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A Study on Reproductive Health Problems and Menstrual Hygiene Practices among Adolescent Girls Living in Slums of Guwahati city, Assam

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ABSTRACT

Introduction: Reproductive health is an important aspect of adolescent health. Girls suffer from various reproductive health problems related to menstruation and reproductive tract infections, the extent of which is still underestimated.

Objectives: This study was conducted with the objectives to assess reproductive health problems among adolescent girls living in slums and to assess menstrual hygiene practice among them.

Methods: A community based cross sectional study was conducted among adolescent girls living in slums of Guwahati city. Multistage sampling technique was used for selecting the slums and after house to house visits adolescent girls aged 10-19 were included in the study.

Results: Out of 119 adolescent girls 57.1% and 42.9% belong to 10-14 years and 15-19 years respectively. Overall 67.2% girls attained menarche. Majority 52.5% used sanitary pads during menstruation. Of the 119 girls, 20.2%, 24.4% and 9.2% presented with symptoms for RTI, UTI and for both RTI and UTI combined. Girls reported problems like dysmenorrhoea, UTI symptoms, and excessive vaginal discharge.

Conclusion: Reproductive health problems are still common among adolescent girls and need urgent actions.

Keywords: Adolescent girls,slums, menstruation, menstrual hygiene, RTI,UTI

INTRODUCTION

Adolescents are the greatest resource for a society to thrive .Adolescence is the phase of transition from childhood to adulthood with rapid physical, physiological and psychosocial development [1,2] .Hence they need to make continuous adjustments and this makes them vulnerable to various physical and psychosocial ailments. Health and development during adolescence affect health during the adult years and, ultimately, the health and development of the next generation [1]. Investing in the health of adolescents brings triple returns- healthy adolescents now, healthy adults and healthy next generation in future.

Some adolescents are particularly vulnerable to poor health and developmental outcomes due to individual and environmental factors like marginalization, exploitation and living without parental support [1] .Among adolescents, girls are more in a socially disadvantaged position due to prevailing socio-cultural norms. Besides it is further accentuated in their case because of they are being marginalized, and forced to live in resource poor settings like slums.

Reproductive health is an important aspect of adolescent health. In adolescent girls, attaining menarche is a milestone. Menstruation though a physiological natural occurrence, it is yet surrounded

by shame and stigma among the masses. Menstrual hygiene is a much neglected issue till now. Often it is seen that among girls and women menstrual management is unhygienic and inconvenient in poorer settings [3,4] . Poor menstrual hygiene management in adolescent girls and women may increase vulnerability to reproductive tract infections (RTI) as well as urinary tract infection[3,4,5]. Urinary tract infections (UTI) can be a manifestation of reproductive tract infection[5]. But to what extent young women suffer from RTIs is not known and often underestimated[6]. The relationship between hygienic and unhygienic menstrual management and RTI is also still under investigation and needs further research[7].Apart from this a no of girls suffer from problems like menstrual irregularities, dysmenorrhoea, manorrhagia etc[5].

Lack of access to adequate menstrual hygiene management and problems related to menstruation in adolescent girls lead to school absenteeism[8]. Menstrual hygiene management is very much related to an adolescent girl's education, dignity, empowerment, social development and health as a whole[7, 8,9]. Hence it is required that the adolescent girls are equipped with adequate information and skills on menstrual hygiene and its management[9].

Hence here is an attempt to study select health problems and menstrual hygiene practices among adolescent girls residing in resource poor settings like slums of Guwahati City with objectives to assess reproductive health problems among adolescent girls living in slums and also to assess menstrual hygiene practice among them.

MATERIALS AND METHODS

The study was conducted in slums of Guwahati city. Study design was a community based cross sectional type of study. It was conducted from October 2015 to May 2016.

Sampling Technique: Multistage sampling technique was used to select the slums as the primary sampling unit. At first stage two Health Centres out of 14institutions that are considered as primary health centre type of health institutions were selected randomly. In the second stage six slums, three slums under each Health Centre were selected randomly. In the final stage house to house visit was conducted and households having an adolescent girl were identified for inclusion in the study. From each identified household one adolescent girl meeting the inclusion criteria was selected randomly for the study. Unmarried girls aged 10-19 years were included in the study. Thus the study was finally conducted on a sample size of 119 girls. Written informed consent from the respondents and guardian where necessary was taken prior to data collection.

Method of data collection: Interview method was used for data collection. Adolescent girls aged 14 years and above were interviewed directly .In case of girls aged below 14 years mothers were taken as respondents. Reproductive health assessment was done based on symptoms suggestive of reproductive tract infection, urinary tract infection and on reported symptoms related to problems of menstruation and. Reproductive tract infection was identified through self reported symptoms of excessive vaginal discharges, foul smelling, greenish or yellowish discharge, vaginal itching and lower abdominal pain. An adolescent girl was considered to have urinary tract infection if she suffers from any of the following symptoms like fever with chill and rigor, increased frequency of micturition with urgency and dysurea. For data collection volunteers from an organization working in the slums were involved. Volunteers were oriented regarding the interview schedule through a daylong discussion on it. Adolescent girls reporting symptoms of either UTI or RTI were sent with the volunteer to the nearest health centre for treatment. A predesigned pre tested interview schedule was used as data collection tool. For data analysis data was entered in MS Excel and then imported and analysed with the help of Statistical Package for Social Science 16.0.

RESULTS

Out of 119 adolescent girls 57.1% (68) and 42.9% (51) belonged to 10-14 years and 15-19 years respectively. The mean age ± Stdv of the girls was 13.8 ± 2.6 years. Among 10-14 years girls 55.9% (38/68) have middle and high school level, 39.7% have primary school level education and 4.4 %(3/68) girls have not attended school. Among 15-19 year age group 54.9% (28/ 51) have high school level education, 15.7% (8/51) have no education and 13.7% (7/51) have education of higher secondary and above level. Overall 67.2% girls attained menarche. Regarding type of menstrual absorbent use, majority 52.5% (42/80) used sanitary pads while 42.5% (34/80) used cloth and 5% used both cloth and sanitary pads. It was observed that on average majority 43.7% of the girls changed their absorbents twice in a day. Out of sanitary pad users 35.7% (15/42) changed it ≥3 times a day and of cloth users 50% (17/34) did so. Regarding RTI symptoms, in the 10-14 year and 15-19 year age groups 14.7% and 27.5% respectively reported one or more symptoms of RTI. It shows an increasing trend with age. Among girls attaining menarche, 22.5 %(18/80) and among those not attaining menarche15.4% (6/39) were RTI symptomatic.

Table 1: Age distribution and attainment of menarche of adolescent girls

Age Group	Menstruation attained		Total
	Yes (%)	No (%)	
10-14	30(44.1)	38(55.9)	68
15-19	50(98)	1(2)	51
Total	80(67.2)	39(32.8)	119

Table 2: Type of menstrual absorbent used

Type of absorbent used	Frequency (%)
Cloth	34(42.5)
Sanitary Pad	42(52.5)
Both pad and cloth	4(5)
Total	80 (100)

Table 3: Frequency of changing of absorbent

Changing Frequency	No. of Girls (n=80)(%)
1	5(6.3)
2	35(43.7)
2-3	5(6.3)
3	25(31.3)
3-4	2(2.5)
4	7(8.7)
6	1(1.2)

Table 4: Practices related to menstrual hygiene

Practices	No of Girls
Daily bathing and cleaning of external genitalia during menstruation	76/80(95%)
Absorbent cleaned with soap water	33/33*(100)
Absorbent dried under sun	23/33*(69.7)

*Five out of 38 girls who use cloth as absorbent throw it in the dustbin or with the garbage.

Table 5: Age wise distribution of adolescent girls with symptoms suggestive of RTI *and UTI

Age	Symptoms of RTI		Symptoms of UTI		Total
	Present	Absent	Present	Absent	
10-14	10(14.7)	58(85.3)	17(25)	51(75)	68
15-19	14(27.5)	37(72.5)	12(23.5)	39(76.5)	51
Total	24(20.2)	95(79.8)	29(24.4)	90(75.6)	119

*Symptoms excluding lower abdominal pain

Table 6: Reproductive health problems as reported by adolescent girls

Symptoms	Frequency (%)
Excessive vaginal discharge	24(15.1)
Vaginal Itching	11(6.9)
Lower abdominal pain	21 (17.6)
Symptoms suggestive of UTI	29(24.4)
Dysmenorrhoea	48(60)
Primary amenorrhoea	1(0.84)
Menorrhagia	1(.84)

The common complaints among adolescents were Dysmenorrhoea, excessive vaginal discharge, vaginal itching and lower abdominal pain. None of the adolescents reported any symptom of low back ache, genital ulceration, and associated fever. Symptoms suggestive of UTI were increased frequency of micturition, urgency, abdominal pain during micturition, dysurea. The percentage of girl presenting with UTI was 24.4%. Majority of them was from 10-14 year age group. It was more common among those without menarche 30.7% (12/39) than those attaining menarche 21.3% (17/80). Out of 119 girls 9.2 %(11) presented with symptoms for both RTI and UTI.

DISCUSSION

In the present study 57.1% and 42.9% belonged to 10-14 and 15-19 years age group respectively. Overall 9.2% of the girls were found to be illiterate which is really an issue of concern. Majority 67.2% attained menarche. Though higher no of girls (52.5%) used sanitary pad but only 35.7% of them compared to 50% of cloth users, changed absorbent three times or more in a day. Probably the cost of sanitary pad prevents them from changing it frequently. Among cloth users 100% cleaned it with soap and water but 30.3 % did not dry it under sunlight. About daily bath with cleaning of external genitalia during menstruation 95% did so. A systematic review and meta analysis done on studies published between 2000 and 2015 on menstrual hygiene management in India by Eijk AMV, Sivakami M, Bora M et.al[10] reveal significant increase in sanitary pad use over the time. The study reported that in slums commercial pad use was (pooled proportion) 43 %(CI 20% to 67%), cloth use was 61 %(CI 35% to 83%) and use of both was 10 %(CI 6% to 16%). The present study findings also fall within the confidence interval shown by them. Similar finding was reported by Jagdand K, and Yerpude. P[11] in their study conducted in slums in Guntur. They found that 53% used sanitary pads, 34.63% used old cloth and 11.67% used both. T. Sharanya[12] found 84% respondents in slums of Chennai to use sanitary napkins and this is higher than the present study finding. Hema Priya S, Nandi P, Seetharaman N[13] found in their study done in rural areas of Puducherry that 89.2% were using sanitary pads and 19.1% girls changed absorbent only once in a day. In the present study 6.3% changed it once in a day. In the study done by Barman P, Mahanta TG[14] among slum dwelling adolescent girls of Dibrugarh town, 68.3%, 17.1% and 9% used sanitary pad, reusable cloth and both respectively. Among the reusable cloth users, T Shreyana[12]and Barman P, Mahanta TG[14] reported 81% and 69.8% respectively cleaned it with soap and water. The latter reported that 28.6% did not dried it under sunlight, similar to our finding but in contrast to T Shreyana's[12] finding of 52%.

In the present study overall 20.2% was suffering from one or more symptoms suggestive of RTI.

Like other studies, the present study also found the common symptom of RTI to be excessive vaginal discharge, itching over vulva, lower abdominal pain[12, 13, 14, 15]. Among reproductive health problems dysmenorrhoea is reported by maximum no of girls (60%) which is observed in another study too[12]. Prevalence of RTI symptoms in the present study is much less compared to the study done by Dutt R, Patil S, Joshi S, Ramdev K.S.S [15] with 37% in rural area of Navi Mumbai. It was found to be 21.8% in slums of Tirupati town by B. SriDevi, N. Swarnalatha[16]. In urban Kolkotta Ram R, Bhattacharya S.K, Bhattacharya K [17] estimated the prevalence to be 64% which is quite higher than our study finding. Hema Priya S, Nandi P[13] reported 52% prevalence of any symptom suggestive of reproductive tract infection or urinary tract infection. Barman P, Mahanta TG, Sharma H[14] found that 43% presented with symptoms of RTI. Reporting of higher prevalence may be due to inclusion of married adolescent girls.

Regarding UTI our study found 24.4% girls to be symptomatic. Of them 58.6% belonged to 10-14 year age group. S. M. Ahmed, A. K. Avasarala[18] found the prevalence to be 12.7% in two villages of Andhra Pradesh. It was more (9.9%) in girls who had attained menarche but the present study it was more (30.7%) in those who did not attain menarche. Hema Priya S, Nandi P, Seetharamn N[13] found burning micturition complained by 22.6%.

CONCLUSION

Though proportion of girls using sanitary pads is higher but use of it cannot ensure good menstrual hygiene practice as no of girls do not change it with adequate frequency. Probably the cost of pads which they have to buy on their own restricts its use. RTI and UTI symptoms are common among them. The present study indirectly reflects their awareness, attitudes along with behaviour about reproductive health issues. Hence it is urgent need of the hour to make them aware about these issues and also to provide them with adequate services.

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