
	H.S. and above	24	27.9
Occupation	Student	49	56.9
	Unemployed	12	13.9
	Employed	25	29.0
Religion	Hindu	53	61.6
	Muslim	33	38.4
SES[*†]	Class III	4	4.7
	Class IV	22	25.6
	Class V	60	69.7

*B. G. Prasad Scale 2013 †SES-socioeconomic status

Among the study population 61.2% girls had attained menarche at the age of 14 years and 48.3% girls experience dysmenorrhoea during their cycle. Most of them experience dysmenorrhoea at the beginning of the cycle (88%) and the pain is mild in nature (40.4%). The common associated symptoms were diarrhoea (39.5%), mood swings (30%), nausea (27.4%), headache (21.4%) and dizziness (18.3%). But majority of the girls (88.1%) need not to seek any health facility (Table 2). Family history of dysmenorrhoea was present in 47.6% cases.

Table 2: Some menstrual characteristics of study subjects with dysmenorrhoea (n=42)

Menstrual characteristics		Number	Percentage (%)
Severity of Dysmenorrhoea	Mild	17	40.4
	Moderate	16	38.0
	Severe	9	21.4
Duration	1-2 days	38	90.4
	>2 days	4	9.5
Associated symptoms*	Headache	9	21.4
	Mood swing	12	30.0
	Diarrhoea	16	39.5
	Nausea/Vomiting	11	27.4
	Dizziness	7	18.3
Health seeking behavior*	None	37	88.1
	Self-medication	6	14.3
	Doctor's advice	12	28.6
	Others	5	11.9

***Multiple responses**

Majority of the girls (61.6%) were aware about menstruation before menarche and in most of the cases the informants were mothers (60.4%).

Regarding hygienic practice during menstruation it was found that 41.8% girls used sanitary pads and discard (63.9%) thereafter. In most of the cases cleaning of external genitalia was satisfactory (74.4%) and with soap & water (83.7%)(Table 3).

Table 3: Practice on hygiene during menstruation (n=86)

Menstrual hygiene		**Number**	**Percentage**
Use of material during menstruation	Sanitary pads	36	41.8
	New cloth piece	27	31.3
	Old cloth piece	29	33.7
Cleaning of external genitalia	Satisfactory*	64	74.4
	Unsatisfactory†	22	25.5
How cleaned?	Only water	14	16.2
	Soap and water	72	83.7
Disposal of pads	Discarded	55	63.9
	Reused	31	36.1

*Satisfactory: Frequency of cleaning of external genitalia is ≥2/day;

†Unsatisfactory: Frequency of cleaning of external genitalia is 0-1/day;

During the menstrual period most of the girls restricted themselves from worshiping God (41.8%) and they were not allowed to cook (44.1%). Significant statistical association was found between presence of dysmenorrhea and BMI (Table 4).

Table 4: Relation between dysmenorrhoea and some factors (n = 86)

Factors		Dysmenorrhoea		χ^2	df	P
		Present	Absent			
Age (years)	10-14	10	12	0.0146	1	0.903
	15-19	32	32			
Education	Up to Secondary	29	33	0.1404	1	0.707
	HS or more	13	11			
Occupation	Student/unemployed	28	33	0.376	1	0.539
	Self employed	14	11			
Religion	Hindu	27	26	0.074	1	0.784
	Muslim	15	18			
SES	Upper lower or more	12	14	0.008	1	0.926
	Lower	30	30			
BMI	Under weight	21	10	4.345	1	0.037
	Normal/over weight	23	32			
Family H/O dysmenorrhea	Present	21	20	0.042	1	0.836
	Absent	21	24			
Awareness about menstruation	Present	27	26	0.074	1	0.784

Discussion:

Among the study population 61.2% girls had attained menarche at the age of 14 years. Majority (61.6%) of the study subjects were aware of menstruation before menarche and mothers were the first informant. Similar result was obtained in the study done by Dasgupta et al. [6]

It was found that 48.3 % of the study subjects had history of dysmenorrhoea similar to what was observed by Maitri

Shah et al[7] at Gujarat, among nursing students but the prevalence of dysmenorrhoea was 74.4% in a study conducted by Gumanga et al[8] at Turkey among University students.

Most of the study population experienced dysmenorrhoea at the beginning of the cycle (88%) and the pain was mild in nature (40.4%). The common associated symptoms were diarrhoea (39.5%), mood swings (30%), nausea (27.4%), headache (21.4%) and dizziness (18.3%). But majority of the girls (88.1%) need not seek any health facility. Family history of dysmenorrhoea was present in 47.6% cases.

There was a significant statistical relation between BMI and presence of dysmenorrhoea in the present study. Significant relation between family history of dysmenorrhoea and the presence of dysmenorrhoea was found in a study by Unsal et al [9] at Turkey among University Students however no such relation was observed in the present study.

Regarding hygienic practice during menstruation it was found that 41.8% girls used sanitary pads and discard (63.9%) thereafter. In most of the cases cleaning of external genitalia was satisfactory (74.4%) and with soap & water (83.7%). Study done by Dasgupta et al [6] found that cleaning of external genitalia was satisfactory in 85% girls and 97.5% of girls used both soap and water for cleaning.

The study was conducted among the adolescents who attended the hospital clinic, so it might not be representative of the whole rural area. More representative results could be obtained if it was conducted in the rural community itself. The present study shows that more education and awareness on dysmenorrhea and menstrual hygiene is required among adolescent girls from rural area.

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