ABSTRACT

BACKGROUND
It has been said that health is wealth and when it comes to reproductive health of a woman it has a significant value indeed. There is lot of loops and holes in perineal hygiene practices due to incomplete knowledge and various myth that is transferred from generation to generation in a family. The aim of the study was to study the perineal hygiene practices in women of Himalayan foothills.

METHODS
This is an observational study performed between March 2019 to February 2020 at AIIMS Rishikesh. Data was extracted from OPD records of patients which included details on perineal hygiene, routinely asked in one of the three units in department of obstetrics and gynaecology at AIIMS Rishikesh.

RESULTS
Total of 2400 women participated in the study. The mean age of subjects was 32±6.9 (Range 12 - 80 years). Maximum patients were married (92 %), mostly Hindus (48 %) belonging to upper lower class (37.5 %) according to modified Kuppuswamy socioeconomic scale. In this study we studied the routine perineal cleaning practices, Attention is being drawn to the fact that only 15 % of the subjects cleaned the genital area with water after urination, 5 % while changing pads during menstruation, only 1.5 % washed the genitalia immediately after sexual intercourse In present study the commonest method removal of perineal hair was shaving (38.4 %). While analysing menstrual hygiene, in present study, 42.5 % of study population was using sanitary pads from market and 35 % used homemade cloth pads. Ninety eight point seven percent of women avoided sexual intercourse during menstruation in present study.

CONCLUSIONS
Female genital hygiene is a vital topic. Awareness should be increased regarding maintenance of hygienic practices through health education programmes. More studies need to be performed in order to provide directions for proper female genital hygiene, as well as guidelines.

KEY WORDS
Perineal Hygiene, Pubic Hair Grooming, Menstrual Hygiene, Perineal Itching, Perineal Rashes, Long Mirror for Self Examination.
“It has been said that Health is wealth and when it comes to the reproductive health of a woman it has a significant value indeed.” Perineal hygiene is one of the least concern areas for most of the women. While on one hand, women are more conscious about their looks, on the other hand, they are not paying enough attention to cleanliness of genital organs. This is because these body parts are hidden beauties and need internal strength of superior level consciousness for taking care of these important body parts. Carelessness towards grooming of pubic hair, use of unsterilized cloth instead of sterilised sanitary pads. Cleaning practices, after nature’s call and sexual activity, are some examples which portray the picture of a woman’s reproductive health among rural as well as urban community. Despite common anatomical structure of reproductive organs of all women, attitude towards hygienic practices vary among countries, cultures, societies and individuals.

The term perineal hygiene is used for caring and maintaining the external genital and perianal area. A wide variety of friendly microorganisms are found in the female genital tract which are commonly known as commensals which play a significant role in maintenance of pH of perineum and are responsible for its health. Lack of awareness, misinformation and poor hygienic conditions may change the flora which may become pathogenic and cause various types of infections. In developing countries like India, 43 - 88 % women are using cloth during menstruation. Many a times these may be unclean and may lead to perineal rash and infections. Such kind of practices are usually passed from one generation to another as a part of their cultural practices. Women’s genital anatomy is also a contributing factor for making them more prone to infections than men. Reproductive tract infections (RTIs) including sexually transmitted infections (STIs) can be prevented if women are educated regarding proper perineal hygiene. Unsupported family, illiteracy, lack of resources and unawareness are some of significant contributing factors responsible for poor perineal hygiene practices among women.

Present study was carried out to identify and explore the perineal hygiene practices of women along with details on type of sanitary napkins used, hygiene during menstruation and sexual activity so that appropriate measures can be planned to educate women and promote reproductive health.

This is an observational study approved by institutional committee and was performed between March 2019 to February 2020. Since the study was a observational study between March 2019 and Feb 2020, all the patient attending opd between this time duration were included in the study, there was no predefined sample size.

### Ethical Statement

Ethical clearance for the study was taken from AIIMS RISHIKESH and the study was conducted in the department of obstetrics and gynaecology, the data was extracted from the OPD records of the patients.

### Data Collection Procedure

Data was extracted from OPD records of patients which included details on perineal hygiene, routinely asked in one of the three units in department of obstetrics and gynaecology at AIIMS Rishikesh.

### Analytical Approach

The data collected were encoded into Microsoft Excel sheet and analysed using SPSS version 21. Data was analysed using appropriate statistical tests like frequency and percentage for demographic characteristics and perineal hygiene practices.

### RESULTS

During the study period, data of Twenty four hundred females was recorded. Demographic profile of subjects is shown in Table 1.

| Age in Years (Range 12 - 80 years) | 32±6.9 |
|-----------------------------------|--------|
| Variable                          | %      |
| Religion                          |        |
| Hindu                             | 48.5   |
| Muslim                            | 36.5   |
| Other                             | 15     |
| Just literate                     |        |
| Bilterate                         | 3.5    |
| Primary level                     | 24     |
| Secondary level                   | 576    |
| Marital status                    | 16     |
| Lower class (-5)                  | 36     |
| Upper class (5 - 10)              | 1164   |
| Socioeconomic status              |        |
| (Modified Kuppuswamy scale)       |        |
| Underweight (< 18.5)              | 876    |
| Upper (26 - 29)                   | 1     |
| Normal (18.5 - 25)                | 732    |
| Overweight (25 - 30)              | 192    |
| Obese (> 30)                      | 101    |

Table 1 Demographic Profile of Study Subject

The mean age of subjects was 32± 6.9(Range 12 - 80 years). Maximum patients were married (92 %), mostly Hindus (48 %) belonging to upper lower class (37.5 %) according to modified Kuppuswamy socioeconomic scale. The majority of women took bath daily and washed perineum during bath with soap and water (99 %). More than 99 % women were washing perineum after defecation (99.87 %). There were 5 women who used water in routine but in case of emergency when out of home, used soil lump to clean after defecation. Only 15 % washed perineum after micturition, cleaning material used by maximum women was water (10 %), tissue (2.5 %) and other over the counter products (2.5 %). It was very interesting to find that only 5 % of women who washed perineum after micturition had history of drying the perineum with tissue paper (65 %) or towelette (35 %) and as far as use of fresh towelette is concerned majority of women washed it daily (81.06 %).

In present study 97.7 % women reported removing pubic hair at some point of time, the frequency of removal of perineal hair was every 15 days in 5.25 %, once a month in

### METHODS

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**ADDRESS FOR CORRESPONDENCE**

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53.04%, more than 2 months is 15.33% and whenever feasible or required in 24.08%. The method used for hair removal was primarily a razor blade (28.4%), but other methods, such as trimming with electric trimmer or scissors, cream, and waxing was also reported.

On inquiring about practices of urination in relation to menstruation, it was found that 51.5% women practiced urination immediately after sexual intercourse whereas 1.5% had habit of washing the perineum with water. However, it was strange to find that 0.5% did not cleaned perineum at all after intercourse.

| Variables | % | No. |
|-----------|----|-----|
| Perineal cleaning practices | | |
| Cleaning during bath | 100 | 2400 |
| Cleaning after urination | 15 | 360 |
| Cleaning after defecation | 99.87 | 2237 |
| Cleaning while changing pads during periods | 5 | 120 |
| Cleaning material used for cleaning the perineum during bath | | |
| Water only | 1 | 24 |
| Soap and water | 99 | 2376 |
| Nil | 85 | 2040 |
| Water | 16 | 420 |
| Tissue | 2.5 | 60 |
| Cleaning material used for cleaning perineum after urination | | |
| Traditional antiseptics (chlorhexidine / soap, iodine solution, chloroxylenol) | 2.5 | 60 |
| Cotton | 37.5 | 900 |
| Underwear material | | |
| Synthetic | 21 | 504 |
| Other (silk, Satan) | 10 | 240 |
| Not using underwear | 31.5 | 754 |
| Using underwear at sleeping time | | |
| Yes | 76 | 1924 |
| No | 24 | 576 |
| Habit of drying perineum after urination and defecation | | |
| Yes (5%) | 65 | 1574 |
| Tissue paper | 35 | 842 |
| Water only | 2 | 4.46 |
| Cleaning after defecation | 81.06 | 1953 |
| Every time use | 2.3 | 54 |
| Frequency of use of fresh towelette with urination | | |
| Less than weekly | 9.5 | 4 |
| Weekly | 7.14 | 3 |
| Frequency of perineal hair removal | | |
| More than a week | Nil | Nil |
| Never | 2.3 | 54 |
| Every 15 days | 5.25 | 126 |
| Once a month | 5.03 | 1237 |
| More than 2 months | 15.33 | 360 |
| Whenever required / feasible | 24.08 | 578 |
| Method of removal of perineal hair | | |
| Razor blade | 28.4 | 682 |
| Depilatory cream | 26.46 | 623 |
| Hair trimmer | 13.46 | 323 |
| Trimmer (scissor) | 12.7 | 305 |
| Wax | 12.79 | 295 |
| Vary time to time | 20 | 480 |

Table 2. Variables of Routine Perineal Cleaning

Table 3. Variables for Perineal Hygiene during Menstrual & Sexual Activity

Out of 2400 women 42.5% were using sanitary napkins from market as absorbent material during their menstrual cycle, while 35.5% were using cloth, 4.46% used tampons whereas one foreigner (German women) used menstrual cups. It was found that only 5% of women washed perineum while changing of pad. It was seen that 98.7% of women avoided sexual intercourse during menstruation.

On inquiring about practices of urination in relation to intercourse, it was found that 51.5% women practiced urination before sexual intercourse while only 13.5% immediately after sexual intercourse and 35% did not коррелат with ritual practice with sexual intercourse. Ninety eight percent women practiced cleaning of perineum by wiping with cloth after intercourse whereas 1.5% had habit of washing the perineum with water. However, it was strange to find that 0.5% did not cleaned perineum at all after intercourse.

This study examined the perineal hygiene practices among women of Himalayan foothills. This study helps to add to the limited data available on this subject. While there are some studies available on the perineal hygiene practices but majority of these are limited to western world. Strength of present study includes the large sample size and inclusion of extensive array of behaviours in the different age group.

Regarding perineal hygiene, attention is being drawn to the fact that only 15% of the subjects cleaned the genital area with water after urination, 5% while changing pads during menstruation, only 1.5% washed the genitalia immediately after sexual intercourse. It is known that accumulation of residues of urine, sperm, faeces, menstrual blood and scrapes of paper promotes irritation and itching so that they may predispose to the formation of cracks and cause perineal infection. These hygienic practices are almost similar in all strata of education. In a similar descriptive study by Ruiz et al on daily genital cares of female gynaecologists, only 25.9% practiced washing of genitalia with running water after urination and 52.7% sanitized themselves after sexual relation.5 Similar results were seen in a study by Giraldo et al in their survey on 341 university students of a large Brazilian university.6

Pubic hair grooming practices are currently considered as social norm however, very little data on the topic exists. There are many reasons for removal of pubic hair like hygiene and cosmetic however the main reason for perineal hair grooming were for comfort and preventing odour.7 In present study the commonest method was shaving (38.4%). Similarly, in a study by Rouzi et al the most common single method of removal of pubic hair was razor blade (33.5%).8 It was observed in present study that 77% of the population removed pubic hair monthly similar to a study by Alghamdi KM et al which removal of pubic hair was practiced once in
CONCLUSIONS

Female genital hygiene is a vital topic. Awareness should be increased regarding maintenance of hygienic practices through health education programmes. More studies need to be performed in order to provide directions for proper female genital hygiene, as well as guidelines.

Data sharing statement provided by the authors is available with the full text of this article at jemds.com.

Disclosure forms provided by the authors are available with the full text of this article at jemds.com.

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