

Original Research Article

Knowledge and practice of menstrual hygiene among tribal adolescent girls in Visakhapatnam district, Andhra Pradesh

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ABSTRACT

Background: Menarche is an important biological milestone in a woman's life as it marks the onset of the reproductive phase of her life. The average age at menarche is mostly consistent across the populations, that is, between 12 and 13 years of age. Unfortunately, due to lack of knowledge on menstruation preparedness and management or due to shyness and embarrassment the situation becomes worse for girl. Menstruation is a natural process but it is still a taboo in Indian society as it is considered unclean and dirty.

Methods: A cross-sectional study was conducted among 250 tribal adolescents in Visakhapatnam district, A. P.

Results: 90% of adolescent girls know that menstruation is a normal process. Only 63.2% of adolescent girls know the correct duration of menstrual cycle. 95.6% of adolescent girls use sanitary pads. 97.2% of adolescent girl's clean external genitalia before changing pad. 84% of adolescent girls can be able to change pad in school whenever necessary.

Conclusions: The practices of menstrual hygiene were good except regarding disposal of menstrual materials but need improvement regarding knowledge about menstrual hygiene. It is very important that the mother to be armed with the correct and appropriate information on reproductive health, so that she can pass this knowledge to her next generation.

Keywords: Knowledge, Practice, Menstrual hygiene, Tribal adolescent girls

INTRODUCTION

Adolescent age is recognized as a special period in a girl's life cycle which require special attention. Menarche is an important biological milestone in a woman's life as it marks the onset of the reproductive phase of her life. The average age at menarche is mostly consistent across the populations, that is, between 12 and 13 years of age. Unfortunately, due to lack of knowledge on menstruation preparedness and management or due to shyness and embarrassment the situation becomes worse for girl. Menstruation is a natural process but it is still a taboo in Indian society as it is considered unclean and dirty.

Menstrual flow or duration changes before menopause or during gynaecological cancers. Under conditions of hormonal imbalance, fibroids, polyps, and endometriosis menstrual flow increase and excessive loss of blood through menstruation can lead to anaemia.¹

Menstruation is a natural phenomenon among matured females who experience shedding of blood for 1-7 days every month from the age of maturity until menopause. Puberty is a time of change for all young people, but it is particularly a challenging factor for girls who are often unprepared for changes in their body, which can become a major obstacle to their education in some parts of the world.² Two out of three girls reportedly have no idea of

what was happening to them when they experienced menarche. This can have many negative effects on their physical and emotional development, leading to a drop in self-esteem and poor performance. This can be due to lack of appropriate knowledge, which in turn can be attributed to the traditional Indian culture, in which open discussion on these issues is considered as stigma. As a result, they suffer intense mental stress due to suppression of feelings.^{3,4}

Many studies have revealed that most of the adolescent girls had incomplete and inaccurate information about the menstrual physiology and hygiene. Menstruation and menstruation practices are still overcast by proscription and socio-cultural constraints resulting in adolescent girls remaining ignorant of the scientific facts and hygienic health practices, which sometimes result into adverse health outcomes. Though it is a natural phenomenon, various myths surround it, because of which girls will be exposed to very little knowledge about menstruation.^{5,6}

Objectives

To assess knowledge level regarding menstruation hygiene among tribal adolescent girls in Visakhapatnam district. To know the prevailing practices for menstrual hygiene among tribal adolescent girls in Visakhapatnam district.

METHODS

Study design

A cross sectional study was conducted among tribal adolescent girls. Simple random sampling was applied to select the study subjects randomly. Study period was from August to December 2021.

Sample size

Five schools were identified in tribal areas of Visakhapatnam district. 50 students in each school were selected randomly using their roll numbers. Total 250 tribal girls of adolescent age group were included in the present study.

Inclusion criteria

Inclusion criteria was adolescent girls of tribal area.

Exclusion criteria

Exclusion criteria were not willing to give consent, married, pregnant, and adolescent lactating girls.

Data collection method

A structured self-administered questionnaire was used as data collection tool. This study was carried out after taking permission from Institutional Ethics Committee.

Statistical analysis

Data was entered and analyzed using SPSS V25. Descriptive statistics are represented with frequencies and percentages.

RESULTS

From Table 1, out of the 250 adolescent girls 2% are 12 years old, 4.8% are 13 years old, 9.2% are 14 years old, 14.4% are 15 years old, 38.8% are 16 years old, 25.2% are 17 years old and 5.6% are 18 years old. 80.8% were Hindus, 14% were Christians, 1.2% were Muslims and 4% were others. 0.8% are studying 8th class, 0.4% are studying 9th class, 23.2% are studying tenth class, 34% are studying inter 1st year, 41.6% are studying inter 2nd year. 70.4% were living in nuclear families, 29.6% were living in joint families.

Table 1: Distribution of adolescent girls according to their demographic profile.

Demographic variables	Frequency	Percentage (%)
Age (years)		
12	5	2
13	12	4.8
14	23	9.2
15	36	14.4
16	97	38.8
17	63	25.2
18	14	5.6
Religion		
Hindus	202	80.8
Christians	35	14
Muslims	3	1.2
Others	10	4
Education		
8 th class	2	0.8
9 th class	1	0.4
10 th class	58	23.2
11 th class (Inter 1 st year)	85	34
12 th class (Inter 2 nd year)	104	41.6
Family type		
Nuclear family	176	70.4
Joint family	74	29.6

From Table 2, out of 250 adolescent girls 98.4% have heard of menstrual health management where as 1.6% have not heard of menstrual health management. First source of information on menstrual health management is mother for majority of girls (77.2%), sisters (4.8%), friends (3.6%), teachers (12%), others (2.4%). 92% received menstrual information in a course in school, whereas 8% not received from school.

Table 2: Distribution of adolescent girls according to their knowledge on menstrual hygiene.

Knowledge on menstrual hygiene	Frequency	Percentage (%)
Knowledge on menstrual health management		
Yes	246	98.4
First source of information		
Mother	193	77.2
Sister	12	4.8
Friend	9	3.6
Teacher	30	12
Others	6	2.4
Menstrual education received in school		
Yes	230	92
Menstruation is a normal process		
Yes	225	90
Cause of menstruation		
Disease	113	45.2
Hormones	36	14.4
Past sins	37	14.8
Normal	63	25.2
Do not Know	1	0.4
Origin of blood		
Ovary	37	14.8
Uterus	113	45.2
Vagina	63	25.2
Do not know	37	14.8
Normal duration of menstrual cycle (in days)		
20-30	158	63.2
30-60	22	8.8
60-90	7	2.8
Do not know	63	25.2
Menstruation is a sign of puberty		
Yes	218	87.2
Material to be used		
Sanitary pads	236	94.4
Clothes	6	2.4
Do not know	8	3.2

90% believe that menstruation is a normal process while 4.8% does not believe, 5.2% do not know. 45.2% believe that cause of menstruation is disease, 14.4% believe it is because of hormones, 14.8% believe it is because of past sins, 25.2% believe it is a normal process, 0.4% do not know the cause of menstruation. 14.8% believe that origin of blood is from ovary, 45.2% believe that it is from uterus, 25.2% believe that it is from vagina and 14.8% do not know the origin of blood during menstruation. 63.2% know the correct duration of menstrual cycle whereas 36.8% do not know the correct duration of menstrual cycle. 87.2% believe that menstruation is a sign of puberty whereas 12.4% do not believe and 0.4% do not know. 94.4% believe that good material to be used during menstruation is sanitary pad whereas 2.4% believe that it is cloth while 3.2% do not know it.

Table 3: Distribution of adolescent girls according to their practice on menstrual hygiene.

Practice of menstrual hygiene	Frequency	Percentage (%)
Materials used to manage menses		
Disposable sanitary pads	239	95.6
Cloth	10	4
Cotton	1	0.4
Bathing during menstrual period		
Only water	31	12.4
Water and soap	219	87.6
Cleaning external genitalia after urination/defecation		
Yes	236	94.4
Cleaning external genitalia before changing pad		
Yes	243	97.2
Substance used for cleaning external genitalia		
Only water	47	18.8
Water and soap	193	77.2
Tissue	10	4
Number of times pads are changed		
Once	20	8
Twice	17	6.8
Thrice	120	48
More than thrice	93	37.2
Changing pad in school		
Yes	210	84
Washing menstrual materials		
Water	59	23.6
Water and soap	148	59.2
None	43	17.2
Method of disposing menstrual materials		
Burn	73	29.2
Dust bin	169	67.6
Throw in drains/bury underground	6	2.4
Wasteland	2	0.8

Out of 250 adolescent girls, 95.6% use sanitary pads to manage their menses, 4% use clothes and 0.4% use cotton. 12.4% take bath using only water during menstrual period whereas majority of girls 87.6% use both water and soap. 94.4% clean external genitalia after urination or defecation whereas 5.6% do not clean. 97.2% clean external genitalia before changing pad whereas 2.8% do not clean. Majority of girls 77.2% use water and soap for cleaning external genitalia whereas 18.8% use only water for cleaning while 4% use tissues. 48% girls change their pad thrice daily whereas 37.2% change more than three times daily, 8% change once daily, 6.8% change twice daily. Majority of girls 84% can be able to change pad whenever necessary in school whereas 16% not able to do. 59.2% wash menstrual materials using water and soap whereas 23.6% wash menstrual materials using only water while 17.2% use none of the above. Majority of

girls 67.6% dispose menstrual materials in dustbin whereas 29.2% will burn them, 2.4% throw in drains and 0.8% dispose in wasteland.

DISCUSSION

Regarding knowledge Majority of girls in the present study heard about menstruation constituting about 98.4% whereas the remaining 1.6% have not heard about menstrual health management which is more when compared to the study conducted by Chetan Kant Bhusal, in which 89.4% girls have heard about menstruation whereas 10.6% have not heard about menstruation but a little less when compared to the study conducted by Akwasi boakye in which every (100%) female adolescent student in the Municipality is aware of menstrual health management.^{7,8}

The main source of information for majority of girls in the present study regarding menstrual health management is mother constituting about 77.2% followed by teachers (12%), sisters (4.8%), friends (3.6%) and others (2.4%). The main source of information is mothers 50.9% followed by teachers 45%, 19% from books, 5.8% from media and 4.4% from other relatives according to Shamsudeen⁹. Mothers are the main source of information 38.3% followed by peers 16.3%, media 7.6%, relatives 6.4%, teachers 2.4% and others 1.3% in a study conducted by Belayneh.¹⁰ Teachers are the main source of information 78% followed by mothers 28%, peers 20% and sisters 13% in a study conducted by Shah Vishna.¹¹

Coming to the duration of menstrual cycle 63.2% correctly knows the duration of menstrual cycle whereas 36.8% do not know the duration of menstrual cycle which is less when compared to the study conducted by Akwasi boakye in which most of them (78.6%) know that normal menstruation occurs monthly.

Majority of girls 94.4% believe that sanitary pads are good absorbents to be used during menstruation whereas 2.4% believe that old clothes or towels are good absorbents to be used during menstruation while 3.2% do not have knowledge about good absorbent to be used during menstruation which is more when compared to the study conducted by Chetan Kant Bhusal in which 90.9% know about absorbents during menstruation. 87% knew about sanitary pads in a study conducted by Shah Vishna.

In the present study regarding practice of menstrual hygiene majority of girls 95.6% use sanitary pads, 4% use clothes and 0.4% use cotton to manage their menses which is more when compared to the study conducted by dr.jyothi in which 79% used sanitary pads.¹² 87% used sanitary pads and 99% used clothes/ towels according to the study conducted by Helen.¹³ 65.8% of girls used sanitary pads to manage menses whereas 1.3% used toilet tissue according to Maxwell.¹⁴ 69.8% of urban girls and 72% of rural girls used sanitary pads whereas 15.4% of

urban girls and 10% of rural girls used reusable clothes while 14.2% of urban girls and 16.3% of rural girls used both sanitary pads and clothes, 12.1% of urban girls and 12.6% of rural girls had no knowledge about sanitary pads in a study conducted by Rajasri.¹⁵ Only one-third respondents were using sanitary pad, this may be due to their low socioeconomic status, inadequate knowledge about hygiene during menstruation, and lesser availability of the pads in their villages in a study conducted by Kansal.¹⁶

In the present study majority of girls constituting about 97.2% clean external genitalia before changing pad whereas 2.8% do not clean which is more when compared to the study conducted by Akwasi boakye in which Nine-in-ten adolescents 351 (90.0%) wash their genitals at least once a day during menstruation.

In the present study regarding method of disposal of menstrual materials most of the girls 67.6% dispose them in dustbins whereas 29.2% of girls burn them, 2.4% throw in drains and 0.8% dispose in wasteland. Girls preferred to dispose used menstrual materials in the pit latrine and not waste bins at school in a study conducted by chinyama.¹⁷ The girls in schools threw away sanitary pads or other menstrual articles in toilets or left the soiled wrapped pads at toilet corners due to lack of dustbins or separate place for disposal according to Sharma.¹⁸

Limitations

Convenient sample size was taken in the present study, so results can't be generalized.

CONCLUSION

The knowledge and practices of menstrual hygiene were good except regarding disposal of menstrual materials but need improvement regarding knowledge about menstrual hygiene. It is very important that the mother to be armed with the correct and appropriate information on reproductive health, so that she can pass this knowledge to her next generation.

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