



## MENSTRUAL HYGIENE: KNOWLEDGE, PRACTISE AND RESTRICTIONS AMONGST GIRLS OF DEHRADUN, UTTARAKHAND, INDIA

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### ABSTRACT

Menstruation is one of the most basic characteristic features of women and so are the society regulated customs, practises and restrictions related to the process of menstruation. The current paper attempts to study the knowledge level of 150 girls of Dehradun-the capital of Uttarakhand, India regarding menstruation. A pre-designed, pretested and structured questionnaire was used for this purpose. The results also highlight the common practises followed by these young girls and the restrictions placed upon them during the menstrual period. An urgent need to address the issue of Menstrual Hygiene Management while providing appropriate information to young girls regarding the process of menstruation and basic hygiene practises to be adopted to avoid genital problems was felt. Efforts should also be made to eradicate orthodox thinking and the invalid restrictions placed upon them during this period.

**Keywords:** - Menstruation, Customs, Practises, Restrictions

### 1. INTRODUCTION

Menstruation is a phenomenon unique to the females (WHO, 2003). The first menstruation (menarche) occurs between 11 and 15 years with a mean of 13 years (Banerjee et al., 2007). Menstruation is still regarded as something unclean or dirty in Indian society. The reaction to menstruation depends upon awareness and knowledge about the subject. The manner in which a girl learns about menstruation and its associated changes may have an impact on her response to the event of menarche (Rao et al., 1998). Menstruation is a normal physiological phenomenon for females indicating her capability for procreation. However this normal phenomenon is not an easy one for every growing young girl. Menstruation has often been associated with some degree of sufferings and embarrassment by the society. It is also been commonly observed that every woman experiences one or other type of menstrual problems in her lifetime. The prevalence of menstrual disorders has been recorded as high as 87 % (Narayan et al. 2001).

A 'culture of silence' (FAWE Uganda, 2003) has prevailed resulting from the long-standing taboo attached to menstruation and menstrual hygiene practices in India. Adolescent girlhood is a critical time of identity formation and a period of transition from childhood to womanhood (Kirk & Sommer, 2005), also it is of great challenge to the parents, the child and those concerned for the upbringing of the adolescent. It is characterized by physical, psychological, mental and social changes that are critical to wellbeing (Szilagyi, 2003). Adolescent menstrual hygiene and self care is a critical issue that determines the health status of the adolescent and the eventual practices that are inculcated into adult life (Uzochukwu et al., 2009). Poor hygiene and inadequate self-care practices are major determinants of morbidity and other complications among this age group (McCaleb & Cull, 2000). However, it is interesting to see how some girls develop their own strategies to cope.

Globally, it has been observed that different forms of beliefs and perception of menstruation exist which either negate or promote the adolescent females health. Studies have shown that superstitions, illogical beliefs and misinterpretation are more common than accurate in understanding of the process of menstruation, menstrual hygiene and self care practices (Uzochukwu et al., 2009). These practices reflect the perception of menstrual blood loss as an 'impure' state and not as a normal human physiological phenomenon (Shukla, S., 2005). Prevalence of sanitary napkin use remains low in India in both rural and urban communities (Mudey et al., 2010).

Research done in this field indicates that a large number of women's and girls' possess scant knowledge regarding the phenomenon, based on the information by peers and female family members. A study of Indian women shows that young girls are generally told nothing about menstruation until their first experience (Narayan et al, 2001). Lack of information on menstrual preparedness and management is common amongst adolescent girls, while the shyness and embarrassment with which discussions about menstruation are avoided have made the situation even worse. In several cultures, various restrictions are imposed on women and girls during their menstruation period, thus resulting in poor personal hygiene and unsafe sanitary conditions leading to gynaecological problems. Approximately half of the world's population has known from their own experience the importance of good menstrual hygiene, so as to be able to function optimally during the menstruation period. Another important issue centring on menstruation is the necessity to adopt a healthy behaviour, which includes appropriate nutrition and appropriate use of medications based on a physician's prescription.

Isolation of the menstruating girls and restrictions being imposed on them in the family, have reinforced a negative attitude towards this phenomenon (Dhingra et al., 2009). Menstrual practices are clouded by taboos and social cultural restrictions even today, resulting in adolescent girls remaining ignorant of the scientific facts and hygienic health practices, necessary for maintaining positive reproductive health (Rajaretnam & Hallad 2010). In India, restrictions are laid on young girls from participating in household and other religious activities during menstruation. These restrictions extend to eating certain foods like jaggery and papaya as well (Drakshayani & Venkata, 1994).

In North-eastern Niger, Rasmussen (1990) conducted anthropology of menstruation among the Kel Ewey Tuareg and found widespread shame and danger associated with menses. Menstrual blood was perceived as dangerous, with women observed to wash the wrapper they wore only during menses at night when others were asleep because of a belief that menstrual fluids could be misused for sorcery. Similar findings regarding the need to hide menstrual cloths for fear of being cursed were found in Tanzania, Ghana, Kenya, and Ethiopia (Sommer, 2009; Fehr, 2011; McMahon et al., 2011; Sommer & Ackatia-Armah 2012). In rural Mexico, Castaneda et al. (1996) found that menstrual flow was seen as dirty and shameful, with menstrual rags needing to be hidden from the sight of men in the community; and among the Igbo of southeast Nigeria, researchers explored beliefs in 12 rural communities and found women believed the management and disposal of menstrual waste was significantly tied to witchcraft and danger (Umeora & Egwuatu, 2008).

The limited knowledge available was passed down informally from mothers, who were themselves lacking in knowledge of reproductive health and hygiene due to low literacy levels and socioeconomic status (Dasgupta & Sarkar, 2008). Young girls in urban slums of Karachi, Pakistan, found it difficult to manage menstrual hygiene because of lack of infrastructure to dispose of used cloths in school and lack of privacy to dry washed ones at home (Ali & Rizvi, 2010). Absorbent pads which are used to manage menstrual blood loss have been perceived as an important need of adolescent girls. Though sanitary pads are used universally in high income countries, a large study in India showed that only 12% of menstruating women used sanitary pads and 70% of women cited cost as a major barrier for using them (Kounteya Sinha 2011).

Historically, women and girls undergoing menstruation have used a wide variety of materials to absorb menstrual fluid with implications for disposal (and sanitation systems) both environmentally and culturally. These include sea sponges, leaves, corn cobs, wood ash, and pieces of cloth, cotton wool and tissue paper (Finley 2004). The first modern disposable menstrual pads were produced in the 1890s, and menstrual tampons in the 1920s. Since their introduction, the use of modern disposable products has continued to rise, with a subsequent decrease in the use of reusable products, in both high and low-income countries (Finley 2004). In some contexts, given limited funds for disposable materials, girls and women have been found to combine the use of different types of materials, depending on if they are managing in the household or public sphere (Sommer 2010; Crofts & Fisher, 2012). In a study conducted in Rajasthan by Khanna et al. (2005), three-fourths of the girls used old cloth during their periods and only one-fifth reported using readymade sanitary pads. It was observed that the usual practice was to wash the cloth with soap after use and keep it at some secret place till the next menstrual period. To maintain privacy these are sometimes hidden in unhygienic places.

A study conducted in Rajasthan by Khanna et al. (2005), nearly 70% believed that menstruation was not a natural process. Similar research done in Andhra Pradesh University by Drakshayani et al., 1994, detected that around 78.5% knew menstrual bleeding originated from the uterus. Deo et al. (2005), reported that 40 (42.5%) urban and 41 (55.4%) rural girls were aware about menstruation prior to attainment of menarche. In urban girls, mother was the main source of information about menstruation (27.5%), whereas it was teacher in the rural counterparts (27.01%). Other sources of information were friends, relatives and books.

Menstrual hygiene too has formed an important issue of concern amongst adolescent girls. Poureslami & Ostai-Ashtiani, 2002 reported in a study among female adolescents of Tehran suburbs; where only 1/3rd of the study participants practiced personal hygiene, such as taking a bath, and used hygienic materials (i.e., sterile pads) during menstruation. It has been identified that good hygiene practises, such as use of sanitary pads and adequate washing of the genital area, is important and essential during menstruation. Women and girls of reproductive age need access to clean and soft absorbent sanitary products, which in the long run protect their health (Harvey et al., 2002).

## 2. OBJECTIVES

1. To assess the knowledge and the practices of menstrual hygiene among rural Indian girls.
2. To assess the restrictions practised by rural Indian girls during menstruation.

## 3. METHODOLOGY

### 3.1 Study site and Population

The study was conducted in Charba (Reda) village, Sahaspur block, District Dehradun, Uttarakhand, India. Mixed population belonging to Hindu, Muslim, Sikh, and a banjara community was found there. Maximum of the population belonged to middle class with main occupation as farming. The study population was of 150 girls aging between 12 to 20 yrs.

### 3.2 Study Design, Tools and Techniques

The research was carried in the month of February, 2014. A pre-designed, pretested and structured questionnaire was used in the study. The data collection technique was a personal interview of the study subjects. Purposive sampling technique was used for the research purpose.

### 3.3 Procedure

The purpose of the study and the nature of the information which had to be furnished by the study subjects were explained to them. This questionnaire included topics which were related to the awareness about menstruation, the sources of information regarding menstruation, the hygienic practices during menstruation and the restricted activities practiced during menstruation. The chronological age and the age at menarche were also elucidated. The menstrual hygiene questionnaire included queries about the type of absorbent which was used, its storage place, the use of clean or unclean napkins and the frequencies of changing and cleaning them. The information about personal hygiene included washing and bathing during menses, the practice of wearing stained clothes, etc. The demographic information including

family details, parent's education, occupation, housing conditions, house type, toilet facility, and water supply in the toilet were enquired and then documented.

### 3.4 Data Analysis

Quantitative data from the survey was analysed using proportions through Windows Microsoft Excel software.

## 4. ETHICAL CONSIDERATION

Rights, anonymity and confidentiality of the respondents were respected in all phases of the study. Informed verbal consent was obtained from the respondents before data collection. Through verbal consent process, the type and purpose of the survey, discussion or interview; issues of anonymity and confidentiality; voluntary participation and freedom to discontinue the interview/discussion at any stage; and absence of any known risk or benefit for participating in the study was explained beforehand. To preserve anonymity, all findings are presented without ascribing names or identifiable personal description. All participants were informed, that their participation is voluntary and that the collected data would be only used for the purpose of the study as well as for their benefit.

## 5. LIMITATIONS

The selection of respondents for the study was small in number thus the findings of this study should not be generalized, however the key issues identified from the community will be an assets for management of menstrual hygiene. The survey questionnaires though made in both Hindi and English contained some technical terms; many respondents had difficulty understanding parts of it. The researcher team acted as translator by explaining the terms to them.

## 6. RESULT

The data in table 1 indicates that only 52 (34.67%) of the participants were aware about menstruation before reaching menarche. The most important sources of providing the information related to menarche were mothers, sisters too played an important role here along with friends and teachers. It was also found that 78(52%) study subjects were not aware of the reason behind occurrence of menstruation. 43 (28.67%) believed menstruation it to be a curse of God. Only 18(12%) of the girls were aware of uterus being the source of blood flowing during the menstrual cycle while a majority of girls i.e. 83(55.33%) were not of the same. 89(59.33) girls reported that sanitary pads should ideally be used during the menstruation. Practise of menstrual hygiene amongst the rural girls in table 2 reveals that while 94(62.67%) girls used old cloths, 14(9.33%) used new cloth during menstruation. It was found that only 4(2.67%) girls used water and antiseptic for cleaning the external genitalia, while a majority of girls used only water. A majority of girl 73(48.67%) stored menstrual absorbents in the bathroom, while 25(16.66%) stored it with routine cloth. Method of disposal adopted by girls also differs, 84(56%) girls burnt the menstrual material while 42(28%) don't dispose/ flush /hide the material. Some girls who reused the cloth used during menstruation dried them either inside the house or outside in the sunlight. Majority of the girls dried the cloth outside in the sunlight 76(50.66%), while 58(38.67) dried it inside the house, still 16(10.67%) were found to be drying the outside but without sunlight. Surprisingly it was found that 126(84%) did not change the pad in the school, interestingly 132(88%) has toilets in their home.

**Table 1: Information about menarche and perception related to menstruation amongst rural girl (n=150)**

Information about Menarche	No. (%)
Awareness about menstruation before menarche	
Yes	52(34.67)
No	98(65.33)
Source of information before menarche :-	
Mother	72(48)
Sister	34(22.67)
Friend	18(12)
Teachers	10(6.66)
Others	16(10.67)
What is the cause of menstruation?	
Don't Know	78(52)
Physiological process	29(19.33)
Curse of god	43(28.67)
From which organ does the menstrual blood comes?	
Don't Know	83(55.33)
Urethra/Vagina	49(32.67)
Uterus	18(12)
What absorbent should ideally be used during menstruation?	
Sanitary pad	89(59.33)
Cloth	61(40.67)

**Table 2: Practise of Menstrual Hygiene amongst the rural girls (n=150)**

<b>Menstrual Hygiene Practises</b>	<b>No. (%)</b>
Use of material during menstruation	
Sanitary pad	42(28)
Old cloth	94(62.67)
New cloth	14(9.33)
Material used for cleaning of External genitalia	
Only water	87(58)
Soap and Water	59(39.33)
Water and antiseptic	4(2.67)
Storage of absorbent	
Bathroom	73(48.67)
Don't store	46(30.67)
Store with routine cloth	25(16.66)
Others	6(4)
Method of disposal	
Burn it	84(56)
Throw it in routine waste	24(16)
Others (Don't dispose/Flush/Hide)	42(28)
Places of drying	
Outside house in the sunlight	76(50.66)
Inside house	58(38.67)
outside house without sunlight	16(10.67)
Change of pad in school	
Yes	24(16)
No	126(84)
Toilet facility at home	
Yes	132(88)
No	18(12)

The table 3 gives a clear picture of the different types of restrictions practiced during menstruation by the girls. While 127(84.67%) of the girls practised these restrictions only 23(15.33) did not practise the same. Majority girls 122(81.33) did not attend any religious function, 92(61.33) were not allowed to touch stored food, 89(59.33) were also not allowed to attend school.

**Table 3: Restrictions practised during menstruation (\* Multiple responses)**

<b>Restrictions</b>	<b>No. (%)</b>
Restrictions not practised	23(15.33)
Restrictions practised for*	127(84.67)
Attend religious functions	122(81.33)
Household work	46(30.67)
Touch stored food	92(61.33)
Sleep on routine bed	43(28.66)
Touch family members	76(50.67)
Play outside	68(45.33)
Not allowed to go to school	89(59.33)

## 7. DISCUSSION

As reflected by Table 1, majority of the girls were not even aware of the process of menstruation prior to beginning with menarche while in a study conducted among school going adolescent girls in Saoner, Nagpur reported that 36.9% of their subjects knew about menstruation before attaining menarche (Thakre et al., 2011). Studies conducted with adolescent girls in Tanzania, Kenya, Ghana, Uganda and Zimbabwe have all found confusion over the menstrual cycle, menstrual patterns, and an absence of pragmatic menstrual-related guidance provided to girls pre- and sometimes even post menarche (McMaster et al., 2009; Sommer, 2009; Fehr, 2011; McMahon et al., 2011; Crofts & Fisher, 2012; Sommer & Ackatia-Armah, 2012). A series of articles from India also indicated insufficient knowledge about menstruation among girls, particularly pre-menarche (Gupta & Vatsayan 1996; Dhingra et al., 2007; Nemade et al., 2009). As reported by the girls since menstruation is a 'hush-hush' topic in the families, they normally don't come to know, until beginning with their first period. Mothers have always been identified as an important source of providing information on menstruation for the girls, as also shown by some other studies to a varying degree (Dasgupta & Sarkar, 2008; El-Gilany et al., 2005). The rising literacy levels, increasing awareness amongst women along with decreasing inhibitions in talking to their daughters have been understood as the reason for disseminating information. Other sources of information regarding menarche were sisters, friends and teachers for the girls. These findings were consistent with those of other studies (Khanna et al., 2005; Mudey et al., 2010; Dasgupta & Sarkar 2008). Since, mothers are the closest and safe modes of

imparting knowledge about the process, the mothers consider it as their responsibility to impart knowledge about menstruation to their girls. Some of the girls, who have attained menarche before others, become a source of information to others, while sources like television, books, and magazines too have become sources of gaining information. Teachers as reported by the girls were hardly a source of information to them, for they did not feel comfortable talking to the girls, in many cases the syllabus portion comprising of information related to female anatomy were skipped or left for self-study. Majority of the girls did not know about the cause of menstruation while 29(19.33) believed it to be a physiological process, whereas referring to previous done researches in a similar study, 86.25% believed it to be a physiological process (Dasgupta & Sarkar 2008). In a similar study carried out in Rajasthan by Khanna et al. (2005) nearly 70 percent believed that menstruation was not natural process. It is surprising that majority of the girls even did not know the sources of menstrual bleeding. 61(40.67) girls felt that ideally old cloth should be used during menstruation, in the study by Baridalyne & Reddaiah (2004), only one-third of the study subjects used sanitary pads as absorbents. The easy availability of cloth and the high cost of sanitary napkins becomes a reason for preferring cloth over sanitary pads. The type of absorbent material which is used is of primary concern, since reuse of the material could be a cause for infection if it is improperly cleaned and poorly stored (E.L.Gilany et al., 2005).

As per table 2, the results clearly show that majority of the girls used old cloth during menstruation while only 42(28%) used sanitary pads. Despite of the uneasiness being felt due to use of cloth, it still remains the preferred means for them, due to its easy availability and low cost, while feeling ashamed in purchasing sanitary napkins, their high cost and low availability in the area leads to less use of sanitary napkins. The current study found that 59(39.33) girls cleaned their external genitalia with soap and water during menstruation, a figure that is higher than the 45% reported by Drakshayani & Venkata (1994), from a study among rural adolescent girls of Andhra Pradesh. As indicated by the results, the majority of them used only water to wash their genital area, not knowing the importance of maintaining cleanliness in the genital area, which would further help them avoid various genital related problems. Very few used water and antiseptic to wash the genital areas, thus making them safe against various problems related to female genitals, since antiseptic helps in killing germs and bacteria while also preventing their growth. It is also important that the place where the absorbent material is stored is clean and hygienic. Majority of the girls stored the absorbents in the bathroom which is similar to another study where the proportion of the participants who used the bathroom as a storage place was as high as 49.8% (Narayan et al., 2001). In another study done by Omidwar & Begum (2010), revealed that 56.6% of the girls stored the clean (unused) pads in the cupboards or drawers 15% and 21.1% used dress cabinet and bathroom respectively for storage. For cleanliness, place of storage of pads/ napkins are equally important, especially the practice of storing sanitary pads in bath rooms appears disturbing since it could also harbour dust and insects. In the present study it was also found that the girls disposed the used absorbents by carefully wrapping them in sheets of papers and polythene and then mostly burning it with other household waste, similar findings were reported in the study done by Omidwar & Begum, 2010; Mudrey et al., 2010; and Dasgupta & Sarkar 2008. In contrast to high-income urban areas where modern disposable menstrual hygiene products are proliferating and increasingly disposed of through centralized solid waste management systems (Ashley et al., 2005), in low-income areas there were found to be a range of options used for disposing of menstrual materials in the home. These included burning, burying, throwing in the waste bin, pit latrine or flushing. Inadequate disposal systems and relevant menstrual disposal knowledge resulted in clogged toilets and pollution of streams with used materials. In a study it was also found that 43% of girls bury their used materials, 35% throw the used materials with other waste, and 19% burn the materials (WaterAid, 2009), which at times causes problems like clogging of toilet and polluting the local environment like streams in villages. Though majority of girls were found to be drying their absorbent material, cloth in this case, outside in the sun, it was also found that the rest of them did not dry the cloth in the sunlight, thus giving birth to various germs leading to problems experienced by them in the genital area, like itching, rashes, abrasions, urinary tract infections, as reported by the girls. In a study by Subhash et al. (2011), it was found that in cases of reused cloth, the places of its drying which were observed, was outside the house in sunlight in 78 (51.32%) subjects, 72 (47.37%) dried them inside the house, and, 8(4.94%) subjects dried them outside without sunlight. In the present study, a very small proportion of the girls changed the pads at school hours; other researchers too reported that 20.6% of the girls changed the pads at school hours (Omidwar & Begum, 2010). The probable reason for the girls not changing the pads could be ignorance and lack of facilities. The girls also reported that in many of the schools they did not have separate toilet facilities for girls and the washrooms meant for teachers were not open to the girls for they would make them 'dirty'.

Table 3 shows a detailed representation of the various kinds of restrictions placed on the girls during menstruation. These are followed in the same way as have been practised by their mothers or other elderly female in the family, due to their ignorance and false perceptions about menstruation. The girls reported being unable to understand the reason for such discrimination and restrictions, practiced and followed without any valid reasons, yet not having the courage to disobey their elders. Garg et al. (2001), reported that the vast majority of girls in a Delhi slum continue to experience restrictions on cooking, work activities, sexual intercourse, bathing and religious practice during menstruation. The overall perception is that menstrual fluid is dirty and polluting, which occasions much secrecy around its management. In contrast, Dhingra et al. (2009), describe menstrual taboos among the Gujjar tribe of the Kashmir and Sammu regions of India, who lead a semi-nomadic existence. Their research with adolescent girls found there were restrictions on bodily washing and a taboo against burying a bloodied menstrual cloth. Cloths could only be washed and then buried or reused. Most girls reported washing the cloths secretly and drying them in a hidden corner, not in the sun, lest they be seen by others. Restrictions symbolize a woman's ritually dangerous status (Narayan et al, 2001) that, as fuelled by myths, misconceptions, superstitions and taboos, is believed to have the potential to spoil food, plant, biological and social processes.

## 8. RECOMMENDATION

The current study highlights the need to provide accurate and adequate information about menstruation to young girls and its appropriate management. Formal as well as informal channels of communication need to be sensitized towards the issue while emphasis should be laid on deliverance of correct information. There is a strong need to address issues like the restrictions which are imposed on or practiced by the girls which have been followed through generations in ignorance. Appropriate information regarding use of sanitary napkins, cloth and their disposal should be provided to girls in pre menstrual stage and later. Aniebue et al. (2009), maintain that MHM (Menstrual Hygiene Management) is an essential part of health education. In terms of the provision of pragmatic MHM guidance to adolescent girls themselves, one example exists from the development and dissemination of a girl's puberty book in Tanzania which includes menstrual stories written by girls, and guidance on menstrual hygiene and disposal (Sommer, 2011). The book is currently being adapted for use in Ghana, Cambodia and Ethiopia, and has been adapted by water and sanitation experts and education NGOs already in Zimbabwe, Uganda and Nepal (see pdf files at: [www.growandknow.org](http://www.growandknow.org)). The Indian government in collaboration with Water Supply and Sanitation Collaborative Council (2013), too in this context has issued a manual, WASH and Health for Menstrual Hygiene Management, Training of Trainers Manual, v1.0 to educate youth on Menstrual Hygiene and practises.

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