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STATUS OF PERSONAL HYGIENE AND SOCIAL WELL-BEING AMONG ADOLESCENT GIRLS OF RURAL AREA OF LUCKNOW DISTRICT

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ABSTRACT

Introduction: Menstruation is fundamental phenomenon among adolescent girls. It is essential to emphasize on problems of menstruation and personal hygiene during this period.

Purpose:

1) To study status of menstruation and problems of menstruation of adolescent girls of rural areas of Lucknow.

2) To study personal hygiene of adolescent girls of rural areas of Lucknow.

Methodology: A community based cross-sectional study was done involving 246 adolescent girls (116 Non-Slum and130 slum) of R.M.L. Hospital, Lucknow. By doing house to house survey, adolescent girls were interviewed with the help of predesigned, pretested questionnaire. Their personal hygiene was assessed and detail menstrual history was taken.

Results: Among Non-Slum girls, 75.86% had attained menarche and among slum girls, 73.85% had attained menarche. The mean age of menarche in Non-Slum girls (13.01± 0.71) was significantly less than slum girls (13.33± 0.76).Most of the girls had regular menstrual cycle; duration was 3 to 5 days and moderate blood flow. Very less number of slum girls used sanitary pads during menses as compared to Non-Slum girls. Dysmenorrhoea was common gynecological problem in both areas. Good personal hygiene was seen in very less slum girls.

Conclusions: Dysmenorrhoea was common problem among adolescent girls. The personal hygiene was not good among slum adolescent girls.

KEYWORDS: *menstruation, Non-Slum, slum, personal hygiene*

INTRODUCTION

The World Health Organization (WHO) defined adolescence as being between ages of 10-19 years, encompassing the entire continuum of transition from childhood to adulthood. Adolescents represent 23% of population of India. Adolescence in girls is a turbulent period of development, which includes stressful events like menarche, which is considered as the land- mark of female puberty. Adolescent girls need additional requirement of iron up to 15% to compensate the physiological loss. Some of the special problems of adolescents are nutritional problems, menstrual disorders, leucorrhoea and psychological problems. The female child having survived the hazards of childhood and infancy as an unwanted or neglected child; is now exposed to aftereffects of poor nutrition in addition to insanitary facilities and unhygienic practices. Problems of menstruation like dysmenorrhoea, menorrhagia, scanty menstruation etc. are common. The loss in working hours and school days due to these menstrual problems is immense. Healthy adolescent girls of today are tomorrow's healthy women, future of every society and great resource of the nation.

MATERIAL AND METHODS

In the present cross-sectional observational study, one Non-Slum and one slum area with populations of 1395 and 1277 respectively were chosen randomly among all the field practice areas of Urban Health Center, Dr. V. M. Govt. Medical College, Lucknow after approval of institutional ethical committee. Informed consent was also taken.

House to house survey was done and all 246 adolescent girls (aged 10 to 19 years) were interviewed using pretested proforma. Their personal hygiene was assessed using grading based on Jacob M, which includes condition of hands, hairs, nails, bathing, cloths etc. Out of 120 adolescent girls in non-slum area, 116 responded and Out of 132 adolescent girls in slum area 130 responded to the study. Out of total 246 girls, 184 had attained menarche. Their data about date of menarche, other related factors about menstruation were recorded. For study of regularity of menstrual cycle, last 3 cycles were taken into consideration, for finding out interval between two cycles, last 2 cycles and for study of duration and amount of blood flow, only last menstrual cycle was considered. Also information about menstrual disorders was collected. Social class grading was done using modified B.G. Prasad's classification. Data thus collected was entered and analyzed by using appropriate statistical tool-Chi square test, Z test.

RESULTS

Among non-slum girls, 58.62% were educated up to secondary school, 38.79% up to higher secondary, 2.59% up to primary school and none was illiterate. In slum group 65.38% were educated up to secondary school, 23.08% were illiterate, 6.15% were educated up to primary school, 5.38% up to higher secondary school.

Among Non-Slum girls 80(68.97%) belonged to class I, and 36(31.03%) to class II socioeconomic status whereas 77(59.23%) slum girls belonged to class V, 50(38.46%) slum girls to class IV and 3(2.31%) to class III socioeconomic status.

Out of 246 girls, 184 (74.8%) had attained menarche, among 116 Non-Slum adolescent girls, 75.86% had attained menarche and among 130 slum adolescent girls, 73.85% had attained menarche. However, this deference was none significant (X^2= 0.132, d.f.-1).

Table 1 shows that out of 184 menarchic girls, maximum number of girls i.e. 59.78% attained menarche at the age of 13 years, whereas very less number of girls attained menarche at the ages of 11, 15 and 16 years i.e.5%.

Table 1: Distribution of adolescent girls according to age at menarche

Age at menarche (yrs)	Non-slum %	Slum (%)	Total (%)
11	4 (4.54)	0	4 (2.17)
12	7 (7.96)	8 (8.33)	15 (8.16)
13	55 (62.5)	55 (57.29)	110 (59.78)
14	22 (25)	28 (29.17)	50 (27.17)
15	0	3 (3.13)	3 (1.63)
16	0	2 (2.08)	2 (1.09)
Total	**88 (100)**	**96 (100)**	**184 (100)**

Mean 13.01± 0.71 13.33± 0.76 13.17± 0.75

Z=2.91, P<0.003

Table 2: Distribution according to pattern of menstruation

Variables	Non-slum (n=88) (%)	Slum (n=96) (%)	P value
Pattern			
Regular	86(97.73)	93(96.87)	0.7225
Irregular	2(2.27)	3(3.13)	
Pain during menstruation			
Painful	40(45.45)	50(52.08)	0.4527
Painless	48(54.55)	46(47.92)	
Duration of blood flow			
< 3 days	1(1.14)	2(2.08)	0. 8016
3 to 5 days	77(87.5)	82(85.42)	
> 5 days	10(11.36)	12(12.5)	
Mean	4.61± 1.04	4.65± 1.11	
Amount of blood flow			
Scanty	1(1.14)	1(1.04)	0.7866
Moderate	78(88.63)	82(85.42)	
Heavy	9(10.23)	13(13.54)	
Interval between 2 cycles			
< 21 days	1(1.14)	1(1.04)	0.5631
21 to 35 days	84(95.45)	90(93.75)	
> 35 days	3(3.41)	5(5.21)	
Mean	28.20± 3.06	28.46± 3.19	
Hygiene			
Cloth pieces	0	92(95.83)	< 0.0001
Sanitary pads	86(97.73)	1(1.04)	
Both	2(2.27)	3(3.13)	

Among Non-Slum girls, out of 88 menarchic girls, most of the girls, i.e.62.5% attained menarche at the age of 13 years. The youngest age of menarche was 11 years and oldest was 14 years. Among slum girls, 96 menarchic girls, most of the girls, i.e.57.29% attained menarche at the age of 13 years. The youngest age of menarche was 12 years and oldest was 16 years. The mean age of menarche in Non-Slum girls (13.01±0.71) was significantly less than slum girls (13.33± 0.76), (Z=2.91, p< 0.003).

Table 2 depicts pattern of menstruation in post-menarchic girls. About 97.73% Non-Slum girls had regular menstrual cycle whereas 96.87% slum girls had regular menstrual cycle. This difference was not significant(X^2 =0.126, 1 d.f.- 1).Out of total,45.45% Non-Slum girls and 52.08% slum girls had pain during menstruation. There was no significant difference between Non-Slum and slum girls in painful menstruation (X^2 =0.807, df- 1).

Maximum Non-Slum girls i.e. 87.5% had 3 to 5 days blood flow during menses. The mean blood flow was 4.61± 1.04 with range of 2 to 8 days.85.42% slum girls also had 3 to 5 days blood flow during menstruation. The mean blood flow was 4.65± 1.11 with range of 2 to 9 days. This difference was not significant (t =0.2516). When amount of blood flow during menstruation was studied, 88.63% Non-Slum girls had moderate blood flow and 10.23% had heavy blood flow. About 85.42% slum girls had moderate blood flow and 13.54% had heavy blood flow. There was no significant difference between amounts of blood flow (X^2= 0.479, df- 1). Maximum i.e. 95.45% Non-Slum and 93.75% slum girls had the interval between two cycles as 21 to 35 days. The mean interval was 28.20± 3.06 with the range of 15 to 40 days in Non-Slum girls and it was 28.46± 3.19 with the range of 17 to 40 days in slum girls. This difference was not significant (t test= 0.5740, 182 d.f.).

Most of the Non-Slum girls i.e. 97.73% used sanitary pads as sanitary practice during menses and 95.83% slum girls used cloth pieces as sanitary practice during menses. Only 1(1.04) slum girl used sanitary pads. This difference in use of sanitary pads in Non-Slum and slum area was significant, (X^2= 352.66, d.f.- 1).

Table 3 depicts that the commonest disorder of menstruation among Non-Slum girls was dysmenorrhoea i.e. in 45.45% girls, followed by me-norrhagia, leucorrhoea, irregular menstruation and scanty menstruation. About 52.08% slum girls had dysmenorrhoea, followed by the similar disorders like those in Non-Slum girls. The number of girls with disorders of menstruation in slum area were significantly more i.e. (76.04%) than those in Non-Slum area i.e. (62.05%), (Z= 1.99, P=0.046).

Table 3-Distribution according to disorders of menstruation

Disorders of menstruations	Non-slum (n=88) (%)	Slum (n=96) (%)
No disorder	33 (37)	23 (23.56)
Dysmenorrhoea	40 (45.45)	50 (52.08)
Menorrhagia	9 (10.23)	13 (13.54)
Irregular menstruation	2 (2.27)	3 (3.12)
Scanty menstruation	1 (1.14)	1(1.04)
Leucorrhoea	3 (3.41)	6 (6.25)
Total	**Z= 1.99**	**P= 0.046**

Table 4: Distribution according to personal hygiene

Personal hygiene	Non-Slum (n=88) (%)	Slum (n=96) (%)	Total (%)
Good	114(98.28)	28 (21.54)	142 (57.72)
Fair	2(1.72)	68 (52.31)	70 (28.48)
Poor	0	34 (26.15)	34 (13.82)
Total	**116(100)**	**130 (100)**	**246 (100)**

Table 4 depicts that the personal hygiene was good in 98.28% of Non-Slum girls and fair in 1.72% girls .In slum girls, the personal hygiene was good in 21.54%, fair in 52.31% and poor in 26.15% .The Non-Slum adolescent girls in respect to good personal hygiene significantly outnumbered the slum adolescent girls, (X^2= 147.99, d.f.- 2,p< 0.0001).

DISCUSSION

In the present study, the literacy of Non-Slum girls was more than slum girls. The number of girls educated higher than secondary school was significantly more in Non-Slum area than that of slum area because of poor socioeconomic status, parents will etc. All the Non-Slum girls were of socioeconomic status (I and II) and majority of slum girls were of lower socioeconomic status(IV and V) i.e. 97.69%.This difference was significant(X^2 = 236.62,df-3,p<0.0001) explaining better socio-economic status going hand in hand with the better literacy status in Non-Slum area. About 75.86% Non-Slum and 73.85% slum girls attained menarche. These findings are comparable with the study by Durge P.M. and Wills Shiela.

As shown in table 2, there was significant difference in the mean age at menarche of Non-Slum and slum girls. This might be due to better nutritional status, better socioeconomic status, better hygienic practices, healthy psychosocial environment and some genetic factors in non- slum girls.

The mean age of menarche of slum girls in this study is comparable with the studies by Wills Shiela Prasad B.G., of urban girls. But it was more i.e.14.1± 1.6 in the study by E.P. Koshi. It was 12 years in the study by R.A. Vaidya. Sathyvathi K. and Agarwal K.N. (1979) reported significant association between high socio-economic status with earlier menarche and found that in India well off girls had average age at menarche 12.8 years and poor girls 14.4 years. High socioeconomic status usually associated with small family norm, better living conditions, proper nutrition and many other factors could be reason for earlier growth spurt in turn explaining earlier age at menarche.

In spite of difference in educational status and socioeconomic conditions, there was no significant difference among Non-Slum and slum girls in pattern of menstruation. Maximum number of Non-Slum and slum girls had regular menstrual cycle as compared to the findings by other authors in which 88.15% and 83.45% had regular menstrual cycles respectively. The prevalence of pain during menstruation was more in the study by Vaidya R.A. than the present study. The mean duration of blood flow during menses was less in the present study in both areas as compared to findings by other authors.

Maximum number of girls in the present study had moderate blood flow during menses. These findings are more or less comparable with the authors. The mean interval between two cycles of non- slum girls was 28.20± 3.19. These findings are consistent with the author like Prasad B. G. et.al. The number of slum girls using sanitary pads (1.04%) was very less as compared to Non-Slum girls. The reasons for not using the pads might be their socioeconomic status, practice by family members, educational status etc. Plain shyness in purchasing these pads from the vendors also has prevented some girls from using the pads. In the present study, the percentage of Non-Slum girls using sanitary pads was more than the study by other authors.

In the slum girls, the disorders of menstruation were more than Non-Slum girls. Disorders of menstruation are among the commonest of gynecological complaints. These are often symptomatic and despite of meticulous search, the cause remains undetermined. Dysmenorrhoea was the commonest menstrual disorder among post menarchic girls. Percentage of girls suffering from dysmenorrhoea in the present study was more than the study by Balchandra in the other studies. Percentage of girls with menorrhagia was more in studies. The girls with good personal hygiene were more in Non-Slum area than slum girls in this study and also more than the rural school going adolescents in the study by Dev D.

CONCLUSIONS

The mean age of menarche was more among slum girls as compared to Non-Slum girls .This may be due to their low socio-economic status. The pattern of menstruation was more or less similar among both girls. Dysmenorrhoea was common menstrual problem among adolescent girls. The personal hygiene was not good among slum adolescent girls.

RECOMMENDATIONS

Periodic sex education programs should be conducted through appropriate media stressing the menstruation and related disorders, correct method of preparation of clean and sterile pads, and their effective use if the use of commercially available sanitary pads is not possible. More stress should be given in primary schooling on personal hygiene

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