

Onset Pattern of Menarche among Nursing Students

A Study of PGI, Chandigarh

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EACH adult passes through the stage of puberty. It is an occupying stage between the childhood and adulthood. Sexual maturity appears in the form of menarche in the girls and nocturnal emission in the boys. The average age considered for puberty is 11-14 years in girls and 12-15 years in boys (Hurlock : 1981). However, Tanner (1962) observed that the age of menarche has been advancing at the rate of four months every ten years.

'The moon influences the menstrual cycle' was a firm belief in the past. The studies conducted by Levine (1953) and Foel (1958) have shown that the girls of different parts of the world, under similar socio-economic conditions, get menarche at the same age.

Ghosh (1973) has revealed that the inherited genetic factors have more impact upon the onset of menstruation than the socio-economic factors alone. According to him the mean age of menarche is 15.4 years with S.D. of 2.5 years in many states. Israel (1959) has shown that the girls of higher income group with the non-vegetarian food habits, have early menarche.

The menstrual rhythm ranges from 24-28 days. Goldzieher *et al* (1947) studied 109 females and found that 95% of them had bleeding for 3 to 7 days. Ryho (1966) studied that menstrual blood loss was correlated between the duration of period and the amount of blood loss. He has also shown that physical discomforts like headache, abdominal cramps, frequency of urination, loose motions, and psychological disturbances such as off-mood, tiredness, depression, and irritability were also present. These symptoms were common in the girls of higher income groups.

Need for the Study

Many studies have been conducted to correlate the socio-economic and environmental factors influencing the age of menarche in high school girls. However, very few studies have been done on Indian girls. The investigators got interested in investigating the onset pattern of menarche in Nursing students who were from different parts of India with different socio-cultural and climatic conditions.

Objective of the Study

To find out the onset pattern of menarche in Nursing students.

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Methodology

A survey approach was adopted to gather the data with the help of a questionnaire. There were six groups of students undergoing B.Sc. Nursing at College of Nursing, P.G.I., but only one group of 35 students between the age group of 18-25 years was taken as a sample.

A semi-structured questionnaire was prepared after a pre-test of the tool on five students (other than the sample). Necessary modifications were done. The questionnaires were distributed in one of the class periods after obtaining prior permission of the class teacher. Respondents were asked to fill the questionnaire in the class room itself. The completed forms were collected after 20 minutes of distribution for tabulation of the data. The questionnaire was based on the factors like climate; socio-economic conditions; dietary habits and physical activities; and the type of schooling affecting the onset pattern of menarche among the respondents.

Results and Discussion

The data was analysed and tabulated in percentage. Out of 35 respondents, 34 (97.2%) belonged to the age group of 18 to 21 years; and only one (2.8%) respondent was above 21 years of age. The respondents were from the states of Haryana, Punjab, Jammu & Kashmir and Kerala. Majority of them 26 (74.3%) were of Kerala where the climatic conditions are temperate.

Majority of them 27 (77.12%) had menarche at the age of 14 and 15 years. The mean age of menarche was 14.3 years whereas in another study by Ghosh (1973) it was 15.4 years in many states. Out of these 27 respondents, 23 belonged to Kerala and only 4 girls were from other states (Table I). It may support the theory of advancement of age of menarche by four months per decade (Tanner : 1962).

Out of 35 respondents, only 8 (22.8%) belonged to low income group (Rs. 300 to Rs. 500 p.m.); whereas 27 (77.12%) respondents were from middle income group (Rs. 501 to Rs. 1000 p.m.).

According to Israel (1959) the girls of higher income group have early menarche. Inherited genetic factors have greater impact on the onset of menarche than the socio-economic factors (Ghosh : 1973).

Regarding the type of schools, the data revealed that there was no relationship between the type of school and the age at menarche (Table II). Out of 35 respondents 15 (42.9%) studied in co-educational schools and 20 (57.1%) of them had their education in girls schools. Their age at menarche ranged between

TABLE I

Relationship of the menarche with the age and place of birth and education of 35 respondents

Place of birth and education	AGE AT MENARCHE											
	13 years		14 years		15 years		16 years		17 years		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
Haryana	1	2.85	—	—	—	—	—	—	—	—	1	2.85
J & K	1	2.85	1	2.85	—	—	—	—	—	—	2	5.71
Kerala	1	2.85	10	28.57	13	37.14	1	2.85	1	2.85	26	74.26
Punjab	3	8.57	2	5.71	—	—	—	—	—	—	5	14.28
U.P.	—	—	—	—	1	2.85	—	—	—	—	1	2.85
TOTAL :	6	17.12	13	37.13	14	30.99	1	2.85	1	2.85	35	99.95

TABLE II

Responses of 35 student nurses on type of school and age at menarche

Age at menarche	Type of school				Total	
	Co-education		Girls' school			
	F	%	F	%	F	%
13 years	3	8.6	3	8.6	6	17.1
14 years	6	17.1	7	20.0	13	37.1
15 years	4	11.4	10	28.5	14	40.0
16 years	1	2.9	—	—	1	2.9
17 years	1	2.9	—	—	1	2.9
Total	15	42.9	20	57.1		

TABLE III

Responses of 35 student nurses on their physical activities during school age

Type of activities	F	%
1. Only indoor & outdoor games	5	14.3
2. Sports	10	28.6
3. Games, sports & girl guide	10	28.6
4. Sports & games	2	5.7
5. Girl guide & NCC	2	5.7
6. House hold work	6	17.0
Total :	35	100

ween 13 to 17 years. As regard the eating habits 32 (91.4%) were non-vegetarian and only 2 (5.7%) vegetarian and 1 (2.9%) was vegetarian. The average age of menarche for them was 14 years. Israel (1959) had shown that the girls with non-vegetarian habits had early menarche.

All the respondents participated in physical activities like sports; games; girl's guide, N.C.C. and helping in household activities. (Table III).

The data also indicate that 25 (71.4%) girls obtained knowledge regarding menstruation from different members of their family and friends whereas only 2 (5.7%) girls indicated that they received knowledge through books. There were 8 (22.9%) respondents who did not receive any knowledge regarding menstruation before its onset. The ignorance may lead to traumatic experiences.

The menstrual cycle in majority of the respondents 26 (74.3%) was of 28 to 32 days. According to a study conducted in 1935, among the American Medical students 71% of the girls menstruated every 28 days.

It was evident from the analysis of the data that the average menstrual period was about 3 days among the respondents. Regarding the physical discomfort at the time of menstruation 15 (42.9%) respondents had abdominal disturbances, 7 (20%) had abdominal disturbances and muscular cramps; while only 5 (14.3%) had muscular cramps. Eight (22.8%) had one or the other symptoms.

Suggestions

1. Though the respondents had prior knowledge of menarche, the problem faced by these girls at the time of onset of menstruation needs to be studied.

2. There should be a pre-education plan regarding menarche as a normal phenomenon to prevent

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traumatic experiences due to ignorance at the time of menarche.

3. A study may be conducted to find out menstrual grooming behaviour.

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Planning Nursing Education for 2000 A.D.

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Need for Specialists

The need for specialists in Nursing field to keep pace with developments in diagnostic, medical, and rehabilitation technologies are other aspects that may have to be considered in order to achieve self-reliance in the speciality areas. Opportunities for training and education in various specialities such as intensive care, dialysis, cardiac surgery, etc., would also have to be provided. Technological advances also have implications for preparing the nurses of tomorrow. We offer very few programmes where nurses can obtain these specialized skills. These trends and projections will, I hope, merit the attention of delegates attending this Conference.

Honourable Minister, distinguished guests, and friends, in closing, I would like to say that the deliberations of this Conference will be of great interest to all nurses in the country who are trying to establish, develop, and strengthen Primary Health Care activities in their own sphere of work, and also to those who are interested in improving the standards of Nursing care in general and in the speciality areas. It is always difficult to leave the beaten track and set off in new directions but we are extremely optimistic about the outcomes of this Conference. Through the responsible involvement of all the delegates and leaders, let us hope this Conference will open up a new era in the development of Nursing.

Result : Nursing Puzzle-21

Total Entries received—20 : All Correct—nil; One error—3, 2nd Prize awarded to Miss Jolly A.T., 3rd year student, B.Y.L. Nair Hospital, Byculla, Bombay-400008 (Ms.); Kusum Lata Agarwal, B.Sc. Nursing College of Nursing, Jaipur- 02004 (Rajasthan); Sucharita Datta 2nd year student Silchar Medical College Hospital, Cachar (Assam).

Correct Solution

Across

1. Lunula (6), 3. Isthmus (7), 4. Incus (5), 5. Hydroa (6), 6. Intima (6), 7. Lobe (4), 8. Diabetes (8), 9. Fossa (5), 10. B.D.P.C. (4), 11. Tactile (7), 14. Dys-taxia (8), 16. Cystitis (8), 18. Basilic (7).

Down

1. Loop (4), 2. Acne (4), 12. Erosion (7), 13. Stilette (8), 15. Styptics (8), 14. Delusion (8), 17. Health (6), 19. Collapse (8), 20. Spicule (7), 21. Myotics (7), 22. Atresia (7), 23. Tetany (6), 24. Autism (6), 25. Chill (5), 26. Electrolysis (12).

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