MENSTRUAL CHARACTERISTICS AND PROBLEMS IN 9–18 YEARS OLD TURKISH SCHOOL GIRLS

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Introduction and aim

Menstruation has an important place in the girls' pubertal development. The aim of this study is to determine menstruating girls' sectional characteristics and the frequency of the menstruation problems.

Subjects and Methods

The study was done in randomly selected 13 schools from socio-economically different distincts at the City Center of Kayseri between December 2014 and March 2015.

The needed administrative permits obtained from related authorities.

The study consist of school girls aged between 9 and 18 years.

Informed consent forms and questionnaires (n= 3500) were distributed to every school.

Participants were asked about epidemiological characteristics, characteristics of menstruation and accompanying menstrual problems.

The questionnaires were picked up and then evaluated.

Statistical Analysis

Data was analyzed using the SPSS Statics 21.0 packet program.

The quantitative data is defined as mean ± SD and as median (min-max).

When the means of numerical data compare in two groups the independent samples T and when over two groups One-Way Anova tests were used.

When the medians of numerical data compare in two groups Mann-Whitney U test and in over two groups Kruskal Wallis test were used.

The qualitative data was defined as frequency and percent (%). Chi-Square or Fisher's exact tests were used to compare the qualitative data.

If p value is < 0.05 it is accepted as statistically significant.

Results

Of the questionnaires 2000 were appropriate to evaluate.

Of the school girls, 13.9% were prepubertal and 63.7 % (n: 1274) had started menstruating (Tables 1 and 2).

The mean age at menarche was 12.74 ± 1.03 years, the mean menstrual cycle length was 28.1 ± 5.7 days, the mean duration of menstrual flow was 5.9 ± 1.4 days and the mean number of sanitary napkin used per day during period was 3.4 ± 1.3 (Table 3).

Of menstruating subjects 80.4% had regular menstruations.

With a prevalence of 84.8%, dysmenorrhea was the most prevalent menstrual problem and the average pain score of dysmenorrhea was 5.87 ± 2.45.

Table 1: Onset of first pubertal finding		
	N (number)	% (Percent)
No puberty	278	13.9
Telarche	1260	63.0
Axillary hair	326	16.3
Pubic hair	136	6.9
Total	2000	100

Table 2: Onset of menarche according to ages		
Menarcheal age	N (number)	% (Percent)
9	3	0.2
10	17	1.3
11	103	8.1
12	393	30.8
13	483	37.9
14	221	17.3
15	52	4.1
16	2	0.2
Total	1274	100

Table 3: Menstrual characteristics of subjects		
	Mean ± SD	Min - Max
Menarche age (year)	12.74 ± 1.03	9 - 16
Time between periods (day)	28.1 ± 5.7	15 - 120
Bleeding duration (day)	5.9 ± 1.4	1 - 15
Sanitary napkin numbers per day	3.4 ± 1.3	1 - 10

Table 4: The relationship between dysmenorrhea and school absenteeism			
	School absenteeism		
Dysmenorrhea existence	Yes Number (%)	No Number (%)	Total Number (%)
Yes	194 (95.6)	886 (82.7)	1080 (84.8)
No	9 (4,4)	185 (17.3)	194 (15.2)
Total	203 (100)	1071 (100)	1274 (100)
Chi-Square = 21.79, p < 0.05			

Table 5: School success according to the mean pain score		
School success	Number (%)	Pain score (Mean ± SD)
High	609 (47.8)	5.65 ± 2.42
Moderate	626 (49.1)	6.04 ± 2.49
Low	39 (3.1)	6.52 ± 1.88
Total	1274 (100)	
Kruskal Wallis test, p: 0.004.		

The mean age of subjects with dysmenorrhea was higher than those without dysmenorrhea.

Of menstruating girls,

34 % (n: 439) were found to use painkillers for dysmenorrhea,

the common one was paracetamol;

during this period the prevalence of using non-medical methods to relieve pain was 35.2 % (Figure 2);

the rate of seeking medical help for dysmenorrhea was 9.3 % (n: 119).

Of subjects 90.8 % were discussing their menstrual problems with only their mothers because of shyness.

In postmenarcheal girls, the rate of school absenteeism was 15.9 % as general and 18 % in those with dysmenorrhea (Table 4).
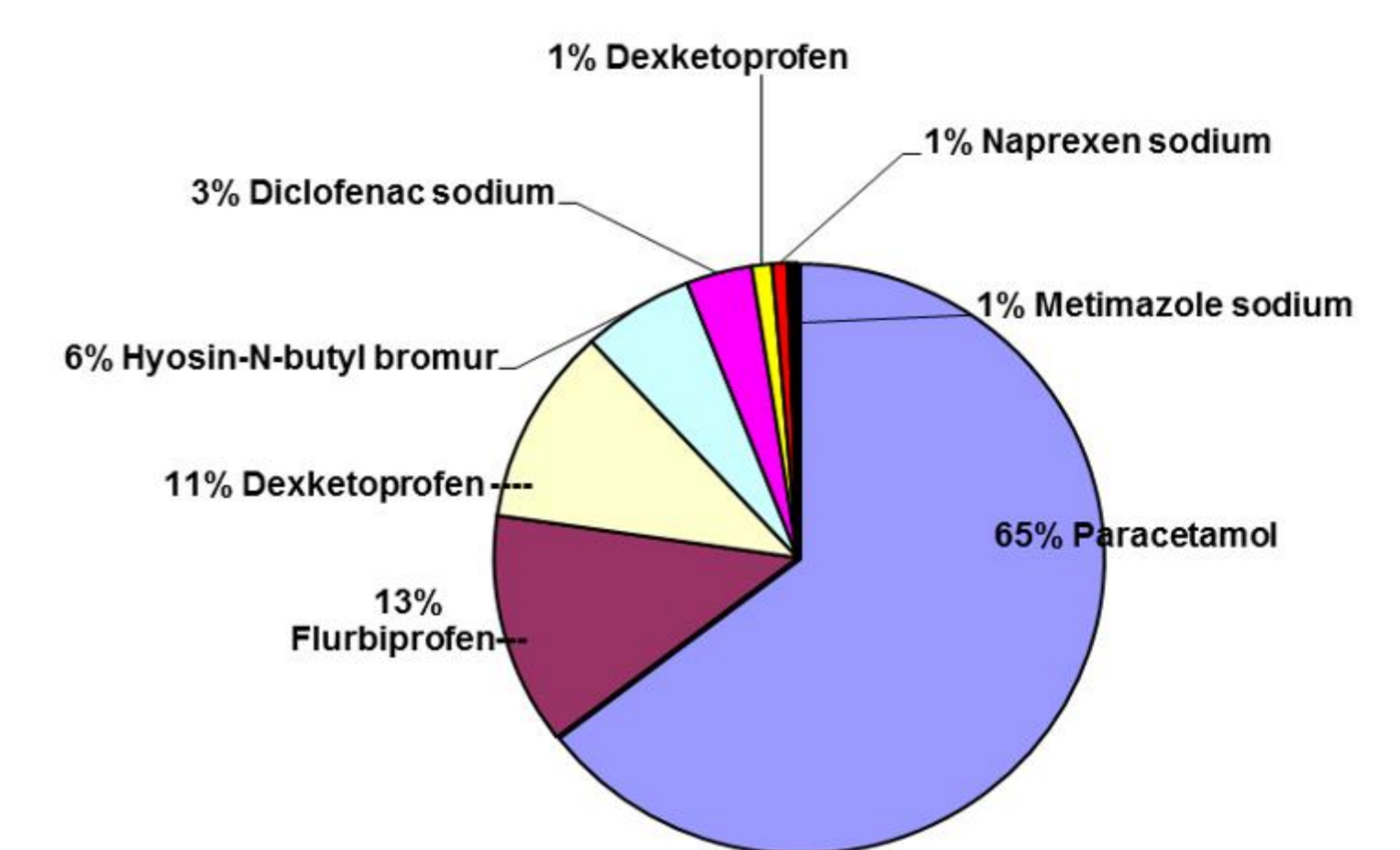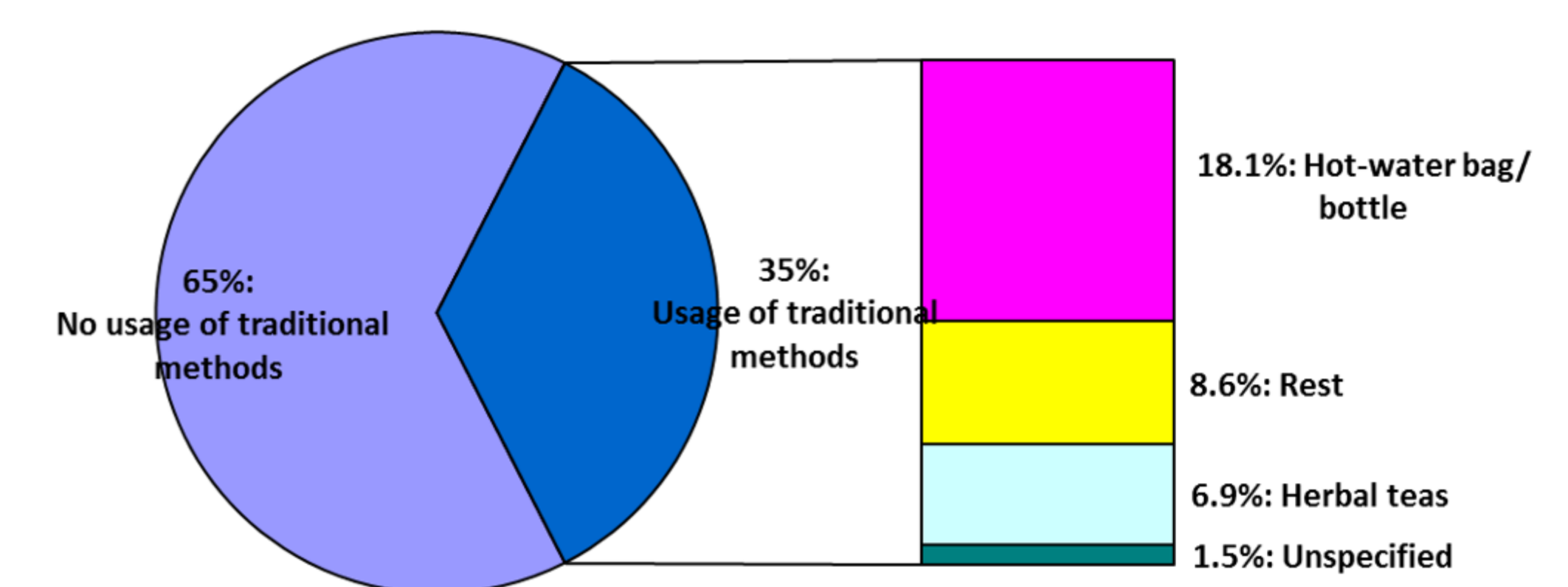

Figure 1: Using painkiller for dysmenorrhea (n= 370)

- 1% Dexketoprofen
- 1% Naprexen sodium
- 3% Diclofenac sodium
- 1% Metimazole sodium
- 6% Hyosin-N-butyl bromur
- 11% Dexketoprofen
- 13% Flurbiprofen
- 65% Paracetamol

Figure 2: Usage of traditional methods for dysmenorrhea (n=700)

- 65%: No usage of traditional methods
- 35%: Usage of traditional methods
- 18.1%: Hot-water bag/ bottle
- 8.6%: Rest
- 6.9%: Herbal teas
- 1.5%: Unspecified

Of subjects 5.2 % (n: 104) reported having hypertrichosis and 40.9 % (n: 818) acne problems.

Conclusion

This study revealed that the menstruation problems, exactly dysmenorrhea, were observed widely in 9-18 years old school girls and these problems effect the life quality of them and it also showed the necessity to knowledge efficiently about the menstruation which had an important place in adolescent health.

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