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A STUDY TO ASSESS THE KNOWLEDGE REGARDING MENSTRUAL HYGIENE AND MENSTRUAL HYGIENE PRACTICES AMONG TRIBAL ADOLESCENT GIRLS RESIDING IN SELECTED TRIBAL COLONIES OF KANNUR DISTRICT.

Nursing

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ABSTRACT

The present study is to assess the Knowledge and Practice regarding menstrual hygiene among tribal adolescent girls of selected tribal colonies at Kannur district. The objectives of the study are to assess the knowledge and practice regarding menstrual hygiene among tribal adolescent girls, find the association between menstrual hygiene practice and selected socio personal variables, find the relationship between knowledge regarding menstrual hygiene and menstrual hygiene practices. One fifteen (N=115) adolescent girls between 13-17 years from selected tribal colonies of Kannur district were selected by convenience sampling. The data collection was done by using structured questionnaire on knowledge and menstrual hygiene practice. The findings of the study revealed that (89.6%) of the sample were from nuclear family, (73%) have monthly family income ≤ 5000, (6.1%) of mothers and (10.4%) of fathers were illiterate. Majority of the sample (53.9%) have age at menarche 11-13 years and (2.6%) of the sample attained menarche before 9 years of age. Among the sample, majority (56.5%) have average knowledge regarding menstrual hygiene but (57%) of the sample have unhealthy menstrual hygiene practices. Regarding the menstrual hygiene practices only (7%) of the sample were using sanitary pads and (47%) were using old cloth pieces as absorbent during menstruation, (84.3%) were reported practice of reusing absorbent clothes for 2-3 cycles, (8.7%) reported reusing of absorbents until it torn and (1.7%) practice sharing absorbent clothes with others. The findings of the study also reported a statistically significant moderate positive correlation between knowledge regarding menstrual hygiene and menstrual hygiene practice (r_s=0.504, P<0.05) and a statistically significant association between menstrual hygiene practice with socio personal variables such as age, education of parents, age at menarche, duration of menstrual flow and previous classes attended on menstrual hygiene.

KEYWORDS

Menstrual hygiene practice, Knowledge regarding menstrual hygiene, tribal adolescent girls

INTRODUCTION

Adolescence is the transitional period from childhood to adulthood. World health organization (WHO) defines adolescence as the age between 10-19 years. In India, reported adolescent population is 253 million and which contribute (23%) of total population. Among the adolescent population 105 millions are girls between 10-19 years of age (Census of India 2011).

Among the reported population in India, tribal population contribute (8.6%) of total population .There are 23 million adolescents and (9%) of the total adolescents in India belonged to scheduled tribe category.In Kerala, tribal population contribute (1.5%) of total population and they belonged to 35 different tribal communities, (22%) of them were still living in the forest areas.Wayanad district stood first in the tribal population of Kerala with 1,50,222 tribes and in Kannur district there are 41,371 tribes(Census of India 2011)

In girls pubertal changes usually begins around the age of 10 years and attainment of menstruation or menarche is one of the milestones in girl's life. Poor knowledge and understanding of menstruation may leads to unsafe practices during menstrual period and that in turn increases the risk of reproductive and genitourinary tract infections.

Being socio economically backward and living away from the mainstream community, tribal people in India is considered as one of the vulnerable group. The cultural system plays a major role in the menstrual hygiene practices of girls in the particular community. Compared to mainstream community, tribal population still following certain customs and rituals in relation to puberty and menstruation. In the above circumstances, the present study aims at assessing the knowledge regarding menstrual hygiene and menstrual hygiene practices among the adolescent girls residing in selected tribal colonies of Kannur district.

STATEMENT OF THE PROBLEM

A study to assess the knowledge and practice regarding menstrual hygiene among tribal adolescent girls residing in selected tribal colonies of Kannur district

OBJECTIVES

1. Assess the menstrual hygiene practices of tribal adolescent girls residing in selected tribal colonies of Kannur district
2. Assess the knowledge regarding menstrual hygiene among tribal adolescent girls.
3. Find the association between menstrual hygiene practice and selected socio personal variables
4. Find the relationship between menstrual hygiene practice and knowledge regarding menstrual hygiene among tribal adolescent girls.

RELATED REVIEW OF LITERATURE

An institutional based cross sectional study was conducted in Southern Ethiopia to assess the knowledge and menstrual hygiene practice among adolescent school girls (N=791) found that (68.3%) had poor knowledge of menstruation and (60.3%) had poor menstrual hygiene practice. Age less than 15, longer days of menstrual flow and poor knowledge of menstruation were significantly associated with poor menstrual hygiene (Zelalem and Birhamie,2019)

Another study conducted among tribal adolescent girls in Srikakulam, Andhrapradesh (N=602) to determine the status of menstrual hygiene found that most of the sample were not aware about commercially available sanitary napkins and are using cotton cloth pieces as absorbent during menstruation and reused them till they were torn(Lakshmi G and Sambasiva Rao,2013).

Another study conducted in Jammu and Kashmir states among tribal adolescent girls between 13-15 years (N=200) found that the level of personal hygiene and management of menstruation was found to be quite unsatisfactory. Knowledge regarding menstruation was poor among (83%) of the sample and their source of information about menstruation were friends (Rajni Dhingra and Anilkumar and Manpreet Kour,2009).

A study conducted to assess the knowledge, attitude and practice regarding menstruation and menstrual hygiene among the tribal school girls of Kerala (N=503) found that among the respondents, (34.8%) had poor knowledge,(41%) had favorable attitude and (80.5%) had poor practice. No significant correlation existed between knowledge and practice (Selliamma Kuruvila,2017).

A community based cross sectional study was conducted to compare the age of menarche, menstrual hygiene and problems associated with menstruation among adolescent girls (N=200) from urban and rural schools in Thiruvananthapuram reported that menstrual hygiene was good in (87.5%), average in (9%) and poor in (3.5%) of girls(Manjusha Viswanathan et al,2017)

A descriptive study conducted among 30 tribal adolescent girls of Kolayad Grama Panchayath of Kannur to study the health status of menstrual hygiene management found that menstrual hygiene management was poor among the tribal adolescents,(67%) of them were using old cloth pieces as absorbents and (66.7%) were reusing the absorbents until they get torn(M Arya,A.S Ambily,2017)

RESEARCH METHODOLOGY

A descriptive study with a survey approach was used for the present study. The survey was conducted during September to October 2020 in selected tribal colonies, Kannur district Kerala. There are four tribal extension centres under ITDP (Integrated tribal development programme) Office Kannur. The investigator randomly selected Kuthuparamba tribal extension centre with 76 colonies .By the convenience of the investigator, out of these 76 colonies,32 Colonies under three Panchayaths were selected for the study. The data collection was done from 16/09 to 24-10-2020.The data collection process began with the identification of the participants who met the sampling criteria and 115 adolescent girls between 13-17 years who attained menarche were selected as sample. The purpose of the study was explained and an assent was obtained from the sample and a written informed consent from the parents. The structured questionnaires were distributed to the girls by the researcher with the help of tribal promoters. It took 30 minutes for each sample to complete. Confidentiality was maintained throughout the study

FINDINGS

Data collected were tabulated, analyzed and interpreted using descriptive and inferential statistics. The major findings of the survey were as follows.

Section I: sample characteristics

Table 1.Frequency and percentage distribution of sample based on sample characteristics

N=115

Personal variable	Frequency f	percentage %
Age		
13 Yrs	26	22.6
14 Yrs	25	21.7
15 yrs	28	24.4
16 Yrs	27	23.5
17 Yrs	12	10.4
Class in which studying		
VIII th Std	19	16.5
IX th Std	24	20.9
X th Std	44	38.3
Plus 1	28	24.4
Education of Mother		
Illiterate	07	6.1
Primary	30	26.1
High school	63	54.8
Higher secondary and above	15	13.
Education of father		
Illiterate	12	10.4
Primary	34	29.6
High school	57	49.6
Higher secondary and above	12	10.4
Type of family		
Nuclear	103	89.6
Joint	11	9.6
Extended	01	0.9
Family Income		
≤5000	84	73.
5001-10000	15	13.
>100000	16	13.9
Age at menarche		
<9	03	2.6
9-13	19	16.5
11-13	62	53.9
>13	31	27
Interval of menstruation/menstrual cycle		
<21 days	06	5.2
21-28	71	61.7
>28	38	33.
Duration of menstrual flow	03	02.6
<3 days	58	50.4
3-7 days	54	47.0
>7days		
Previous classes classes on menstruation		
Attended	74	64.4
Not attended	41	35.7

The findings in the table 1 shows that (22.6%) of the sample belongs to 13 years of age, (21.7%) were belongs to 14 years, (24.4%) have 15 years, (23.5%) were in 16 years and (10.4%) have 17 years of age. Out of 115 sample, (16.5%) were studying in VIII th Std,(20.9%) were in IX th Std,(38.3%) were studying in X th and (24.4%) were studying in plus 1 class. Regarding the education of parents, majority of the mothers (54.8%) and (49.6%) of fathers have high school education, (6.1%) of mothers and (10.4%) of fathers were illiterate. Among the sample (89.6%) were from nuclear family, (9.6%) from joint family and (0.9%) belongs to extended family. Majority (73%) of the sample have monthly family income ≤ 5000 and (13.9%) have family income > 10000.Majority of the sample (53.9%) have age at menarche 11-13 years and (2.6%) of the sample attained menarche before 9 years of age. Regarding the menstruation, (61.7%) have normal cycle length,(50.4%) have duration of menstrual flow 3-7 days and (47%) have duration of flow > 7 days. Among the sample (64.4%) attended previous classes on menstrual hygiene and (35.7%) were not attended the class.

Section II: Knowledge regarding menstrual hygiene and menstrual hygiene practices.

This section deals with distribution of tribal adolescent girls based on knowledge and practice regarding menstrual hygiene presented in table 2 ,table 3 , fig:1and fig: 2

Table 2: Frequency and percentage distribution of sample based on knowledge regarding menstrual hygiene . N=115

Knowledge regarding menstrual hygiene	Frequency f	Percentage %
Poor	3	2.6
Average	65	56.5
Good	47	40.9

Table 2 shows that majority(56.5%) of the tribal adolescent girls have average knowledge regarding menstrual hygiene, (40.9%) have good knowledge and (2.6%) have poor knowledge. N=115

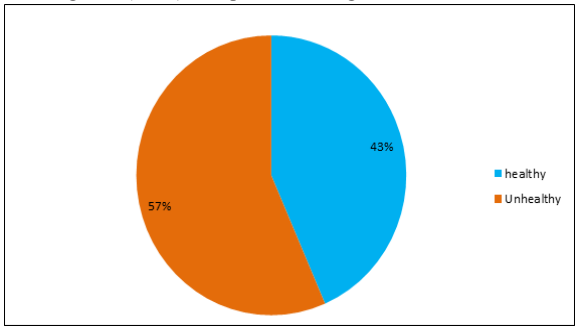

Figure 1: Pie Diagram Showing Distribution Of Sample Based On Menstrual Hygiene Practices.

From Fig.1 it is evident that (57%) of the sample have unhealthy menstrual hygiene practices and (43%) have healthy practices during menstruation. N=115

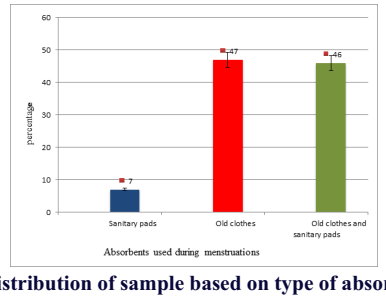

Figure 2 Distribution of sample based on type of absorbents used during menstruation

Figure 2 reveals that most of the sample (47%) have used old clothes as absorbents during menstruation,(46%) used both clothes and sanitary pads and (7%) used sanitary pads .

Table 3.Frequency and percentage distribution of sample based on menstrual hygiene practices N=115

Menstrual Hygiene Practices	Frequency f	Percentage %
Changing pads/absorbents		
When it soaked completely	23	20
Once in a day	15	13
4-5 hrs interval	77	67
Pad changing at school		
Yes	54	47
No	26	22.6
Some times	35	30.4
Washing genitalia when changing pads		
Yes	109	94.8
No	002	01.7
Sometimes	004	03.5
Direction of washing genitalia		
From front to back	88	76.5
From back to front	10	08.7
No specific direction	17	14.8
Drying of clothes/under garments		
Direct sunlight	98	85.2
Under other clothes	6	5.2
Inside the room	3	2.6
Reusing of absorbent clothes		
2-3 cycles	97	84.3
Until it torn	10	8.7
Not applicable	8	07
Place of storage for reuse		
Separate plastic cover	83	72.2
With other clothes	11	9.6
Outside the house	13	11.3
Not applicable	8	6.9
Sharing absorbent clothes with others		
No	113	98.3
Yes	2	1.7
Bath during menstrual days		
Daily	40	34.8
3 rd day or after	19	16.5
Two times daily	56	48.7
Preparation prior to menstruation		
Trim the pubic hair	36	31.3
Shave the pubic hair	43	37.4
No preparation	56	48.7
Hesitate to void during menstruation		
Yes	31	27
No	84	73
Use of cream/ powder in the genital region		
No	110	95.7
Yes	001	00.9
Sometimes	004	03.5

Findings of the table 3 shows that majority of the sample(67%) practice pad changing at 4-5 hrs interval,(13%) changed pad once in a day and (20%) changed pad when it soaked completely. Among the sample (47%) practiced changing pads/absorbents at school,(22.6%) have no practice of pad changing at school. Majority of the sample (94.8%) practiced washing genitalia while pad changing, (76.5%) practice washing genitalia from front to back and (14.8%) practice washing genitalia without specific direction. Out of 115 sample (85.2%) dried under garments/absorbent clothes under direct sunlight, (5.2%) dried the clothes/ undergarments under other clothes and (2.6%) inside the room. Regarding reusing of absorbent clothes, (84.3%) practice reusing of absorbent clothes for 2-3 cycles, (8.7%) practice reusing of absorbents until it torn and (1.7%) reported practice of sharing absorbent clothes with others. Among the sample (72.2%) stored absorbent clothes in separate plastic bags for next use, (11.3%) stored the absorbents outside the house and (9.6%) with other clothes. Regarding bath during menstruation,(48.7%) took bath twice daily and (16.5%) practice bathing on third day or after the menstruation. Prior to menstruation,(31.3%) practice trimming pubic hair, (37.4%) practice shaving the pubic hair and(48.7%) not have any preparation prior to menstruation. Among the sample (27%) reported hesitation for voiding during menstrual days and (0.9%) reported use of cream/powder in the genital area. N-115

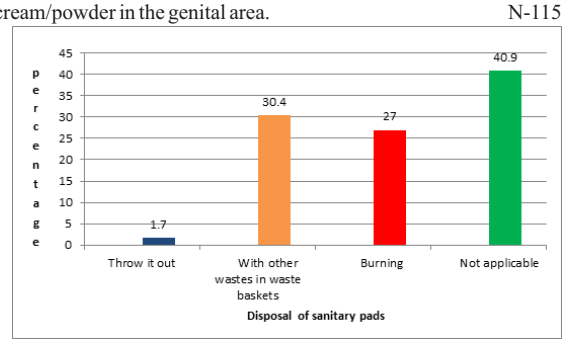

Figure 3:Distribution of sample based on disposal of sanitary pads

Figure 3 reveals that (1.7%) of the sample practice throwing out of pads after use,(30.4%) disposed pads along with other wastes and (27%) practice burning pads after being used.

Table 4: Association between Menstrual hygiene practices and selected variables N=115

Personal variables	Menstrual practice Score ≤ 10	≥ 11	Df	Chi square test (X^2) /Fisher's exact test(F)	P value
Age					
13 Yrs	10	13			
14 Yrs	15	10			
15 Yrs	14	14	4	0.57	*0.015
16 Yrs	17	10			
17 Yrs	09	03			
Class of study					
VIII th	08	11			
IX th	17	07	3	0.45	0.07
X th	25	19			
Plus 1	15	13			
Education of Mother					
Illiterate	05	02		0.003	
Primary	22	08	3	(Fisher's	*0.001
High school	34	29		exact)	
Higher secondary	04	11			
Education of Father					
Illiterate	7	5			
Primary	23	11	3	0.15	*0.048
High school	29	28			
Higher secondary	6	6			
Type of family					
Nuclear	57	46		0.271	
Joint	07	04	2	(Fisher's	0.151
Extended	01	00		exact)	
Family Income					
≤ 5000	49	35			
5001-10000	04	11	2	0.41	0.097
>10000	12	04			

*Significant association P< 0.05

Table 4 shows that menstrual hygiene practice is significantly associated with the socio demographic variables age ($X^2_{(4)}$=0.57, P= 0.015), education of mother (F(3) =0.003, P=0.001) and education of father ($X^2_{(3)}$ = 0.15,P=0.048) .

Table 5:Association between Menstrual hygiene practice and menstruation related variables age at menarche, interval of menstruation, duration of menstrual flow, previous classes attended on menstruation N=115

Menstruation related variables	Menstrual practice score ≤10	≥11	df	Chi square test (X^2) / Fisher's exact test(F)	P value
Age at menarche < 9yrs	1	02			

09-11yrs	10	09			
11-13yrs	38	24	3	0.488 (F)	*0.100
>13 yrs	16	15			
Interval of menstruation					
< 21 days	03	03			
21-28 days	37	34	2	0.123 (F)	0.57
>28 days	25	13			
Duration of menstrual flow					
<3days	01	02			
3-7 days	30	28	2	0.104 (F)	*0.05
>7 days	34	20			
Previous classes attended on menstruation					
Yes	38	36	1	0.095	*0.05
No	27	14			

*significant association P≤ 0.05

Table 5,shows that menstrual hygiene practice is significantly associated with the menstruation related variables age at menarche (F(3) =0.488,P=0.100),duration of menstrual flow(F(2) =0.014, p=0.05) and previous classes attended on menstruation(X^2(1) =0.095,P=0.05)

Table. 6: Relationship between knowledge regarding menstrual hygiene and menstrual hygiene practice. N=115

Variables	r(s) value	P value
Knowledge and practice regarding menstruation	0.504	0.01

*Correlation is significant P≤ 0.05

The data presented in the table 6 shows that there is a statistically significant moderate positive correlation between knowledge regarding menstrual hygiene and menstrual hygiene practice (r_s=0.504) at P=0.01,indicating that there will be an increase in menstrual hygiene practice as the score on knowledge increases and vice versa.

DISCUSSION

Menstruation is considered as normal physiologic process .Poor hygiene or unhealthy menstrual practices have been associated with serious ill health ranging from reproductive tract infection, urinary tract infections etc. The present study found that (56.5%) of the sample have average knowledge,(40.9%) have good knowledge and (2.6%) of the sample have poor knowledge regarding menstrual hygiene. Similar findings have been reported in a study conducted to assess the knowledge regarding menstrual hygiene among adolescent girls in a Union territory, India (Prakash Mathiyalagen et al) .The study revealed that (48.3%) of the study population had good knowledge regarding menstrual hygiene.

Regarding menstrual hygiene practice, majority of the tribal adolescent girls (57%) have unhealthy practices during menstruation. The results are consistent with the findings of a study conducted to assess the knowledge, attitude and practice regarding menstruation and menstrual hygiene among the tribal adolescent school girls of Kerala. Among the respondents in that study,(34.8%) had poor knowledge and (80.5%) had poor menstrual hygiene practices. (Selliamma Kuruvila,2017)

The present study also found that only (7%) of the sample were using sanitary pads, most of the sample (47%) have used old clothes as absorbents during menstruation,(46%) used both clothes and pads .Among the sample (22.6%) of the sample reported reusing of absorbent clothes until it torn, (1.7%) reported sharing of absorbent cloth with others and (7.8%) were reported a practice of drying the absorbent clothes not under direct sunlight. Similar result was reported by another study conducted to assess the status of menstrual hygiene management among tribal adolescent girls in Kolayad, Kannur (M Arya, A.S Ambily,2017). The results of that study reported poor menstrual hygiene management and use of old cloth pieces as absorbents during menstruation with a satisfactory practice in the cycle of changing absorbents among the tribal adolescent girls. Similar finding were also found in another study done among adolescents in Karnataka (Rajasri G. Yaliwal et al,2020) that majority of the urban girls (60%) and rural girls(51%) using the cloths as absorbents were not drying them under direct sunlight.

The study findings are also supported by the results of another study conducted in Srikakulam, Andra Pradesh to determine the status of menstrual hygiene among tribal adolescent girls. The study reported that most of the sample were not aware about commercially available sanitary napkins and they were using cotton cloth pieces during menstruation and they reused them till they were torn (Lakshmi G,sambasiva R Rao, Giridhar L,2013).

The present study also found that (67%) of the sample practiced pad /absorbent changing at 4-5 hours interval and (20%) were reported changing absorbents when it get soaked completely. At school timing (22.6%) were not changing the absorbents/pads. Majority (94.8%) reported cleaning of genitalia while changing pads with a direction from front to back in (76.5%) of sample and (20.6%) washed the genitalia without any specific direction. The participants also reported bath twice daily (48.7%) and (16.5%) on third day or after the menstruation. The study findings are supported by another study conducted among adolescent girls of Karnatka(Rajasri G Yaliwal et al,2020) reported washing the genitalia during pad changing(57.1%) and (93.8%) were having bath during menstruation.

Menstrual hygiene practices were affected by cultural norms, beliefs, parental influence, economic status etc. In the present study majority of the sample (89.6%) were from nuclear family, monthly family income ≤5000 with a poor educational status of parents (6.1%) of mothers and (10.4%) of fathers were illiterate. The study also reported a statistically significant association between menstrual hygiene practices and demographic variables such as type of family and education of parents. This findings are supported by another study conducted among adolescents from an Urban slum area to assess the knowledge, beliefs and menstrual hygiene practices(Tanvi Nitin Deshpande,2018) reported that among 100 participants (77%) were belonged to nuclear family and (47%) of the mothers were illiterate. Similar results were reported in another study (Sangeetha Kansal et al,2016) done to assess the menstrual hygiene practices among adolescents. The study reported that respondents whose mothers were literate (62%) were maintaining more hygienic practices in comparison to those whose mothers were illiterate (13%) and the difference was found to be statistically significant.

The details of menstruation including age at menarche, interval of cycle, duration of flow and previous classes attended on menstrual hygiene were also analyzed and it was found that majority of the sample (53.9%) have age at menarche 11-13 years and (2.6%) of the sample attained menarche before 9 years of age. Among them (61.7%) have 21-28 days cycle,(50.4%) have duration of menstrual flow 3-7 days,(47%) have duration of flow > 7 days. Among the sample (64.4%) attended previous classes on menstrual hygiene and (35.7%) were not attended the class. The study also reported a statistically significant association between variables such as age at menarche, duration of menstrual flow and previous classes attended on menstrual hygiene with menstrual hygiene practices. The findings are consistent with the findings of another study reporting age of menarche between 12-14 years with length of cycle21-28 days in (47%) of participants (Jagruti prajapati, 2015)

CONCLUSION

Hygiene related practices of adolescent girls during menstruation are of considerable importance as they influence the reproductive life of them. The govt. implementing many menstrual hygiene management programmes to break the silence towards menstruation. Adolescent girls may feel menstruation as shameful and uncomfortable if they lacks hygienic materials during menstruation and not aware about menstrual hygiene. In spite of many programmes, menstruation is still a taboo in India and it is common for people across society to feel uncomfortable about the menstrual related matters. Strengthening school health programmes highlighting menstrual hygiene, family involvement in menstrual hygiene matters and inculcating knowledge regarding menstruation and menstrual hygiene from the pre pubertal period can be suggested in breaking the silence towards menstruation and thereby ensuring healthy practices during menstrual days.

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