

THE PREVALENCE OF MENSTRUAL DISORDER IN IRANIAN ADOLESCENCE GIRL

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Abstract

Menstrual disorder is very frequent complain in adolescence age and it can end too many problems .Our purpose of this study was appointed, the prevalence of menstrual disorder. This cross sectional study was done on 1200 girl's school that lived in north of Iran (Mazandaran province). We selected our samples randomly. We collected data by questionnaire. Analysis of data was done by spss-19 software and we used descriptive and analytic statistics. Significant level of this study was $p < 0.05$. The prevalence of menstrual disturbance was 13.2% (in urban girls) and 8.6% (in rural girls). Menstrual disorder is common in adolescence.

Keywords: Adolescence, Menstrual disorder, Iran.

1. INTRODUCTION

Adolescence is the one of the critical period, during life. For physical & physiological alteration in this period, nutritional situation will be considerate. Malnutrition during pediatric can to delay the puberty but cannot prevent of it (Delavarian zadeh, 2008, P. 43). Actually there is direct relation between menarche age and BMI (Shahbazian, 2007, P.181). On the other hand irregular menstruation is common complaint in adolescence. The major cause of this disorder is functional immaturity of the reproductive system (Caruso, 2003, P.110). Enormous studies show a large population of women (2 years at the start of menarche and before menopause) experience menstrual disorder (Sanyal, 2008, P.542).

Adolescence in 2 years after menarche is talented of dysfunctional uterine bleeding. According recent studies heavy menstrual bleeding is common complaint in this period (Mikhail, 2009). This heavy bleeding can be end to sever iron deficiency anemia that appear to feel fatigue. Also women with anovulatory cycle are high risk to suffer endometrial and breast cancer. Menstrual disorder in almost situation doesn't need treatment but in special case menorrhagia happened along blood discrasia. Researcher demonstrates the relation between sport, anxiety and nutrition situation and menstrual disorder. For example heavy sport, anorexia can be ended to secondary amenorrhea (Fathi zadeh , 2002, P.53).

Many studies were done about prevalence of menstrual disorder during 2 years of menarche and relation between it and menarche age, but any of them didn't appoint the prevalence of it at vast area, after 2 years of menarche. Therefore our purpose of this study is to appoint the prevalence of menstrual disorder in north of Iran after 2 years of menarche.

2. METHOD

One thousand and two hundred girl's students participated in our cross sectional study. They were 14-17 years old and lived in north of Iran (rural & urban) (Mazandaran province). We selected them via malty stage randomize cluster sampling method. We selected 8 urban and rural randomly & selected high schools and students in each school randomly. We collected our samples from April to June2011.

According to our purpose we constructed a questionnaire. It contains demographic information (name, age, menarche age, weight, BMI,...), menstrual information (menstrual flow, length of menstrual cycle, volume of bleeding (by question about number of pad that used in menstruation, change number of pad during the night, number of pad that change in 24 hours,...) and inclusion & exclusion criteria.

The content validity of this questionnaire appointed with deli method (approved by experts of education & nurture research center in north of Iran) and the reliability of it appointed with test- re test ($r=0.6$).

The inclusion criteria of this study were; 1- single girls, 2-age between 14-17 and 3- girls two years after

menarche. The exclusion criteria were; 1: the girls who had systematic or chorionic disease such as; diabetes, thyroid, kidney, heart, lung and liver disease, congenital reproductive organ malformation (congenital adrenal hyperplasia, poly cystic ovary), 2: use of hormonal and non-hormonal drugs.

In this paper a regular menses was defined as "bleeding accurse between 21 to 35 days with no more than a five day variation between cycles". The interval between bleeding episodes was assessed and classified as metrorragia (irregular bleeding), menorrhagia (excessive bleeding at regular intervals), polymenorrhea (menstrual cycle interval less than 21 days), oligomenorrhoea (menstrual cycle interval longer than 6 weeks) (Moushumi, 2012, P.29) amenorrhea no menses for more than 6 months, hypo menorrhea (menstrual cycle more than 35 days) (Movaseghi , 2011).

Ethical consideration in this study was fully met. All samples were studied with complete satisfaction also confidential information was recorded.

SPSS version (version 17) software (manufacture: prentice, Chicago united states America) was used to data entry and analysis. Chi- square test was used to determine the difference between qualitative variables and T – test for quantitative variables. Also significant level of this study was $p < 0.05$.

3. RESULT

Mean of Menarche age in urban and rural girls are show in Table 1.

Table 1. Demografic characters of girls in this study

	Urban	Rural	P value
Menarche age	12.29±1.29	12.32±1.28	0.68*
Mean age	15.83±1.01	15.73±0.95	0.09*
BMI < 19.7	255(37%)	110 (29.7%)	-
BMI 19.7- 26	338(49%)	172 (46.5%)	-
BMI 26- 29	49(7.1%)	59 (15.9%)	-
BMI > 29	34(4.9%)	28 (7.6%)	-

*In dependent T Test

The lowest age of menarche in urban &rural girls was 9 years old and the highest age of menarche age in rural girl was 15 & urban was 16 years old.

Table 2. Show the menstruation criteria in urban & rural girls.

Table 2. Comparison the menstruation criteria in urban & rural girls

Criteria of menstruation	P value
Length of menstrual cycle	0.71*
Duration of bleeding	0.78**
Menstrual flow	0.18*

*Chi- test **In depended T test

The length of menstrual cycle in almost of rural & urban girls was 21-35 days. Duration of bleeding in urban and rural girls was 6.15±1.39 and 6.12±1.41 days respectively. A menstrual flow in almost of rural and urban girls was normal.

The prevalence of menstrual disorder was 13.2% (in urban girl) and in rural girls were 8.6%. According to chi-squared test, we can say there is significant relation between menstrual disorder and place of residency ($p=0.02$).

Table 3. shows the prevalence of menstrual disorder in girls.

Table 3. Number and percent all kind of menstrual disorder in rural & urban girls

Kind of menstrual disorder	No (%) in rural girl	No (%) in urban girl	P value
Hypo menorrhoea	1(2.9%)	8(7.6%)	0.32
Polymenorrhoea	11(31.4%)	39(37.1%)	0.54
Oligomenorrhoea	16(45.7%)	53(50.5%)	0.62
Amenorrhoea	5(14.3%)	21(20%)	0.45
Metrorragia	8(22.9%)	33(31.4%)	0.33
Menorrhagia	30(85.7%)	91(86.7%)	0.88

According to Table 2; the highest rates of menstrual disorders were: menorrhagia, oligomenorrhoea, polymenorrhoea, metrorragia and amenorrhoea. The lowest prevalence was hypo menorrhoea. Also chi – squared test showed that the relation between menstrual disorder and place of residency were not significant.

Almost of girls had 2 type of menstrual disorder. Chi –squared test showed there were not any relation between the number of menstrual disorder and place of residency (p=0.70).

According chi- squared test relation between dysmenorrhoeal and place of residency was not significant in girls who had menstrual disorder (p=0.35) or had not this disorder (p= 0.61).

Chi-squared test showed that, relation between level of educational and place of residency was significant in girls who had or had not menstrual disorder (p=0.000) (p=0.000) respectively.

4. DISCUSSION

Enormous physical & psychological alteration can occur in Adolescents. This alteration are not accommodate with serious gynecological pathology, menstrual disturbances are common in adolescence. The major cause of this problem is menstrual cycle with on ovulation cycle (Shahbazian , 2007, P.181). Many researchers show that there is significant relation between an ovulatory cycles and endometrial & breast cancer. Probably the causes of these risks are exposure to high level of estrogen also some kinds of menstrual disorder almost end to infertility (Delavarian zadeh , 2008, P. 43).

In this study the prevalence of menstrual disorder in urban girls (13.2%) was higher than rural girls (8.6%) , also menorrhagia was the common kind of menstrual disorder and the lowest prevalence of this disorder was hypo menorrhoea in urban & rural.

The prevalence of menstrual disturbance in Iran in early menarche (during 2 years after menarche) was 45.9% & the common kind of this disorder was oligomenorrhoea and menometrorrhagia (Fathi zadeh , 2002, P.53). Shahgheibi claimed 43.25% of 17-18 years old girls had menstrual disturbance (Shah gheibi , 2007, P.20). Sanyal said more than 50% of girls in early, middle and late adolescence experience this disorder and the irregularity bleeding will decrease with increase of age (Sanyal , 2008, P.542). A similar study was done in turkey (2000); showed 26.7% of girls had irregular bleeding after 2 years of menarche and 62.2% of them had at least one menstrual disorder in their lives (Demir , 2000, P.171). According to James s study, the most common bleeding disorder was heavy menstrual bleeding (13). Bleeding problem in this years is usually without any organic and gynecological pathology but in some cases, the common causes were coagulation factors deficiencies including von will brand disease and quality- quantity abnormalities of platelets (Appelbaum, 2011, P.547), Halimeh , 2012, P.45), Ahuja , 2010, P.15).

Fathizadeh also showed relation menstrual disorder and BMI, the cause of this opposite result to our study, is that the age of their samples was during 2 years after menarche (Fathi zadeh , 2002, P. 53).

This study had some limitations for example, we find the girls who suffer menstrual disorder after 3 years of menarche, it was better, we invited them in gynecologic clinic and diagnose the major cause that end to menstrual disorder.

5. CONCLUSION

The prevalence of menstrual disorder in north of Iran is lower that another area in our country (such as: west,

east, and south of Iran).

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