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Source of Menstrual Knowledge, Reaction, and Restriction during Menstruation in Chinnalapatti, Tamil Nadu: Evidence from a Cross-sectional Survey among Adolescent Schoolgirls

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Abstract

Background: The study aims to determine the factors associated with restriction during menstruation among adolescent girls. To find out the source of knowledge and information regarding menstruation and emotional reaction at the time of menarche. **Methods:** A Cross-sectional survey was conducted in the Schools of Chinnalapatti, Dindigul district, Tamil Nadu in southern India. A sample size of 116 adolescent girls aged 9–18 years. The questionnaire included questions regarding demographics, socio-category, education, family income, age at menarche, emotion response at menarche, social restriction, source of knowledge, and information. **Results:** The mean age year of menarche was 11.72 ± 1.27 years. Most adolescent girls (52.59%) informed their mothers first menarche. Furthermore, significant participants responded that mothers and relatives were the common sources of knowledge and information regarding menstruation. Participants were not allowed to go in religious activities (99.14%), not allowed to go near plants (99%), forced to be separated from others (35.34%). Parent qualification had a significant influence on restriction during menstruation. **Conclusion:** A significant percentage of girls have to face many kinds of restrictions during menstruation. Socioeconomic factors were significantly associated with the types of restrictions during menstruation. The study suggests that elementary knowledge and awareness about menstruation must be dispersed by the schools/NGOs where teachers, students (male and female), and their parents should participate for better awareness, leading to overcoming the efficiency.

Keywords: Adolescent girls, Menstruation, Knowledge, Restrictions, Traditional practices, Socioeconomic status, Emotions, Menarche

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Introduction

The period of transformation between childhood to adulthood is known as adolescence.[1] According to the World Health Organization, a 10–19 years old person is considered as an adolescent.[2] In this period, a girl child's psychological, biological, and physiological development happens gradually.[3] It has been acknowledged as a period of time when a girl passes through the puberty phase, which takes place through biological and hormonal changes; it requires special attention and awareness. Menarche is a significant biological milestone in all women's lives because it marks the beginning of the reproductive phase in her body.[4] The mean age at menarche is constant across the world, that is, between the age of 12 and 13 years.[5-7] Menstruation is a hormonal phenomenon that happens every month in healthy adolescent girls.

Adolescence is an unstable time period for girls, including tense events such as menarche, which is considered a milestone in female puberty. Adolescent girls might react with positive and negative emotions at the time of menarche, such as happy, fear, discomfort, excitement, irritate, disguste, confuse, shame, shy, and worry. Unfortunately, the situation is worse for girls due to the lack of knowledge, information, awareness, restrictions, and myth that are significantly associated with an adverse reaction.[8] Especially in India, menstruation has been considered as taboo and impure in history and the present period. Still, misconceptions, myths, social-cultural norms, traditions, and beliefs are significant barriers to the advancement of knowledge menstruation.[9] Tamil Nadu is one of the Indian states that strictly following the myths, misconceptions, traditions, and beliefs regarding menstruation.[10] To understand the present situation, a cross-sectional survey was conducted in March 2020 in Chinnalapatti, Dindigul district, Tamil Nadu in southern India. The main focus of this survey is to (1) find out the source of knowledge and information regarding menstruation, (2) emotional reaction at the time of menarche, and 3) determine the factors associated with restriction during menstruation among adolescent girls.

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Methods

The study is based on a cross-sectional survey conducted in March 2020 in the public schools of Chinnalapatti, Dindigul district, Tamil Nadu, in southern India. A multistage sampling method has been used to collect the sample. First, purposively selected the place. Second, randomly selected three schools. Third, the sample size is collected according to the population of the students in a particular school. Hence, a sample of 116 adolescent female students has been collected randomly. 48 samples have been collected from

Sevi Asramam Higher Secondary School (A), 43 samples have been collected from Thambithottam Higher Secondary School (B), and 25 samples have been collected from Devangar Girls Higher Secondary School (C). All the participants belong to the 6th to 11th grade, and the respondents belong to the 9–18-year-old age group. Data have been collected with the help of the structured questionnaire. The survey was developed in English, translated to Tamil (the local language), and back-translated. The questionnaire included questions regarding demographics, socio-category, education, family income, age at menarche, emotion response at menarche, social restriction, source of knowledge, and information. Collected data have been entered in MS Excel and import in SPSS version 25, a statistical tool that has been utilized to analyze the frequency, percentage, cross-tabulation, and chi-square test used for analyzing the factor association.[11]

Results

The socioeconomic background of the respondents is shown in Table 1. The majority of the participants belonged to 10–12 years old (57.76%), followed by 13–15 years old (36.21%), <10 years old (4.31%), and above 15 years old (1.72%). It concludes that a significant number of participants belonged to 10–15 years old. The mean age of participants was 12.28 ± 1.51 years. It has been noted that participants belonged to various grades, 6th to 11th, and the majority are from 8th, 9th, 10th, and 11th grade. Regarding the size of the family, most respondents belong to the nuclear family (93.97%), and the rest belongs to the joint family. The study highlights the socio-category of the participants. The majority of them belong to OBC (56.9%), followed by SC (23.38%), General (19%), and ST (0.86%). Father occupation like as farming (63.79%), followed by driver and tailoring (19.83%), others mean parents who were employed under government and private companies are (15.52%), and only 0.90% was not responded. It has been observed that most of the participants were from a rural area (93.97), and the rest of them belonged to an urban area (5.17%). The respondents' family income belongs to 5000–10,000 range (47.42%) followed by Rs. 3000–5000, 10,000–20,000, and 20,000–25,000 (44.82, 6.9, and 0.86% respectively). It was noted that the average educational qualification of their parents is up to sixth and seventh grade only.

Figure 1 shows the age at menarche of the participants. The study found that the mean age year of menarche was 11.72 ± 1.27 years. The majority of participants reported that they experienced menstruation between 10 and 12 years (57.76%). A significantly high percentage (36.21%) reported that they experienced menstruation between 13 and 15 years. Around 4.31% reported that they experienced menstruation at the age of 9, and very few (1.72%) reported that menarche age was above 15 years old.

Figure 2, though light on the adolescent girl's emotional reaction at the time of menarche. It has been reported that a significant percentage of participants (43.1%) were scared at the time of the first period. Whereas 17.24% of adolescent girls responded that they felt usual, 12.93% of participants responded that they were confused at their first experience, 12.07% felt discomfort, whereas 7.76 felt irritated/disgusted.

It concludes that very few 6.03% participants reacted positively, and 75.86% reacted negatively at first menarche. In comparison, 17.24% of participants reacted neutrally at their first menarche.

Figure 3 though light on the source of knowledge and information regarding menstruation. The study observed that the majority of adolescent girls (45.7%) responded that mother is the common source of knowledge and information regarding menstruation, 23.3% of adolescent girls were obtained knowledge and information regarding menstruation from their relatives. Around 18.1% of the adolescent girls were obtained knowledge and information through school and teachers. Almost 6% of adolescent girls respond that friends and sisters are the sources of knowledge and information regarding menstruation. Only very

Table 1: Socioeconomic background of participants

Baseline characteristics of study participants	*Frequency (n=116)*
Schools Name, *n* (%)	
A	48 (41.38)
B	43 (37.07)
C	25 (21.55)
Age, *n* (%)	
<10 years	5 (4.31)
10–12 years	67 (57.76)
13–15 years	42 (36.21)
Above 15 years	2 (1.72)
Mean Years (SD)	12.28 (1.51)
Class, *n* (%)	
6th	1 (0.86)
7th	12 (10.34)
8th	16 (13.76)
9th	36 (31.08)
10th	30 (25.86)
11th	21 (18.1)
Occupation of Father, *n* (%)	
Farmer	74 (63.79)
Driver and Tailor	23 (19.83)
Others	18 (15.52)
Not Respondent	1 (0.9)
Size of Family, *n* (%)	
Nuclear	109 (93.97)
Joint Family	7 (6.03)
Socio Category, *n* (%)	
General	22 (19)
OBC	66 (56.9)
SC	27 (23.28)
ST	1 (0.86)
Home Location, *n* (%)	
Rural	109 (93.97)
Urban	6 (5.17)
Not responded	1 (0.86)
Family Income (in Rs./month), *n* (%)	
3000–5000	52 (44.82)
5000–10,000	55 (47.42)
10,000–20,000	8 (6.9)
20,000–25,000	1 (0.86)
Father Qualification, *n* (%)	
Illiterate	9 (7.8)
Primary School	22 (19)
High School	11 (9.5)
Secondary School	56 (48.3)
Senior Secondary School	18 (15.5)
Mother Qualification, *n* (%)	
Illiterate	11 (9.5)
Primary School	29 (25)
High School	18 (15.5)
Secondary School	48 (41.4)
Senior Secondary School	10 (8.6)

Source: Primary data

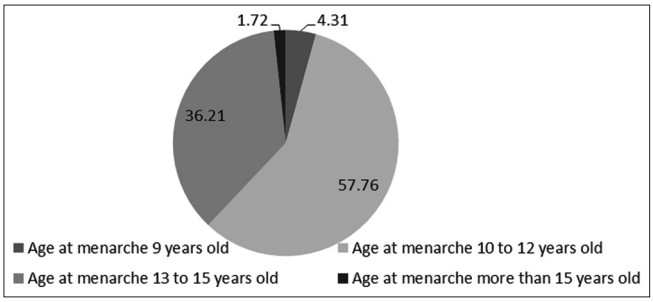

Figure 1: Age at Menarche. Source: Primary data

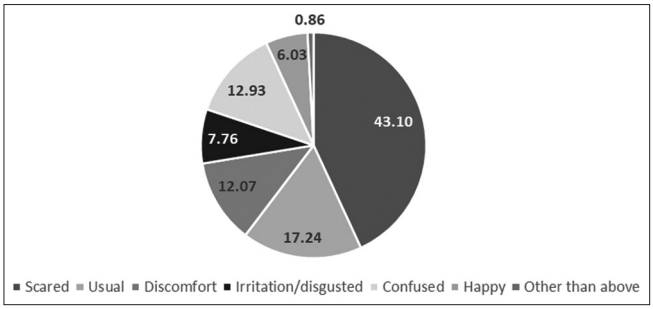

Figure 2: First experience at menarche (in percentage).
Source: Primary data

few (0.9%) of adolescent girls respond that media, books, and magazines are the main sources of knowledge and information. Figure 4 though light on the first sharing of menarche**.** The majority of adolescent girls (52.59%) shared information with their mothers when they had their first menarche

About 32.76% of adolescent girls shared about the first menarche with their sister, and 14.66% of adolescent girls shared it with others (relatives/friends), but not a single adolescent girl shared it with their brother and father. Table 2 shows what kind of restriction is faced by adolescent girls during menstruation. It has been reported that 99.14% of adolescent girls were not allowed to go to the temple and participates in religious activities during menstruation. Ninety-nine percent of adolescent girls were not allowed to go near plants during menstruation.

About 50.86% of adolescent girls were not allowed to play or do any kind of physical activity during menstruation. 37.07% of adolescent girls were not allowed to go outside of the home during menstruation. 48.28% of adolescent girls were using old clothes at the time of menstruation. Only 2.59% of adolescent girls responded that they were not allowed to enter the kitchen during menstruation. 35.34% of adolescent girls were forced to be separated from others during menstruation. 15.52% of adolescent girls were not allowed to go to school during menstruation. 37.93% of adolescent girls were not allowed to attend any family functions during menstruation. It has been established that a significant percentage of girls have to face many kinds of restrictions during menstruation. Table 3 shows the association between socioeconomic factors and restrictions during menstruation.

Table 3 reveals that mother qualification had a significant influence ($P \leq 0.03$) on not allowing girls to go to the temple or participate in religious activities (NAGTPRA) during menstruation. At the same time, father qualification was significantly associated ($P \leq 0.035$) with not allowing girls to play or do any physical activities (NAPDPA) during the period. Age group, father

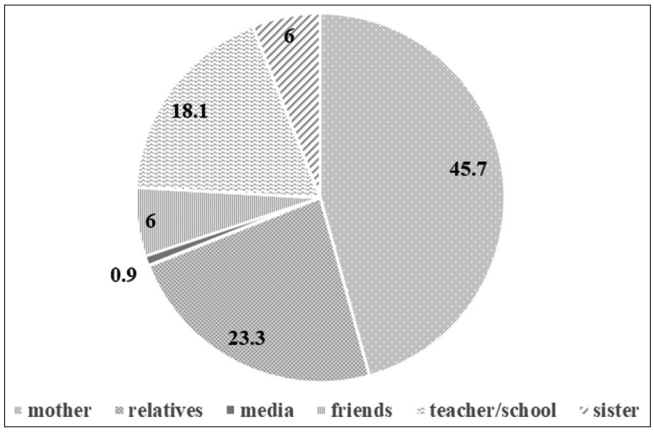

Figure 3: Source of knowledge and information (in Percentage)**.**
Source: Primary data

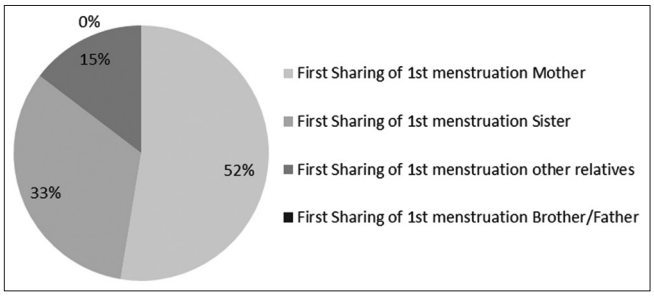

Figure 4: First Sharing of Menarche.
Source: Primary data

occupation, family size, and socio category were also statistically associated ($P \leq 0.088$, $P \leq 0.002$, $P \leq 0.041$, $P \leq 0.000$ respectively) with the use of old clothes at the time of menstruation (UOCTM). Home location significantly influenced ($P \leq 0.082$) girls not to enter the kitchen (NAEK). Furthermore, there was a significant association between force girls to be separate from others during menstruation (FSFODP) and home location, age group, father qualification and occupation, family size, and socio-category ($P \leq 0.010$, $P \leq 0.000$, $P \leq 0.040$, $P \leq 0.072$, $P \leq 0.039$, and $P \leq 0.009$ respectively). Table 3 also reveals that home location, age group, father occupation, family size, and socio-category were significantly associated ($P \leq 0.05$, $P \leq 0.001$, $P \leq 0.062$, $P \leq 0.039$, and $P \leq 0.001$, respectively) with not allowed to schooling (NAS). Age group, father qualification, and occupation, family size, and socio-category ($P \leq 0.003$, $P \leq 0.026$, $P \leq 0.039$, $P \leq 0.007$, and $P \leq 0.009$, respectively) were significantly associated with not allowing girls to attend family functions (NAAFF). Table 3 did not include variables like not allowed to go out (NAGO) and not allowed to go near plants (NAGNP) because none of the socioeconomic factors was significantly associated.

Discussion

The study found that most adolescent schoolgirls (57.76%) attained menarche at the age of 10–12. The mean age year of menarche was 11.72 ± 1.27 years. Similarly, other authors reported the same result.[12-14] Similar results were found in Brazilian studies, where the mean age of menarche was 11.71 years, 11.7 years, and 11.5 years.[15,16] The mean age at menarche determined in this study is comparable to India

Table 2: Restrictions during Menstruation

Baseline characteristics of study participants	*Frequency (n=116)*	*Percentage*
Restrictions during menstruation		
Not allowed to go to the temple/participates in religious activities (NAGTPRA)		
Allowed	1	0.86
Not Allowed	115	99.14
Not allowed to play/do any physical activity (NAPDPA)		
Allowed	57	49.14
Not Allowed	59	50.86
Not allowed to go out (NAGO)		
Allowed	73	62.93
Not Allowed	43	37.07
Use older clothes at the time of menstruation (UOCTM)		
Allowed	60	51.72
Not Allowed	56	48.28
Not allowed to enter the kitchen (NAEK)		
Allowed	113	97.41
Not Allowed	3	2.59
Not allowed to go near plants (NAGNP)		
Allowed	1	0.86
Not Allowed	115	99.14
Force to be separate from others during the period (FSFODP)		
Allowed	75	64.66
Not Allowed	41	35.34
Not allowed to Schooling (NAS)		
Allowed	98	84.48
Not Allowed	18	15.52
Not allowed to attending family functions (NAAFF)		
Allowed	72	62.07
Not Allowed	44	37.93

Source: Primary data

and Indian states, such as Tamil Nadu studies reported mean age of menarche 12.16 and 12.33 years, Karnataka (mean age 12.5 years), Telangana (mean age 13.09 years), Kolkata (mean age 11.8 years), Sikkim (mean age 12.52 years), Maharashtra (mean age 12.62 years), Delhi (mean age 13.34 years), Chandigarh (mean age 13.2 years), and Uttar Pradesh (mean age 12.52 years).[5,17-24] In the many studies from countries reported that mean age of girls at menarche had been reported 12.2 years in the US, 11.6 years in Bangladesh, 12.4 years Pakistan, 12.2 years in Sri Lanka, 13 years Nepal, 13.98 years in Ghana, and 12.78 years in Iran.[25-31] It has been observed that mean age at menarche varies and is dependent on data collection, culture, geography, socioeconomic status, climate, physical activity, lifestyle, health, diet, genetic, environment, ethnic origin, residence place, education, sexual stimulation, occupation and education of parents, family income, family size.[32]

It has been observed that sources of knowledge and information regarding menstruation have an important role in the emotional response of adolescent girls at the time of menarche.[33] If adolescent girls do not have appropriate information before the onset of menstruation, it leads to negative emotional responses, especially belonging to village communities where menstruation is considered an untouchable taboo.[34,35] This study noted that a significant participant (45.7% and 23.3%, respectively) responded that mother and relatives were the common sources of knowledge and information regarding menstruation. Whereas, only 18.1% responded that school and teacher were the sources of knowledge and information. Several studies also reported similar findings; in Mumbai, Maharashtra, Uttarakhand, Punjab, Andhra Pradesh, Rohtak, and Delhi, Manipal, West Bengal, and Gujrat, were reported that mother was the primary source of menstrual information among adolescent girls.[36-45] A significant (75.86%) of the participant reacts negatively at first menarche, resulting in not receiving appropriate information regarding menstruation before menarche.[46] Only (6.03%) of girls react positively in all adolescent schoolgirls, resulting in those who received information regarding menstruation before menarche.[47] This study reported that most adolescent girls (52.59%) shared information with their mothers when they had their first menarche, 32.76% of adolescent girls shared about the first menarche with their sister, and 14.66% of adolescent girls shared it with others (relatives/friends), but not a single adolescent girl shared it with their brother and father, because of stigma, restrictions, misconceptions, myth toward menstruation, and considered as impure, and taboo.[9] A cross-sectional survey was conducted in March 2020 in the schools of Chinnalapatti, Dindigul district, Tamil Nadu in southern India, with a primary focus on finding out the main factors associated with the restrictions during menstruation among adolescent girls. A study has been reported that a significant percentage of adolescent girls faced many kinds of restrictions during menstruation, such as not allowed to go to the temple and participates in religious activities (99.14%), not allowed to go near plants (99%), not allowed to play or do any kind of physical activity (50.86%) during menstruation. not allowed to go outside of the home (37.07%), using old clothes at the time of menstruation (48.28%), forced to be separated from others (35.34%), not allowed to go to school (15.52%), were not allowed to attend any family functions (37.93%), and 2.59% of adolescent girls were not allowed to enter the kitchen during menstruation. The study noted that mother qualification had a significant influence ($P \leq 0.03$) on not allowing girls to go to the temple or participate in religious activities during menstruation. At the same time, father qualification was significantly associated ($P \leq 0.035$) with not allowing girls to play or do any physical activities during the period. Age group, father occupation, family size, and socio category were also statistically associated ($P \leq 0.088$, $P \leq 0.002$, $P \leq 0.041$, $P \leq 0.000$, respectively) with the use of older clothes at the time of menstruation. Home location significantly influenced ($P \leq 0.082$) girls not to enter the kitchen. Furthermore, there was a significant association between force girls to be separate from others during menstruation and home location, age group, father qualification, and occupation, family size, and socio-category ($P \leq 0.010$, $P \leq 0.000$, $P \leq 0.040$, $P \leq 0.072$, $P \leq 0.039$, and $P \leq 0.009$, respectively). The study also revealed that home location, age group, father occupation, family size, and socio-category were significantly associated ($P \leq 0.05$, $P \leq 0.001$, $P \leq 0.062$, $P \leq 0.039$, and $P \leq 0.001$ respectively) with not allowed to schooling. Age group, father qualification and occupation, family size, and socio-category ($P \leq 0.003$, $P \leq 0.026$, $P \leq 0.039$, $P \leq 0.007$, and $P \leq 0.009$, respectively) were significant association with not allowing girls to attend family functions.

Table 3: Socioeconomic factors association with types of restriction during menstruation.

Variables	*NAGTPRA*	*NAPDPA*	*UOCTM*	*NAEK*	*FSFODP*	*NAS*	*NAAFF*
Home location	X^2 (2, *n*=116)=0.065, *P*≤0.968	X^2 (2, *n*=116) =3.716, *P*≤0.156	X^2 (2, *n*=116) =4.277, *P*≤0.118	X^2 (1, *n*=116) =4.993, *P*≤0.082***	X^2 (2, *n*=116) =8.375, *P*≤0.010*	X^2 (2, *n*=116) =5.882, *P*≤0.05**	X^2 (2, *n*=116) =3.955, *P*≤0.138
Rural	118 (93.1)	53 (45.7)	50 (43.1)	2 (1.7)	35 (30.2)	15 (12.9)	39 (33.6)
Urban	6 (5.2)	5 (4.3)	5 (4.3)	1 (0.9)	5 (4.3)	3 (2.6)	4 (3.4)
Age group	X^2 (3, *n*=116) =0.738, *P*≤0.864	X^2 (3, *n*=116) =0.395, *P*≤0.941	X^2 (3, *n*=116) =6.542, *P*≤0.088***	X^2 (3, *n*=116) =1.293, *P*≤0.731	X^2 (3, *n*=116) =17.756, *P*≤0.000*	X^2 (3, *n*=116) =15.582, *P*≤0.001*	X^2 (3, *n*=116) =13.965, *P*≤0.003*
<10 years	5 (4.3)	3 (2.6)	2 (1.7)	0 (0.0)	1 (0.9)	0 (0.0)	1 (0.9)
10–12 years	66 (56.9)	35 (30.2)	39 (33.6)	1 (0.9)	34 (29.3)	18 (15.5)	33 (28.4)
13–15 years	42 (36.2)	20 (17.2)	14 (12.1)	2 (1.7)	5 (4.3)	0 (0.0)	8 (6.9)
Above 15 years	2 (1.7)	1 (0.9)	1 (0.9)	0 (0.0)	1 (0.9)	0 (0.0)	2 (1.7)
Mother's qualification	X^2 (4, *n*=116) =10.602, *P*≤0.03**	X^2 (4, *n*=116) =1.65, *P*≤0.800	X^2 (4, *n*=116) =3.055, *P*≤0.549	X^2 (4, *n*=116) =1.597, *P*≤0.809	X^2 (4, *n*=116) =0.562, *P*≤0.967	X^2 (4, *n*=116) =2.954, *P*≤0.566	X^2 (4, *n*=116) =3.484, *P*≤0.48
Illiterate	11 (9.5)	7 (6.0)	6 (5.2)	0 (0.0)	4 (4.3)	3 (2.6)	5 (4.3)
Primary School	29 (25.0)	13 (11.2)	10 (8.6)	1 (0.9)	9 (7.8)	6 (5.2)	10 (8.6)
High School	18 (15.5)	8 (6.9)	10 (8.6)	0 (0.0)	7 (6.0)	3 (2.6)	10 (8.6)
Secondary School	48 (41.4)	26 (22.4)	25 (21.6)	2 (1.7)	18 (15.5)	5 (4.3)	16 (13.8)
Senior Secondary School	9 (7.8)	4 (4.3)	5 (4.3)	0 (0.0)	3 (2.6)	1 (0.9)	3 (2.6)
Father's qualification	X^2 (4, *n*=116) =4.31, *P*≤0.366	X^2 (4, *n*=116) =10.369, *P*≤0.035**	X^2 (4, *n*=116) =4.497, *P*≤0.343	X^2 (4, *n*=116) =3.443, *P*≤0.487	X^2 (4, *n*=116) =10.040, *P*≤0.040**	X^2 (4, *n*=116) =6.405, *P*≤0.171	X^2 (4, *n*=*n* = 116) =11.054, *P*≤0.026**
Illiterate	9 (7.8)	5 (4.3)	6 (5.2)	0 (0.0)	5 (4.3)	2 (1.7)	6 (5.2)
Primary School	21 (18.1)	14 (12.1)	10 (8.6)	0 (0.0)	5 (4.3)	2 (1.7)	5 (4.3)
High School	11 (9.5)	2 (1.7)	3 (2.6)	1 (0.9)	2 (1.7)	2 (1.7)	5 (4.3)
Secondary School	56 (48.3)	25 (21.6)	26 (22.4)	1 (0.9)	18 (15.5)	6 (5.2)	17 (14.7)
Senior Secondary School	18 (15.5)	12 (11.2)	11 (9.5)	1 (0.9)	11 (9.5)	6 (5.2)	11 (9.5)
Monthly Income	X^2 (3, *n*=116) =1.241, *P*≤0.743	X^2 (3, *n*=116) =1.437, *P*≤0.697	X^2 (3, *n*=116) =5.133, *P*≤0.162	X^2 (3, *n*=116) =0.695, *P*≤0.874	X^2 (3, *n*=116) =2.031, *P*≤0.566	X^2 (3, *n*=116) =5.698, *P*≤0.127	X^2 (3, *n*=116) =1.681, *P*≤0.641
3000 to 5000	51 (44.0)	28 (24.1)	29 (25.0)	2 (1.7)	17 (14.7)	7 (6.1)	19 (16.4)
5000 to 10000	55 (47.4)	26 (22.2)	21 (18.1)	1 (0.9)	20 (17.2)	9 (7.8)	21 (18.1)
10000 to 20000	8 (7.0)	4 (3.6)	5 (4.3)	0 (0.0)	3 (2.6)	1 (0.9)	3 (2.6)
20000 to 25000	1 (0.9)	1 (0.9)	1 (0.9)	0 (0.0)	1 (0.9)	1 (0.9)	1 (0.9)
Father Occupation	X^2 (2, *n*=116) =0.559, *P*≤0.756	X^2 (2, *n*=116) =3.11, *P*≤0.856	X^2 (2, *n*=116) =12.089, *P*≤0.002*	X^2 (2, *n*=116) =1.234, *P*≤0.540	X^2 (2, *n*=116) =5.271 *P*≤0.072***	X^2 (2, *n*=116) =5.568 *P*≤0.062***	X^2 (2, *n*=116) =6.490 *P*≤0.039**
Farmer	73 (63.5)	38 (33.0)	42 (36.5)	2 (1.7)	29 (25.0)	15 (12.9)	34 (29.6)
Driver and Tailor	23 (20.0)	12 (10.4)	11 (9.5)	0 (0.0)	9 (7.8)	15 (12.9)	5 (4.3)
Others	18 (15.7)	8 (7.0)	2 (1.7)	1 (0.9)	15 (12.9)	0 (0.0)	4 (3.5)
Size of family	X^2 (1, *n*=116) =0.065, *P*≤0.799	X^2 (1, *n*=116) =1.481, *P*≤0.224	X^2 (1, *n*=116) =4.182, *P*≤0.041**	X^2 (1, *n*=116) =0.198, *P*≤0.657	X^2 (1, *n*=116) =4.244, *P*≤0.039**	X^2 (1, *n*=116) =4.248, *P*≤0.039**	X^2 (1, *n*=116) =7.225, *P*≤0.007*
Nuclear	108 (93.1)	57 (49.1)	50 (43.1)	3 (2.6)	36 (31.0)	15 (12.9)	38 (32.8)
Joint Family	7 (6.0)	2 (1.7)	6 (5.2)	0 (0.0)	5 (4.3)	3 (2.6)	6 (5.2)
Socio-category	X^2 (3, *n*=116) =4.31, *P*≤0.230	X^2 (3, *n*=116) =17.3, *P*≤0.63	X^2 (3, *n*=116) =22.178, *P*≤0.000*	X^2 (3, *n*=116) =3.402, *P*≤0.334	X^2 (3, *n*=116) =11.515, *P*≤0.009*	X^2 (3, *n*=116) =15.768, *P*≤0.001*	X^2 (3, *n*=116) =11.515, *P*≤0.009*
General	21 (18.1)	10 (8.6)	19 (16.4)	0 (0.0)	15 (12.9)	8 (6.9)	15 (12.9)
OBC	66 (56.9)	36 (31.0)	21 (18.1)	1 (0.9)	16 (13.8)	3 (2.6)	19 (16.4)
SC	27 (23.3)	13 (11.2)	16 (13.8)	2 (1.7)	10 (8.6)	7 (6.0)	10 (8.6)
ST	1 (0.9)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)

*=*P*≤0.01 is considered statistically significant. **=*P*≤0.05 is considered statistically significant, and **=*P*≤0.09 is considered statistically significant. Chi-Square represented as X^2 (df, N), *P* value, where X^2=Chi-square, df=degree of freedom, *n*=sample size, Source: Author's Calculation

Conclusions

The present study reports that a significant percentage of girls have to face many kinds of restrictions during menstruation. Socioeconomic factors like home location, age group, mother's qualification, father's qualification, monthly income, father occupation, size of family, and socio-category were significantly associated with the types of restrictions during menstruation. <20% of the adolescent girls said the teacher and school were the common sources of knowledge and information regarding

menstruation, and <1/2 of adolescent girls responded that mother was the common source. It established that schools and teachers are not playing an important role in providing proper knowledge and information. That concludes a significant number of adolescent girls were not informed appropriately about menstruation before menarche, which leads to a negative emotional response among a significant percent of adolescent girls. Furthermore, not a single adolescent girl shared the experience of menstruation with their brother and father.

Suggestions

This study report suggests that there is a need to provide proper education, knowledge, and information regarding menstruation through the special classes and workshops/seminar related to menstruation that can be organized by the schools/NGOs where teachers, students (male and female), and their parents should participate for better awareness which leads to overcoming the efficiency. Workshops and seminars should be covered breaking taboos like do's and don'ts, taking it as a natural physiological process, breaking the myths, cultural beliefs, and misperceptions. As per a psychological point of view, counseling may also play a key role for open up with parents and feel comfortable to share with dear ones.

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