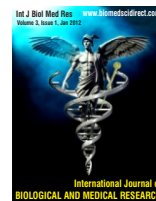


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### Original Article

## Menstrual Hygiene and Practices of Rural Adolescent Girls of Raichur.

Anju Ade<sup>a</sup>, Ramesh Patil<sup>b</sup>

<sup>a</sup>Associate Professor, Community Medicine Dept., Navodaya Medical College, Raichur, Karnataka .

<sup>b</sup>Assistant Professor (Statistics), Ashwini Medical College, Solapur

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#### ABSTRACT

Background: Menarche is a significant milestone in the transitory developmental journey of an adolescent. Poor personal hygiene and defective menstrual management practices give rise to repeated reproductive tract infections (RTIs), which are otherwise preventable. Objectives: To access menstrual hygiene and practices of rural adolescent girls. 2 To find out menstrual disorders experienced by adolescent girls. 3 To impart them health education regarding menstrual hygiene and practices. Materials and Methods: A community-based cross-sectional study was conducted in RHTC, a field practice area under the administrative control of Dept of Community Medicine Navodaya Medical College, Raichur, from August to September 2012. A structured questionnaire was utilized to collect data from the sampled population. Adolescents who attained menarche, aged between 13 to 16 years from 3 high-schools were interviewed. Altogether 10 questions relating to awareness about menstrual hygiene and practices were asked to each of them. The data was entered into excel spread and frequencies and proportions were calculated. Results: During our study, we found that they were not properly maintaining the menstrual hygiene. 68.8% girls had knowledge about menstruation before they first experienced and mother was found to be the main source of information for 41 (51.3%) girls. 28 (35%) girls used clothes and reused them. 38 (47.5%) girls gave history of dysmenorrhoea and 13 (16.3%) said they have irregular menstrual cycles. Conclusion: Knowledge was better but taking into account the health implications and prevailing socio-cultural and economic factors, there is need for a continuous, school education programme. The girls should be educated about the process and significance of menstruation, use of proper pads and its proper disposal. There is a need for improving access to sanitary pads and advanced provision of it.

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### 1. Introduction

Adolescence is a period of rapid transition in life from "childhood" to "adulthood." Menarche is a significant milestone in the transitory developmental journey of an adolescent. A normal menstrual cycle is an important determinant of reproductive development during adolescence. An adolescent girl should be made aware of the phenomenon of menstruation at least a little ahead of its occurrence, so as to enable her to accept it as a normal developmental process and manage it appropriately. Poor personal hygiene and defective menstrual management practices give rise to repeated reproductive tract infections (RTIs), which are otherwise preventable<sup>[1]</sup>

Adolescence is shrouded in myths and misconceptions about sexual health and sexuality [2]. In Indian culture, talking about sex is taboo. Consequently, little information is provided to adolescents about sexual health. Young and growing children have poor knowledge and lack of awareness about physical and Physiological changes associated with the onset and presence of adolescence. They learn about sexuality and secondary sex characteristics primarily from their peer groups or other inappropriate sources. Most girls are not informed about menarche and how to manage menstrual bleeding, and adolescents also lack knowledge about reproductive health issues<sup>[2]</sup>

\* Corresponding Author : **Dr Anju Ade**

Associate professor  
Community Medicine Dept.  
Navodaya Medical College  
Mobile No- 09880965468  
E-mail ID- [anju.ade@gmail.com](mailto:anju.ade@gmail.com)

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Therefore the need for creating awareness and increasing access to the requisite sanitary infrastructure related to menstrual hygiene is important.

This study was undertaken with the following objectives.

1. To access menstrual hygiene and practices of rural adolescent girls.
2. To find out menstrual disorders experienced by adolescent girls.
3. To impart them health education regarding menstrual hygiene and practices.

## 2. Materials and Methods:

Type of study: Community based Cross-sectional study.

Place of study: RHTC, a field practice area under the administrative control of Dept of Community Medicine Navodaya Medical College, Raichur, Karnataka.

Duration of the study: From August to September 2012.

Study population: All the adolescent girls aged between 11-16 years who attained menarche of the three high schools of the RHTC, a field practice area of Raichur.

Study tool: A predesigned, Pre-tested questionnaire.

## 3. Methodology

This study protocol was approved by institutional ethical committee. Permission from School Authorities was taken. Informed consent had been taken from the study participants and those who did not give consent were excluded from the study. Purpose of study was explained to the girl students. During the study privacy was maintained. Data for socio-demographic characteristics was collected in a proforma. Data regarding menstrual hygiene and practices were collected in predesigned and pretested questionnaire. This questionnaire included 10 questions relating to awareness about menstruation, hygiene, practices and restrictions practiced during menstruation, source of information regarding menstruation and history of any menstrual abnormality. Briefing was done to the students regarding the questionnaire provided to them. After collection of data, education about menstrual hygiene and practices were given to them. Students raised some queries which were answered satisfactorily by the research worker.

## Data analysis

The data was entered into excel spread and frequencies and proportions were calculated.

## 4. Results and Discussion

As shown in Table 1, All the adolescent girls of classes from 7 to 10 of the three high schools who attained menarche were included for the study. The total numbers of girls were 80. Age of menstruating girls ranged from 13 to 16 years. Maximum number of girls being between 15 and 16 years age group. Among all these girls, 74 (92.5%) were Hindus, and 6 (7.5%) were Muslims. Most of the parents of these girls were illiterate.

**Table 1: Demographic characteristics of the participants**

Age (years)	No	Percent
13	11	13.8
14	16	20.0
15	28	35.0
16	25	31.3
<b>Class</b>		
7	2	2.5
8	16	20.0
9	25	31.3
10	37	46.3
<b>Mother Education</b>	54	67.5
Illiterate	26	32.5
Literate		
<b>Father Education</b>		
Illiterate	50	62.5
Literate	30	37.5
<b>Total</b>	80	

**Table 2: Age at menarche**

Age at menarche in years	No	Percent
11	2	2.5
12	12	15.0
13	23	28.8
14	38	47.5
15	5	6.3

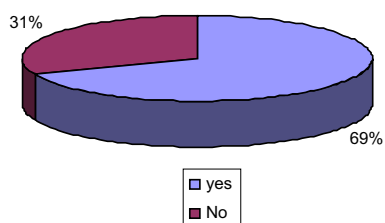
**Table 3: Hygiene & practices during menstruation.**

1.Sanitary protection use during menses	No	Percent
Cloth piece	28	35
Readymade	52	65
Others	0	0
2.Dispose off/Reuse	51	63.8
Dispose off	29	36.2
Reuse		
3.Bath during a menstrual cycle	80	100
Yes	0	0
No		
4.Change of the cloth or pad during a period	4	5.0
Once a day	73	91.2
2 to 3 times	3	3.8
3 to 4 times		
5.Restrictions followed during menstruation	80	100
Related to prayers/ religious practices.	7	8.8
Touching or cooking food	1	1.3
Sitting or sleeping within house	1	1.3
Going out of the house	1	1.3
Related to Diet		

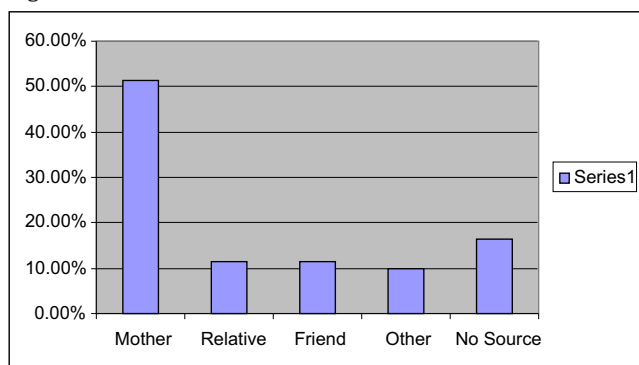
**Table 4: Menstrual disorders experienced by adolescent girls.**

	Present		Absent	
	N	%	N	%
History of dysmenorrhoea	38	47.5	42	52.5
History of Irregular cycles	13	16.3	67	83.8

**Figure 1: Knowledge about menstruation before they first experienced it.**



**Figure 2: Source of information before menarche**



As shown in Table 2, age of menarche of girls ranged from 11 to 15 years and maximum numbers of girls were between 13 and 14 years of age. In a study conducted by A Dasgupta et al age of menstruating girls ranged from 14-17 years with maximum number of girls between 14 and 15 years. Deo et al [3] reported that the age of menstruating girls ranged from 12-17 years with maximum number of girls between 13 and 15 years of age.

In the present study, the mean age of menarche of the adolescent school girls was 13 years whereas the study conducted by ADINMA E et al[4] found that mean age at menarche was 14.2 years with range of 10-17 years. Similarly in a study by Khanna et al [5], mean age at menarche was found to be 13.2. and Sandhya Rani PM et al [6] reported in their study, the mean age at menarche was 13.1 years.

As shown in figure 1, 55(69%) adolescent girls were aware about menstruation before they first experienced it and 25(31.2%) girls never heard about menstruation before they first experienced it. Study conducted by Deo et al [3] reported that 40(42.5%) urban and 41(55.4%) rural girls were aware about menstruation prior to attainment of menarche.

AS shown in Figure 2, In the present study, mother was found to be the main source of information for 41 (51.3%) girls followed by friends for 9 (11.3%), Relatives 9 (11.3%) and 8 (10.0%) said they received information from other sources like teachers and print media, television etc. Around 13(16.3%) said they had no prior information regarding menstruation.

In a study conducted by Parvathy Nair et al [7], 41 per cent of the girls received information about menstruation from their mothers. Similarly Paul Dr Dinesh et al [8] Mother was main source of information. Another study conducted by Deo et al [3] among urban girls, mother was reported as the main source of information on menstruation for 27.5 per cent of the girls whereas it was a teacher for their rural counterparts (27.01%) whereas Dasgupta A et al[9] reported that mother was the first informant only in case of 37.5% girls.

**Table3:-1 Sanitary protection use during menses**

The Government of India has started a scheme for the promotion of menstrual hygiene among adolescent girls in rural areas of the country. The main focus of the scheme is to increase awareness among adolescent girls on menstrual hygiene, built self esteem and increase access to and use of high quality sanitary napkins by adolescent girls in rural areas. At the community level, the ASHA (Accredited social health activist) is responsible for ensuring an adequate supply of sanitary napkins to adolescent girls who require them [10]

In the present study, 52 (65%) girls use only readymade sanitary pads during menses while, 28 (35%) girls use only cloths. The girls who uses only sanitary pads said that ASHA workers provide them and they see the advertisements of sanitary pads on television. In the study conducted by Dipali Nemade et al [11], 31(15.74%) girls used only cloths while 80 (40.61%) girls used only sanitary pads during menses.

In a study conducted by Adinma E among Nigerian school girls [4] amongst materials used as menstrual absorbent, toilet tissue paper was most commonly used (41.31%) followed by sanitary pads (32.7%), cloths (14.4%) and multiple materials (10.7%) was used by the girls. Study conducted by Khanna et al [5] reported that three-fourths of the girls used old cloth during their periods and only one-fifth reported using readymade sanitary pads. Similarly Paul Dr Dinesh [8] and Dasgupta et al [9] reported majority of adolescent girls were using cloth piece rather than sanitary pads as menstrual absorbent during menstruation.

## 2. Dispose off/Reuse.

In this study, 51(63.8%) girls disposed of used materials and 29(36.2%) girls reused the cloth after washing them. Dasgupta et al reported [9] most of the girls 73.75% reused cloth pieces and 57.5% girls properly disposed the used materials. In another study among adolescent school girls in Nepal [12] reported that, 59 per cent of the girls dried their washed reusable absorbent materials (cloths) outside the house and under sunlight.

Dysmenorrhoea is a very common problem among adolescent girls; it affects their quality of life. In this study, as shown in Table 4, 38(47.5%) girls gave history of dysmenorrhoea and 13 (16.3%) said they have irregular menstrual cycles. A study conducted by Agarwal AK13 reported that majority of the adolescent girls under study had experienced dysmenorrhoea, that is, 698 out of 970(71.96%), A study by Suresh K. Kumbhar et al14 showed a high prevalence of dysmenorrhoea that is, 65.02% among adolescent girls of Kadapa district and reported that 11.8% gets irregular cycles.

## Conclusion:-

Knowledge was better but taking into account the health implications and prevailing socio-cultural and economic factors, there is need for a continuous, school education programme. The girls should be educated about the process and significance of menstruation, use of proper pads and its proper disposal. There is a need for improving access to sanitary pads and advanced provision of it.

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