## **Original Research Article**

# Cross-sectional study on menstruation and menstrual hygiene among adolescent girls of RHTC, ANMMCH, Gaya

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International Archives of Integrated Medicine, Vol. 4, Issue 6, June, 2017.

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Available online at <a href="http://iaimjournal.com/">http://iaimjournal.com/</a>

ISSN: 2394-0026 (P) ISSN: 2394-0034 (O)

Received on: 21-05-2017 Accepted on: 16-06-2017

**Source of support:** Nil **Conflict of interest:** None declared.

**How to cite this article:** Sandhya Kumari Suman, Binod Prasad. Cross-sectional study on menstruation and menstrual hygiene among adolescent girls of RHTC, ANMMCH, Gaya. IAIM, 2017; 4(6): 196-200.

### **Abstract**

Adolescence is the most crucial period for establishing healthy practices. Menstrual hygiene is effective in preventing RTIs and promoting reproductive health. The present cross-sectional descriptive study was conducted to find the menstrual profile and knowledge and practices regarding menstrual hygiene among adolescent girls of RHTC, ANMMCH, Gaya and included 213 school going girls. It was found that 80.8% thought menstruation to be normal, 78.9% knew the correct periodicity of menstruation and 87.3% the correct duration. 43.2% thought that menstrual blood comes from uterus and 50.7% to be coming from vagina. 23% respondents used sanitary napkins, 89.2% took regular bath and 34.7% cleaned their genitalia regularly. 79.4% disposed it with domestic waste or reused while 11.7% threw it at roadside. Proper awareness and promotion of hygienic practices will be helpful in promoting reproductive health.

# **Key words**

Menstruation, Menstrual hygiene, Practices, Adolescent girls, Gaya.

### Introduction

Adolescence has been found to be the crucial period for establishing healthy lifestyle behavior. It is also most vulnerable period because of major body changes, psychological factors and

changing social role [1]. For the female, menarche is specific, peculiar and personal issue which establishes womanhood. It leads to restriction, anxiety and changed behavior if not dealt with properly [2]. Various researchers have

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found taboos and superstitions being followed which create fear and negative attitude in the mind of young girls [3]. Good menstrual hygiene like use of sanitary pads and cleaning of genital area are helpful in genital health and preventing RTIs. However, in India, it is seen that girls have inadequate and inappropriate knowledge regarding menstruation and menstrual hygiene thereby increasing chances of RTIs [4].

Different studies have been conducted in various parts of India to find the prevailing pattern. Study has not been conducted in this part of the country to find perception of girls regarding menstruation and their hygienic practices. Hence, this study was conducted to fill the gap.

# Aims and objectives

The present study was done to find the menstrual profile and knowledge & practices regarding menstrual hygiene among adolescent girls of RHTC, ANMMCH, Gaya.

#### Materials and methods

The present study was cross-sectional descriptive in nature conducted among adolescent girls studying between 8<sup>th</sup> to 12<sup>th</sup> standard in selected High and Higher secondary schools under coverage area of RHTC, ANMMCH, Gaya between April – June2016.

Study subjects included adolescent girls between 13-18 years of age studying in the selected schools. Girls refusing to participate and those residing in the area for less than six months were excluded.

In the study conducted by Prajapati, et al. (2015) [5], it was observed that 38% adolescent girls were using sanitary pad or cloth. Using 20% relative precision and non-response rate of 10%, the sample size was calculated as below-

Sample size =  $(Z^2 X p X q / d^2) X 1.1 = 179$ . List of girl students from the three selected schools was obtained. A total of 213 students participated in this study.

The schools were visited and administrative authorities were taken into confidence. A convenient date was fixed for data collection. Students were informed about the importance of this study and assured about anonymity and confidentiality before taking their consent. The included collection self-administered questionnaire using semi-structured pre-tested questions containing open and closed ended questions. Detailed information was collected regarding knowledge and profile of participants related to menstruation as well as sociodemographic profile of participants menstrual hygiene practices being followed. This was followed by educational session on menstrual physiology and hygienic practices.

The data was coded and entered in Microsoft Excel 2007, cleaned and analyzed by using SPSS version 16.0. Categorical variables were summarized as percentage while continuous variables were presented as Mean  $\pm$  SD.

#### **Results and Discussion**

The present study was conducted among 213 adolescent girls studying in the selected three schools studying between  $8^{th}$  to  $12^{th}$  standard. **Table - 1** shows that mean age of the respondents was  $14.9 \pm 3.7$  years. 84.9% were Hindus while 38.1% lived in nuclear families. 40.1% belonged to BPL. 57.7% mothers of these girls were illiterate while 90.1% were housewives.

**Table - 2** shows that mean age of menarche was  $12.7 \pm 2.1$  years. The present study found the trend to be similar to other studies. Goswami, et al. (2017) [6] found it to be 12.3 years in Guwahati, Prajapati, et al. (2015) [5] as 13.44 years in Gujarat, Thakre, et al. (2011) [7] as 12.85 years in Nagpur and Vijayakeerthi, et al. (2016) [8] as 13.45 years. Chennai [9] and Delhi [10] surveys found it to be 13.6 and 13.5 years respectively.

<b>Table - 1</b> showing socio-demographic profile of participants (n=213)					
Characteristics	Groups	No.	(%)		
Age	Mean age= $14.9 \pm 3.7$ years				
Religion	Hindu	179	84.1		
	Muslim	34	15.9		
Type of family	Nuclear	81	38.1		
	Joint	132	61.9		
SES	APL	126	59.2		
	BPL	87	40.8		
Maternal education	Illiterate	123	57.7		
	Literate	69	32.4		
	Primary	18	8.5		
	Secondary and above	3	1.4		
Maternal Occupation	Housewife	192	90.1		
	Working	21	9.9		

59.6% girls had periods at regular intervals and in 67.1%, it was regular. Prajapati, et al. [5] found that 41.5% girls had periods at regular intervals and in 69.5%, it was regular. Vijayakeerthi, et al. (2016) [8] found that 84% women had regular periods. Types of absorbents used were as per **Figure** -1.

Regarding perceptions of menstruation, 80.8% thought it to be normal, 78.9% knew the correct periodicity of menstruation and 87.3% the correct duration. Vijayakeerthi, et al. (2016) [8] found that all the respondents knew the correct periodicity while 96.4% the correct duration. Adhikari, et al. (2007) [11] in Nepal found these figures as 83.3% and 82% respectively.

43.2% thought that menstrual blood comes from uterus and 50.7% from vagina. Uterine origin was considered by only 2.6% respondents in the study conducted by Thakre, et al. (2011) [7], 27.5% in the study by Prajapati, et al. [5], 8.3% in the study by Channawar, et al. [12] and 55.5% in the study conducted by Vijayakeerthi, et al. [8].

57.7% thought that periods are missed because of pregnancy and 33.3% as anemia. Pandit, et al. (2014) [13] found in West Bengal that 51.03% respondents considered pregnancy to be cause of missed periods.

Regarding menstrual hygiene, it was observed that 23% respondents used sanitary napkins while 35.7% new cloths. 89.2% took regular bath and 34.7% cleaned their genitalia regularly. Pandit, et al. (2014) [13] found that 71.72% respondents used sanitary napkins. Thakre, et al. (2011) [7] found that 49.35% respondents used sanitary napkins and 33.85% cleaned their genitalia regularly. Channawar, et al. [12] observed that 38% respondents used sanitary napkins, 66.5% cleaned their genitalia regularly. Goswami, et al. (2017) [6] found sanitary napkin use rate to be 17.14%.

Regarding disposal of used absorbents, it was seen that 79.4% disposed it with domestic waste or reused while 11.7% threw it at roadside. Interestingly Vijayakeerthi, et al. (2016) [8] found that 78.6% respondents disposed by burying/ burning. Prajapati, et al. [5] found that cloths were reused in 51.5% cases and thrown indiscriminately in 26% cases. Goswami, et al. (2017) [6] noted that absorbents were burned/ buried in only 10.71% cases. Thakre, et al. (2011) [7] found it to be 52.2%. Pandit, et al. (2014) [13] found that dustbin was used in 46.2% cases but 6.19% students threw used pad on the roadside.

	<b>Table - 2</b> showing profile of menstruation and hygienic practices of participants (n=213)				
Characteristics		Groups	No.	(%)	
	Age at menarche	12.7 ± 2.1 years			
Profile	Menstrual regularity	Regular	143	67.1	
		Irregular	70	32.9	
	Menstrual Periodicity	Normal (28-35 days)	127	59.6	
		Abnormal	86	40.4	
Knowledge regarding menstruation	Cause of menstruation	Normal	172	80.8	
		Abnormal	36	16.9	
		Curse of god	5	2.3	
	Normal menstrual cycle	<28 days	28	13.1	
		28-35 days	168	78.9	
		Anything possible	17	7.9	
	Average duration of	<2 days	3	1.4	
	menstruation	2-5 days	186	87.3	
		Variable	24	11.3	
	Source of blood	Uterus	92	43.2	
		Vagina	108	50.7	
		Urethra	13	6.1	
	Cause of missed period	Pregnancy	123	57.7	
		Anemia	71	33.3	
		Hormonal	11	5.2	
		Don't know	8	3.8	
Menstrual Hygiene Practices	Absorbent used	Sanitary napkin	49	23.0	
		New cloth	76	35.7	
		Used cloth	88	41.3	
	Taking bath	Yes	190	89.2	
		No	23	10.8	
	Cleaning genitalia daily	Yes	74	34.7	
		No	139	65.3	
	Disposal of absorbent	Domestic waste/ reuse	169	79.4	
		Roadside	25	11.7	
		Burning/ Burying	19	8.9	

#### **Conclusion**

The findings of the present study are in line with other studies and it clearly indicates that the situation in rural area of Gaya is similar to other places. Additionally, since introduction of programs focused on adolescents, menstruation and menstrual hygiene related issues have not seen much progress. This shows that prevention of RTIs through health promotion of adolescent girls is neglected area and needs attention of planners as well as administrators. Then only, we can achieve the goals set under MDG and later under SDG.

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