



## “MENSTRUAL HYGIENE AMONG ADOLESCENT GIRLS: A CROSS SECTIONAL STUDY IN FIELD PRACTICE AREA OF B.J.M.C. AHMEDABAD”

### Community Medicine

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### ABSTRACT

**Background:** Menstruation is a natural process yet regarded as unclean/dirty in Indian society and associated with different social and cultural restrictions resulting in adverse health outcomes. This poses a serious problem for adolescent girl's health. **Methodology:** A cross-sectional study was conducted where a preformed semi-structured questionnaire was used. 100 girls aged 13 to 16 years of age included in study. Analysis was done using Microsoft Excel 2019. **Result:** 38% of girls had a painful cycle and. 46% of girls used commercial sanitary pads, while 35% used cloth and 19% used both. Almost above half of them weren't involved in religious activities and abstained from household chores during menstruation. 49% of girls used dustbin for disposal of sanitary pads. **Conclusion:** Imparting knowledge regarding menstrual health is an essential prerequisite for strengthening adolescent health. Different sessions should be held for adolescent girls in school informing them.

### KEYWORDS

Adolescent, Menstrual hygiene, Myths

#### INTRODUCTION:

Adolescence is a period when boys and girls are kindled into a new sense of self. This time period which marks the passage from adolescence to adulthood in women can be challenging because it is characterized by anxiety and new emotions. (Goswami & Dewri, 2017) Menarche, which is typically seen by young girls as a sign of maturity, begins during this transitional phase. However, some girls show some negative responses such as shame, fear, anxiety and depression (Bhausahab Mudhey Associate Professor et al., 2010) Menstruation is a phenomenon that only affects women. One of the most significant changes in girls' lives during the adolescence period is the beginning of menstruation. The onset of menstruation is one of the most important changes occurring among girls during the adolescent years. The first menstruation (menarche) occurs between 11 and 15 years with a mean age of 13 years. (Dasgupta & Sarkar, 2008a)

"Menstruation" is a physiological process and Every woman has "menstruation" throughout her reproductive years. In many cases, this occurrence is linked to several physical and mental illnesses, including premenstrual syndrome. If hygiene is not maintained throughout menstruation, it can predispose to life-threatening RTI (Reproductive Tract Infection). (Rana et al., n.d.) Adolescent girls have a significant knowledge gap regarding menstruation. This gap has been identified by many studies, and they indicated that there was a low level of awareness about menstruation among the girls when they first experienced it. (Prajapati & Patel, 2015) Women who are more knowledgeable about menstrual hygiene and protective measures are less susceptible to RTI and its effects. Increased awareness of menstruation from an early age may therefore enhance safe behaviors and lessen the pain of millions of women (Prajapati & Patel, 2015). The study was conducted to assess menstrual hygiene practices and the restrictions followed by them in daily activities.

#### METHOD:

A cross-sectional study was conducted, with a pre-tested, pre-designed questionnaire among 100 girls aged 12 to 16 years of age in the field practice area of BJMC, Ahmedabad for 6 months.

All adolescent girls who had attained their menarche and were above the age of 13 years were considered after taking valid informed consent. Their participation was purely voluntary and they were also assured that the study will not have any detrimental effect on the participant. They were assured that any information, thus obtained will be treated with utmost confidence. The study duration was from June

2021 to December 2021. A predesigned, pretested semi-structured questionnaire was used.

The sample size was calculated using the formula  $4pq/l^2$ , where  $P$  is the prevalence of hygienic practices = 48.75% (Dasgupta & Sarkar, 2008b) and  $l$  is the allowable error, that is Sample size  $N = 4pq/l^2 = 4 \times 48.75 \times 51.25/(10)^2 = 100$

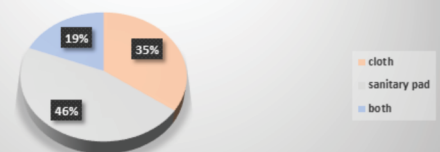
#### RESULT:

Out of 100 girls 87% of the participants had a duration of menstrual bleeding for 3-5 days followed by less than 3 days and more than 5 days i.e. 7% and 5% respectively. Duration of the menstrual cycle for 28-30 days was present in 76% of the participants, followed by 16% of the participants who had more than 30 days cycle and 8% had less than 28 days cycle duration. 38% of the participants had painful menstruation and 73% had regular menstruation. (Table 1)

**Table 1: Distribution of participant according to menstrual history (N=100).**

Variables		Frequency N(%)
Duration of bleeding	<3 days	7(7%)
	3-5 days	87(87%)
	>5 days	5(5%)
Duration of cycle	<28 days	8(8%)
	28-30 days	76(76%)
	>30 days	16(16%)
Painful	yes	38(38%)
	No	62(62%)
Regularity	Regular	73(73%)
	Irregular	27(27%)

#### USAGE(%) OF ABSORBENT AMONG ADOLESCENT GIRLS



**Graph 1: Usage of absorbent among adolescent girls (N=100).**

Graph 1 shows that 46% of the participants used commercial sanitary pads as an absorbent during menstruation while 35 % used cloth and 19% used both.

**Table 2: Distribution of participant according to menstrual hygiene practices (N=100).**

Variables		Frequency N(%)
Changing frequency of pads/cloth per day	Once	5(5%)
	Twice	72(72%)
	Thrice	19(19%)
	More than three times	4(4%)
Repeated use of same cloth (out of 35)	Yes	37(37%)
	No	63(63%)
Drying of cloth (out of 35)	Under the sun	94.6(94.6%)
	Inside the bathroom	5.4(5.4%)
Storage of unused sanitary pads or cloth	Bedroom	73(73%)
	Bathroom	21(21%)
	schoolbag	8(8%)
Disposal of sanitary pad	Throw in dustbin	49(49%)
	Burn it	38(38%)
	Flush in toilet	7(7%)

Most of the participants i.e., 72% change absorbents twice per day followed by thrice and more than thrice among 19% and 4% respectively. 37% of the participants use cloth repeatedly. under the sun (94.6%) is the most preferred place for drying cloth.

The majority (77%) of the participants stored unused sanitary pads or clothes in the bedroom followed by the bathroom (73 %&21%) and schoolbag (08%). pads were disposed of in dustbins by 49% of participants while 38 % burn them and 7% flushed them into the toilet.

**Table 3: Distribution of participant according to menstrual hygiene practices (N=100)**

Variables		Frequency N(%)
Cleaning of external genitalia	Yes	98(98%)
	no	2(2%)
Frequency of cleaning per day	Once	18(18%)
	Twice	71(71%)
	Thrice	8(8%)
	More than three time	3(3%)
Materials used for cleaning	Only water	70(70%)
	Soap and water	28(28%)
	Antiseptic solution	2(2%)
Use of separate underwear during menses	Yes	80(80%)
	no	20(20%)

The majority (98%) of the participants clean external genitalia. Only 18% clean external genitalia once per day followed by twice, thrice and more than three times among 71%, 08% and 03% respectively. Only water is the most preferred (70%) material used for cleaning, followed by soap and water (28%) and only 2% used antiseptic solution. 80% of the participants use separate underwear at the time of menses.(table 3)

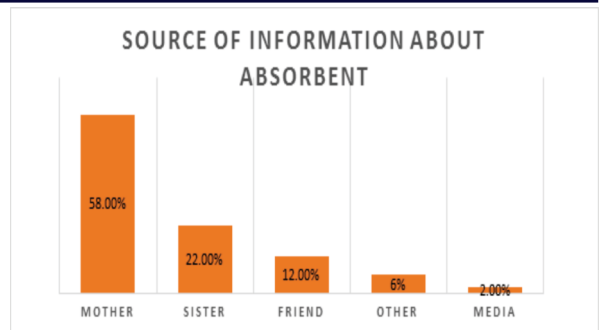
73 % Of the participants were restricted from attending religious places like temples & touching religious materials like holy books.62.6 % Restricted from doing household work during menstruation. Half of them changed pad twice daily while 1/3rd thrice daily.

**Table 4: Association of Maternal education with religious restrictions (N=100)**

Maternal education	Any religious restrictions during menstruation		total
	yes	no	
Illiterate	32 (46.4%)	3 (9.7%)	35 (35%)
Primary	28 (40.6%)	12 (38.8%)	40 (40%)
Secondary	6 (8.7%)	9 (29.1%)	15 (15%)
Higher secondary	2 (2.9%)	4 (13%)	6 (6%)
Graduation	1 (1.5%)	3 (9.7%)	4 (4%)
Post-graduation	0 (0%)	0 (0%)	0 (0%)
Total	69 (100%)	31 (100%)	100 (100%)

X<sup>2</sup>=21.33, p<0.0003\*

Table 4 shows Maternal education was statistically associated with religious restrictions at the time of menstruation.



**Graph 2: Source of information about absorbent (N=100).**

Graph 2 shows that most of the participants (58%) have a source of information mother,22% have a sister and others have friends, media and others.

**DISCUSSION:**

Majority (76%) of girls had regular menstrual cycle (28-30 days) which is comparable with Shoky et al study.(El-Mowafy et al., n.d.) 87% girls have reported blood flow between 3-5 days. Balsubramanian (Balasubramanian, 2005) reported 84% girls had 3-5 days menstrual blood flow. In this study 46% of the participants used commercial sanitary pads as an absorbent while similar study shows by Nandini Gupta(PDF) *A Cross-Sectional Study on Menstrual Hygiene Practices among School Going Adolescent Girls (10-19 Years) of Government Girls Inter College, Saifai, Etawah, n.d.)* Uttar Pradesh which shows 48% used.Burning was used as the way of disposal of used sanitary pads by 38% in current study while it was 92% by (Chinta et al., 2018)Chinta K. et al.

35% girls have reported use of old clothes during menstruation. Poverty, high cost of sanitary pads and ignorance may be the reasons for present finding. Few authors(Dasgupta & Sarkar, 2008a) (*Knowledge Assessment Regarding Puberty and Menstruation among School Adolescent Girls of District Varanasi U.P. Semantic Scholar, n.d.)*found ignorance among girls regarding use of sanitary pads during menstruation similar to present study.

Mother is the major source of information (58%), followed by sisters and friends in 22% and 12% respectively. Similarly most of the studies reported(Dasgupta & Sarkar, 2008a; Jogdand & Yerpude, n.d.) that mother is the primary source of information.That indicates good mother daughter relationship and better communication by breaking the inhibitions in this study area.Several other studies like Singh(Singh, 2006) mentioned about various restrictions from doing religious duties, playing, cooking, attending school, etc similarly we also found similar restriction.

**CONCLUSION:**

All sectors of society need to address the problem of menstrual hygiene. The results of this study have brought attention to the importance of providing adolescent females with accurate and sufficient information regarding menstruation and the proper management of it. For the distribution of such information, it is important to stress both formal and informal routes of contact, such as mothers, sisters, and friends. There is a critical need to address problems like the limitations placed on or used by adolescent schoolgirls. As a result, an educated adolescent girl will raise her daughter and continue the cycle of passing on knowledge to the following generation.

Education about reproductive hygiene and health should be a part of the curriculum in schools. It is crucial to be aware of the need for knowledge on healthy menstruation practises. A framework must be created to address and support access to healthy menstruation habits.

There is much to accomplish, including the introduction of numerous programmes and schemes for adolescent reproductive and sexual health (ARSH) and active promotion of the use of sanitary napkins. The acceptance of napkins and safe disposal of them should be encouraged through behavioural change communication. Different sessions should be held for adolescent girls in school informing them and creating awareness amongst them about menstrual hygiene practices where they can ask their queries.

**REFERENCES:**

1. Balasubramanian, P. (2005). Health needs of poor unmarried adolescent girls-A community based study in rural Tamilnadu. *Indian Journal of Population Education*, 18-33.
2. Bhausaheb Mudey Associate Professor, A., Kesharwani, N., Abhay Mudey, G., & Goyal Professor, R. C. (2010). A Cross-sectional Study on Awareness Regarding Safe and Hygienic Practices amongst School Going Adolescent Girls in Rural Area of Wardha District, India. *Global Journal of Health Science*, 2(2), p225. <https://doi.org/10.5539/GJHS.V2N2P225>
3. Chinta, K., P. S., V., C., C., J., & A., G. (2018). Menstrual hygiene patterns and practices among rural adolescent school girls. *International Journal Of Community Medicine And Public Health*, 5(12), 5190-5194. <https://doi.org/10.18203/2394-6040.IJCMPh20184788>
4. Dasgupta, A., & Sarkar, M. (2008a). Menstrual hygiene: How hygienic is the adolescent girl? *Indian Journal of Community Medicine*, 33(2), 77. <https://doi.org/10.4103/0970-0218.40872>
5. Dasgupta, A., & Sarkar, M. (2008b). Menstrual Hygiene: How Hygienic is the Adolescent Girl? *Indian Journal of Community Medicine : Official Publication of Indian Association of Preventive & Social Medicine*, 33(2), 77. <https://doi.org/10.4103/0970-0218.40872>
6. El-Mowafy, R. I., Moussa, M., Moussa, M., & El-Ezaby, H. H. (n.d.). Effect of Health Education Program on Knowledge and Practices about Menstrual Hygiene among Adolescents Girls at Orphanage Home. 3(6), 48-55. Retrieved July 11, 2022, from [www.iosrjournals.orgwww.iosrjournals.org48](http://www.iosrjournals.orgwww.iosrjournals.org48)
7. Goswami, J., & Dewri, M. (2017). A Kap Study On Menstrual Hygiene Among Adolescent Girls Living In Urban Slums Of Guwahati City, IJSR - International Journal of Scientific Research (IJSR), IJSR | World Wide Journals. IJSR, 6(3). [https://www.worldwidejournals.com/international-journal-of-scientific-research-\(IJSR\)/article/a-kap-study-on-menstrual-hygiene-among-adolescent-girls-living-in-urban-slums-of-guwahati-city/MTAyNzU=/?is=1&b1=53&k=14](https://www.worldwidejournals.com/international-journal-of-scientific-research-(IJSR)/article/a-kap-study-on-menstrual-hygiene-among-adolescent-girls-living-in-urban-slums-of-guwahati-city/MTAyNzU=/?is=1&b1=53&k=14)
8. Jogdand, K., & Yerpude, P. (n.d.). A community based study on menstrual hygiene among adolescent girls INDIAN JOURNAL OF MATERNAL AND CHILD HEALTH What are menstrual hygiene practices among adolescent girls? 13(3), 2011. Retrieved July 12, 2022, from [www.ijmch.org](http://www.ijmch.org)
9. Knowledge assessment regarding puberty and menstruation among school adolescent girls of district Varanasi U.P. | Semantic Scholar. (n.d.). Retrieved July 12, 2022, from <https://www.semanticscholar.org/paper/Knowledge-assessment-regarding-puberty-and-among-of-Sp-Singh/5b16e2928bbb2d05f00a6bc43ed24d666b60804b7>
10. (PDF) A cross-sectional study on menstrual hygiene practices among school going adolescent girls (10-19 years) of Government Girls Inter College, Saifai, Etawah. (n.d.). Retrieved July 14, 2022, from [https://www.researchgate.net/publication/337927934\\_A\\_cross-sectional\\_study\\_on\\_menstrual\\_hygiene\\_practices\\_among\\_school\\_going\\_adolescent\\_girls\\_10-19\\_years\\_of\\_Government\\_Girls\\_Inter\\_College\\_Saifai\\_Etawah](https://www.researchgate.net/publication/337927934_A_cross-sectional_study_on_menstrual_hygiene_practices_among_school_going_adolescent_girls_10-19_years_of_Government_Girls_Inter_College_Saifai_Etawah)
11. Prajapati, J., & Patel, R. (2015). Menstrual hygiene among adolescent girls: A cross sectional study in urban community of Gandhinagar. *The Journal of Medical Research*, 1(4), 122-125. [www.medicinarticle.com](http://www.medicinarticle.com)
12. Rana, B., Prajapati, A., Sonaliya, K. N., Shah, V., Patel, M., & Solanki, A. (n.d.). An Assessment of Menstrual Hygiene Practices amongst Adolescent Females at Kheda District of Gujarat State, India Introduction.
13. Singh, A. (2006). Place of menstruation in the reproductive lives of women of rural North India. *Indian Journal of Community Medicine*, 31(1), 10. <https://doi.org/10.4103/0970-0218.54923>