Adjustment among Girls with Early Onset Menarche Compared to Girls with Menarche at the Expected Age: A Cross Sectional Study

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Abstract

Onset of menarche is a psychosocial and biological transition point for females. Girls maturing at an age earlier than their peers often experience isolation and increased levels of adjustment problems. The objective of the study was to explore degree of adjustment among girls with early onset menarche and expected age onset menarche. A cross-sectional study was conducted, among girls from six selected schools of Kozhikode city, Kerala. A total of 2480 girls were screened, out of which 144 girls who attained menarche within a year were selected. Forty-eight girls who attained menarche at nine and ten years were early menarche and ninety-six girls who attained menarche at 11-13 years were included in the expected age onset menarche group. The mean (SD) adjustment scores of girls with early menarche was 83.10 (13.13) which is apparently lower than the mean (SD) adjustment score of 102.90 (12.93) among girls with expected age onset menarche. To conclude, low level of adjustment among girls attaining menarche at an earlier age compared to their counterparts necessitates need for education at a younger age.

Key words: Menarche, Early onset menarche, Expected age onset menarche.

Early adolescence is a time of physical maturation, particularly sexual maturation (Gaudineau et al, 2010). Menarche is a powerful signifier of entry into sexual and reproductive maturity. Every menstruation is a real sign of moving from adolescence into womanhood. Menarche being a transition period, may be challenging to the adolescents (Casey et al, 2010). Having the first period may be exciting, frightening, or a reassuring experience. Young girls may see menstruation as a nuisance, or something to fear or to be ashamed of. It is regarded more as a hygienic crisis than a maturational event (Marvan & Molina Abolnik, 2012).

Variability in age at which menarche is attained depends on one's genetic, ethnic, environmental and nutritional factors. "On-time" feeling regarding their menarche develops positive feelings during the pubertal development. Recently, there was a dramatic decline in the age of onset of menarche, and many of the girls were unable to adjust with that process. Early maturing girls (attaining menarche before 11 years) experience more problems of adjustment than girls who attain menarche at expected age (Dubas et al, 1991; Sherar et al, 2010).

Deng et al (2011) found that psychopathological symptoms and self-harming behaviours are higher in those with early menarche among Chinese girls. In a cross-sectional study among Indian adolescents, Kanwar (2020) explored influence of pubertal timing on problem behaviours. The study highlighted that pubertal timing is related to problem behaviour than on time and late maturing counterparts. Joinson et al (2013) found increased depressive symptoms in mid adolescence among girls who experience early menarche than their peers. Pubescent adjustment problems reduce if they are provided with necessary information on pubertal changes (Biswas et al, 2018).

Adjustment is a major issue among girls who attain menarche. Understanding the degree of adjustment among girls towards menarche and menstrual process helps in developing strategies to make them knowledgeable and prepared, avoid fears, improves self-concept and foster acceptance. Hence the researchers aimed to study the degree of adjustment among girls with early onset menarche and girls with expected age menarche.

Need and significance of the problem: In India, women continue to move towards a more equal status. So, it becomes increasingly important to

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understand the female problems. Adjustment of adolescent girls is one of such problems. Adjustment among girls may differ from that of boys (Bailur, 2006).

Early puberty is becoming the norm not the exception. Some developmental theorists have suggested that any deviation from normative timing would place girls at risk. These physical effects result from early or late sexual maturation, and hypothesised to play a central role in the adjustment with such changes (Mendle et al, 2007). In agreement with some authors early or delayed pubertal development could be associated with higher risks of adjustment problems (Baseerat, 2010).

Distinct from age at menarche is a girl's perception of her pubertal timing relative to her peer group. Perceived relative pubertal timing indexes whether girls see themselves as being non-normative in one direction (early) or the other (late), which can affect girls, images of themselves and in turn, their adjustment. Studies of relative pubertal timing suggest more difficulties among adolescents who perceive themselves to be either early or late in their pubertal development relative to adolescents who perceive themselves to be on-time. A study conducted in 2007 in Mysore, regarding relationship between age of maturation and adjustment pattern of adolescent girls revealed that there is a significant relationship between age of maturation and their adjustment pattern showing significant difference in social, emotional and overall adjustment at 11 (early) and 15 (late) years of maturation (Bhaskar & Bhaskar 2017).

Discussion with experts in gynaecology showed that there was a dramatic decline in the age of onset of menarche, and many of the girls were unable to adjust with that. Many literatures also support it.

Objective

The study was set out to explore comparative degree of adjustment among girls with early onset menarche and expected age onset menarche.

Review of Literature

Adolescence has been viewed onset of puberty with spurt of physical growth accompanied by sexual maturity which ends when individuals assume the responsibilities associated with adult life (Developing Adolescence, 2002). The beginning of adolescence is marked by a sudden increase in the rate of growth which starts earlier in girls. Researchers suggest the role of the effect of this growth spurt on the adolescent's emotional, cognitive and social development. It has now been found that adolescents were at a great risk with respect to physical and mental health than at earlier times due to newer and uniquely disturbing set of problems. Adjustment is a dynamic, rather than a static quality. Well adjusted children make good social adjustments and have harmonious relationship with people around them. The mental health of an individual has its base in his ability to adjust (Adolescence Development 1999).

According to the deviance hypothesis, early versus late maturers differ in adjustment because of their status relative to the rest of the peer group. Early or late maturation places the adolescent in a socially "deviant" category, which may confer either social advantages or disadvantages (Anne, 1985).

Natsuaki et al (2011) stated that it is an exemplar that requires an understanding of the intricate relationship between transition and timing. Menarche is a discrete, transitional event in biosocial development; however, the timing of its occurrence also has developmental implications that influence emotional adjustment. The study targeted both the timing and transition of puberty to elucidate emotional responses during this critical developmental juncture. Earlier-maturing girls were more anxious before and at menarche than were later-maturing girls. In the absence of experiences and precedents in same-aged peers, the anxiety of earlier maturing girls associated with a feeling of unpreparedness may be accentuated. Although earlier-maturing girls may have been more anxious than later-maturing girls, the levels of their anxiety did not remain consistently high over the course of the transitional period. The pace of the post-menarcheal decline in anxiety was faster for earlier-maturing girls than for their later-maturing counterparts.

According to Freedman (1984), an attractive appearance is so essential to the feminine gender role, the search for beauty causes special adjustment problems for adolescent girls. Psychologically they suffer from negative body image, lowered self esteem, and achievement conflicts (Gudineau et al, 2010). Physically their health is undermined by current beauty norms which foster eating disorders, cosmetic acne, and breast surgery. The effects of physical fitness programmes, the role of the media, and the influence of changing gender roles are also discussed.

Bhaskar et al (2017) assessed the adjustment level in home, health, social, emotional and overall adjustment pattern of one hundred adolescent girls in the age group of 15 – 16 years selected randomly from various pre university colleges in Mysore City. The data on socio economic status revealed that 75 percent of the girls belonged to the middle class families. The pattern of scoring in the areas of home and health appeared to be higher at 11 years and decrease at 12 and 13 years. Mean

scores with respect to home and heath adjustments were not significantly affected by the age of maturation. Whereas social and emotional adjustments were found to be highly influenced by the age of maturation. The pattern of scoring showed the mean scores to be higher at 11 years tend to decrease subsequently at 12 years followed by an increase between 13 to 15 years. In both the areas the impact was highly significant at 11 and 15 years respectively though the mean scores at these ages did not differ significantly. When all these adjustment areas were combined (overall adjustment) a similar trend was apparent that is mean score being higher at 11 and 15 years significantly different from the scores at 12 years. The results indicate a better adjustment particularly in social and emotional areas when the age of maturation is above 12 to 13 years. The results revealed a significant relation between age of maturation and their adjustment pattern showing significant difference (30) in social, emotional and overall adjustment at 11 (early) and 15 (late) years of age of maturation.

In a study on adjustment of Indian girls in relation to menstruation using incidental sampling method, sample of 100 ninth grade girls from girls' school and from coeducation school examined adjustment of girls in relation to menstruation and in two types of schools. In general, the girls were properly adjusted and exhibited fairly positive attitude towards menstruation. The attitude towards menstruation and health adjustment were highly correlated; whereas, the correlations of attitude towards menstruation and the other four areas of adjustment - home and family, personal and emotional, social, and educational - were not significant. Girls from two types of schools showed similar attitude towards menstruation. They also exhibited similar adjustment, except in home and family adjustment. Adjustment of 16 girls was unsatisfactory in either one or more areas of adjustment. These girls showed maladjustment mainly in the areas of education and health (Giddens, 2011).

A study on 102 girls of 11-17 years regarding pubertal timing and its link to behavioural and emotional adjustment by Rona C, James J, Silverman KW, Pina A suggested significant effects of pubertal timing on girls' psychosocial adjustment using development of breasts as an independent indicator, not just menarche. The study further emphasised the importance of including both girls' retrospective reports of pubertal timing and girls' perceived relative pubertal timing when interpreting timing effects on girls' psychosocial adjustment. Girls' retrospective reports of menarche were significantly related to girls' perceived 31 menarche; whereas girls' retrospective reports of development of breasts were not related to their perceived development of breasts (Carter et al, 2019).

Materials and Methods

This study adopted a comparative descriptive survey design to explore the degree of adjustment among girls with early onset menarche in comparison to girls with menarche at the expected age. A total of 2480 girls were screened for the study. The study inclusion criteria were girls who attained menarche aged between nine to 14 years, attained menarche within a year of the study and those without any behavioural problems; 144 girls who attained menarche aged between nine to 13 years from six selected schools of Kozhikode city (Kerala) were selected using convenience sampling technique. Girls who attained menarche between 9-10 years were early menarche group and between 11-13 years were 'expected age onset' menarche group. Sample size was decided statistically. Before data collection the researchers obtained permission from Institutional Ethical Committee of the Baby Memorial Hospital, the selected schools and also written informed consent from the parents of the girls who fulfilled the inclusion criteria.

The tools used for the study were a short socio-demographic and clinical questionnaire and an adjustment inventory for assessing the degree of adjustment of girls who attained menarche. The socio-demographic and clinical questionnaire had items on age at which menarche is attained, type of family, associated symptoms of menstruation, number of close friends and prior information about menarche. Adjustment inventory for assessing the degree of adjustment of girls who attained menarche was a 34-item inventory, a five-point Likert scale, which included areas on adjustment to menstrual process and associated symptoms of menstruation, social adjustment, psychological adjustment, and academic adjustments. Responses range from 'strongly disagree, disagree, uncertain, agree and strongly agree'. Scoring of responses ranged from 1 to 5. Reverse scoring was done for negative items. It was administered as an interview schedule and responses were recorded. Maximum score was 170 and minimum score was 34. Total score was graded as very good (136-170), good (102-135), moderate (68-101) and poor (34-67) adjustment. The reliability of the adjustment inventory was tested by chronbach's alpha and found to be 0.88.

Data were analysed using descriptive statistics and described in terms of frequency and percentage. Inferential statistics and independent 't' test were used to compare the degree of adjustment of girls who had early onset menarche and girls who attained menarche at the expected age (Tables 1-3).

Discussion

Menarche is a sudden change in the body. This transition period is often difficult to adjust. The main objective of this study was to compare the degree of adjustment among girls with early onset menarche and girls with expected age onset menarche. Girls who attained menarche between nine to 10 years were early menarche group and 11-13 years were expected age onset menarche group. In this study the degree of adjustment was measured using a five-point Likert scale. The overall mean and SD of adjustment scores of girls with early menarche was 83.10 (13.13) and of girls with expected age onset menarche was 102.90 (12.93) respectively.

Atay et al (2011) reported median age of menarche among school girls of Turkey was 11.74 years which was similar to the present study with a median age of 11 years. In the present study about 104 (72.2%) of girls were aware about menarche before its onset. A high level of awareness about menarche was found in the study by Jogdand et al (2011) which had reported a lower level of awareness (36.19%). This difference might be because of a higher sample (360 adolescent girls) in the study by Jogdand et al (2011). The present study found that early onset menarche girls had low adjustment compared to those of expected age onset menarche. A couple of cross-sectional studies support these findings. Bhaskar & Bhaskar (2017) found that significant difference exist in adjustment pattern among adolescent girls, depending on their age of menarche. Social, emotional and overall adjustments were highly influenced by age of menarche. Carter et al (2009) explored how the pubertal timing was linked with behavioural and emotional problems among African-American adolescent girls. It was found that menarche and development of breasts affects psychosocial adjustment.

As puberty marks a transition point in mental health, maladjustment to menarche may lead to many mental health problems. Hence, assessment of degree of adjustment should be considered after attaining menarche among adolescent girls. We excluded girl with behavioural problems prior to menarche, so that the adjustment scores in the present study could be attributed to menarche. It was found that certain degree of poor adjustment was seen in adolescent girls having early menarche. Hence there is a need for screening and assessment of level of adjustment in girls attaining menarche.

This study gives us an insight into the adjustment problems that adolescent girls have towards menarche. Girls experience some amount of adjustment difficulties. Degree of adjustment is low among girls with early onset menarche than among girls with expected age onset menarche. Hence, assessing the degree of adjustment and envisaging strategies to equip them to face this transition is imperative for enhanced self-esteem and individual acceptance on attaining menarche.

Table 1: Socio-demographic and clinical characteristics of the participants (n=144)

Variables	Frequency (%)
Age at which menarche is attained in years	
9	6 (4.2)
10	42 (29.2)
11	63 (43.8)
12	30 (20.8)
13	3 (2.1)
Type of family	
Nuclear	69 (47.9)
Joint	50 (34.7)
Extended	25 (17.4)
Associated symptoms of menstruation	
Abdominal pain	122 (84.7)
Breast tenderness	28 (19.4)
Back pain	21 (14.6)
Tiredness	20 (13.9)
Faintness	13 (9)
Vomiting	13 (9)
Nausea	7 (4.9)
Number of close friends	
One	37 (25.7)
Two	32 (22.2)
Three	31 (21.6)
More than three	43 (29.9)
None	1 (0.7)
Prior information on menarche	
Yes	104 (72.2)
No	40 (27.8)

Table 2: Distribution of subjects with menarche based on their degree of adjustment (n=48+96=144)

Degree of adjustment	Range of scores	9-10 years		11-14 years	
		frequency	%	frequency	%
Very good	136-170	-	-	-	-
Good	102-135	3	6.25	49	51.01
Moderate	68-101	40	83.3	47	48.95
Poor	34-67	5	10.42	-	-

Table 3: Comparison of mean adjustment scores among girls with early menarche and expected age onset menarche (N=144)

Variable	Category	No. of participants	Mean adjustment score	Standard Deviation	Mean difference	t-value	p-value
Age at which menarche is attained	9-10	48	83.10	13.13	19.79	8.615	0.0001
	11-14	96	102.90	12.93			

Limitations

Adjustment to menarche and menstrual process may vary over time. A longitudinal assessment of degree of adjustment was not analysed in this study. Other factors such as knowledge regarding menarche and menstruation, anxiety, social support, academic stress may affect the degree of adjustment, which were not included in the present study. External validity of study was limited, as it included girls from selected schools.

Nursing Implications

This study throws light on the major areas where the girls may feel difficult to adjust. The study has implications in different fields of nursing like nursing education, nursing practice, nursing administration and nursing research.

Nursing education: Nursing curriculum should be broad enough to bring out highly competent nurses who can prepare the girls in new generation to accept and adjust with their transition time in a healthy manner. Knowledge has to be provided regarding pubertal changes and main problems both physical and psychological problems that can arise during this transition zone and ways to overcome such difficulties has to be included.

Nursing practice: Conscientious, explicit and judicious use of current best evidence can be used in making decisions about the care of the individual patient. Menarche is a developmentally salient demarcation in a female's life course that may precipitate a sudden change in awareness of maturation. To help girls adjusted to menarche coping skills or interventions needs to be adopted. Counselling sessions can be conducted for both the girls and their mothers for adjusting with such a crucial period.

Nursing administration: Nurse administrators are in the top level to make policies and they should implement various policies regarding educative sessions, school health programmes, mass awareness programmes etc.

Nursing research: Nurse researcher can explore more and more areas related to this and can conduct further researches in order to find out more problems related to early menarche. They can try out different interventions to reduce the negative impact of early menarche and can thus improve the adjustment of girls to menarche. The findings of the study can act as a base for the professionals as well as the students for conducting further researches. The study will be fruitful only after it can be generalised to large group.

Recommendations

- The study can be repeated on a large sample size using stratified random sampling technique.
- A detailed descriptive study can be done to find out adjustment in many other areas like health, family, personal relations, etc.
- An experimental study can be done to assess the effect of video-assisted teaching programme in improving adjustment of girls with menarche.
- A comparative study can be conducted in girls with early menarche and delayed onset menarche

Conclusion

This study gives an insight into the adjustment problems that adolescent girls face towards menarche. Girls experience some amount of adjustment difficulties. Degree of adjustment is low among girls with early onset menarche than among girls with expected age onset menarche. Hence, assessing the degree of adjustment and envisaging strategies is essential to equip them accordingly.

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ट्रांसजेंडर कौन लोग होते हैं

'ट्रांसजेंडर' शब्द का प्रयोग उन व्यक्तियों के लिए किया जाता है जिनकी एक लैंगिक पहचान उस लिंग से अलग होती है, जो उन्हें जन्म से मिलती है। बोलचाली भाषा में ट्रांसजेंडर को अक्सर ट्रांस भी कहा जाता है। ट्रांसजेंडर में वे भी शामिल होते हैं जो स्वेच्छा से चिकित्सा सहायता से लिंग परिवर्तित कराते हैं।

ट्रांसजेंडर लोगों को प्रायः समाज में, सार्वजनिक क्षेत्र तथा कार्यस्थलों में उपेक्षा की दृष्टि से देखा जाता है और उनसे सामान्य व्यवहार नहीं किया जाता। उन्हें स्वास्थ्य या अन्य जन सेवाओं का लाभ लेने, आवास तलाशने, यात्रा के दौरान आदि मौकों पर भेदभाव का सामना करना पड़ता है।

भारतीय परंपरा तथा संविधान में ट्रांसजेंडर को हिजड़ा या किन्नर कहा जाता है। संविधान ने 15 अप्रैल 2014 को इस वर्ग को तीसरे (पुरुष या महिला से अलहदा) लिंग के रूप में इस आधार पर मान्यता दी है कि उनके हितों को संरक्षित रखना मानव अधिकार का विषय है। भारतीय संसद ने 26 नवंबर, 2019 को ट्रांसजेंडर व्यक्तियों के लिए ट्रांसजेंडर एक्ट पारित किया जिसका उद्देश्य भारत में ट्रांसजेंडर व्यक्तियों के अधिकारों और कल्याण की रक्षा करना है। तथापि व्यवहार में उनके लिए कानूनी संरक्षण नहीं है।

ऐसा नहीं कि ट्रांसजेंडर लोग प्रतिभा या हुनर में सामान्य व्यक्तियों से हीन होते हैं। अनेक क्षेत्रों में इन्होंने उल्लेखनीय उपलब्धियां हासिल की हैं। कुछ उदाहरण हैं: मध्यप्रदेश विधायक पद पर आसीन होना, प. बंगाल के उत्तर दिनाजपुर जिले में जज बतौर नियुक्ति। तिरुवनंतपुरम में सीपीआई के यूथ विंग में एक ट्रांसजेंडर हैं। महाराष्ट्र के मालशिरस तालुका में सरपंच पद पर विजयी ज्ञानदेव ट्रांसजेंडर हैं। समय है कि ट्रांसजेंडरों को सामान्य व्यक्ति की भांति देखा जाए और वैसा ही उनसे व्यवहार किया जाए।