

## Cultural Beliefs on Menstrual Health in Bam City: A Qualitative Study

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### Abstract

**Background:** Menstruation is a natural and physiologic process that is managed based on various socio-cultural habits and behaviors. Cultural beliefs about menstruation can improve or worsen menstrual health behavior. The present study aimed to explore the cultural beliefs about menstrual health in Bam city, Iran.

**Materials and Methods:** This is a qualitative study with Directed Content Analysis approach. The participants were a total of 34 individuals including; 14 girl students, 12 female parents, 8 school associates and health educators of 5 secondary schools in Bam city, Iran. The subjects were selected based on an objective-oriented approach which continued until data saturation. Data collection method was with the use of in-depth and semi-structured interview. Data were analyzed with Granehim and Lundman suggested steps.

**Results:** The analysis of data identified 58 initial and conceptual codes, 15 sub- categories and 5 categories of beliefs related to menstruation including beliefs related to menstruation, beliefs related to health behaviours during menstruation, beliefs related to the effect of diet on menstruation, belief in the effect of some specific methods on menstruation and religious belief in menstruation.

**Conclusion:** The results of the study identified different cultural beliefs about menstruation among the subjects that should identify and modify these beliefs especially they are resulted negative attitude to menstruation, specific food restriction during menstruation and not regarding of personal health during menstruation.

**Key Words:** Cultural beliefs, Menstrual Health, Menstruation, Qualitative study.

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## 1- INTRODUCTION

Puberty is a transition period from childhood to adulthood (1) that usually occurs between the ages of 9 and 11 years old (2). Menarche, a phase which begins quite late in the puberty process, is a landmark of sexual development in girls and the beginning of their reproductive capacity (3). From menarche to menopause, a woman experiences about 400 menstrual cycles on the average; and with a mean of 5 days, she experiences about 67 months of menstruation (4). Menstruation is a natural process in women; but, it is highly managed based on their socio-cultural understanding (5). People's beliefs about menstruation can improve or worsen menstrual health behavior. Studies have indicated that superstition, illogical beliefs and misperceptions regarding menstruation are more common than a proper understanding of menstrual processes and health (6).

Teketo Kassaw and Molla suggested that lack of knowledge, perceptive errors and inappropriate attitude towards menstruation, may create a negative image in girls that experience menarche and may increase the culture of silence on menstrual health. This means that they may perceive menstruation as a shameful issue that needs to be hidden (7). According to many studies conducted in Iran and other countries, the main sources of information on menstruation in girls were mothers (2, 6, 8-10), and teachers (5, 9, 10); the weak knowledge of mothers and even teachers in this regard and adherence to some traditions, have increased this problem. There are wrong behaviors and beliefs in Iran and some other neighboring countries which include; the avoidance of taking bath during this period, not doing exercise, not cleaning oneself (8), avoidance of very hot or very cold foods that usually have a high level of iron (11), and the use of specific herbs for treating dysmenorrhea (12-15). In Nepal Chaupadi culture,

menstruating women must live in a shelter outside the house (16). In India, the issues related to menstruation have always been in the realm of superstition and have resulted in women being away from many social functions. This has led to the impacts on the emotional-mental health and lifestyle in teenage girls. In the distant past, some tribes would separate menstruating women from the tribe; they believed that if a woman navigates through the farms in this period, the crops would not grow and the flowers would fade. This is only a small example of the negative and inappropriate beliefs regarding menstruation (17). In many developing countries, the use of herbs is considered as the popular treatment for this time and as some of these herbs have not undergone toxicological or pharmacological tests, they may lead to some risks (18).

The lack of education, wrong information and cultural beliefs prevent girls from achieving mental and physical health and they result in the lack of positive feeling about themselves and their abilities. Because this period is the background of individual successful transition to adulthood and fertility, these beliefs impact the health of family and the future of the society (19). Therefore, menstruation is a complex phenomenon which has different dimensions; some of which are unknown despite different studies conducted in Iran and other countries. In other words, this phenomenon is dealt with in different ways depending on the society; and these approaches may be accompanied by lack of knowledge and may lead to some consequences. On the other hand, cultural sensitivity in health promotion and behavioral change programs depend on the adaptation of these programs with cultural conditions and frameworks (20) as well as deep knowledge of the target group. Thus, considering the several years of health education experience at schools, the

researcher discovered that it is necessary to identify and explain the health needs of students with qualitative research; with the use of deep interviews and the words of themselves, their mothers and their teachers as the primary source of information as well as to consider the cultural beliefs in them. Thus, the aim of this study was to explain the cultural beliefs about menstrual health in Bam city, Iran.

## **2- MATERIALS AND METHODS**

This is a qualitative study with directed content analysis approach.

### **2-2. Participants**

The participants were a total of 34 individuals including; 14 students, 12 female parents, 8 school associates and health educators of 5 secondary schools in Bam city, Kerman province, South East of Iran (2 private schools and 3 public schools). Include criteria were: active participation in interviews, to have at least three menstruations cycle experience and filling consent form. The subjects were selected based on an objective-oriented approach which continued until data saturation (not extract new code).

### **2-3. Data collection**

Data collection method was semi-structured and in-depth interview. Interview time was 35- 45 minutes. Even though the researcher had explained that the participants can continue the interview in the next days in the case of tiredness, no case of interview repetition occurred. The questions were based on the question guideline regarding the cultural beliefs and perceptions about menstrual hygiene (existing educations, believes, cultures and traditions about menstruation and its related behaviours). The first question was "what does it mean that you are in your period?" More explanations for understanding were requested, whoever needed. For example, please give an

example or explain more or do you have a special suggestion? The interviews were conducted from November 2016 to the end of May 2017. The sites of interview were conference room, empty classroom or the prayer room of schools. The interview time was determined based on the weekly schedule of the students and in coordination with the school principal and educational deputy. At the end of each interview day, the information was analysed. Accuracy and stability of data was assessed through Lincoln and Guba method (21). In order to accuracy Credibility, the next day, the interview text and extracted codes were given to participants. They discussed about the accuracy of extracted concepts and coordination with their opinion. In case of any contradiction, the issues were considered. To assess the dependency, the expert's panel and external check (review of extracted codes by a team of experts), and to assess, the transferability, was used, maximum variety of participants with respect to years of menstruation experience, age, social and economic class, education grade and school type.

### **2-4. Data analysis**

At the end of each interview day, data analysed with Graneheim and Lundman suggested steps (22). Analysis unit were, all of the interviews. Then, through regular categorization and the following steps, respectively; the evident and latent themes were identified in the text. First, transcription the interviews word by word immediately after each session of interview. Then, reading the text several times to obtain a general comprehension of the content; afterward dividing the text into units of meaning, summarizing and coding the units of meaning, categorization of the initial codes into categories and sub-categories based on their similarities and differences. The finally, the themes were extracted as expression of the content embedded in the data. The data obtained

from each interview were a guide for the subsequent interview. Thus; sampling began with the first interview and was continued with data saturation.

### 2-5. Ethical Considerations

The study was approved by the ethics committee of Shahid Sadoughi University of Medical Sciences. The researcher introduced herself before the interview, described research objectives for participants and got oral and informed consent from them and assured to participants about the confidentiality of their voice recording and information. The participants were free to leave the study at each stage of it (ethical approval code: IR.SSU.SPH.REC.1395.148).

### 3- RESULTS

Thirty-four individuals participated in the study (p 1-14 students, p 15-26 female

parents and p 27-34 were teachers). The average age of students was  $14.14 \pm 0.75$  years old; teachers' age  $38.62 \pm 1.7$  years old, and mothers' age were  $41.83 \pm 1.60$  years old. The Average duration of interview was 40 minutes. Majority of mothers had education level of high school and higher (66.6%) and teachers had bachelor's degree (75%) (**Table.1**). The analysis also identified 58 initial codes, 15 sub- categories and 5 categories from cultural beliefs about Menstrual Health in the Bam city, Iran (**Table.2**). Categories were including beliefs related to menstruation, beliefs related to health behaviours during menstruation, beliefs related to the effect of diet on menstruation, belief in the effect of some specific methods on menstruation and religious belief in menstruation.

**Table-1:** Frequency distribution of baseline characteristics of participants.

Number	Participants	Age	Academic degree	Marital status	Occupation
1	P N1	13	7	Single	Student
2	P N 2	16	9	Single	Student
3	P N3	14	8	Single	Student
4	P N 4	14	8	Single	Student
5	P N 5	13	7	Single	Student
6	P N 6	15	9	Single	Student
7	P N7	14	8	Single	Student
8	P N 8	15	9	Single	Student
9	P N 9	13	7	Single	Student
10	P N 10	13	7	Single	Student
11	P N 11	14	8	Single	Student
12	P N12	15	9	Single	Student
13	P N13	14	8	Single	Student
14	P N14	15	9	Single	Student
15	P N15	47	Intermediate	Married	Housewife
16	P N16	42	High school	Married	Housewife
17	P N17	44	High school	Married	Employee
18	P N18	42	intermediate	Married	Housewife
19	P N19	45	Masters	Married	Employee
20	P N20	31	Bachelors	Married	Employee
21	P N21	48	Intermediatee	Married	Housewife
22	P N22	40	Bachelors	Married	Employee
23	P N23	46	Intermediate	Married	Housewife
24	P N24	34	Bachelors	Married	Employee

25	P N25	44	High school	Married	Housewife
26	P N26	39	Bachelors	Married	Housewife
27	P N27	26	Masters	Married	Health Educator
28	P N28	44	Bachelors	Married	Health Educator
29	P N29	34	Bachelors	Married	School Associate
30	P N30	37	Bachelors	Married	School Associate
31	P N31	38	Masters	Married	School Associate
32	P N32	45	Bachelors	Married	School Associate
33	P N33	49	Bachelors	Married	Health Educator
34	P N34	36	Bachelors	Married	School Associate

**Table-2:** Codes, category and subcategory of Cultural Beliefs about Menstrual Health.

Category	Subcategory	Codes
Beliefs related to menstruation	Healthy feeling and development with menstruation.	Healthy feeling, going away of bone pains, prevention of osteoporosis, Shame feeling and grow up with menstruation.
	Discomfort feeling about menstruation.	Discomfort feeling from possibly disbelievers labelled due to not doing religious duties during menstruation.
	Feeling of Shame in expressing issues related to menstruation.	Shame feeling from others finding out about their menstruation, feeling ashamed of talking about menstrual issues.
	Belief in physical and mental problems accompanying menstruation.	Belief in menstruation as monthly repetition of back pain and abdomen pain, bleeding, nausea, being nervous and sleepiness
	Mental preoccupation with menstrual blood.	Considering menstruation as dirty and bad, having continuous stress regarding leakage of menstrual blood, don't have a good feeling towards menstruation (especially in hot weather and during summer), don't have a good feeling towards menstruation due to limitation in select of the clothes model and colour in parties during menstrual period.
	Belief in wrong physiology regarding menstruation.	Menstruation is a way for excreting dirty blood and filth from the body, menstruation is a way for cleaning blood.
Beliefs related to health behaviours during menstruation	Belief in the necessity of Personal health during menstruation.	Belief in necessity changing sanitary napkin with every time of going to the restroom, daily change of underwear, the use of cotton and light-colour underwear, standing and short-time bath during menstruation from the 4 <sup>th</sup> day of menstrual cycle, prevention of infection and infertility in the future.
	Belief in not necessity of Personal health during menstruation.	Belief in dangerousness of bathing and washing themselves during menstruation and the possibility of ascendant infection, ovarian cysts, uterine cancer.
Beliefs related to effect of diet on menstruation	Belief in the necessity of a special diet during menstruation.	Belief in limitation in eating some foods (cold foods, sour foods, salty food, foods causing gas, dairy, citrus) during menstruation, Belief in limitation in eating mention foods even one week before it, due to causing severe pains, effect on the sex of the child in the future, smelly menstrual secretions and reduction of pregnancy chance.
	Belief in not necessity of a special diet during menstruation.	Belief in not limitation in eating every food due to don't impact on menstruation pain and bleeding.

Belief in the effect of some specific methods on menstruation	Belief in some specific methods of alleviating dysmenorrhoea.	Belief in warming, massage or drinking herbal tea for alleviating dysmenorrhea.
	Belief in some specific methods of reducing menstrual bleeding.	Belief in facilitation of blood discharge during menstruation by eating foods with warm in nature and in temperature, Belief in stopping of the menstruation blood through washing and cold water bath, Belief in adjustment of the menstruation blood by pad containing some herbal seeds exposed to sun.
	Belief in importance of the water temperature in menstrual health	Belief in alleviating dysmenorrhea through warm water washing, Belief in stopping of the menstruation blood through washing and cold water bath.
	Belief in the preference of specific pads during menstruation.	Belief in prefer lattice pads for better absorb blood, prefer winged pads for do not move, prefer clean cotton cloth for better absorb blood.
	Belief in limitation of activity and exercise during menstruation.	Belief in the necessity of rest and limitation of activity during menstruation due to possibility of uterine prolapsed, increase of blood discharge and menstruation pains.
Religion belief in menstruation		Limitations for going to mosque, praying and doing religious duties during menstruation.

### 3-1. Beliefs related to menstruation

The first category in the data refers to the beliefs that exist regarding menstruation and its effect among students, teachers and mothers. This category is made up of six subcategories which are: healthy feeling and improvement with menstruation, discomfort feeling about menstruation, feeling of shame in expressing issues related to menstruation, belief in physical and mental problems accompanying menstruation, mental preoccupation with menstrual blood and belief in wrong physiology regarding menstruation.

#### 3-1-1. Healthy feeling and development with menstruation:

The most participants referred to menstruation as a natural process and they had a good feeling about it due to healthy feeling and going away of bone pains, prevention of osteoporosis, growing up and feeling of shame with menstruation. An 8<sup>th</sup> grade student said in this regard that:

"Menstruation shows that a girl has grown up, become mature, become a lady and should observe many things" (p. 3).

#### 3-1-2. Discomfort feeling about menstruation:

This is a situation where some students feel uncomfortable that they may be labelled as "disbelievers" by others, due to lack of doing religious duties during menstruation. A 7<sup>th</sup> grade student looked at her nails with shame and discomfort and said:

"I like to wear nail polish during menstruation, but I am worried that those that see me, including my relatives, think that I do not pray; they look at me in a special way; and I cannot explain to everyone: (p. 1).

#### 3-1-3. Feeling of shame in expressing issues related to menstruation:

Here, the students narrated how shameful they felt talking about menstrual issues even after others had found out about it. One of the 7<sup>th</sup> grade students for whom a year had not passed since her menarche said:

"It is very difficult to talk about menstruation or its problems (then, she moved a little while her head was down).

And now that you have asked, I am not comfortable to answer" (p. 10).

### **3-1-4. Belief in physical and mental problems accompanying menstruation:**

Regarding this subcategory, the participants believed that menstruation is monthly repetition of back pain and abdomen pain, bleeding, nausea, being nervous and sleepiness. A mother who was about 40 years old said in a frowning way that:

"I have still nausea with menstruation each month; and mean of its name is monthly nausea for me" (p. 15).

### **3-1-5. Mental preoccupation with menstrual blood:**

In this regard, students mentioned issues like; considering menstruation as dirty and bad, especially in front of others; and having continuous stress regarding the leakage of menstrual blood. They also pointed to the fact that they do not have a good feeling towards menstruation, particularly in the hot weather and during summer; due to the limitation in selecting the clothes model and the color of clothes in parties. Concerning this point, an 8<sup>th</sup> grade student said:

"Madam, I do not have a good feeling towards menstruation at all. I am worried all the time that others may find out I am on my period; and worse, when we are invited somewhere at this time, my mother tells me not to wear a skirt, a tight dress, or a light-coloured dress and so on" (p. 11).

### **3-1-6. Belief in wrong physiology regarding menstruation:**

In this regard, many participants did not have correction knowledge of menstruation physiology and believed that menstruation is a way for excreting dirty blood and filth from the body and making clean blood. One of the students, regarding excretion of dirty blood with menstruation, said:

"If there is no menstruation, dirty blood will stay in our body" (p. 6).

### **3-2. Beliefs related to health behaviours during menstruation**

In this category, some of the participants had pointed out the necessity of observing individual health during menstruation and some had emphasized it is not a necessity.

#### **3-2-1. Belief in the necessity of Personal health during menstruation:**

In this regard, some participants pointed out some menstruation health instances like: changing sanitary napkin every time they visit the restroom, daily change of underwear, the use of cotton and light-coloured underwear, standing and taking a quick bath during menstruation from the 4<sup>th</sup> day of menstrual cycle and the prevention of infection and infertility in the future. On the subject of the necessity of observance of menstrual health, a health educator, who was a middle aged woman said:

"Well, every one or two months, I talk about menstrual health to children in the morning program; I especially emphasize they should observe health to prevent infection and infertility" (p. 28).

#### **3-2-2. Belief in not necessity of Personal health during menstruation:**

Some participates pointed out ovarian cysts, uterine cancer and overall, the dangerousness of washing themselves during menstruation and the possibility of ascendant infection; and some believed that regular change of underwear is not necessary.

One of the students, regarding menstruation, while laughing and moving her hand in a gesture of emphasis said:

"Washing during menstruation results in cancer and ovarian cysts, I have heard this sentence from my mother and my aunt, more than ten times" (p. 7).

### **3-3. Beliefs related to the effect of diet on menstruation**

The participants had different views regarding dietary effect during menstruation which were expressed in the form of two subcategories: belief in the necessity of dietary limitations during menstruation and belief that it is not necessary.

#### **3-3-1. Belief in the necessity of a special diet during menstruation:**

Here, the participants, especially mothers, pointed out the limitations in eating some foods (cold foods, sour foods, salty food, foods causing gas, dairy, citrus) during menstruation and even one week before it; as they believe it causes cramping, may have an effect on the sex of the child in the future, smelly menstrual secretions and decreased chance of future pregnancy. Based on this background, one of the other students while listening to others' words carefully said:

"I have heard from nearly everyone; teacher, mother, aunt and grandmother, that during my period, I should not eat cold foods, foods that produce gas, pickles, yogurt and milk because they cause stomach-ache. But I have not experienced it because I have not eaten them. In other words, I have always observed these suggestions. Well (smiling), if my mother sees me eat these things during my period, she will quarrel with me" (p. 2).

#### **3-3-2. Belief in not necessity of a special diet during menstruation:**

Some participants, especially students, suggested that avoiding a food does not impact the level of their pain and bleeding and there is no need for observing dietary limitations during menstruation. A 9<sup>th</sup> grade student said:

"My mother strictly believes that some foods like salty foods, pickles, cold foods and foods that result in gas should not be eaten during menstruation and even one

week before menstruation so that we would not have severe pains. But madam, I don't believe in these things. I eat everything" (p. 13).

The health educator of one of the school who was a young woman (about 25-26 years old) with a meaningful smile, said: "Actually, I do not believe in the impact of diet on menstruation bleeding nor I have heard from mother or grandmother" (p. 27).

### **3-4. Belief in the effect of some specific methods on menstruation**

The aforementioned category is made up of 5 subcategories which include the belief in the effect of some specific methods for alleviating dysmenorrhoea, the belief in some specific methods for reducing menstrual bleeding, belief in the water temperature in menstruation health, belief in the preference of specific pads during menstruation, belief in the necessity of having activity and exercise limitations during menstruation.

#### **3-4-1. Belief in some specific methods of alleviating dysmenorrhoea:**

Based on this, practically all of the students pointed out at least one method of alleviating dysmenorrhoea, including warming, massage or drinking herbal tea. Regarding the alleviation of menstruation pain, a 9<sup>th</sup> grade student said (while smiling):

"I normally do not have pain during menstruation; but whenever I have pain; my mother massages my lower abdomen and back with black caraway seed oil. Then, she ties a cloth around me and recommends me to rest under a blanket for an hour so that the pain goes away" (p. 2). Also, regarding the existence of old beliefs in the family on pain alleviation during menstruation, one of the mothers said:

"As a family, we believe that if today's girls did not eat cold foods (foods with cold nature), and instead eats warm

natured food, they would not have painful menstruation" (p. 23).

### **3-4-2. Belief in some specific methods of reducing menstrual bleeding:**

In this regard, the participants believed in the facilitation of blood discharge during menstruation by eating foods that are warm in nature and in temperature and suggested that washing and cold water bath result in the stopping of the menstrual blood and a pad containing some herbal seeds exposed to sun results in the adjustment of the menstruation blood. A mother aged about 50, regarding a menstruation blood control method, said:

"If the menstruation blood of a girl becomes too much, she should expose herbal seeds to the sun and then place them in clean cotton cloth and use the cloth as a pad for several days; the blood will be controlled in the next period" (p. 18).

### **3-4-3. Belief in the water temperature in menstruation health:**

Washing is one of the health principles for menstruation. Specifically, some participants, especially teachers, believed in the importance of water temperature and alleviation of menstruation pains through washing with warm water; an old mother asserted that:

"Water temperature is very important in washing and taking shower during menstruation. Hot water shower relaxes the muscles and with its relaxing effect, human pain is alleviated" (p. 19).

### **3-4-4. Belief in the preference of specific pads during menstruation:**

Regarding the aforementioned subscale, some participants, especially students, emphasized that they prefer winged pads as they do not move and lattice pads that better absorb blood. Some other mothers suggested that they prefer a clean cotton cloth that better absorbs blood. One of the

mothers, whose eldest daughter was in 7<sup>th</sup> grade, said that:

"I don't believe any sanitary pad absorbs blood as well as cotton cloth; I purchase cotton cloth in packages containing 4 cloths or I buy it by the meter, then I wash and dry them under the sun and finally recommend that my daughter use them" (p. 16).

### **3-4-5. Belief in the necessity of having limitations of activity and exercise during menstruation:**

The subjects pointed out the possibility of uterine prolapsed, increased blood discharge and menstruation pains due to some exercises during menstruation. They also believed in the importance of rest and restricted activities during menstruation. Concerning activity during menstruation, a 9<sup>th</sup> grade student said:

"My grandmother says that running and exercise increase blood discharge and lead to anaemia. Rest during menstruation, even get permission from school so that you don't have to participate in physical education classes" (p. 14).

### **3-5. Religious belief in menstruation:**

In this category, the participants pointed out the limitations for going to mosque, praying and doing religious duties during menstruation. Here, one of the teachers said:

"I really like to go to mosque for evening prayer because I become calm. However, menstruation creates a limitation for me; both for going to mosque and for praying. I think this is the cause of my nervousness in its first couple of days of my period" (p. 32).

## **4- DISCUSSION**

The results of the present study indicated different cultural beliefs regarding menstruation in participants. The results of World Health Organization (WHO) studies from 1973 to 1980

regarding menstruation in 10 countries in the world indicated that these countries have nearly similar menstruation habits but their beliefs are different under the influence of social factors, urbanization and different cultures and customs (9). In the studied population, the belief in naturalness of menstruation and the healthy feeling and development after menstruation is more related to the schools that had menstruation educational courses and were familiar with the uterine function, physiology and menstruation stages. In many studies, participants had referred to menstruation as a natural event and a sign of development and body health (9, 18, 23). The belief in shame and discomfort feeling about menstruation which was pointed out in the subcategories was also verified in similar studies. Shame and embarrassment that start with physical changes of puberty in girls interfere with their ability to manage menstruation and may increase the misunderstanding and negative attitude about it (24).

In similar studies, in the conformation of girls' mental preoccupation after menstruating, teachers emphasized that the main cause of absence of girls during menstruation is shame and their fear of blood trickle (25, 26); which could reduce their participation in social and educational activities (24-27). Belief in the physical and mental complications accompanying menstruation, which was reported in the present study, has also been confirmed by other studies. As studies have indicated, the individual understands before menarche affects her other experiences and morbidity so people with a negative attitude to menstruation or with less readiness (28) for menarche have more absence and deletion some activities (29). Thus, holding educational sessions regarding menstruation can help in the correction of this belief in mothers and their children. Different data were obtained in the present study regarding beliefs

related to health behaviours and the effect of diet during menstruation, and the results of similar studies verify the existence of this difference. In a study conducted in Bayelsa, Nigeria, 67.9% of the participants had pointed out the necessity of observing menstrual health for preventing infection (6). However, in a similar study conducted in Iran, a high percentage of the sample has mentioned that they avoid bathing during menstruation as one of the principles for prevention of pain and possible infection and 56.3% would not clean themselves after using the toilet due to the fear of infection (9). Teenagers studied in Bagdad too had considered taking a shower in the first and second days of menstruation as a cause of increased blood discharge during menstruation (30). In India and Nepal also, women would avoid taking a shower during their period (31). Regarding dietary limitations during menstruation, the studies conducted had pointed out prohibiting spicy foods (30), pickles, fruits and vegetables in Iran (32), and spicy foods, fruits and vegetables in Turkmen girls and women during menstruation (33).

Incidentally, some studies were found in which some participants not only had not mentioned a limitation in eating during menstruation but also had pointed out eating things like fruits and vegetables for compensating the blood they had lost (30), and there were studies in which the consumption of fruits, vegetables, fibre (34, 35), and enough resources of vitamin D and calcium such as dairy in reduction of dysmenorrhea were emphasised (34). Therefore, the difference in results of this study and other studies may be attributed to the difference in attitude and experience of the individual, their families or the education level of the families. Regarding belief in the effect of some specific methods in menstruation like pain relief methods, blood reduction methods, the use of specific pads, limiting exercise and

activity, similar studies indicated that in many cultures like that in the present study, belief in treatment of menstruation symptoms with herbal remedies (8, 12, 36), local heating, back massage and fluid consumption exists (12). The results of a study in Malaysia in 2009 indicated that consumption of hot drinks may lead to the reduction of activity level of prostaglandin, the menstruation fluid responsible for dysmenorrhea (2). Belief in the importance of water temperature in washing and menstrual health that was pointed out by participants and also verified by similar studies (2, 30) can be due to the effects of heat in reduction of spasm, muscle relaxation and increase of local blood circulation (37).

Despite the attribution of specific pad preference in menstruation for better blood absorption in cotton cloth and less movement in winged pads by the participants, a study conducted in five African countries indicated that more than 70% of the interviewed girls had considered cost rather than cultural belief as the primary reason for preference of cotton cloth and in their view, sanitary pads were better than traditional cloth (31, 38). Therefore, the type of sanitary pad used depends on individuals' place of living and socioeconomic conditions and cost. In the population explored, the relative appropriateness of sanitary pads, access to different types of sanitary pads and packaged cloths in drugstores and sales centres in the city led to their easy access to different types. Regarding the participants' belief in the necessity of having limitations of activity and exercise during menstruation, similar studies have conflicting results. While the participants in some studies believed in the harmfulness of exercise and physical activities in this period (30, 32), and some girls even did not do housekeeping activities in this period (2, 39), in some studies conducted in the form of clinical

trials, no relationship between exercise and dysmenorrhea was found (23, 40, 41). The results of some other studies indicated significant reduction of dysmenorrhea in the group that did exercise (34, 42, 43). Although the exact mechanism of the effect of exercise on dysmenorrhea is unknown, it is shown that regular exercise, by reducing stress in women, help in the improvement of blood circulation, increase of endorphin and neural transmitters. And the belief in the studied population that exercise results in the increase of blood discharge may be attributed to better blood circulation in uterus and around pelvis due to exercise (23, 40). Many cultures have considered menstruation blood as filthy (31), and view menstruation as filthy, dirty and bad monthly blood flow (23). Some other cultures attributed the root of this belief to religious believes (17). In the present study, belief in the filthiness of menstruation can be attributed to the lack of knowledge of menstrual physiology and consequently lack of educational sessions in this regard.

#### **4-1. Limitations of the study**

Results of this study can only be generalized to the present community, due to the nature of the subject.

#### **5- CONCLUSION**

The results of the present study indicated the existence of different cultural beliefs among students, teachers and mothers, explored in the city of Bam. Therefore, considering the socio-cultural and economic issues of the society, planning for mothers and teachers and the preparedness of teenage girls based on their educational needs, are the main steps for the prevention and resolution of problems in this period. Thus, it is suggested that a similar study be conducted for exploring the effect of education, considering the cultural background of the aforementioned society.

**6- CONFLICT OF INTEREST:** None.

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