



Original Article

# Emerging from the cocoon: The menarche experience among Iranian adolescent females: A qualitative study

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## Abstract

**Introduction:** Menarche is a significant physiological and psychological event that typically occurs between the ages of 10 and 16. It is regarded as a pivotal milestone in female reproductive development and serves as a crucial marker of health status. The present study was undertaken to investigate the menarche experience among Iranian adolescent females.

**Methods:** This qualitative study employed conventional content analysis and was conducted in 2022 in Neyshabur, Iran. Eighteen adolescent girls were invited through purposive sampling, with data collected via in-depth, semi-structured interviews.

**Results:** The analysis yielded two primary categories of menarche experiences: Negative experiences (including fear, restricted autonomy, feelings of uncleanliness, lack of awareness, embarrassment, concealment of menarche, hiding menarche, sorrow, and physical symptoms) and Positive experiences, characterized by family support and previous training.

**Conclusion:** The findings highlight the varied experiences of adolescent girls regarding menarche, underscoring the need for early puberty education and preparation for menstruation. Additionally, family support emerged as a key factor in fostering a positive attitude toward menstruation.

**Keywords:** Menarche, Adolescent, Female, Qualitative research, Iran

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## Introduction

Adolescence represents a distinctive phase in human maturation.<sup>1</sup> The health-related concerns of adolescents, encompassing issues such as the consumption of alcohol and substances, incidences of injuries, mental health challenges, sexual and reproductive health, tobacco consumption, and exposure to violence, are among the primary areas of focus for the World Health Organization.<sup>2</sup> One of the changes that adolescents face is puberty. Adolescents experience menarche, or the first menstrual period, between the ages of 10 and 16.<sup>3</sup> Menarche is a significant event in a woman's reproductive life and is also a crucial determinant of her overall health.<sup>4,5</sup>

Despite the progress and attention paid to the reproductive health of adolescent females in recent years, unfortunately, five studies show that adolescent females experience menarche with inadequate preparation.

Menarche readiness is a significant issue of female reproductive health, and ill-preparedness can result in negative experiences or negative feelings towards the first period or menarche.<sup>6,7,8</sup> A study among Iranian women reported that the majority of women had a negative experience during menarche, possibly due to inadequate preparation and lack of information from teachers, coaches, and families, especially mothers. Many women viewed menstruation as an illness and believed that women during menstruation should not follow religious rules because they are impure.<sup>6</sup> The results from a study showed that less than 50 percent of adolescent females were aware of menstruation before their menarche.<sup>9</sup> Also, the results of the scoping review reveal that adolescent females in less affluent areas do not have sufficient knowledge and preparation about puberty and the events of this period, such as menstruation.<sup>10</sup>



Girls who have inadequate preparation for menstruation tend to have negative feelings at the time of menarche<sup>11</sup>. Also, the cultural and social taboos surrounding menstruation negatively impact the experiences of girls during menarche.<sup>12</sup> Providing proper education for girls prior to menarche helps ensure they are well-informed and prepared for the onset of menstruation.<sup>13</sup>

Creating safe spaces for girls to discuss their experiences and emotions related to menstruation openly can help alleviate feelings of isolation and provide much-needed support during this transitional period.<sup>12</sup> It is imperative for healthcare practitioners to establish effective and timely communication regarding menarche and menstruation throughout the female lifespan, while also equipping women with relevant information concerning anticipated experiences, menstrual management strategies, and the associated health implications.<sup>14</sup>

Given that comprehending the menarche experiences of female adolescents is essential for promoting culturally sensitive medical practices, health promotion, and education, this research was conducted to explore the menarche experiences of Iranian adolescent girls upon the onset of menarche.

## Methods

### *Study Design and Participants*

This research was conducted using a qualitative methodology rooted in conventional content analysis from February to July 2022 in Neyshabur, a city located in the northern part of Khorasan Razavi Province in Iran. Participants were chosen through a purposeful sampling technique. The sample consisted of eighteen adolescent females from six public secondary schools and six high schools across three distinct areas of Neyshabur, characterized by varying socio-economic statuses.

### *Data Collection*

Data gathering was conducted through individual, in-depth, semi-structured interviews with the participants. Each interview was conducted through open-ended questions to explore the girls' perceptions and opinions about menarche, including "How did you feel the first time you got your period?" The interviews were carried out at educational institutions, specifically in schools. The interviews were conducted in the Persian language and recorded using audio technology. Each individual involved in the study underwent an interview, which lasted approximately 30 minutes per session. The interviews were conducted by an assistant professor of health education and health promotion working at Neyshabur University of Medical Sciences.

### *Data Analysis*

Conventional content analysis was employed to capture the emotions and encounters of the participants during

the onset of menarche. To achieve this objective, all interviews were meticulously transcribed and subsequently examined multiple times. The initial stage of analysis involved identifying meaningful segments from the transcripts. Codes were then generated inductively and assigned to distinct categories based on variations and commonalities. The process of data analysis continued until data saturation was achieved, indicating the point at which no additional themes could be identified.

### *Data Trustworthiness*

To enhance the credibility of the data, a constructive relationship was established between the interviewers and the participants, and sufficient time was allocated for the data collection process. Moreover, the transcripts of the interviews and the codes developed were disseminated among the participants to gather their insights regarding the importance of the identified units of meaning. In addition, beyond the research team, these transcripts were also provided to a curated group of external experts who had no involvement in the study, thereby acting as unbiased evaluators, with the aim of assessing the fidelity of the coding methodology.

All individuals involved willingly provided their signatures on the informed consent document, indicating their agreement to participate in the research prior to the commencement of the interviews. Additionally, before conducting the interview, the interviewer provided participants with explanations regarding the study's purpose and the confidentiality of their information. Additionally, prior to conducting the study, formal authorization was obtained from the educational institution's administration.

This study was approved by the Ethics Committee of Neyshabur University of Medical Sciences (ethics code: IR.NUMS.REC.1400.039).

## Results

In total, one theme, two main categories, 10 subcategories and 158 codes were extracted (Table 1).

### *Unpleasant experiences*

These experiences include unpleasant feelings and perceptions experienced by adolescents during their menarche, such as fear, embarrassment and sorrow, as well as events and situations that them have experienced or encountered during their menarche, and the person did not feel good about these events and situations, such as deprivation of freedom, lack of awareness and physical symptoms.

### *Fear*

Fear was one of the unpleasant experiences that adolescent girls faced. Most of the participants experienced fear, stating that the reasons for it were a lack of knowledge

**Table 1.** Main categories and categories

Main categories	Subcategories
Unpleasant Experiences	Fear
	Deprivation of freedom
	Feeling unclean
	Lack of awareness
	feeling of embarrassment
	Hiding menarche
	Sorrow
Pleasant Experiences	Physical Symptoms
	Family support
	Previous training

about the occurrence of the menstrual phenomenon in girls. Some of them, despite being aware of the existence of the menstrual phenomenon and its occurrence for girls, expressed the fear of experiencing menstruation for the first time. Also, the transfer of unpleasant and harmful experiences of friends and people around them from the phenomenon of menstruation or their first menstruation had caused the feeling of fear in some of the participants.

*“At first, I was scared; this had never happened before, so I froze. Then I asked my mom, and she said that this was normal. It starts when you reach a certain age and continues until the age of 50, then stops at the age of 60.” (participant 2)*

### Deprivation of freedom

Some of the participants mentioned menstruation as a limitation for girls. They believed that menstruation deprives them of their freedom. The reasons most of them stated include limiting social interactions, commuting and attending parties due to damp clothes, restricting the consumption of certain foods (such as pickles, cold drinks, and cold foods), avoiding baths, and limiting religious activities like attending the mosque. The feeling of discomfort and annoyance when using and carrying sanitary napkins, as well as abnormal walking and difficulty walking, were the first experiences of using sanitary napkins reported by other participants. For example, the participants stated:

*“I was in trouble due to the restrictions that were created for me; for example, I couldn’t eat the foods that I like, such as a variety of fruits, which was difficult for me. When I got my period, my sister told me not to eat watermelon because it makes the smell of my menstruation worse. Because of my period, I had not been able to take a bath for a week; it was awful.” (participant 4)*

*“I hate, I didn’t want to, because my freedom was less, I couldn’t go to the mosque, I couldn’t be comfortable in a party, I couldn’t move around easily, I had to be careful that my clothes didn’t get wet or bloody, I was afraid of*

*being embarrassed, always I wore two pairs of pants.” (participant 8)*

### Feeling unclean

One of the experiences of adolescent girls from their first menstruation was expressing the feeling of impurity. The blood coming out and the bloody clothing caused the girls to feel dirty or unclean. And they stated that an unpleasant smell accompanies it. For example, the participants stated:

*“It was a bad feeling, something like feeling disgusted with yourself, feeling dirty, I wanted it to end as soon as possible, I felt like I was in a dirty place that no matter what I did, I couldn’t get clean” (participant 10)*

### Lack of awareness

Menarche experience without prior knowledge and information was one of the common complaints of female adolescents. Being shocked by the sight of blood due to not familiarity with the phenomenon of menstruation for girls, not being familiar with how to use sanitary napkins and attributing the symptoms of menstruation to other diseases (for example, attributing the menstrual pain to a cold and bleeding to dysentery) were some of the subjects they expressed. For example, the participants stated:

*“The first time I got my period, I was at our house, I was terrified, my mother was at home, I called her, she came and said that this is common among all women and girls, They become like this from a certain age, explaining to me, and then learned about menstruation.” (Participant 12)*

### Feeling of embarrassment

The feeling of embarrassment was another experience of adolescent girls, who had experienced this feeling especially with men (father, brother, and others). Embarrassment in preparing and buying sanitary napkins was another experience for the participants. For example, the participants stated:

*“I didn’t leave the room at all. I felt that my father knew that I was menstruating. I was also ashamed of my older brother. I didn’t look them in the face at all. I felt that they would notice that I was menstruating. I was embarrassed.” (Participant 18)*

### Hiding Menarche

Another experience of adolescent girls in menarche was hiding their menstruation, which most of them expressed. They had hidden their menarche from others, especially their mothers, and had discussed it with others, such as their older sister and friends. Most of them expressed their reasons for not feeling comfortable with their mothers. Adolescent girls said that hiding their menstrual periods caused them emotional distress and psychological pressure. For example, the participants stated:

*“I’m not at all comfortable with my mother in such*

*matters. I hid from my mother for 6 months. I told my cousin's daughter that I was talking to my friends. It was tough for me. My friends said You should tell your mother.» (Participant 17)*

### Sorrow

The feeling of sadness was one of the other unpleasant experiences of girls during their first period. Being sad about growing up and leaving the world of childhood, as well as complaining about being a girl and wishing to be a boy, were some of the things they expressed. For example, the participants stated:

*"I was sad, I cried, because I felt that I had grown up, I didn't like to grow up, at that time I wanted to be a boy more than a girl to experience these things." (Participant 11)*

### Physical Symptoms

The physical symptoms experienced by adolescent girls during their menarche were: dysmenorrhea, back pain, headache, dizziness, nausea, sweating, body wetness and body heat. These physical symptoms made their first menstruation unpleasant for them. For example, one of the participants said:

*"The first time I got my period, it was challenging for me, and the pain was worse than all the times, especially on the first and second day. I had much nausea." (Participant 6)*

### Pleasant experiences

Pleasant experiences include the positive events and interactions that adolescents described from their menarche, such as family support, favourable communication, and prior knowledge about menstruation.

### Family support

Good communication between mothers and their daughters, along with providing them with information before and during the menarche, made the girls' first period a pleasant experience. Additionally, the girls who had an older sister reported that their menarche was normal for them, and they were not afraid of it.

*"I wasn't afraid, I didn't feel bad, because my mom had already told me everything and I knew what happened". (Participant 3)*

*"When I got my period, I told my mom, because my mom had told me everything before, she said don't worry, if you see blood spots, don't be afraid, she explained what to do and what tools to use." (Participant 9)*

### Previous training

Having previous information about menstruation, previous education, and familiarity with menstruation were the reasons for not feeling afraid, not feeling uncomfortable and considering menstruation as a regular

and pleasant event. For example, the participants stated:

*"I had the feeling of reaching maturity and growing up, that's all, I didn't have any special feeling, because I knew everything about it, we were told in school, if you don't know about something, you might feel scared or stressed. But I knew everything about it". (Participant 5)*

### Discussion

The present study was conducted to investigate the experiences of menarche among adolescent girls. Based on the findings, adolescent girls reported both pleasant and unpleasant experiences associated with their menarche.

After menarche, females experience physical, psychological, and sociocultural changes, and family, cultural, and social factors influence their menarche experience.<sup>15</sup> Fifteen girls' reactions to menarche vary, with some feeling excitement and anticipation, while others exhibit ambivalence or rejection regarding their newly assigned status.<sup>16</sup> In the study among Mexican and American college students, the Mexican women had more negative associations with menarche, such as fear and confusion. In contrast, American women may experience more negative emotions like annoyance and pain.<sup>17</sup>

In an alternative investigation involving Iranian adolescent females, a significant proportion of respondents characterized puberty as an unfavourable experience, with most identifying menarche as the most distressing event of puberty. The underlying emotions associated with this perception included aversion, fear, shame, astonishment, and a sense of malaise.<sup>18</sup> These findings indicate the need for culturally sensitive education and support programs.

One of the experiences was the feeling of fear during their menarche. This finding explains the effect of a lack of knowledge and enough information, as well as misconceptions about menstruation. This finding was consistent with other studies.<sup>8, 19, 20</sup>

Adolescent girls pointed out the lack of adequate knowledge about menstruation, so that most of the information they received about menstruation was from the Fiqh course. However, they lacked sufficient information about the physiology of menstruation, which led to a lack of understanding and fear.<sup>19</sup> Recounting the bitter experiences and memories of the menarche of women and other girls surrounding adolescent girls from their menarche is another reason for the fear of the menarche.<sup>20</sup> By educating adolescent girls about menarche and familiarizing them with the phenomenon of menstruation, their anxiety in facing menarche can be reduced.<sup>21</sup>

The participants expressed menstruation as unpleasant and believed that menstruation is the reason for restricting females. These findings have also been reported in other studies.<sup>22, 23, 24</sup> In some cultures, performing religious activities and worshipping during menstruation is restricted, and it is also forbidden to go to religious places.



<sup>24</sup> Menstruation has also been found to be a factor in reducing social activities, such as school absences,<sup>19</sup> food restrictions,<sup>25</sup> physical activities, and bathing.<sup>26</sup> Leaving the world of childhood and entering the world of femininity, behaving like adults and observing certain adult customs<sup>27</sup> are some of the reasons that make adolescents view menarche as a phenomenon that limits them.

Understanding and knowledge of menstruation can vary across different cultural groups; therefore, it is essential to examine these factors in various countries and settings thoroughly. Education and preparation for menstruation at the early stages of puberty are necessary.

Feeling impure and dirty was another reaction of adolescent girls to the menarche. In a study conducted among multiethnic Asian girls, menstruation was unpleasant for most of them, and they reported that menstruation caused them discomfort and agitation. Also, they called menstruation a dirty phenomenon. They would like to have less menstruation.<sup>24</sup> In a study that was conducted among Pakistani teenage girls, there was a belief that heavy bleeding during menstruation is beneficial for health and the reason for this was that menstrual blood is dirty, they believed that menstruation causes this dirty blood from their bodies should be removed.<sup>28</sup>

Embarrassment and hiding the onset of menstruation were other experiences. The lack of open discussion and support regarding menstruation in some cultures, shame associated with menstruation, leads to the adoption of various methods to hide and manage menstruation and feelings of isolation and negative emotions among adolescent girls.<sup>12,16</sup> The fear and anxiety of being discovered as menstruating, especially by boys and men, leads to the need for proper management and concealment of menstruation. The societal attitudes towards menstruation have an impact on women's choices for managing and concealing menstruation.<sup>16</sup>

The study suggests that promoting positive perspectives on menarche can enhance psychological interpretations of the event. The findings highlight the importance of developmentally appropriate education on menarche and related topics, as negative experiences can adversely affect girls' perceptions of menstruation and body image. It is recommended that mothers, healthcare professionals, and educators engage in early discussions about menstruation to supplement school education. Enhanced training for health educators and sex education is advocated to better prepare girls for menarche and puberty.<sup>17</sup>

Lack of knowledge and information about menarche and menstruation was one of the common complaints of adolescent girls.

The studies emphasize the importance of formal health education and supportive environments for adolescent girls to comprehend and manage reproductive changes during menarche, facilitating their transition into womanhood and challenging societal norms. Health education programs

must confront the cultural stigma surrounding menstruation while providing accurate information and support to girls prior to and during menarche. These initiatives can assist girls in preparing for the physical and psychological alterations linked to puberty and menstruation.<sup>12, 16</sup> Education and preparation for menstruation at the early stages of puberty are critical. Incorporating sexual education in schools can enhance adolescent girls' understanding and address their concerns.<sup>18</sup>

Educational programs should cater to both adolescent girls and their mothers, offering guidance on menarche. Educating mothers on the emotional and psychological dimensions of menarche is crucial alongside factual information. Individuals with prior menstruation education and emotional support reported positive feelings about menarche. Additionally, the allure of femininity rendered menarche a pleasant experience for some girls.

It is essential to create safe spaces for girls to have open and inclusive conversations, openly discuss their experiences, and seek guidance from trusted sources.<sup>12</sup> A positive emotional response from the significant other, along with preparedness, predicts a higher level of pleasant personal experience at menarche. The response of the significant other, usually the mother, should focus not only on providing informational support but also on offering positive emotional responses. This can contribute to a more positive and pleasant experience for girls at the onset of menstruation.<sup>29</sup>

In a study of female adolescents, most rely on their mothers for knowledge and support about menarche. The reaction of the significant other is seen as informational support rather than purely emotional. However, a positive emotional response from the significant other, along with proper preparation, correlates with a more favourable personal experience during menarche.<sup>29</sup> Therefore, it is essential that education and preparation for menstruation begin early in puberty.

Establishing supportive environments for women facilitates open discussions on menstruation, yielding both emotional and practical benefits. These environments enable women to share experiences and seek assistance in navigating menstrual challenges. Accessing social support enhances young women's confidence and mitigates fears of peer judgment regarding menstrual management.<sup>16</sup> Menarche preparation has a positive influence on women's experiences, and school nurses can leverage these insights to formulate strategies that aid adolescents in embracing menarche and transitioning into adulthood.<sup>15</sup>

Educational programs for adolescent girls and their mothers are crucial for providing information and support regarding menarche. Maternal emotional and informational support enhances daughters' experiences of menarche.<sup>29</sup> Early education on menstruation is crucial, as various factors influence the menstrual attitudes of adolescent females.

## Limitations

Caution must be exercised when generalizing the findings of the current investigation, given its qualitative nature. Moreover, we did not corroborate the outcomes of our research with quantitative methodologies for this aspect.

## Conclusion

Different experiences of adolescent girls, including unpleasant and pleasant experiences, indicate the importance of education and preparation for menstruation at the early stages of puberty. Additionally, the findings emphasized the significance of family support in fostering a positive attitude towards menstruation. Educators, parents, and healthcare providers should create safe spaces for girls and women to discuss menstruation openly and provide accurate information to dispel myths and misconceptions. Policies and programs should be developed to promote menstrual health education and address the practical and emotional needs of girls and women during menstruation.

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## Authors' Contribution

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**Writing—review & editing:** Mojgan Mirghafourvand, Shayesteh Jahanfar.

## Availability of Data and Materials

All data generated or analyzed during this study are included in this published article.

## Consent for Publication

Not applicable.

## Competing Interests

The author(s) declared no potential competing interests concerning the research, authorship, and/or publication of this article.

## Ethical Approval

Ethical approval for the study protocol was obtained from the Ethics

Committee of Neyshabur University of Medical Sciences (approval code: IR.NUMS.REC.1400.039). All participants provided voluntary informed consent before the interviews. For minors (individuals under 16 years of age), consent was obtained from their parents or legal guardians. Additionally, written permission was secured from the school authorities prior to the study. All procedures were conducted in accordance with the principles outlined in the Declaration of Helsinki.

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