**Original Research Article** 

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# Menstrual health status and cultural practices of tribal adolescent girls

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# ABSTRACT

**Background:** Adolescence in the life cycle of a *Homosapien* organism is a period of transition from childhood to adulthood. The word 'Adolescent' has been derived from Latin word 'Adolescere' which means 'to grow to maturity'. The children from the poor scheduled tribes families are not being sent to school because of the tendency of some parents to utilize their services in augmenting their family income. Therefore a provision for educational opportunities forms a very important part of the programme for the welfare of the scheduled tribes. The aim of the present study was to observe menstrual health of the tribal adolescent girls and to describe cultural factors on study population. **Methods:** Community based cross sectional descriptive study done on 425 tribal adolescent girls residing in 18 habitations of Achampet mandal. Pre designed pre tested semi structured schedule applied on the subjects after a written informed consent.

**Results:** Out of 425 study subjects majority 178 (41.9%) were from early adolescent age i.e. 10-13 years, followed by 144 (33.9%) from mid adolescent age i.e., 14-15 years and 103 (24.2%) from late adolescent age i.e. 16-19 years. Majority illiterate subjects (55.1%) menstrual hygiene was non sanitary. Subjects who had illiterate mothers their menstrual hygiene was non sanitary way (55.1%). Girls in joint families were having sanitary menstrual hygiene. **Conclusions:** Present study showed education and awareness play key role in maintaining menstrual hygiene. Hygiene education is supposed to be given at all levels. Bad cultural practices supposed be addressed at community

Keywords: Adolescent girls, Menstrual hygiene, Cultural practices

## **INTRODUCTION**

level with intervention.

Adolescence in the life cycle of a *Homosapien* organism is a period of transition from childhood to adulthood. The word 'Adolescent' has been derived from Latin word '*Adolescere*' which means 'to grow to maturity'.

Adolescence is characterized by rapid physical, biological and hormonal changes resulting in psychosocial, behavioural and sexual maturation The experience of adolescents during teen years would vary considerably according to the cultural and social values of the network of social identities they grow in.<sup>1</sup> WHO defines adolescence as the segment of life between the ages of 10-19 years.<sup>2</sup>

There are 1-2 billion adolescents in the world, 85% of them live in developing countries. The adolescent population constitutes about 18-25% of the total population of the South East Asian Region.<sup>3</sup> In India adolescents are over 21.4% of the population. A sizeable proportion of the Indian mothers are adolescents.

The children from the poor scheduled tribes families are not being sent to school because of the tendency of some parents to utilize their services in augmenting their family income. Therefore a provision for educational opportunities forms a very important part of the programme for the welfare of the scheduled tribes.

Inculcation of healthful habits among these adolescents will have permanent benefit in their lives and also the ideas and practices will influence their families and communities.<sup>4</sup>

In India poor nutrition, early child bearing and reproductive health complications compound the difficulties of adolescent physical development. 15.4% of girls are married by age of 13 years, 33.3% by 15 years and 64.6% by age 18 years.<sup>5</sup> Adolescent girl is subjected to physical, biological changes associated with the early onset of child bearing and rearing. Nutritional deprivation is due to increased demand and excessive blood loss in early/frequent pregnancies. All aggravate and exacerbate anaemia and its detrimental effects.

According to the WHO, reproductive and sexual ill health accounts for 20% of the global burden of ill health for women.<sup>6</sup> Menstrual hygiene is another important issue that every girl and women should practice in her life. Good menstrual hygiene is crucial for the health, education, and dignity of girls and women as it is an important risk factor for RTI. There is lack of awareness regarding menstruation, hygiene practices during menstruation and the physical and psychological changes associated with puberty. Taboos regarding this issue in the society prevent girls and women from articulating their needs and the problems of poor menstrual hygiene have been ignored or misunderstood. This is an important issue which has long been in the closet and there is a long standing need to openly discuss it.

# **Objectives**

• To observe menstrual health of the tribal adolescent girls.

• To describe cultural factors on study population.

## **METHODS**

Community based cross sectional descriptive study done on 425 tribal adolescent girls residing in 18 habitations of Achampet mandal. Study was conducted for 3 months, from December 2016 to February 2017. Pre designed pre tested semi structured schedule applied on the subjects after a written informed consent. Total adolescent girls in 18 habitations are 1572, so 1572/425=3.69, every 4<sup>th</sup> adolescent girl who was available taken for the study by using systemic random sampling method. All girls in the age of 10-19 yrs were selected including married, antenatal and postnatal subjects. Descriptive statistical analysis was carried out to explore the distribution of several categorical and quantitative variables. Categorical variables were summarized with n (%). Inferential Statistics done to see the difference in the two groups were tested for statistical significance using chi square test. P value less than 0.05 considered to statistically significant.

### RESULTS

Out of 425 study subjects majority 178 (41.9%) were from early adolescent age i.e. 10-13 years, followed by 144 (33.9%) from mid adolescent age i.e. 14-15 years and 103 (24.2%) from late adolescent age i.e. 16-19 years. Majority of the subjects were from nuclear families (63.5%) followed by Joint families (33.2%) and extended joint families (3.3%). Majority of the parents were illiterate. Mothers were more illiterate (60.5%) than fathers (52.5%). 33.9% of mothers completed less than primary school education where as 32% fathers of subjects were able to read and write their names only. 5.6% mothers completed primary school and 0.04% high school. Majority of the subjects (41.2%) had education upto primary school completed, 22.8% less than primary school, 6.4% upto high school and 4% upto intermediate. 25.9% were illiterates.

		Number	Percentage (%)
Cycle	Regular	280	88.60
Duration of menstrual cycle	<3 days	145	45.88
	3-5 days	151	47.78
	6-7 Days	20	6.3
Dysmenorrhea	Never	237	75
	Occasionally	79	25
PMS	Never	248	78.48
	Occasionally	68	21.51
Breast tenderness	Never	234	74.05
	Occasionally	82	25.94
Polymenorrhea	Yes	60	18.98
	No	256	81.01
Leucorrhea	Never	177	56.01
	Occasionally	139	43.98
Material used	Sanitary napkin	216	68.35

### Table 1: Menstrual profile of study subjects.

	Cloth	100	31.6
No. of motorials used (day	≤2	210	66.5
No. of materials used /day	>2	106	33.5

Risk factors		Sanitary (%)	Non sanitary (%)	P value
Girls literacy status	Illiterate	35 (44.9)	43 (55.1)	< 0.05
Literacy status mother	Illiterate	88 (47.8)	96 (52.2)	< 0.05
Type of family	Joint	59 (56.7)	45 (43.3)	< 0.05
Age of girls	<14 yrs	94 (65.3)	50 (34.7)	>0.05
Menstrual cycle	Regular	186 (66.4)	94 (33.6)	< 0.05
Pre menstrual syndrome	Never	184 (74.2)	64 (25.8)	< 0.05
Dysmenorrhea	Never	189 (79.7)	48 (20.3)	< 0.05
White discharge	Yes	115 (65)	62 (35)	>0.05

## Table 2: Various risk factors associated with menstrual hygiene.

Out of 425 subjects majority 170 (40%) was students. Followed by 128 (30.1%) homemakers, 60 (14.1%) employed for wages, 48 (11.3%) were occupied with agricultural work and 19 (4.5%) self-employed. Majority of the study subjects 353 (83.05%) were unmarried.

Majority of subjects 43(59.7%) were married in late adolescent age group i.e. 16-18 years followed by mid adolescent age group 24 (33.4%), only (6.9%) were married in early adolescent age group. Out of 425 subjects 316 (74.35%) had attained menarche with the mean age of 12.83 years, with the majority (43.35%) at 13 years of age.

Majority illiterate subjects (55.1%) menstrual hygiene was non sanitary. Subjects who had illiterate mothers their menstrual hygiene was non sanitary way (52.2%). Girls in joint families were having sanitary menstrual hygiene. Girls who are keeping their menstrual hygiene sanitary way had menstrual cycle regular, these were observed to be statistically significant. Girls who attained menarche in less than 14 yrs kept their menstrual hygiene sanitary way and it was statistically not significant.

#### **Table 3: Cultural practices.**

	Frequency	Percent(%)
Bathing	308	72.5
Food restriction (touching and eating)	86	20.2
Sleep on floor	37	8.7
Routine household activity	92	21.6
<b>Religious restriction</b>	270	86.81
Playing	30	8
School absenteeism	83	20

Certain cultural practices were still prevalent in tribal region among them bathing restriction, religious restrictions accounts high with 86.81%.

#### DISCUSSION

In present community based study majority adolescent girls were in early adolescence followed by middle and late. This observation was very much similar with Khanna et al, Pandit et al.<sup>7,8</sup> But Kansal et al and Nagar et al found majority were late adolescence.<sup>9,10</sup> This may be attributed to different socio demographic settings and methodology adopted for study.

Nuclear families ere prevalent in current study it is similar with Khanna et al Hakim et al, Pandit et al and Palak et al.<sup>7,8,11,12</sup> But Nagar found more family members in their study.<sup>10</sup> Current changing demographic feature in India is more number of nuclear families is emerging even in rural tribal settings.

Majority subjects had illiterate mothers. It is very much similar with the findings of Hakim et al, Kapoor et al, Kansal et al and Udayar et al.<sup>9,11,13,14</sup> Pandit et al found majority mothers were completed their middle school flowed by primary school, they observed very less illiterate mothers.<sup>8</sup> Nagar et al found majority mothers were completed high school.<sup>10</sup> This variation because of study settings and female literacy status in rural and tribal areas in India much poorer compared to urban setups.

Majority adolescent girls were completed primary schooling but illiteracy rate was highly prevalent. Similar findings were observed in Palak et al, Mohite et al and Balamurugan et al.<sup>12,15,16</sup> But Kansal et al found very low illiteracy rate among adolescent girls. Since it is a community based tribal study so much of variation seen compared with the others findings and according to India 2011 census literacy rate among tribal was very low.

In preset majority of study subjects were students. Balamurugan et al found 35% of unskilled workers. Palak et al found majority home makers and very less percentage students.<sup>12,16</sup> Since in present study major age group was early adolescence and social welfare schools activity was high in present study setting.

Majority were unmarried in study. It is is very much similar with Hakim et al, Khanna et al and Kansal et al.<sup>7,9,11</sup> Palak et al found majority were married. This can be attributed to age distribution of study subjects.<sup>12</sup>

Mean age of menarche of study subjects was 12.8 yrs, with majority in 13yrs of age group. Similar findings were observed in Khanna et al, Kapoor et al, Udayar et al and Mohite et al.<sup>7,13-15</sup> Pandit et al found by 12 yrs girls attained menarche.<sup>8</sup> Balamurugan et al and Kumar et al found by the 15-16 yrs girls are attaining menarche.<sup>16,17</sup> Age distribution, geographic location and work, these three variables are responsible for variations in the studies. Rural and tribal girls attaining menarche late compared with urban girls.

Majority of study subjects had regular menstrual cycles. Udayar et al, Mohite et al and Kshirsagar et al also found majority girls had regular cycle.<sup>14,15,18</sup>

Majority girls said menstruation occurs for 3-5 days followed less than 3 days very less people had more than 5 days. This is similar with Udayar et al.<sup>14</sup> Mohite et al and Kshirsagar et al found majority girl had menstruation for <3 days.<sup>15,18</sup> Pandit et al found majority girls are having more than 5 days of menstruation.<sup>8</sup> Nutritional status and anaemic condition other socio environmental and nutritional factors play role in duration of menstruation.

In present study PMS, Leucorrhoea was noted during menstrual cycle but dysmenorrhea was less observed. Khanna et al observed mainly followed by PMS.<sup>7</sup> Similar findings were observed in study of Hakim et al.<sup>11</sup> Battacharya et al found leucorrhoea as a main complaint during cycle followed by pain abdomen, PMS was les observed.<sup>19</sup> Nagar et al and Fakhri et al found PMS as a main complaint.<sup>10,20</sup> These complaints were observed because lack of education and hygiene.

Majority used napkins, less than 2 times per day. It was similar with observations of Mohite et al.<sup>15</sup> But in study of Nagar et al and Patle et al found napkin change more than 2 times per day.<sup>10,21</sup>

Majority used sanitary napkin but good percentages of people were used cloth. Similar finding observed in Hakim et al, Kapoor et al.<sup>11,13</sup> Udayar et al, Battacharya et al, Kumar et al, and Varghese et al found high usage sanitary napkins than current study.<sup>14,19,22,23</sup> Nagar et al high reuse of linen.<sup>10</sup> But in Khanna et al and Mohite et al cloth utilisation found highly.<sup>7,15</sup> Educating girls and urban girls were aware of ill effects of cloth utilization.

Association between menstrual hygiene and girl's education as found statistically significant. High education will lead to good menstrual hygiene. Similar finding was observed in Kansal et al, Mohite et al and Balamurugan et al.<sup>9,15,16</sup>

Mothers education plays pivotal role maintains of menstrual hygiene of their wards. This association found statistically significant. Similar observation was made in Kansal et al, Palak et al, Udayar et al and Mohite et al.<sup>9,12,14,15</sup> Educated mothers will definitely aware of problems associated with improper maintenance of hygiene.

Girls with good menstrual hygiene had regular cycles this was statistically significant. Fakri et al found similar association between regularity of cycles and menstrual hygiene.<sup>20</sup>

Age has not significant association of maintenance of good hygiene. Kansal et al found similar association.<sup>9</sup> If subjects are well aware and their mothers are well educated age will not a significant variable.

Leucorrhoea was not significantly associated with menstrual hygiene similar findings observed in study of Battacharya et al.<sup>19</sup>

Girls who did not maintained hygiene had significant PMS. This was similar with the observations of Fakri et al.<sup>20</sup> PMS has direct link with lifestyle. Habits might affect the personal hygiene thereby causing significant association.

Religious restrictions, bathing on that day, sleeping on the floor, not touching the stored food items and restrictions to eat certain food during menstruation were some cultural practices observed among tribal adolescent girls. Similar findings were observed in Pandit et al, Kumar et al, Hakim et al, Kapoor et al, Udayar et al, Kshirsagar et al and Thakre et al.<sup>8,9,11,13,14,18,24</sup> People need to get educated in order to avoid certain cultural factors which leads to insanitary menstrual hygiene and to decrease school absenteeism.

### CONCLUSION

Present study showed education and awareness play key role in maintaining menstrual hygiene. Hygiene education is supposed to be given at all levels. Bad cultural practices supposed be addressed at community level with intervention.

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