



International Journal of Home Science

ISSN: 2395-7476
IJHS 2018; 4(1): 300-301
© 2018 IJHS
www.homesciencejournal.com
Received: 20-11-2017
Accepted: 21-12-2017

Dr. Nishma Singh
Department of Home Science,
Swami Vivekanand Subharti
University, Meerut,
Uttar Pradesh, India

Impact of demographic factors on menarcheal age of adolescent girls

Dr. Nishma Singh

Abstract

Adolescence is the period from the beginning of sexual maturity to completion of physical growth. It is most fascinating period which marks the transition from being a dependent child to an independently functioning adult. It is a time of considerable changes in physical structure, physiological and endocrinal change; changes in thinking, attitudes and ideas, relationships, moral standards, and abilities regarding future career. Physical maturation during adolescence is marked by distinct set of changes leading to reproductive maturity, the first real indication a girl has, and that her reproductive mechanism is becoming mature is the menarche or first menstrual flow. Some demographic factors, exert great influence on menarche. The present paper attempts, to study the demographic factors on menarcheal age of adolescent girls. The methodology included a sample of 100 adolescent girls. A self-structured proforma schedule was used to obtain relevant information regarding impact of demographic factors on menarcheal age of adolescent girls. The data were analyzed mean, percentages, standard deviation, t-value, and level of significance. It was found that demographic factors affect the mean menarcheal age. With the following objectives:-

- To assess menarcheal age of girls.
- To assess the menarcheal age of girls in different family types.
- To assess the menarcheal age of girls in the different family size.

Keywords: Puberty, menarche, adolescence, demography, sexual maturity

1. Introduction

Adolescence is one of the most fascinating and complex transitions in the life span of an individual. It is a time of accelerated growth and change. A time of expanding horizons, self-discovery and emerging independence ^[1]. In other words, it is a time of metamorphosis from the childhood to adulthood. During this period, the individual undergoes extensive physical, psychological, emotional and personality changes. Adolescence covers little over a decade with no sharply defined beginning or end ^[2]. Its biological landmark is “puberty”, during which sexual development takes place and it terminates with the attainment of the capacity for sexual reproduction ^[3]. It has a broadened scope than the word puberty in the sense that encompasses not only physiological aspects of growth but also psychological and socio-cultural dimensions ^[4]. Among girls, menarche is the end-point of a cascade of events which begins in the hypothalamus as a physiological process ^[5]. The menarche is the first onset of menstruation. Menstruation is a function peculiar to women. It may be defined as periodic and cyclical shedding of presentational endometrium accompanied by the presence of blood ^[6]. There are some factors that affect the age of menarche ^[7]. The most important factor is family influence, which are both hereditary and environmental in nature. Demography is the scientific study of human population. It focuses its attention on readily observable human phenomena like age, birth order, family type, size, parent’s education, parent’s occupation and income of the family ^[8]. The studies have shown that demographic factors affect the menarcheal age ^[9].

2. Methods and Material

Exploratory Research Design was used to study the demographic factors in age, family size and family type of menarcheal age of adolescent girls. Judgment sampling design was used to locate the students in the particular age from type of family and with different family size. A Sample of 100 Students of various private schools were comparing of girls between the age

Correspondence

Dr. Nishma Singh
Department of Home Science,
Swami Vivekanand Subharti
University, Meerut,
Uttar Pradesh, India

12-16 years were taken. Self-structured Questionnaire was used for the collecting of data. The sample was collected from the various co-educational private schools of Agra city. The data compiled was tabulated and put to statistical analysis for mean, standard Deviation and t-test and level of significance.

3. Results and Discussion

Table 1: Menarcheal age of Adolescent Girls in the two different Age-Groups

Age in years	12-14	14 and above
Mean	11.97	12.76
SD	0.67	0.63
T	4.1607	

p=.001

Table 1 gives details regarding mean age of Menarche among school girls were found to be significant ($t=4.1607$; $P=.0001$) at 0.05 level of significant. The mean age of Menarche was found to be lesser in the adolescent in the age group 12-14 years (11.97 years) as compared to girls in the age group 14 yrs and above (12.76 years). The difference between the mean Menarcheal ages of the girls, in both the age group was found to be statistically significant.

Table 2: The age of Menarche according to the family type.

Family type	Nuclear family	Joint family	t	p
Mean	12.23	12.79	1.8539	0.0668
SD	1.48	1.54		

Table 2 shows the mean age of Menarche according to the family type of the selected sample. The age was found to be similar (12.23 (1.48) and 12.79 (1.54) and was not found to be significant ($t=1.8539$; $P=.0668$) at 0.05 level of significant.

Table 3: The age of Menarche according to the family size.

Family Size	3.5 members	5 & above members	t	p
Mean	12.25	12.71	.5980	.5512
SD	.34	.64		

Table 3 shows the difference in mean score of the menarcheal age of the girls in the family with 3.5 members and in the families which have more than 5 members. The difference was not found to be statistically significant (12.25 (.35): 12.71 (.69) t value is 0.5980 and p value is 0.5512.

A study has shown that the earliest mean ages of menarche occurred in girls from families of one or four or more children, or who occupied the first or last birth order in their families. Later mean ages of menarche occurred in girls belonging to siblings with two or three children or who occupied the second or third birth order in their families, the latest being girls belonging to siblings of three children or of third birth order. This may be due to the variations in the interval of time between births^[10].

4. Conclusion

In the present era, adolescent are fast growing, in general, they acquire early puberty but in an under developed and developing countries, socio-economic and environmental factors are adversely affecting the physical growth and development of adolescents. The mean age of menarche was found to be lesser in the age group of 12-14 years and as compared to girls in the age group 14 yrs. and above The mean age of menarche according to the family type was

found to be similar because of same eating habits and same environmental conditions.

The difference in mean score of the menarcheal age of the adolescent girls in the family with 3-5 members and in the families which have more than 5 members was not found to be statistically significant.

References

1. Diana, Papiia, Human Development, Secondary sex Characteristics (Puberty Stage) Fifth Edition McGraw Hill INC, Eolds Wendkos sally, 1992, 380.
2. Agarwal DK, Agarwal KN, Upadhyay SK, Mittal R, Prakash R, Rai S. Physical and sexual growth pattern of affluent Indian children from 5 to 18 years of age. *Indian Pediatr*, 1992; 29(10):1203-1282.
3. Santrock JW. Life Span Development Thirteen edition. New Delhi. Mc Graw Hill. 2007.
4. Khandelwal S, GaurJ. Study of Dimensional Difference of Temperament in Adolescents of Single and Dual Families. *Indian Journal of Health and Wellbeing*, 2011; 2(5):1221-1222.
5. Madhvan. *et al.* Age of Menarche among girls in different Soci-economic Group, *J. Indian Anthropol. Socio*, 2.5 4.5. 1965.
6. Hoshi H, Kouchi M. Secular trend of the age at menarche of Japanese girls with special regard to the secular acceleration of the age at peak height velocity. *Human Biology*, 1981, 593-598.
7. Devi G, Reddy NV, Laxmanna M. Knowledge of sex education among adolescents. *Journal of Family Welfare*, 1988; 35(2):55-60.
8. Grover JK, Ramachandra K, Bhargava VL Factors Influencing the Age of Menarche. *Journal of Obstetrics and Gynaecology of India*, 1989; 39(219).
9. Crone EA, Dahl RE. Understanding adolescence as a period of social-affective engagement and goal flexibility. *Nature Reviews Neuroscience*, 2012 13(9): 636.
10. Apraiz AG. Influence of family size and birth order on menarcheal age of girls from Bilbao city (Biscay, Basque country). *American Journal of Human Biology*, 1999; 11(6):779-783.