

Physical and Emotional Wellbeing of Girls During Menarche

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Abstract

Puberty is a period during which secondary sexual characters develop and the capability of sexual reproduction is attained [1]. According to Maranon and Crecimiento puberty implies a pluriglandular crisis affecting the entire body, marks the beginning of sexual life during which secondary sexual characters develop.

1. To assess the physical and emotional wellbeing of adolescent girls during menarche.
2. To suggest recommendations based on study findings.

Study design: Simple descriptive study.

Study period: January 2016 - August 2017

This study was approved by the Ethical committee board.

This study was conducted in 500 adolescent girls in Hilton matriculation higher secondary school, Chrompet, Chennai-44.

Keywords: Emotional; Girls; Menarche

Introduction

Puberty is a period during which secondary sexual characters develop and the capability of sexual reproduction is attained [1]. According to Maranon and Crecimiento puberty implies a pluriglandular crisis affecting the entire body, marks the beginning of sexual life during which secondary sexual characters develop.

In Latin adolescence meaning-to grow up. Adolescence is the transitional period linking childhood to adulthood and involves physical, biological and psychosexual changes in a girl.

WHO defined adolescence as progression from appearance of secondary sexual characters to sexual and reproductive maturity and development of adult mental process [2].

Prabhakara (2002) stated that Adolescent is a difficult time; the physical changes constitute a spurt in growth, the size and shape of the body change. Their mental and physical development put great stress on them as well as on those around them. In adolescent period the puberty is the unavoidable event in both males and females, but it is more important for female.

Adolescent age group defined by WHO is between 10 - 19 years for girls (WHO report series) [3]. A fifth of world's population is between 10 -19 years. Adolescent girl constitutes a vulnerable group, particularly in developing countries like India where female child is a neglected one. Adolescents constitute over 21.4% of the population in India. This age group needs special attention because of the turmoil of adolescence which they face due to the different stages of development that they undergo, different circumstances that they come across, their different needs and diverse problems [4].

Kimberly Raines (2010) stated that premenstrual symptoms are common among menstruating women, with approximately 75% reporting some discomfort with their cycles. However, an estimated 10% of women experience premenstrual syndrome (PMS), which is characterized by symptoms severe enough to interfere with daily life. While premenstrual syndrome can have a devastat-

ing impact on the quality of a woman's life and work, this complex disorder is poorly understood and can be challenging to diagnose. The management of adolescence is vital and essential even though menstruation is a normal physiological process for all healthy adult women; it has in many societies been surrounded by secrecy and myths. Since it is a stressful event, the mental health experiences of the adolescent girls depend on how well she received information about the onset of menstrual period and its problems which may cause psychological injury to them.

Physical and emotional problems related to menstruation in adolescents occupy a special space in the spectrum of disorders of all ages. Various studies have focused on adolescent gynecological problems of which menstrual disorders were found to be the commonest one [5].

Although menstrual irregularities maybe normal during the early post menarchal years, pathological conditions require proper and prompt treatment and emotional problems require proper treatment, counseling and education on psychological changes during puberty in all school health education programs.

Hence this study was undertaken to study the physical and emotional wellbeing of adolescent girls during menarche.

Aims and Objective

1. To assess the physical and emotional wellbeing of adolescent girls during menarche.
2. To suggest recommendations based on study findings.

Materials and Methods

Study design: Simple descriptive study.

Study period: January 2016 - August 2017

This study was approved by the Ethical committee board.

This study was conducted in 500 adolescent girls in Hilton matriculation higher secondary school, Chrompet, Chennai-44.

Inclusion criteria

- Adolescent girls aged 12 -16 years
- Girls who attained menarche
- Girls who has given consent for the study.

Exclusion criteria

- Girls aged below 12 years and above 16 years
- Girls not attained menarche
- Physically challenged girls

500 adolescent girls who met the inclusion criteria were chosen. The purpose of the study was explained to the girls and an informed consent was obtained in their own language.

Data were collected through face to face interview and examination.

A proforma was used to collect information about a wide variety variables.

1. General: Demographic details including age, address, Religion, Education, father’s occupation and socio-Economic status was calculated according to the “Modified Kuppuswamy Scale”.
2. Menstrual History: Age of menarche, duration of cycles, duration of flow, amount of flow, associated with clots, associated with pain, awareness about menarche and menstruation and source of awareness.
3. Past medical and surgical history: H/O diabetes, hypertension, Bronchial asthma, TB, epilepsy, thyroid disorders, mental illness, history of previous surgeries.
4. Drug history: History of treatment for any mental illness.

Results and Analysis

This study was conducted in school going adolescent girls in the age group of 12 to 16 years. Total number of students involved in the study were 500. Maximum number was in the age group 13 - 14 years. The mean age of the study group was 13.40 years.

AGE IN YEARS	NUMBER OF STUDENTS	PERCENTAGE (%)
12	27	5.4
13	270	54.0
14	181	36.2
15	21	4.2
16	1	0.2
Total	500	100

Table 1: Age Distribution.

Figure 1: Age Distribution.

Socioeconomic Status - Distribution

The students belonged to class II to V with maximum girls falling in class IV (44.4%). There was no student from class I.

Socio Economic Status	Number	Percentage (%)
II	93	18.6
III	131	26.2
IV	222	44.4
V	54	10.8
TOTAL	500	100

Table 2: Frequency of Socioeconomic Status.

Figure 2: Socioeconomic status distribution.

BMI Distribution

Among the girls studied 57.4% had normal BMI between 5 - 85th percentile, 19.8% where underweight with BMI < 5th percentile, 16.6 were overweight with BMI between 85 - 95th percentile and 6.2% were obese with BMI > 95th percentile.

BMI Percentile	Number	Percentage (%)
< 5	99	19.8
5 to 85	287	57.4
85 to 95	83	16.6
>95	31	6.2
TOTAL	500	100

Table 3: BMI Distribution.

Figure 3: BMI distribution.

Age of Menarche

The age of menarche in the study group ranged from 11 - 14 years, maximum between 12 - 13 years and mean of 12.07 years.

AGE OF MENARCHE	NUMBER	PERCENTAGE (%)
11	83	16.6
12	309	61.8
13	97	19.4
14	11	2.2
Total	500	100

Table 4: Distribution of Age of Menarche.

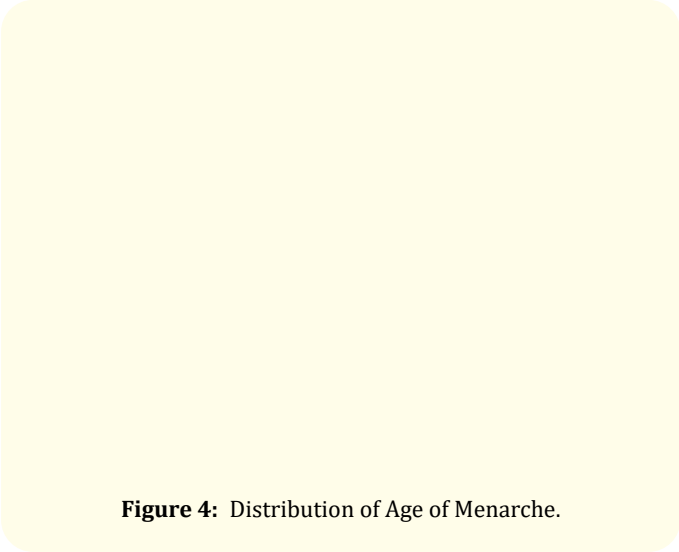


Figure 4: Distribution of Age of Menarche.

Years of Menstruation

Among the 500 girls, majority of them (67.4%) were menstruating for less than a year. 29.4% were menstruating for past 1 - 2 years.

Years of Menstruation	Number	Percent
Less than 1yr	337	67.4
1-2years	163	32.6
Total	500	100.0

Table 5: Years of menstruation.



Figure 5: Years of menstruation.

BMI and Age of Menarche

Those with increased BMI had relatively early menarche and decreased BMI had relatively late menarche. 81.6% of girls with BMI > 95th centile had menarche at 11 years of age.

Menstrual Irregularity

26% of girls had irregular cycles. 74% had regular cycles.

			Age at Menarche				Total
			11	12	13	14	
BMI	(< 5)	Count % within BMI	12	64	21	2	99
			12.1%	64.6%	21.2%	2.0%	100.0%
	(6 - 85)	Count % within BMI	37	186	57	6	286
			12.9%	65.0%	19.9%	2.1%	100.0%
	(86 - 95)	Count % within BMI	8	53	19	3	83
			9.6%	63.9%	22.9%	3.6%	100.0%
Count (> 96) % within BMI			26	6	0	0	32
			81.3%	18.8%	0.0%	0.0%	100.0%
Total		Count % within BMI	83	309	97	11	500
			16.6%	61.8%	19.4%	2.2%	100.0%

Table 6: Correlation between BMI and age of Menarche.

Menstrual Irregularity	Percentage (%)
Present	26%
Absent	74%
TOTAL	100%

Table 7: Frequency of Menstrual Irregularity.

Discussion and Conclusion

The literature has rich evidence of having association between menarche and emotional wellbeing. Our present study also throws more light to this fact.

Emotional manifestations are fairly common and sizeable problem as significant members of adolescent girls were suffering from psychological manifestations.

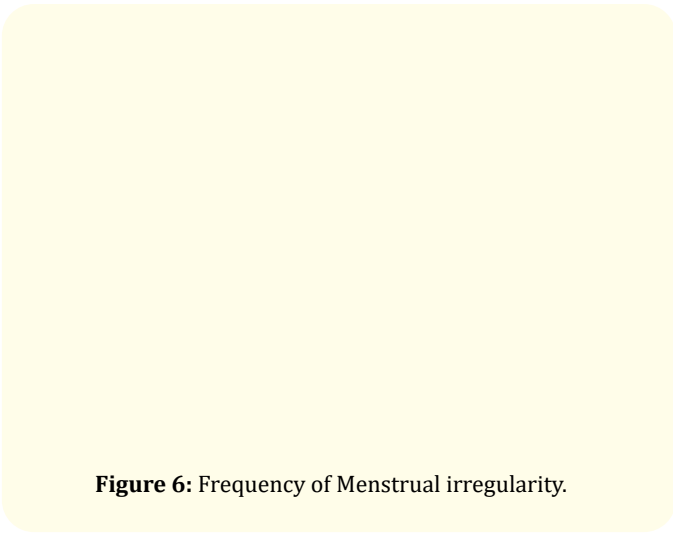


Figure 6: Frequency of Menstrual irregularity.

It is found in our study that Physical manifestations are common and needs life style modifications to overcome obesity and menstrual problems related to high BMI.

Since in India, the gynaecologist are the first contact person with the adolescent girls, having physical and emotional problems related to menstruation, it becomes imperative for them to be aware and to be well trained in

1. Counselling by talking to the adolescent girls empathetically while keeping an open eye for any signs and symptoms of mood disorders.
2. In the administration of the questionnaire related to mental health like GHQ 12, which is a simple, easy and self-administered questionnaire that can be handled easily by the gynaecologist themselves, as early as possible to screen the mental disorders in adolescents.

There is a need to educate adolescent girls about menarche and menstruation related problems. Besides, there is a need to emphasize education on psychological changes during puberty in all school health education programs [6-15].

“Adolescence is the period of the decisive last battle fought before maturity. The ego must achieve independence, the old emotional ties must be cast off, the new ones created”.

- Helene Deutsch.

Recommendations

1. More studies with more number of subjects are needed to find out exact burden of Physical and Emotional problems in adolescent girls at community level.
2. Regular screening and counselling regarding menstrual problems in adolescent girls should be done by Health care professionals.
3. School Teachers, Voluntary Health Workers, Media can be included to promote awareness about emotional problems related to menstruation in adolescent girls.

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