

# Menstrual Hygiene – Knowledge, Practices Restrictions and Waste Disposal Challenges Faced by Adolescent Girls and Women of Different Regions of Dehradun District

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**Abstract:** Period, or period, is normal vaginal bleeding that occurs as part of a woman's yearly cycle. Every month, your body prepares for pregnancy. However, the uterus, or womb, if no gestation occurs. The menstrual blood is incompletely blood and incompletely towel from inside the uterus. It passes out of the body through the vagina. Ages generally start between age 11 and 14 and continue until menopause at about age 51. They generally last from three to five days. Besides bleeding from the vagina, you may have, 1) Abdominal or pelvic cramping pain, 2) Lower reverse pain, 3) Bloating and sore guts, 4) Food jones, 5) Mood swings and perversity, 6) Headache and fatigue. Premenstrual pattern, or PMS, is a group of symptoms that start before the period. It can include emotional and physical symptoms.

**Keywords:** Menstruation, Menarche, Menopause, Vagina, Adolescent, Absorbent.

## 1. Introduction

Period (a period) is an exceptional miracle that the nature has planned for women. It isn't just a small term but a major stage where a woman undergoes certain reproductive changes from onset of period (menarche) till menopause. nonage is the stage of physical, cerebral, and reproductive development that generally occurs during the period from puberty to legal majority. The World Health Organization defines nonage as individualities between 10 and 19 times of age [1]. nonage in girls has been honored as a special period in their life cycle that requires specific and special attention. This period is marked with onset of menarche [2]. period is girdled by colorful cerebral and religious walls due to lack of knowledge about the scientific process of period. numerous girls abiding in slum areas are ignorant of what actually happens during menstrual cycle. Although period is a natural process, it's linked with several comprehensions and practices within the community, which occasionally may affect in adverse health issues [3]. Hygiene during period is an ineluctable part of woman's life. colorful aspects similar as physiology, pathology and psychology of period have been set up to associate with health and well- being of women; hence, it's an important issue

concerning morbidity and mortality of womanish population [4]. It's during this period a woman is regarded most vulnerable for developing any kind of reproductive tract infections, urinary tract infections, and colorful sexually transmitted conditions. Menstrual hygiene deals with special healthcare requirements and conditions of women during yearly period or menstrual cycle [5]. thus, increased knowledge about period right from nonage may escalate safe practices and may help in mollifying the suffering of millions of women. Menstrual hygiene operation should be an imperative part of healthcare. The United Nations defines acceptable menstrual hygiene operation as “women and adolescent girls using a clean menstrual operation material to absorb or collect blood that can be changed in sequestration as frequently as necessary for the duration of the period period, using cleaner and water for washing the body as needed, and having access to installations to dispose of used menstrual operation accoutrements” [6]. Particularly in poor countries, girls and women face substantial walls to achieving acceptable menstrual operation [7]. preceptors leave a positive impact and greatly impact the minds of children. But the issue of menstrual hygiene is infrequently being bandied in the academy class. It's also included in Millennium Development Goals. thus, to understand the consequences and significance of menstrual hygiene practices among adolescent girls, it's important to study the current practices about the same so that unborn interventions can be planned consequently [8].

### A. Menarche

The first menstrual period a womanish adolescent gest is known as menarche. Menarche generally occurs between the periods of 10 and 16, with the average age of onset being 12.4 times [9]. Although exploration into the factors that impact menarcheal age is ongoing, socioeconomic status, genetics, general health, nutritive status, exercise, seasonality, and family size are all allowed to be important.

Menarche generally happens suddenly and without pain.

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Generally, anovulatory, the first cycles can vary in length and inflow. Menarche marks the onset of reproductive capacity and is privately related to the continuing development of secondary sexual characteristics [10].

*Issues of concern:* Menarche depends on the following processes normal hypothalamic and pituitary function, normal womanish reproductive deconstruction, normal nutrition, and the general absence of other intermediating habitual ails. Menarche occurs in the environment of a growing hypothalamic-pituitary-ovarian (HPO) axis. It's a sign of typical womanish reproductive good and health. The maturity of women are apprehensive that menarche is their body's pivotal signal of fertility. Amenorrhea is the medical word for the absence of regular menstrual ages that are unconnected to gestation. period is fully absent by the age of 15 and is ascertained to as primary amenorrhea. The conclusion of period for three months or longer after it has begun is known as secondary amenorrhea [11].

When menarche happens too early, too late, or not at each, this is particularly concerning because it might have negative goods on after development. Menarche is regarded as beforehand if it happens before or at age ten, and late if it occurs at or after age 15 [12].

### B. Menopause

Menopause is the endless conclusion of period for a period of 12 months brought on by an oestrogen deficit and isn't an illness. 51 is the average age for menopause. The maturity of women suffer vasomotor symptoms, but menopause also has an impact on the urogenital, cardiovascular, and psychogenic systems of the body. This runner will bandy menopause issues as well as hormonal and non-hormonal remedies. Cases are living longer, and over to one- third of women's lives are now spent in the post-menopausal stage [13]-[15].

*Epidemiology:* Every time, over 1.3 million women in the US experience menopause. It generally starts when a person is 51 or 52 times old. still, between the periods of 40 and 45, roughly 5 of women go through an early menopause. also, due to unrecoverable ovarian failure that may be connected to imperfect coitus chromosomes, 1 of women go through early menopause before the age of 40 [16].

*Pathophysiology:* Age-related menopause is a normal physiological process in which the primary ovarian follicle count fleetly decreases, leaving inadequate figures to reply to the goods of FSH. As a result, there's no LH swell and no ovulation, which prevents oestrogen product from adding and causes period to stop. In addition, LH and FSH continue to serve typically and stay high situations for times after the menopause starts. Some people may still produce minor situations of oestrogen through conversion of the testosterone buried by the adrenal glands, thus symptoms other than the conclusion of ages may not be conspicuous [17].

### C. Types of Absorbent

The favored aseptic protection material depends on the existent's preferences, artistic forbearance, fiscal situation, and request availability. To manage period hygiene, one should be

handed with cleaner and period absorbents in addition to introductory sanitation installations. Different absorbents are preferred by civic and pastoral women and girls. Applicable cloth pads are the most popular absorbents in pastoral regions, while marketable aseptic pads are chosen by women in metropolises. Fluff pulp, a spongy material used to make disposable aseptic goods, is produced by manufacturers using Kraft or sulphate pulp that has been chlorine bleached. currently, there are several rayon-grounded synthetic fibre aseptic results on the request, both deodorized and undeodorized. These deodorised products include substances with antibacterial parcels like organochlorines. Due to their chemical composition, these particulars kill the soil's microflora when buried in the ground and stymie corruption [18]. Different menstrual products used by women girls are banded below.

#### 1) Reusable and Washable Cloth Pads

Although they might be a sustainable aseptic result, they need to be gutted hygienically and dried in the sun. Drying the cloths cloth pads under the sun, which is a natural sterilizer, sterilizes them for latterly operation. These applicable cloth pads are provident, fluently accessible, and environmentally salutary. In order to help impurity, they must also be kept for unborn use in a clean, dry terrain.



Fig. 1.

#### 2) Commercial Sanitary Pads

They're accessibly offered at multitudinous retailers, druggists, and online. They're more precious than cloth pads, one- time use only, and not veritably eco-friendly. They were made with cotton that was not entirely natural and might have fungicides in it.

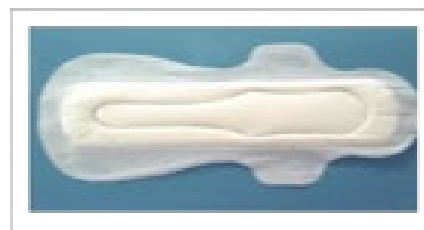


Fig. 2.

#### 3) Tampons

They're the kind of spongy that offers defense on the inside. They're a type of cotton draw that are placed inside the vagina to absorb the menstrual inflow before it leaves the body. They aren't particularly environmentally friendly because they're precious and delicate to degrade in nature. currently, there are natural druthers to synthetic tampons on the request, including tampons made of ocean sponger.



Fig. 3.

#### 4) Reusable Tampons

These are washable tampons made up of natural accoutrements like bamboo, hair, cotton, or hemp. They're also knitted or darned using the natural spongy material like cotton or hair. They're fitted into the vagina to absorb menstrual inflow same as the disposable tampons.



Fig. 4.

#### 5) Menstrual Cups

They might be a new invention for depressed women and girls and a relief for tampons and aseptic pads. They act mugs made of silicone rubber that's of a medical grade, making it simple to fold and put into the vagina for menstrual blood collection. Depending on the quantum of menstrual inflow, they can be worn for over to 6 – 12 hours, taking lower frequent junking and evacuating. They're safe for the terrain and applicable. In areas with poor sanitation, it offers a practical, affordable, and sustainable option.



Fig. 5.

#### 6) Bamboo Fibre Pads

These aseptic pads employ bamboo pulp as their spongy material rather than wood pulp. It's safer to use and has a lesser capacity for immersion. They're affordable, snappily biodegradable, and environmentally friendly pads that also have antimicrobial rates. period is made possible without vexation or infection. also, there are bamboo watercolor pads

on the request that have the benefit of hiding blood stains and being applicable.



Fig. 6.

#### 7) Banana Fibre Pads

These days, discarded banana tree fibre was used to make affordable aseptic pads for pastoral women, which were retailed as "Saathi" in India. They break down within six months of use and are environmentally salutary. In addition to these particulars, women in insulated pastoral areas also employ organic accoutrements like slush, leaves, and cow ordure.



Fig. 7.

#### 8) Water Hyacinth Pads

Under the brand name "Jani," menstrual pads made from water hyacinth are offered for trade. They're nicely priced, snappily biodegradable, and environmentally salutary.



Fig. 8.

## 2. Menstrual Hygiene Management

In recent times, the menstrual hygiene operation challenges facing pixies in low- income- country surrounds have gained global attention. We applied Gusfield's sociological analysis of the culture of public problems to more understand how this fairly recently honored public health challenge rose to the position of global public health mindfulness and action. We also applied the conceptualization by Dorfman *et al.* of the part of public health messaging in changing commercial practice to explore the abstract frames and the news frames that are being used to shape the comprehensions of menstrual hygiene

operation as an issue of social justice within the environment of public health. Important assignments were revealed for getting other public health problems onto the global-, public-, and original-position dockets. Menstrual hygiene operation (MHM) has come an encyclopedically honored public health content.

Around the world, a growing coalition of academics, benefactors, non-governmental (NGOs), United Nations agencies, grassroots women's associations, transnational womanlike hygiene companies, and social entrepreneurs are marshaling to bring attention and coffers to address the menstrual-affiliated shame, embarrassment, and taboos endured by numerous girls in low- and middle- income countries (LMIC organizations). This informal coalition is championing the bettered provision of puberty guidance, aseptic accoutrements, and water and sanitation installations for girls in academy. In least- developed and other low- income countries in 2013, the global normal for academy water content was 47 and for academy sanitation content was 46. At the same time, the movement is generating interest in perfecting the frequently shy, hygienic, and unsafe circumstances in which numerous women in low- resource surrounds manage their yearly monthlies.

Just 10 years ago, there was little public discussion about the menstrual operation – affiliated challenges facing girls and women in LMICs. How did this singular aspect related to womanish physiology — the need for girls to have access to period- related structure and information that would enable them to successfully advance their education and posterior development — come an encyclopedically honored public health issue? Why did this recognition lead to a growing global social movement on MHM operation? In this composition we seek to dissect the colorful moments, events, players, and associations that have contributed to the description and articulation of period as a encyclopedically honored public health challenge. This analysis provides perceptivity about what's involved in bringing attention and coffers to other critically important public health issues. It also reveals gaps that remain in the period- related docket.

### 3. Aim and Objectives

#### A. Aim

To study the menstrual hygiene knowledge, practices, restrictions and waste disposal challenges faced by adolescent girls and women of different regions of Dehradun district.

#### B. Objectives

1. To assess the knowledge and practices of menstrual hygiene.
2. To assess the restrictions practised by Indian girls and women during menstruation.
3. To ensure the safe disposal of sanitary napkins in an environment friendly manner.
4. To assess increase the use of high quality of sanitary napkins and menstrual products.

### 4. Methodology

- It is a community based cross-sectional study. The study was under taken among the adolescent girls and women of different regions of Dehradun district. For the study, 400 girls and women between the ages of 12 and 48 years old will be required.
- *Study Design, Tools and Technique:* The research was carried out after synopsis was approved. A pre-designed, pretested, and structured questionnaire will be used in the study. The data collection technique was a personal interview of the study subjects.
- *Study Duration:* The duration of the study approx. 6 months.

#### A. Study Criteria

##### 1) Inclusion Criteria

1. Girls and women between the ages of 12 to 48 years.
2. Girls and women willing to participate in the study.

##### 2) Exclusion Criteria

1. Girls and women not willing to participate in the study.

*Procedure:* After taking consent from the subjects, the purpose of the study and the nature of the information which must be furnished by the subjects will be explained to them. The questionnaire includes topics which were related to the awareness about menstruation age of menarche, storage of absorbent, reproductive tract infection during menses or after menses, the source of information regarding menstruation, the hygiene practices during menstruation and restricted activities practiced during menstruation.

The menstrual hygiene questionnaire included queries about the type of absorbent which is used. The information of about personal hygiene included washing and bathing during menses.

### 5. Result

The data in table 1 indicates that that the mean age of menarche in the study subjects was 12 years. 375 (93.75%) 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 300(75%) study subjects were not aware of the reason behind occurrence of menstruation. 25(6.25%) believed menstruation it to be a curse of God. Only 1255(31.25%) of the girls were aware of uterus being the source of blood flowing during the menstrual cycle.

Practise of menstrual hygiene amongst the girls and women in table 2 reveals that while 75(18.75%) girls used cloths during menstruation. It was found that only 50(12.5%) girls used water and antiseptic for cleaning the external genitalia, while a majority of girls used only water. A majority of girl 200(50%) throw menstrual absorbents with routine waste, while 95(23.75%) stored it with routine cloth. Method of disposal adopted by girls and women also differs, 75(18.75%) girls burnt or dispose/flush the menstrual material. Some girls who reused the cloth used during menstruation dried them either inside the hose or outside in the sunlight.

Table 1  
Awareness, Age and Source of information about menarche before its onset  
(n=400)

Information about menarche	No. (%)
<b>Age of menarche</b>	
<11	125 (31.25%)
12	200 (50%)
13	20 (5%)
14	25 (6.25%)
>15	30 (7.5%)
<b>Awareness about menarche</b>	
Yes	375 (93.75%)
No	25 (6.25%)
<b>Source of information about menarche</b>	
Mother	250 (62.5%)
Sister	23 (5.75%)
Friend	25 (6.25%)
Teacher	100 (25%)
Other	2 (0.5%)
<b>Cause of menstruation</b>	
Don't know	300 (75%)
Physiological process	75 (18.75%)
Curse of God	25 (6.25%)
<b>From which organ does menstrual blood comes?</b>	
Don't know	25 (6.25%)
Urethra/Vagina	250 (62.5%)
Uterus	125 (31.25%)

Table 2  
Practices of menstrual hygiene (n=400)

Menstrual hygiene practices	No. (%)
<b>Use of material during menstruation</b>	
Sanitary Napkins	200 (50%)
Cloth	75 (18.75%)
Menstrual Cup	100 (25%)
Tampons	25 (6.25%)
<b>Material used for cleaning external genitalia</b>	
Only water	275 (68.75%)
Soap and water	75 (18.75%)
Water and antiseptic	50 (12.5%)
<b>Storage of absorbent</b>	
Bathroom	30 (7.5%)
Throw it with routine waste	200 (50%)
Store with routine cloth	95 (23.75%)
Dispose/Flush	75 (18.75%)
<b>Daily Bath</b>	
Yes	350 (87.5%)
No	50 (12.5%)

The table 3 gives a clear picture of the different types of restrictions practiced during menstruation by the girls and women. While 125(31.25%) of the girls and women practised these restrictions and 275(68.75%) did not practise the same. Majority girls 100(25%) did not attend any religious function, 13(3.25%) were not allowed to touch stored food and only 05(1.25%) were not allowed to attend school.

Table 4 shows the association of RTIs and hygienic practices during menstruation. The respondents who were following hygienic practices reported less infection than their counterparts, although the difference was not found statistically significant. During group discussions, none of the respondents either school-going & school dropouts or unmarried & married

reported any symptoms of RTI/STI during last six month.

Table 3  
Restriction practised during menstruation (n=400)

Restrictions	No. (%)
Restrictions not practised	275 (68.75%)
Restrictions practised for	125 (31.25%)
<b>Attend religious functions</b>	
Yes	100 (25%)
No	25 (6.25%)
<b>Household work</b>	
Yes	75 (18.75%)
No	50 (12.5%)
<b>Touch stored food</b>	
Yes	13 (3.25%)
No	112 (28%)
<b>Sleep on routine bed</b>	
Yes	120 (30%)
No	05 (1.25%)
<b>Play Outside</b>	
Yes	100 (25%)
No	25 (6.25%)
<b>Not allowed to go to school</b>	
Yes	120 (30%)
No	05 (1.25%)

Table 4  
Problem of reproductive tract infection during or after menses (n=400)

Reproductive tract infection	No. (%)
<b>RTI during or after menses</b>	
Yes	125 (31.25%)
No	275 (68.75%)

## 6. Discussion

In previous study of 2016 indicates that the mean age of the scholars was fourteen.9±1.75 years. The mean age at start was eleven. 97 (95% CI: eleven.94-11.99). It had been discovered that solely [\*fr1] (56.4%) had noninheritable previous information regarding attaining start. Out of those in an exceedingly giant proportion, the information was imparted to them by their mothers (60.7%), followed by friends (31.8%). There was no vital association between instructional standing of mother and awareness in respondent regarding menstruum. relating to the organ of blood flow, half (50.7%) knew the proper answer (i.e., uterus); whereas the remainder believed that it had been stomach/kidney, etc. And in my study indicates that that the mean age of start within the study subjects was 12 years. 375 (93.75%) of the participants were privy to menstruum before reaching menarche. the foremost vital sources of providing the knowledge associated with start were mothers, sisters too contend a vital role here together with friends and academics. it had been conjointly found that 300(75%) study subjects weren't tuned in to the rationale behind incidence of menstruation. 25(6.25%) believed menstruum it to be a curse of God. Only 125.5(31.25%) of the women were tuned in to female internal reproductive organ being the supply of blood flowing throughout the emission cycle.

## 7. Conclusion

It shows that participants were aware about menstruation before reaching menarche which is a very good thing. But in hygiene practiced was found that only 12.5% of females used only water which is not a good thing and it causes UTIs. So, it's important to aware females about hygiene practiced during menstruation.

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