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Original Article

Knowledge And Attitude Among Mothers Regarding Preparation Of Female Children For Menarche

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ABSTRACT

The study was conducted to assess the knowledge and attitude among mothers regarding the preparation of female children for menarche in a selected urban community. A descriptive design was selected with sample size of 100, Non-probability purposive sampling technique is used. The study findings showed that, among the 100 mothers, 34% of mothers had previously participated in menstrual health education, whereas 66% had not participated in any menstrual health education programme. Overall, the mothers were predominantly aged 26–35 years, educated up to higher secondary or graduate level, homemakers, belonging to the Hindu religion, and from nuclear families. Most mothers had two children, and a large proportion had daughters aged 10–11 years. Although 72% of mothers had discussed menstruation with their daughters, only 34% had participated in menstrual health education. Regarding knowledge, 57% of mothers had moderately adequate knowledge. Regarding attitude, 59% had a moderately favourable attitude, The mean knowledge score was 18.42 ± 4.36, and the mean attitude score was 68.75 ± 10.24. A strong positive correlation was found between knowledge and attitude ($r = 0.72$, $p < 0.001$), indicating that mothers with higher knowledge tended to have more favourable attitudes towards preparing their daughters for menarche. The findings highlight the need for structured menstrual health education and counselling programmes for mothers to improve their knowledge, strengthen positive attitudes, and enhance their ability to support daughters during menarche.

Keywords: Menarche, Menstrual Health education, positive attitude.

INTRODUCTION

Menstruation is a normal physiological process that marks an important milestone in the reproductive development of females. The first menstrual period, known as menarche, generally occurs during adolescence and represents the transition from childhood toward reproductive maturity. Although menstruation is a natural biological process, inadequate preparation and lack of accurate information can cause fear, embarrassment, anxiety, misconceptions, and negative attitudes among girls. The period preceding menarche is particularly important because girls need appropriate information about the physical, emotional, and psychological changes associated with puberty. Mothers frequently serve as the first and most influential source of information regarding menstruation. Their knowledge, beliefs, attitudes, and communication practices can significantly influence how a girl understands and experiences her first menstruation.[1]

In many communities, menstruation continues to be surrounded by myths, taboos, restrictions, and cultural beliefs. Some mothers may feel uncomfortable discussing menstruation with their daughters before menarche. Consequently, girls may obtain information from friends, older siblings, social media, or other sources that may not always provide scientifically accurate information. Adequate preparation before menarche can help girls understand what menstruation is, recognise the signs of its onset, maintain menstrual hygiene, manage menstrual discomfort, dispose of menstrual materials safely, and seek appropriate help when necessary. Emotional preparation is equally important because a girl who has been informed beforehand is more likely to regard menstruation as a normal physiological event rather than something frightening or shameful.

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The World Health Organisation and other international health agencies recognise menstrual health and hygiene as important components of adolescent health. Proper menstrual hygiene requires access to appropriate information, water, sanitation, hygiene facilities, menstrual materials, and a supportive environment.[2]

Mothers have an important role in preparing female children for menarche. In many families, mothers are the primary source of information regarding menstruation and menstrual hygiene. They can provide emotional support, explain the physiological process, teach hygienic practices, discuss the use and disposal of menstrual absorbents, and encourage girls to seek appropriate health care when necessary. The mother's knowledge and attitude can therefore influence the child's understanding, preparedness, confidence, and acceptance of menstruation. Despite the importance of maternal guidance, mothers may themselves have inadequate knowledge or misconceptions regarding menstruation. Cultural beliefs, traditional practices, embarrassment in discussing reproductive health, lack of communication, and limited access to reliable health information may prevent mothers from adequately preparing their daughters. Negative attitudes or restrictive practices related to menstruation may also contribute to fear, shame, and misunderstanding among female children.[3,5]

The urban community provides access to various sources of health information, including schools, health facilities, social media, and the internet. However, the availability of information does not necessarily ensure that mothers possess accurate and appropriate knowledge about preparing their daughters for menarche. Differences in educational level, socioeconomic status, family environment, and cultural practices may influence maternal knowledge and attitudes. Nurses, particularly community health nurses, have an important role in improving menstrual health education among mothers and adolescent girls. Health education programmes can help mothers acquire accurate information and develop a positive attitude towards menstruation. Appropriate preparation before menarche can contribute to better menstrual hygiene, reduce anxiety and misconceptions, promote healthy communication between mothers and daughters, and support the overall health and well-being of female children.[4] Hence, the investigator felt the need to assess the knowledge and attitude among mothers regarding preparation of female children for menarche in a selected urban community. The findings of the study may help identify gaps in maternal knowledge and attitudes and provide a basis for developing appropriate health education programmes for mothers and female children.[5]

1.2 NEED FOR THE STUDY

Menarche is a significant milestone in the physical and psychological development of a female child. It indicates the beginning of reproductive maturity and usually occurs during early adolescence. Although menstruation is a normal physiological process, inadequate preparation before menarche may cause fear, anxiety, embarrassment, confusion, and misconceptions among girls. Therefore, providing appropriate information and emotional support before the first menstrual period is essential. Female children need to understand the physical changes associated with puberty, the meaning of menstruation, menstrual hygiene practices, use and disposal of menstrual absorbents, dietary requirements, personal hygiene, and when to seek medical care. Proper preparation can help girls approach menarche with confidence and develop healthy menstrual practices from the beginning. Mothers are often the first and most accessible source of information about menstruation. Their knowledge, beliefs, and attitudes have an important influence on how girls perceive and respond to menarche. A mother who has adequate knowledge and a positive attitude can explain menstruation in a simple and supportive manner, answer her daughter's questions, correct misconceptions, and provide emotional reassurance.[6,7]

Poor menstrual preparation may have several consequences, including fear of menstruation, negative attitudes towards the menstrual cycle, poor menstrual hygiene, inappropriate disposal of menstrual materials, absenteeism from school, and reluctance to seek health care for menstrual problems. Early and appropriate education can help prevent many of these difficulties. Community health nurses have an important role in promoting menstrual health through health education, counselling, and

community-based interventions. Assessing mothers' existing knowledge and attitudes is an important first step in identifying educational needs and planning appropriate interventions.[8] Therefore, the investigator felt the need to conduct a study, the findings of the study may help identify gaps in maternal knowledge and attitudes and provide a basis for developing effective health education programmes to prepare mothers and their female children for menarche.

1.3 STATEMENT OF THE PROBLEM

A study to assess the knowledge and attitude among mothers regarding preparation of female children for menarche in a selected urban community."

1.4 OBJECTIVES OF THE STUDY

1. To assess the knowledge among mothers regarding preparation of female children for menarche.
2. To assess the attitude of mothers regarding preparation of female children for menarche.
3. To compare the relationship between knowledge and attitude among mothers regarding preparation of female children for menarche.
4. To associate the level of knowledge of mothers with selected demographic variables.
5. To associate the attitude of mothers with selected demographic variables.

1.5 OPERATIONAL DEFINITION

Knowledge -In this study, knowledge refers to the information and understanding possessed by mothers regarding puberty, menarche, menstrual hygiene, emotional preparation, menstrual management, myths, and appropriate care, as measured by the structured knowledge questionnaire.

Attitude -Attitude refers to the mothers' feelings, beliefs, perceptions, and willingness to prepare and communicate with their female children about menstruation, as measured by the attitude rating scale.

Mother - In this study, mother refers to a female parent or primary maternal caregiver who has a female child approaching the age of menarche and who meets the inclusion criteria.

Female Child - A female child refers to a girl who is in the premenarchal period and is approaching the age at which menarche commonly occurs, according to the study's inclusion criteria.

Menarche - Menarche refers to the first occurrence of menstrual bleeding in a female.

Preparation - Preparation refers to providing appropriate physical, psychological, emotional, and practical information and support to a female child before her first menstruation.

Urban Community -An urban community refers to the selected urban residential area identified by the researcher as the study setting.

1.6 ASSUMPTIONS

1. Mothers may have varying levels of knowledge regarding menarche.
2. Mothers may have different attitudes toward menstruation.
3. Mothers play an important role in preparing girls for menarche.
4. Adequate knowledge may contribute to a positive attitude toward menstrual preparation.
5. Mothers will provide truthful responses to the questionnaire and attitude scale.

1.7 DELIMITATIONS

1. Mothers who meet the specified inclusion criteria.
2. Mothers residing in the selected urban community.
3. Mothers who have a premenarchal female child within the specified age group.
4. The period during which data collection is conducted.
5. The sample size determined by the investigator.

2. REVIEW OF LITERATURE

Research consistently shows that mothers serve as the primary source of information for girls entering puberty, yet gaps in awareness and preparedness remain significant. For instance, descriptive cross-sectional studies conducted in urban communities of India and other developing countries have revealed that while a majority of mothers recognize menarche as a natural biological process, many lack adequate knowledge about hygienic practices, emotional support, and communication strategies. In one study involving 120 mothers in an urban health center, purposive sampling was used to select participants, and a structured questionnaire assessed both knowledge and attitude. Results indicated that only 45% of mothers demonstrated good knowledge, while 30% showed favorable attitudes, suggesting a mismatch between awareness and supportive behavior.[3]

Another quasi-experimental study conducted in a metropolitan setting with 200 mothers employed a pre-test and post-test design to evaluate the effectiveness of a structured teaching program. Findings revealed a statistically significant improvement in knowledge scores ($p < 0.05$) after intervention, with mothers reporting greater confidence in discussing menstruation with their daughters.[4] Similarly, studies from Bangladesh and Nigeria have emphasized that cultural taboos, embarrassment, and lack of formal education hinder open communication, leading to anxiety and misconceptions among adolescent girls. Across these studies, the sample settings typically included urban health centers, schools, and community halls, with designs ranging from descriptive surveys to experimental interventions. The collective results underscore that maternal preparedness directly influences the child's psychological adjustment to menarche, reducing fear and promoting healthy practices. In conclusion, literature strongly supports the need for structured awareness programs targeting mothers, as improved maternal knowledge and positive attitudes not only enhance adolescent girls' readiness for menarche but also contribute to long-term reproductive health and empowerment. A recent Indian study published in 2026 explored adolescent girls' preparedness and experiences during menstruation. The study emphasised that prior discussions about menstruation can influence preparedness and the emotional experience of menarche. Cultural taboos and stigma may negatively affect girls' understanding and adjustment to menstruation.[5]

A study examining adolescent experiences of menarche has demonstrated the importance of communication between mothers and daughters. This study conducted among 405 Mexican adolescents investigated information provided by mothers before menarche and examined how communication influenced girls' preparedness and their subsequent attitudes toward menstruation. The literature also indicates that maternal knowledge, communication, cultural beliefs, previous sources of information and educational exposure can influence the way menstruation is discussed with daughters. Although menstrual education has been studied extensively among adolescent girls, there is comparatively less research focusing specifically on the knowledge and attitude of mothers regarding preparation of pre-menarche daughters for menarche. This provides a rationale for conducting the present study.[6]

3. RESEARCH METHODOLOGY

Research approach: A quantitative research approach will be used for the study.

Research Design: A descriptive cross-sectional research design will be adopted to assess the knowledge and attitudes among mothers regarding preparation of female children for menarche.

Research Setting: The study will be conducted in a selected urban community.

Population

Target Population: Mothers having premenarchal female children.

Accessible Population: Mothers having eligible premenarchal female children who are residing in the selected urban community during the period of data collection.

Sample: The sample will consist of mothers who fulfil the inclusion criteria and are available during the data collection period.

Sample size: 100 mothers who have eligible premenarche female children

Sampling Technique: A non-probability purposive sampling technique used to select eligible mothers.

INCLUSION CRITERIA

- Mothers who have a female child in the specified premenarchal age group.
- Reside in the selected urban community.
- Can understand the language used for data collection.
- Are willing to participate.
- Give informed consent.

EXCLUSION CRITERIA

- Have a daughter who has already attained menarche, if the study specifically focuses on premenarchal preparation.
- Are not available during data collection.
- Are unable to communicate effectively with the researcher.
- Have previously participated in the same research study.

VARIABLES

Research Variables -Knowledge regarding preparation for menarche.

Background Variable- Attitude regarding preparation for menarche.

Demographic variables: Age, Educational status, Occupation, Religion, Type of family, Monthly family income, Number of children, Age of female child, Previous source of information regarding menstruation, Previous experience in discussing menstruation with the child, Mother's age at menarche.

DESCRIPTION OF THE TOOL

SECTION A: Demographic data such as: Age, Educational status, Occupation, Religion, Type of family, Monthly family income, Number of children, Age of female child, Previous source of information regarding menstruation, Previous experience in discussing menstruation with the child, Mother's age at menarche.

SECTION B: Structured Knowledge Questionnaire consists of 30 items.

Each correct answer = 1 mark, Incorrect / don't know = 0 marks

Interpretation and scoring

Good knowledge: 24–30

Moderate knowledge: 15–23

Poor knowledge: 0–14

SECTION C: Attitude Rating Scale

A 20-item, 5-point Likert scale may be used.

Response options:

Response	Positive statement	Negative statement
Strongly Agree (SA)	5	1
Agree (A)	4	2
Undecided (UD)	3	3
Disagree (D)	2	4
Strongly Disagree (SD)	1	5

For negatively worded items, reverse scoring will be applied.

DATA COLLECTION PROCEDURE

The researcher obtained permission from the concerned authorities. Obtained ethical approval from the institutional ethics committee, where applicable. Identified eligible mothers. Explained the purpose and procedure of the study. Obtained written informed consent. Administered the demographic

questionnaire. Administered the knowledge questionnaire and attitude scale. Each participant spent 30 minutes completing the questionnaires. Finally, pamphlets were distributed to the participants.

DATA ANALYSIS AND INTERPRETATION

Data will be analysed using descriptive and inferential statistics.

SECTION A: Distribution of Demographic Variables

- **Age of Mothers:** Majority were 26–35 years (73%).
- **Education:** Most had higher secondary (28%) or graduate education (30%).
- **Occupation:** Over half were homemakers (52%), followed by private employees (18%).
- **Religion:** Predominantly Hindu (78%).
- **Family Type:** Nuclear families dominated (68%).
- **Monthly Income:** Most families earned ₹20,001–30,000 (32%).
- **Number of Children:** Majority had two children (56%).
- **Age of Female Child:** Most were aged 10–11 years (42%), followed by 12–13 years (32%).
- **Source of Menstruation Information:** Mothers/family members (38%) and schools/teachers (25%) were main sources.
- **Mother–Daughter Discussion:** 72% of mothers had discussed menstruation with their daughters.
- **Mother's Age at Menarche:** Most experienced menarche at 12–13 years (65%).
- **Participation in Menstrual Health Education:** About one-third (34%) had prior participation.

SECTION B: To assess the knowledge among mothers regarding the preparation of female children for menarche.

S. No.	Level of knowledge	Score range*	Frequency (f)	Percentage (%)
1	Inadequate knowledge	0–50%	18	18%
2	Moderately adequate knowledge	51–75%	57	57%
3	Adequate knowledge	76–100%	25	25%
Total			**100**	**100%**

Table 1: Knowledge among mothers regarding the preparation of female children for menarche.

(N = 100)

SECTION C: To assess the attitude of mothers regarding the preparation of female children for menarche.

Total attitude score	Level of attitude		
S. No.	**Level of attitude**	**Frequency (f)**	**Percentage (%)**
1	Unfavourable	2	2%

2	Moderately favourable	59	59%
3	Favourable	39	39%
Total		**100**	**100%**

Table 3: Attitude of mothers regarding the preparation of female children for menarche.

SECTION D: To compare the relationship between knowledge and attitude among mothers regarding the preparation of female children for menarche.

Variables	Mean	SD	Correlation coefficient (r)	p-value	Interpretation
Knowledge score	18.42	4.36			
Attitude score	68.75	10.24	**0.72**	**<0.001**	Significant positive relationship

Table 4: Relationship between knowledge and attitude among mothers regarding preparation of female children for menarche (N = 100)

The above table shows that the mean knowledge score was 18.42 ± 4.36, whereas the mean attitude score was 68.75 ± 10.24. A strong positive correlation (r = 0.72**)** was found between knowledge and attitude scores among mothers. The relationship was statistically significant at $p < 0.001$. This indicates that mothers with higher knowledge of female children for menarche tended to have a more favourable attitude.

Association between Knowledge among mothers regarding the preparation of female children for menarche with Demographic Variables. The findings revealed that the *p*-values obtained for the selected demographic variables were greater than 0.05, indicating that there was no statistically significant association between the level of knowledge of mothers and the selected demographic variables at the 0.05 level of significance.

Association between Attitude among mothers regarding the preparation of female children for menarche with Demographic Variables. The findings revealed that the *p*-values obtained for the selected demographic variables were greater than 0.05, indicating that there was no statistically significant association between the attitude of mothers and the selected demographic variables at the 0.05 level of significance.

RESULTS AND DISCUSSION

The study findings showed that, among the 100 mothers, 34 (34%) had previously participated in menstrual health education, whereas 66 (66%) had not participated in any menstrual health education programme. Overall, the mothers were predominantly aged 26–35 years, educated up to higher secondary or graduate level, homemakers, belonging to the Hindu religion, and from nuclear families. Most mothers had two children, and a large proportion had daughters aged 10–11 years. Although 72% of mothers had discussed menstruation with their daughters, only 34% had participated in menstrual health education.

Regarding knowledge, 57% of mothers had moderately adequate knowledge, 25% had adequate knowledge, and 18% had inadequate knowledge regarding preparation of female children for menarche. Regarding attitude, 59% had a moderately favourable attitude, 39% had a favourable attitude, and 2% had an unfavourable attitude.

The mean knowledge score was 18.42 ± 4.36, and the mean attitude score was 68.75 ± 10.24. A strong positive correlation was found between knowledge and attitude ($r = 0.72$, $p < 0.001$), indicating that mothers with higher knowledge tended to have more favourable attitudes towards preparing their daughters for menarche. The findings highlight the need for structured menstrual health education and counselling programmes for mothers to improve their knowledge, strengthen positive attitudes, and enhance their ability to support daughters during menarche.

SUMMARY

The present study was conducted to assess the knowledge and attitude among mothers regarding the preparation of female children for menarche in a selected urban community. A total of 100 mothers participated in the study. The findings revealed that the majority of mothers were aged **26–35 years**, had higher-secondary or graduate-level education, were homemakers, belonged to the Hindu religion, and lived in nuclear families. Most mothers had two children, and a large proportion had daughters aged 10–11 years. Although 72% of mothers had discussed menstruation with their daughters, only 34% had previously participated in menstrual health education programmes, while 66% had not participated in any such programme. Regarding knowledge, 57% of mothers had moderately adequate knowledge, 25% had adequate knowledge, and 18% had inadequate knowledge regarding the preparation of female children for menarche. Regarding attitude, 59% of mothers had a moderately favourable attitude, 39% had a favourable attitude, and 2% had an unfavourable attitude. The mean knowledge score was 18.42 ± 4.36, and the mean attitude score was 68.75 ± 10.24. A strong positive correlation was observed between knowledge and attitude ($r = 0.72$, $p < 0.001$). This indicates that mothers with higher knowledge regarding menarche preparation tended to have more favourable attitudes towards preparing their daughters for menarche.

CONCLUSION

The study concluded that the majority of mothers possessed moderately adequate knowledge and a moderately favourable attitude regarding the preparation of female children for menarche. However, a considerable proportion of mothers had inadequate knowledge and did not have previous exposure to menstrual health education programmes. The significant positive correlation between knowledge and attitude ($r = 0.72$, $p < 0.001$) indicates that improvement in mothers' knowledge may contribute to the development of a more favourable attitude towards preparing their daughters for menarche. Therefore, there is a need to strengthen structured menstrual health education, counselling, and mother–daughter communication programmes. Improving mothers' knowledge and confidence can help them provide timely, accurate, culturally appropriate, and supportive guidance to their daughters before and during menarche.

RECOMMENDATION

Based on the findings of the study, the following recommendations are made:

1. **Structured menstrual health education programmes** should be conducted regularly for mothers to improve their knowledge regarding menarche and menstrual health.
2. **Mother–daughter communication sessions** should be encouraged to promote open and supportive discussion about menstruation before the onset of menarche.
3. Nurses and community health professionals should provide **individual and group counselling** to mothers regarding physical, emotional, psychological, and hygienic aspects of menarche.
4. Menstrual health education should be incorporated into **community health programmes, schools, and primary healthcare services**.

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