

Age at menarche in adolescent Chakma Girls of Tripura

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Abstract

Menarche is the onset of menstruation and is one of the milestones in women's lives. Data on age at menarche have been collected using retrospective method of recall among 346 Chakma girls of North Tripura attending School and Colleges. The mean age at menarche of Chakma girls of Tripura was 13.72 ± 0.76 years. The early onset of menarche was recorded in 2.31% and late onset in 60.98% of the Chakma girls. The mean age at menarche of this population was influenced by their socio economic condition.

Keywords: Menarche, Socio-economic status, Adolescent, Chakma

Introduction

Menarche refers to the first menstrual period, and the age at which menarche occurs is the most commonly reported maturity sign of female adolescence. Adolescence in girls has been recognized as a special period which signifies the transition from girlhood to womanhood. This transitional period is marked with the onset of menarche, an important milestone. Age at menarche is to be influenced by genetic factors, environmental conditions, body stature, family size, body mass index (BMI), socioeconomic status and level of education (Chumlea, 2003). Several studies in North East India have been reported varying mean age at menarche in different population variation (Das, 1967; Deb, 2009, 2011; Srivastava and Gowsami 1968) and in different parts of India, ranging from 12.3 years in Bengali girls (Banerjee et al 2007) to 15.4 years in lower socio-economic group of western India (Rao et al 1998). Though

age at menarche has been reported in many Indian subpopulations, but no information is available on the Chakma tribal population of Tripura.

Over a seven week period in July to August 2014, a cross-sectional study was carried out in different school and colleges of North District of Tripura. Age at menarche was obtained from each subject using the retrospective method. Recalled age at menarche and socio-demographic characteristics were obtained through a pretested structured schedule from a sample of 346 Chakma girls within the age ranges from 17-20 years. Frequency distribution of girls according to menarcheal status is shown in Table 1. In the present sample menarcheal age ranges from 10-16 years. Majority of girls attain their menarche at the age 14 years (37.28%) followed by 13 years (29.77%) and 15 years (22.25%). The early onset of menarche was recorded in 2.31% and late onset in 60.98% of the Chakma

girls. Mean age at menarche (13.72 ± 0.76) of Chakma girls is higher than that of the other tribes in North East India: 12.45 years in Assamese (Deb, 2009) and 13.22 years in Khasi girls of Meghalaya (Deb, 2011). However, some of the studies among other populations of India show a similar trend of higher mean menarcheal age: 13.88 years in urban Andhra Pradesh (Reddy BKC, Radhika 2003) and 13.85 years in rural Jammu (Sharma et al. 2006).

Table 1: The frequency distribution and mean age at menarche of Chakma girls

Age at menarche in years		No. of girls n	Percentage %
Early menarche	10+	2	0.58
	11+	6	1.73
Total		8	2.31
Ideal age	12+	24	6.94
	13+	103	29.77
Total		127	36.71
Late menarche	14+	129	37.28
	15+	77	22.25
	16+	5	1.45
Total		211	60.98

Mean \pm S.E. = 13.72 ± 0.76

Table 2: Mean age at menarche and some socio-economic factors

Variable	No. Obs.	Mean \pm SE
Income		
Lower (<10000)	168	13.82 ± 0.32
Middle (10000-20000)	110	13.72 ± 0.24
Upper (>20000)	68	13.56 ± 0.41
Birth Order		
1	75	13.66 ± 0.11
2	142	13.76 ± 0.16
3	97	13.82 ± 0.20
4	32	13.85 ± 0.26

Table 2 shows the mean ages of menarche by income and birth order. Girls belonging to high income group were found to attain sexual maturity (13.56 ± 0.41) earlier than those of middle (13.72 ± 0.24) and lower (13.82 ± 0.32) income groups. Effect of birth order on menarcheal age is found to be positive. Age at menarche of the girls of lower parity is found to be somewhat earlier (13.66 ± 0.11) compared to those born later i.e., second birth (13.76 ± 0.16) and third birth (13.82 ± 0.20). Although, these differences were found to be statistically insignificant but this suggests early menarche is favoured by the higher living standards of the small families. The present study shows a definite association between age at menarche and some socio economic factors. Further study in a larger population should be expected to evaluate and confirm the findings of the present study.

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Conflict of interest

None

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