



## Original Article

## Girls' Attitude towards Menstrual Hygiene among Nursing Students at College of Nursing, AIMC, J/H, Lahore, Pakistan

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## ABSTRACT

Menstruation has a higher impact on educational quality than other aspects of puberty because it combines a learning component with features influenced by the school environment and infrastructure. **Objective:** To analyze the females' attitudes toward menstrual hygiene among Nursing students at AIMC, J/H, Lahore. **Methods:** This descriptive cross-sectional study took place between July 1st to June 30, 2022. A total of 80 study populations were selected with a purposive sampling technique. The questionnaire of this study was adopted by Doctor Funmito Omolola Fehintola. **Results:** More than half of the participants (52.5%) knew about menstruation before menarche, while the majority of the study population (90.2% and 96.5%, respectively) has strong knowledge and practice about menstruation. While, the majority of participants' reactions to their menarche were uncomfortable (51.2%) and emotionally distressing (41.3%). The education of parents has a significant impact on their children's conduct because they adapt to what they observe. Overall, more than two-thirds (76.8%) of the participants come from educated homes, which results in higher outcomes in our study findings. **Conclusions:** According to the study findings, the majority of the respondents practice good menstrual hygiene and have good knowledge about menstruation. Efforts must be made to ensure that teenagers are thoroughly educated on menstruation and the requirement of suitable hygiene practices at school and home.

## INTRODUCTION

The term adolescence is derived from the Latin word "Adolescere," which means "to grow up." Adolescence is a period of transition from childhood to adulthood. It is a vital phase with physical, sexual, and mental consequences [1, 2]. Adolescents are defined by the as anyone aged 10 to 19 [3, 4]. To ensure their development into healthy adults, this age group requires good nutrition, education, counselling, and guidance [5-7]. Menstruation is defined as the "periodic discharge of blood from the uterus occurring more or less at regular monthly intervals throughout the

active reproductive life of a female" [8, 9]. While menarche is a natural event in a girl's life, it also marks the start of physical and social development [10]. Even though regular menstruation is evidence of a female's excellent reproductive health, menstruation itself is misunderstood and adulterated in many societies [11]. Furthermore, in some societies, discussing menstruation and related issues is prohibited. As a result, a natural biological process that elevates women and girls becomes a source of embarrassment and annoyance. Such social taboos and

myths make postpubescent females more vulnerable to unsanitary practices [12-14]. Moreover, pubertal development and sexual maturation are finished during this time due to hormonal changes. First menstruation is the most significant of all developmental milestones. Menarche is the critical point at which menstruation begins. Menstruation is a qualitative event that has a significant impact on a woman's life [15, 16]. Good hygiene is essential for young women's health during menstruation. Today's healthy young women will be tomorrow's healthy mothers. Menstruation is a normal physiological process, and communities must be made aware of this fact. A girl in her reproductive age menstruates 3-5 days each month on average or more. [17, 18]. Furthermore, the uterine medullary is exposed during vaginal bleeding, bacteria from the vagina can enter the uterus body and fallopian tube, resulting in infection. Young girls are vulnerable for reproductive system infections due to a lack of health awareness, social immaturity, and physical status. A lack of accurate or sufficient menstrual cycle information in developing countries has resulted in negative outcomes such as unhealthy behavior, negative body image, susceptibility to reproductive tract infections and pelvic inflammatory diseases, infertility, anxiety, and low self-esteem. There is a risk of infection during vaginal bleeding because the uterine osseous is open and allows bacteria from the vagina to enter the uterus body and fallopian tube, resulting in infection. Because of their lack of health information, social immaturity, and physical status, young girls are a vulnerable group for reproductive system infections. In developing countries, a lack of accurate or sufficient information about the menstrual cycle has resulted in negative outcomes such as unhealthy Behavior, negative body image, susceptibility to reproductive tract infections (RTI) and pelvic inflammatory diseases (PID), infertility, anxiety, and low self-esteem [17, 18]. These consequences are worsening by physical, psychological changes and menstrual hygiene [18, 19]. The use of hygienic sanitary protection, for example, reduces the incidence of reproductive tract infections. Knowledge of menstruation and menstrual hygiene is essential for reproductive health. Menstrual behaviors are influenced by a variety of factors, the most important of which is household economic status [20]. Depending on the information they acquire, young girls can or cannot follow an appropriate menstrual period hygiene practice. The internet, media, relatives and friends, particularly mothers, can all play an important role in providing accurate information about menstruation. It has been estimated that about 50% of adolescent girls worldwide suffer from menstrual irregularities and their negative consequences. All of this is due to the psychosocial stress and emotional changes that occur at

that age [21, 22]. Menstrual hygiene is often poor because menstruation is considered a "culture of shame" for girls and women, resulting in a lack of support from their partners and families. Menstruation and related issues are surrounded by a culture of silence in less developed countries. Menstruating girls' isolation, as well as restrictions imposed by their cultural values and beliefs, have reinforced a negative attitude towards this phenomenon. Even after menarche, adolescence is given very little information in such cultures. Young girls who have higher menstrual hygiene knowledge are less likely to have unsuitable health effects [23-25]. In the most extreme case, menstruation and menstrual hygiene remain mired in customs ethnic and social restrictions, myths, and misinformation, which result in girls being embarrassed, preventing them from seeking information, and even hiding their menstruation because they must be separated from the others during menstruation; demonstrating the importance of culture in menstruation [26, 27]. Onset of menstruation is one of the most important changes occurring during adolescence. Menstruation is a milestone event in a girl's life and the beginning of reproductive life. There are several cultural traditions, myths and misconceptions related to menstruation, which make them vulnerable to genital tract infections [28]. Lack of menstrual hygiene in adolescent girls can make them susceptible to various morbidities, for example, reproductive tract infection, urinary tract infection and their long-term consequences i.e., cervical cancer, infertility, and ectopic pregnancy [29]. The purpose of this cross-sectional descriptive study was to assess adolescent girls' attitudes, gaps in knowledge, beliefs, and hygienic practices regarding menstruation while they were being treated at a tertiary care teaching hospital for their various medical problems. Good hygiene is essential for young women's health during menstruation. Today's healthy young women will be tomorrow's healthy mothers. This study will be raised community awareness about menstrual hygiene practices. The study's findings can be used to improve hygiene practices in accordance with community standards. It can also be used to prevent and control reproductive tract infections and other reproductive disorders caused by poor hygiene.

## METHODS

It was descriptive cross-sectional study by using purposive sampling method. This study was conducted between 1st, July 2021 to 30th June 2022. The population of the study were the Nursing students at the College of Nursing, Allama Iqbal Medical College, Jinnah Hospital, Lahore. A purposive nonprobability sampling technique was utilized for in this study. This technique was used purposefully and

conveniently approaching the subjects. Data were collected by using a questionnaire. Inclusion Criteria: Nursing Students in College of Nursing, AIMC, J/H, Lahore. Exclusion Criteria: It includes students from other institutes, menopausal women, girls before menarche and mentally sick girls of same age group. Moreover, the students who were on medical leave and the participants who were unwilling to participate in the study.

The Sample size was selected using following formula:

$$\text{Sample size } n = \left[ \frac{\text{DEFF} * N_p(1-p)}{\left[ \left( \frac{d^2}{Z^2(1-\alpha/2)^*(N-1)} + P*(1-P) \right) \right]} \right]$$

Where DEFF= Design Effect, N= Sample Size, P= Population size, Z=1.96, CI=5%

Sample size: 80

Data were collected by using a questionnaire equipped by Doctor Funmito Omolola Fehintola. It was mainly divided into four parts, demographic profile of the participants, Part II consisting of Questions on knowledge towards menstrual process, Part III Questions about Attitudes towards Menstruation and Part IV Questions Based on Practice during Menstruation. A standardized tool was used for data collection. It was accessible to all participants through an introductory conversation. The contributors were helped during questionnaire fulfillment too. The data were collected conveniently and cooperatively. Written permission was obtained from the Principal of the Concern Organization. The study participants provided written consent outlining the purpose and benefits of the study. There was no request for personal information or contact with any of the participants. The participants' privacy and confidentiality were respected. The information gathered was solely for research purposes. Any danger to the participant was avoided. Data were analyzed by using SPSS version 25.0. The demographic and other variables are presented in the form of Frequencies, Percentages, and Graphs. Bar chart or pie chart were made. The quantitative variables were presented by mean, median, and standard deviation.

## RESULTS

This section contains the data in four parts. The first part includes demographic characteristics of population containing age groups, class, marital status, qualification, father's level of education, mother's level of education, and religion. The second part contains question assessing the knowledge of the participants regarding menstruation. The third part contains questions about attitudes of participants towards menstruation. The last part includes questions related to hygienic practices during menstruation. Table 1 shows the demographic profile of the participants. Nearly three fourth of the participants are lying in age group range from 18-25 years. This is because of selection of title i.e., girls' attitude towards menstrual

hygiene. Above half of the participants (52.5%) belong to Generic Nursing as they are readily available to provide data with co-operation and convenience. Parents' education plays vital role in their children behavior as they adapt what they observe. Overall, above two third (76.8%) of the participants belong to educated families. Majority (92.5%) of the participants are Muslims as the study conducted in an Islamic Country. Above three fourth of the participants are single in our study population (Table 1).

**Table 1:** Demographic profile of the participants

Demographic profile of the participants	Variables	Frequency (%)
Age	18-25 years	59 (73.8)
	26-35 years	17 (21.3)
	Above 35 years	4 (5)
Class	Post RN	20 (25)
	Generic Nursing	42 (52.5)
	Diploma Nursing	18 (22.5)
Marital status	Married	17 (21.3)
	Single	63 (78.8)
	Others	0 (0)
Father's level of education	None	4 (5)
	Primary	15 (18.8)
	Secondary	43 (53.8)
	Tertiary	18 (22.5)
Mother's level of education	None	17 (21.3)
	Primary	16 (20)
	Secondary	38 (47.5)
	Tertiary	9 (11.3)
Qualification	Post RN	20 (25.0)
	Generic Nursing	42 (52.5)
	Diploma Nursing	18 (22.5)
Religion	Muslim	74 (92.5)
	Christian	6 (7.5)

Table 2 shows the knowledge of respondents regarding menstruation. Overall, above two third (75.6%) of the study population have satisfactory knowledge about menstruation as the study is conducted among medical students. Most of the participants (87.5%) know that menses is a normal physical process having considerable significance in a woman's life. It is observed from data analysis that each cause of menstruation according to participants is concerning to this phenomenon to some extent but the most important one that observes in greater frequency is hormonal fluctuations (65%). More than half of the participants (52.5%) are already heard about menstruation prior to menarche as they belong to literate family. The main source of information is found to be mothers (75%), others may include friends, teacher etc. Overall, 90.2% of the respondents have good knowledge on menstruation but the only 9.8% have poor knowledge (Table 2).

**Table 2:** Knowledge of respondents about menstruation

Variables	Frequency (%)
<b>What is menstruation?</b>	
Physiological process	70 (87.5)
Pathological process	3 (3.8)
Both	7 (8.8)
<b>Cause of menstruation</b>	
Hormonal changes	52 (65)
It's a sign of virginity	3 (3.8)
Purification of blood	2 (2.5)
Both a & b	23 (28.7)
<b>Sources of menstrual blood</b>	
Uterus	69 (86.3)
Vaginal	9 (11.3)
Bladder	2 (2.5)
Abdomen	0 (0)
<b>Normal cycle length</b>	
21-35 days	76 (95)
>35 days	4 (5)
<b>Ever heard about menstruation before menarche</b>	
Yes	42 (52.5)
No	38 (47.5)
<b>Sources of information</b>	
Mother	60 (75)
Teacher	3 (3.8)
Friends	17 (21.3)
Books	0 (0)
Media (TV, Radio)	0 (0)

## DISCUSSION

Menstruation is an important pubertal development in the life of a female. There are many misconceptions about this normal physiological process, such as a lack of knowledge about menstruation and poor hygienic practices during menstruation. The current study sheds light on the higher percentage of menstruation process awareness and reveals that mothers are the primary source of information for their female children prior to menarche. The current study's findings are similar to those of a study conducted to assess the knowledge, attitude, and practice of Secondary School girls [29], but they are contradictory to those of a study conducted in India among school-aged girls at the Urban Health Training Centre IGIMS, Patna [30]. The reason for the current studies' findings in the variable that exists in this study is the mother's level of education. The majority are tertiary educated (11.3%), secondary educated (47.5%), and primary educated (20%). The current study's findings are similar to those of a study conducted in Karachi, Pakistan [31]. Cultural considerations also influence the current study's findings. In the current study, more than half of the participants had satisfactory knowledge about menstruation and good hygienic practices, which was similar to a study conducted in Bengaluru Urban District,

South India, which found that females (72.3%) had higher awareness levels than males (29.6%). Menstrual hygiene practices were deemed acceptable [32]. The current study's findings differed from those of a previous study conducted in the Marh block of Jammu district among adolescent school girls in the Govt. Higher Secondary School, which revealed that only 49.24% of respondents were aware of menstruation before menarche. It could be due to the fact that the study divided understanding into good and poor [33]. In the current study, the majority of participants (51.2%) were either uncomfortable or emotionally disturbed (41.3%). These findings were comparable to those of Tiwari's study in India [34]. Hygiene practices are important in confirming the absence of disorders in girls. The use of materials repeatedly during menstruation increases the likelihood of infection due to improper cleaning and washing. The current study's findings show that the vast majority of participants (93.8%) use sanitary pads during menstruation. This was similar to the findings of a study conducted in rural settings among adolescent school girls in Jammu district. These findings could be attributed to the high poverty level in this area, as a number of participants' parents or guardians were underemployed [35]. In this study, the majority of participants discarded used materials by wrapping them in plastic bags (61.3%) and paper (36.3%) and throwing them away (98.8%). These findings are similar to those of a study conducted in a tertiary care hospital in India on the knowledge, attitude, and socio-cultural beliefs of adolescent girls about menstruation [36]. This was in contrast to the findings that majority of their respondents burned and disposed of the absorbent materials used during menstruation and disposed of it in the same manner as solid waste. The practice of disposing of used material without wrapping during menstruation should be discouraged because it can create a breeding ground for insects and increasing the risk of various infections or illnesses [37]. Overall, the hygiene practices during menstruation among Nursing Students at the College of Nursing in Lahore are satisfactory, with the majority of respondents demonstrating good hygiene practices. This study's findings were similar to another study which revealed that all participants who were knowledgeable about menstruation and used menstrual hygiene products when necessary. In the current study, there was a positive relationship between parents' educational level and good knowledge of menstruation and its hygiene practices. When compared to uneducated mothers, educated mothers are more likely to discuss menstruation with their children in a friendly manner [38].

## CONCLUSIONS

This study findings revealed the majority of the



respondents practice good menstrual hygiene and have good knowledge about menstruation. Efforts must be made to ensure that teenagers are thoroughly educated on menstruation and the requirement of suitable hygiene practices at school and home.

### Authors Contribution

Conceptualization: SA

Methodology: SA, IR, RS, SA, ADA

Formal analysis: SA, RS

Writing-review and editing: IR, SR, SA, ADA

All authors have read and agreed to the published version of the manuscript.

### Conflicts of Interest

The authors declare no conflict of interest.

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