

EFFECT OF SOCIOECONOMIC STATUS ON THE ONSET OF MENARCHE**RUPAM AJEET YADAV^{a1} AND JYOTI BALA CHOUBEY^b**^{ab}Department of Home Science, Bhilai Mahila Mahavidyalaya, Chhattisgarh, India**ABSTRACT**

Adolescence is a period of transition from girl to womanhood. Menarche indicate that the woman is now in a reproductive phase. It is an important Milestone i.e. starting of first menstrual cycle in females. It is the central event of female puberty that occurs after breasts, public hair and underarm hair have begun to grow. The landmarks of pubertal events in girls are onset of puberty, increase in height & menarche.

KEYWORDS: Socio Economic, SES

The age of menarche differs in different girls. It is influenced by Heredity and environmental factors along with the growth of females. Menarche occurs six months after the onset of puberty.

Menarche indicates that there is growth of endometrium in the Uterus induced by estrogen hormone. It is a sign of growing up. It usually starts between 11-14 years of age, but can occur early at age or late at 15. In recent studies pediatricians are observing menarche at an early age of 8 and 9 years as compared to 12 to 14 years a decade ago. At an early age, the girl child is not prepared to enter the reproductive stage, she stops outdoor play activity. Early menstruation is usually followed by early menopause.

Early menarche leads to early exposure to female hormone estrogen. It may lead to endometriosis of the uterus, polycystic ovarian syndrome and cancers of the breast and uterus.

There are several factors responsible for early age of menarche such as high calories diet, childhood obesity, lifestyle factors associated with socioeconomic status etc. Feeling related to opposite sex, confusion and tension of the period increases further hormone level.

When family environment is stressful, early menarche is observed.

This study is an attempt to find out the effect of socioeconomic status on the onset of menarche.

METHODOLOGY

150 girls between 10 to 16 years of age were randomly selected from various sector areas of Bhilai township. A predesigned questionnaire was used for data collection. Details regarding date of birth, age of menarche and socioeconomic status were collected.

RESULTS AND DISCUSSION

150 girls between 10 to 16 years of age were selected for the study from different socioeconomic status. Results indicate that girls belonging to high socioeconomic status reached puberty at an early age (10 yrs.). Family size, family income and parental education influences pubertal growth & hence age of menarche. Of the total studied girls 141 girls attained menarche between 12 to 14 years of age i.e. normal but 14% girls of High SES reached age of menarche earlier than normal. High SES is associated with small family, calorie rich diet, proper nutrition & better living conditions which are important predictors of a maturity.

Table 1: Relationship between Socio Economic Status and Onset of Menarche

Socio Economic Status	Onset ->	Early	Normal	Total
Low SES	Frequency	01	49	50
	Row %	2.0%	98%	100%
	Column %	11.1%	34.8%	17.1%
Average SES	Frequency	01	49	50
	Row %	2.0%	98%	100%
	Column %	11.2%	34.8%	35.7%
High SES	Frequency	07	43	50
	Row %	14%	86%	100%
	Column %	77.7%	30.4%	47.1%
Total	Count	09	141	150

Yates $\chi^2(df=2) = 5.84, p < .05$

Perusal of entries reported in table 1 shows that 2% girls from low and middle socioeconomic status had reached onset of menarche earlier than normal age while 14% girls belonging to high socioeconomic status reached menarche earlier than normal age. This shows

that girls belonging to high socioeconomic status reach menarche at much earlier age as compared to girls from low and middle socioeconomic status. The calculated Yates $\chi^2(df=2) = 5.84, p < .05$ also confirms this finding statistically.

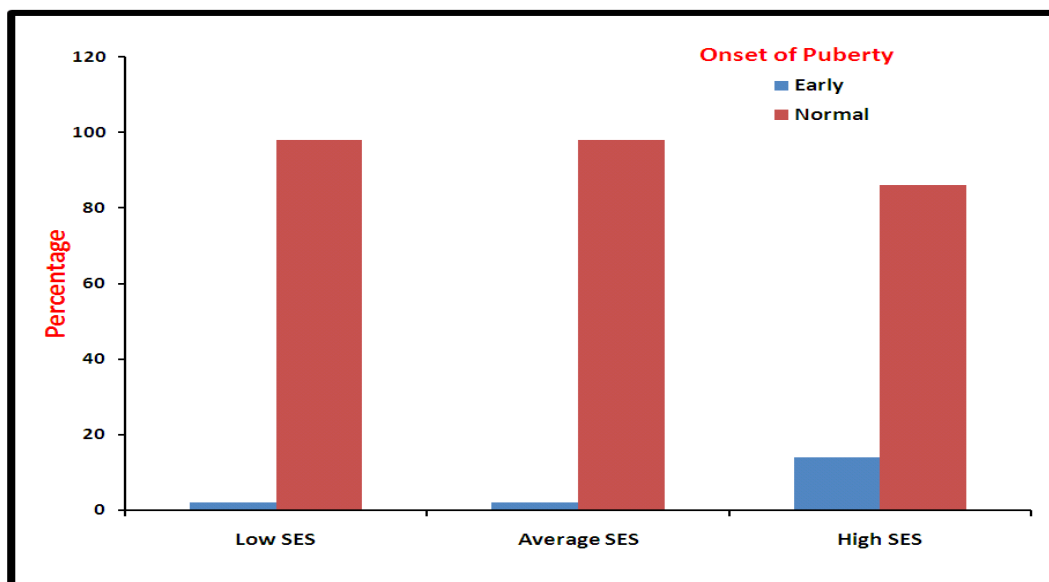


Figure 1: Bar Diagram Showing Relationship between Socio Economic Status and Puberty

A relationship was observed between socioeconomic status and onset of menarche with girls from high socioeconomic status showing significantly higher tendency as compared to girls from low and middle socioeconomic status.

When girls attain maturity at an early age, they become mentally distressed due to lack of knowledge at immature age. WHO estimates show that 20% adolescents have one or more behavioral problems which are due to associated physical and psychological changes.

Study conducted by Wronka et al. (2005) indicate similar findings that High S.E.S. is associated with early age of menarche.

Burkey et al. (2000) conducted study and found that early menarche is associated with high intake of animal food in high SES families.

Thomas et al. (2001) in their study highlighted the role of nutritional conditions in the timing of puberty. They found that as we move from lower to middle or high SES the age of menarche is reduced.

CONCLUSION

There is a need of proper education and implementation of awareness programs for girls before attaining puberty, with special emphasis on improvement of dietary habits and regular exercise.

REFERENCES

- Thomas F., Renaud I. and Benfice E., 2001. International variability of ages at Menarche & Menopause Hum Biol., **73**:271-290.
- Berkey C.S., Gardner J.D., Frazier A.C. and Colditz G.A., 2000. Relation to childhood diet and body size to menarche and adolescent growth in girls Am. J. Epidemiol., **152**:446-452.
- Wronka I. and Pawlinska C., 2005. Menarcheal age & socioeconomic factors in Poland Hum Biol 32 % 630-638.
- WHO, 1995. Physical status the use and interpretation of anthropometry WHO tech. rep. ser. 854; 1-452.