

Quality of Life in Adolescent Girls with Menstrual Disorders

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ABSTRACT

This study on Quality of life in adolescent girls with menstrual disorders was conducted on 300 adolescent girls with menstrual irregularities in the age group between 13-19 years. Hypomenorrhea had better QOL score when compared to other menstrual irregularities. Premenstrual Symptoms Significantly affects the total QOL score (P value<0.05) Abdominal cramps is the most common (54%) Premenstrual complaint observed in our study. Health education programmes for adolescents, remain an important area to improve their quality of life. Improving the quality of life in girls with menstrual abnormality will help to improve the empowerment of our nation.

Keywords: hypomenorrhea, dysmenorrhea and progestational endometrium.

1. INTRODUCTION

In Latin adolescence meaning – “to grow” or “to grow to maturity”. Maturity involves not only physical but also mental growth. Adolescence is the transitional period which fills the gap between childhood and adulthood, and is characterized by a spurt in physical, endocrinological, emotional and mental growth with a change from complete dependence to relative independence [1]. Menarche is an important event for every female adolescent, because it marks the beginning of womanhood and the potential for reproduction [2,3]. Starting with menarche in young girls, it becomes a regular monthly event that culminates into social, sexual, and reproductive life that later terminates with menopause.

Menstruation is one of the physiological changes of puberty in the adolescent girl. It is defined as a ‘periodic and cyclical shedding of progestational endometrium, accompanied by loss of blood. The process is highly regulated by hormones in the hypothalamo-pituitary-ovarian axis’.

However, it could come with traumatic experience in some women and may be associated with menstrual syndromes. The initiation of menstruation takes place during early adolescent period. Yet in India even the mere mention of the topic has been a taboo in the past and even to this day it is not freely discussed among family members. So cultural and social influence appears to come in the way of extending our knowledge for such bodily functions.[4]

Menstrual disorders is a major problem among women who attend gynaecological OPD. Especially in adolescent girls, menstrual disorders constitute an even greater burden of gynaecological problems all over the world [5]. Menstrual disorders include dysmenorrhea, HMB, premenstrual syndrome, amenorrhea, polymenorrhea, hypomenorrhea and oligomenorrhea⁶. These menstrual disturbances have been well documented to have an impact on the physical and social activities of adolescent girls. Despite the high prevalence of menstrual problems in adolescents, many girls either do not seek treatment or are undertreated.[6]

The management of adolescence is vital and essential, even though menstruation is a normal physiological process for all healthy girls; many societies have been surrounded by secrecy and myths. Since it is a stressful event, the mental health experiences of the adolescent girls depend on how well they received information about the onset of menstrual period and its aberrations which may cause psychological injury to them. [7]

Measurement of health and the effects of health care must include not only an indication of changes in the frequency and severity of disease but also an estimation of well being and this can be assessed by measuring the improvement in the quality of life related to health care[8].

2. MATERIALS AND METHODS

STUDY DESIGN: Descriptive cross sectional study

PERIOD OF STUDY: AUGUST 2016 to FEBRUARY 2018.

PLACE OF STUDY: Outpatient clinic and In-patients of Gynecology department, Sree Balaji Medical College and Hospital and also from schools and colleges of south Chennai, Tamil Nadu

INCLUSION CRITERIA:

- Adolescent girls of age between 13 and 19 years of age, who have attained menarche.

- Adolescent girls with menstrual disorders.
- Adolescent girls willing to participate in the study.

EXCLUSION CRITERIA :

- Girls less than 13 years and more than 19 years of age.
- Adolescent girls without menstrual disorders.
- Girls with significant medical or psychiatric disorder on drugs and Girls on drugs which interfere with bleeding and clotting factors.
- Adolescent girls who have not given consent.
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This study was approved by the Ethical committee board of Sree Balaji Medical College and Hospital. The purpose of the study was explained to the girls and an informed consent was obtained in their own language.

The data were collected from 300 adolescent girls by adopting a structured questionnaire on Evaluation of quality of life and menstruation in girls who met the inclusion criteria were chosen after getting permission from the school and college authorities and their parents.

3. RESULTS

**TABLE 1 : DISTRIBUTION OF AGE AMONG THE STUDY
POPULATION (N = 300)**

Age	Cases with Menstrual Problems	Percentage
13	108	36 %
14	94	31 %
15	37	12 %
16	24	8 %
17	19	6 %
18	14	5 %

19	4	1 %
Total	300	100 %

Among the total girls with menstrual disorders, maximum of 36 % were from the age of 13 years, 31 % belonged to the age group of 14 years, 12 % were from the age group 15 years, 8 % belonged to the age group 16, 6% were from the age group 17, 5 % were from the age group. The educational qualification was spread among the study population as 80 % from secondary, 14 % from higher secondary and 6 % from under graduate.

FIGURE 1 : DISTRIBUTION OF EDUCATIONAL QUALIFICATION AMONG THE STUDY POPULATION

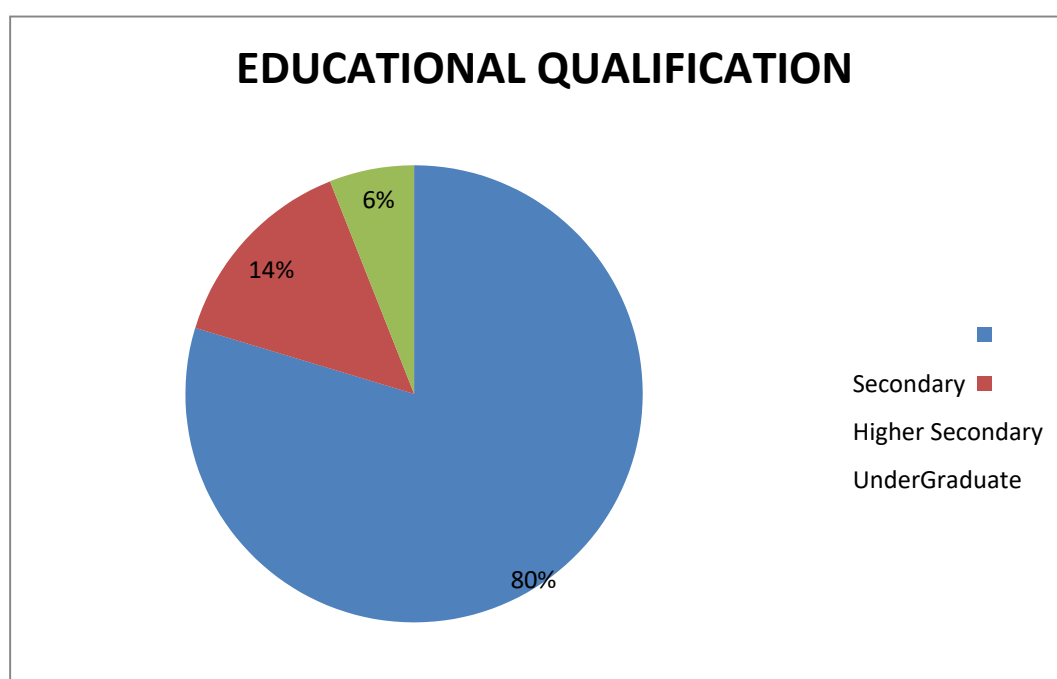


TABLE 2: DISTRIBUTION OF PLACE OF RESIDENCE AMONG THE STUDY POPULATION (N = 300)

Place of Residence	No of cases	Percentage %
Urban	198	66 %
Rural	102	34 %
Total	300	100 %

The study population was distributed as 66 % from urban and 34 % from rural.

FIGURE 2 :DISTRIBUTIONOF TYPE OF FAMILY AMONG THE STUDYPOPULATION

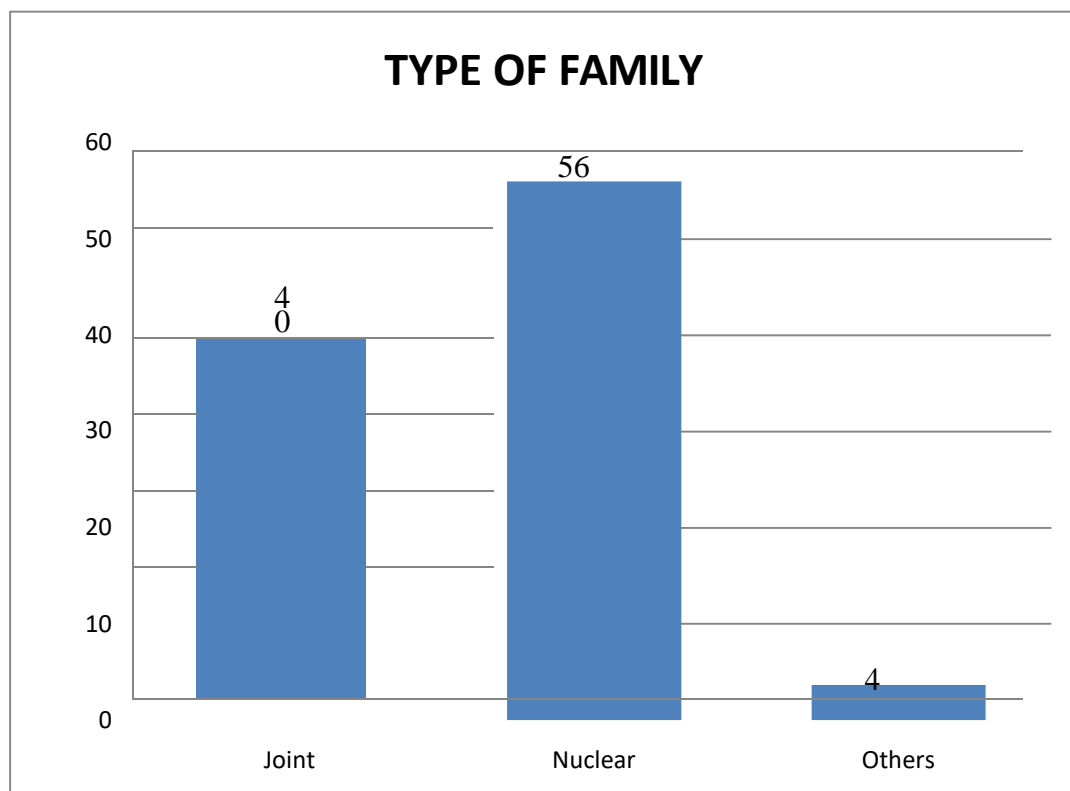
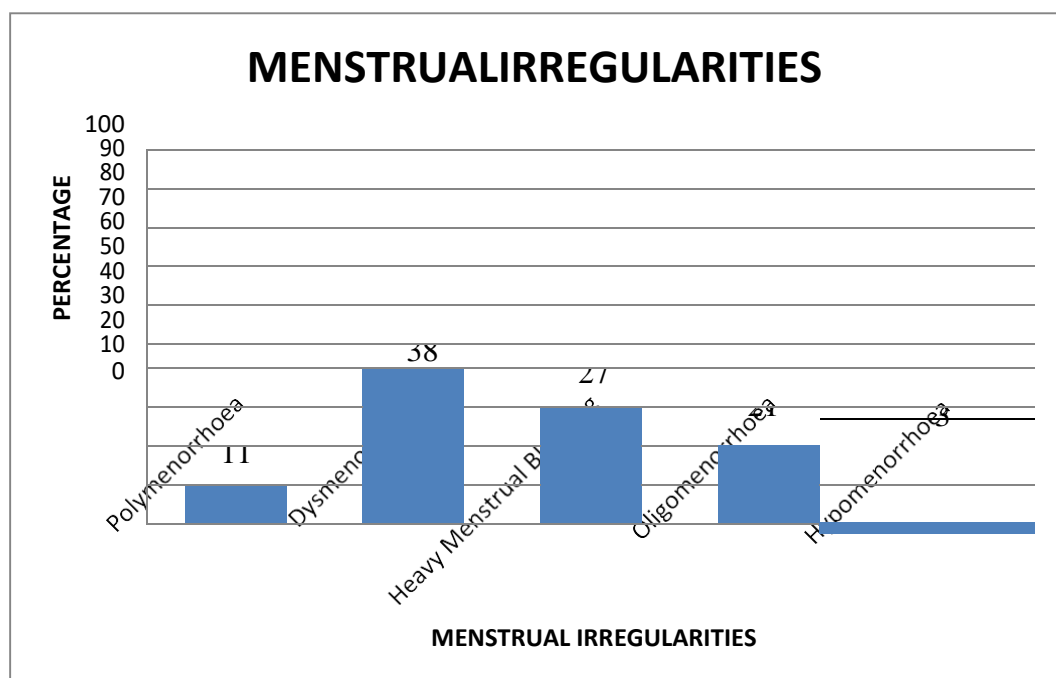


TABLE 3 : DISTRIBUTION OF AGE OF MENARCHE AMONG THE STUDY POPULATION (N = 300)

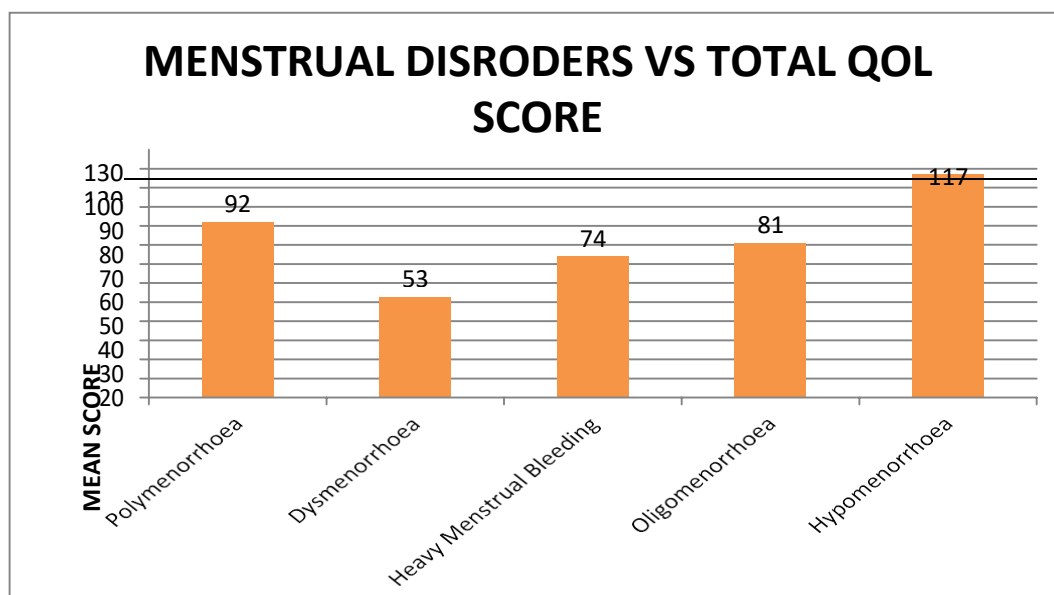
AGE OFMENARCHE	No of cases	Percentage %
10	5	02
11	65	22
12	112	36
13	71	24
14	47	16
Total	300	100 %
Mean	12.3	
S D	0.963	

Regarding the age of menarche, among the study population 02 % attained menarche at the age of 10 & 22 % at the age of 11 years. However, 36 %, 24 % & 16 % attained menarche at the age of 12, 13 & 14 years respectively. Mean age of menarche is 12.3years.

**FIGURE 3 : PREVALENCE OF MENSTRUAL
IRREGULARITIES AMONG THE STUDY
POPULATION**



**FIGURE 4: COMPARISON OF MEAN TOTAL QOL SCORE WITH MENSTRUAL
DISORDERS AMONG THE STUDY POPULATION**



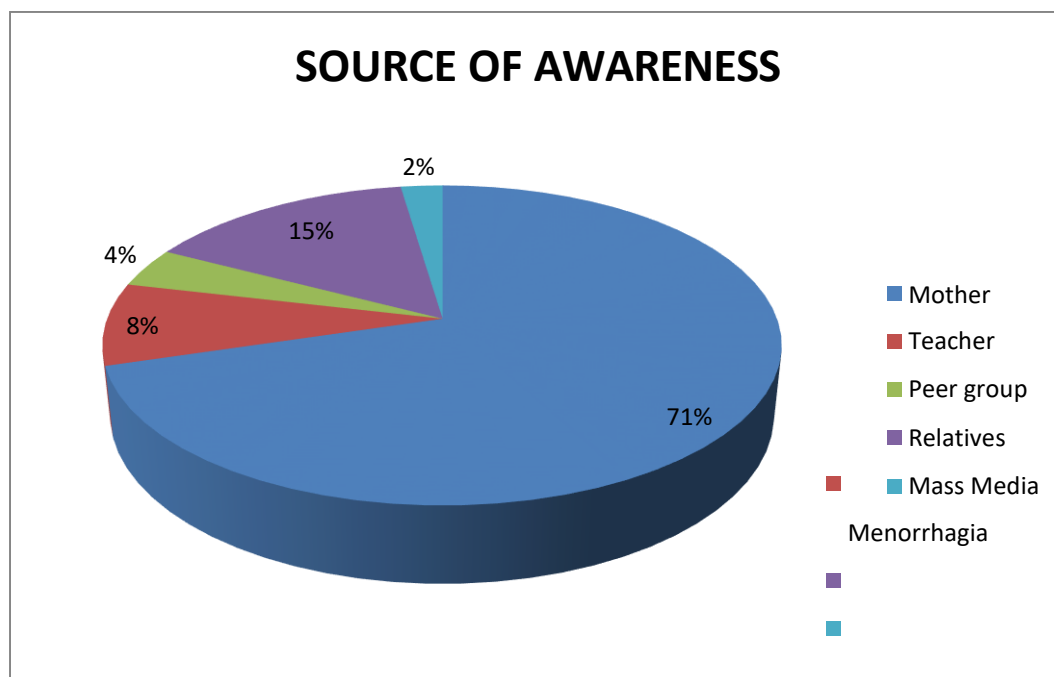
**TABLE 5 :DISTRIBUTIONOF HOSPITAL VISITS
FOR MENSTRUAL DISORDERS AMONG THESTUDY
POPULATION(N=300)**

Menstrual Disorders	No of cases	No of cases with hospital visits	Percentage %
Polymenorrhea	32	23	72 %
Dysmenorrhea	113	95	84 %
Heavy menstrualbleeding	82	77	92 %
Oligomenorrhea	62	37	60 %
Hypomenorrhea	11	05	4 %
Total	300	237	

Among the total cases, 80 % seek medical advice.

It is evident that 72 % of the adolescent girls who had polymenorrhoea, 84 % who had dysmenorrhea, 92 % who had HMB, 60 % who had oligomenorrhea and 4 % who had hypomenorrhea visitedhospitals.

FIGURE 5: DISTRIBUTION OF SOURCE OF AWARENESS AMONG STUDY POPULATION



4. DISCUSSION

This study was conducted among 300 adolescent girls with menstrual disorders from gynaecology Outpatient clinic and In-patients of Sree Balaji Medical College and Hospital and, also from schools and colleges from south Chennai. In our study SES was found to have significant association with the QOL ($P < 0.004$); with poor mean QOL score in both extremes of SES.[9]

In our study, BMI was found to be significant associated factor with the QOL (P value 0.008) and also with menstrual disorders (P value 0.000) Oligomenorrhea was more commonly associated in girls who are overweight (43%) and polymenorrhea was more prevalent in girls who are underweight (49%). This is indistinguishable from the study done by Anupriya et al which showed oligomenorrhea was associated with increasing BMI and polymenorrhea was seen associated with girls who are under weight. Dysmenorrhea is prevalent more among normal weight adolescent girls (80%). This is comparable to the study.[10-13]

done by Khodakarami B et al (2015) showed who found the frequency and severity of dysmenorrhea to be higher in the normal-weight group than other subjects. The age of menarche did not vary from that of other studies. The age of menarche ranged from 10 -14 years, maximum between 12 - 13 years, with mean of 12.3 years. This is similar to the study done by Lee & Chen et al from Malaysia (2006) showed age of menarche ranged from 9-17 years with mean of 12.3 \pm 1 year. In our study the prevalence of polymenorrhea accounts for 11% which is similar to study done by Wasiu Olalekan Adebimpe et al from Nigeria showed polymenorrhea in 9.1% of adolescent girls.[14]

In the aspect of health and activity score, Lowest score (3) was observed in dysmenorrhea. This is similar to the study done by Abdul Ghani Nur Azurah (2013) where dysmenorrhea had poorest score in health and physical activity score. Next low score was seen in HMB in health and activity domain. This is similar to the study done by Sule Gokyildiz et al (2013).[15]

In the psychosocial aspect of QOL, Oligomenorrhea has lowest score which is indistinguishable to the study done by Benita Knox et al (2015) where oligomenorrhea had negative impact on psychosocial aspects of QOL. In our study 80% of adolescent girls with menstrual disorder seek medical advice which is contrast to the result obtained in the study done by Anupriya et al where 5.9% of girls seek medical advice. [16] In our study 92% of girls with HMB, 84% with dysmenorrhea, 72% with polymenorrhea, 60% with oligomenorrhea had hospital visits which is contrast to the study done by Veena G. Rahatgaonkar et al where 25.7% girls with HMB, 26.7% with dysmenorrhea, and 33% of girls with irregular cycles took medical advice. Awareness of menstruation before menarche was found to

be 36% in our study, while study done by Das Gupta et al (2007) showed 67.5% of girls having awareness regarding menstruation before menarche. In our study, girls with awareness of menstruation have good QOL score than girls who are unaware of it with P value of 0.016.[17]

Mother is the primary source of information regarding menstruation which accounts for 71 % which is similar to the study done by Cakir Murat et al, Lee & chen et al, Eyitope O. Amu et al. Mass media was the source of awareness on menstruation in about 30% of girls in the study conducted by Lee & Chen et al. Whereas media had as little as 2% role as the source of awareness in this study.[18]

CONCLUSION

Emphasising the quality of life in adolescent girls, truly brings optimism. It should be directed in a better way of understanding and tackling menstrual problem to avoid long term consequences. The concerns or worries of these young women about their menstrual problems may be different, depending on their knowledge of menstrual physiology, their interpretation of the probable etiology of the menstrual dysfunction, as well as their personal beliefs, acceptance, and cultural background. Adolescent girls need unhindered access to early counselling and parental guidance on menarche and menstrual issues. Clinicians need to identify menstrual abnormalities as early as possible in order to minimize their possible consequences and sequelae, and to promote proper health. Besides, A need to emphasize on designing menstrual Health education programmes for adolescents, remain an important area to improve their quality of life. Improving the quality of life in girls with menstrual abnormality will help to improve the empowerment of our nation.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

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