

## Diet Therapy Can Reduce Pain Severity of Primary Dysmenorrhea in University Students

Dysmenorrhea is defined as painful menstruation and clinically characterized by varying degrees of pelvic pain during menstruation, it is a gynecological problem that negatively affects the lives of individuals in a negative way and can lead to decreased work productivity and work quality, increased accidents, absenteeism in school<sup>1,2</sup> and it also brings emotional distress to the rest of the daily life activities<sup>3,4</sup>. In literature, suppression or exacerbation of symptoms of primary dysmenorrhea (dysmenorrhea that started and continued with the emergence of the first menstruation cycle)<sup>5</sup> has been associated with some nutrients. There is a need for research that will help to improve nutrition protocols to investigate the relationship between primary dysmenorrhea and nutrition and thereby reduce the incidence of dysmenorrhea and alleviate symptom severity.

A recent randomized controlled study that was published in December 2018, aimed to evaluate the effect of diet therapy on primary dysmenorrhea in female university students, by recruiting females who were between 18 and 35 years of age, studying at School of Health Sciences in Istanbul-Turkey, had BMI  $\leq 18.5$  -  $\geq 29.9$  kg/m<sup>2</sup>, and had primary dysmenorrhea complaints (pain in abdomen, inguen, or waist region one day before the menstrual period and / or on the first day of menstruation). Total of 70 students who agreed to participate in the study and were meeting the selection criteria were included in the study. Students were divided into two groups by closed envelope method. Diet therapy was applied to the first group (n=35) and the second group was assigned as the control group (n=35). Three students from the diet group left the study and a total of 67 students formed the sample of the study. The students in the diet group were given a diet compatible with primary dysmenorrhea and the diet was used during three menstrual cycles. In the diet content, adequate fluid intake and fibrous food consumption have been focused. Individuals had a diet containing 55% carbohydrates, <30% fat and 15-20% protein. The diet was rich in complex carbohydrates and fiber. Individuals have consumed fish for 1-2 times a week, > 1000 mg calcium and 8-10 nuts or 1-2 walnuts almonds per day. Also <300 mg caffeine restriction was made. The intake of spicy, acidic and carbonated foods was limited. The research data were collected by using the "Student Information Form" which includes the demographic information of the research participants and the "VAS" which was developed by the researchers and used to determine the intensity of dysmenorrhea<sup>6</sup>.

Prior to the intervention, the mean severity of dysmenorrhea in the diet and control groups on VAS score of 0-10 was  $7.14 \pm 1.3$ ,  $7.09 \pm 1.4$  respectively and there was no statistically significant difference between the groups ( $p= 0.888$ ). However, after three months of diet therapy it was determined that the mean score of pain of the diet group was significantly lower, diet group:  $5.15 \pm 1.15$ , control group:  $6.74 \pm 1.97$

( $p= 0.001$ )<sup>6</sup>

In conclusion, pain severity in dysmenorrhea was significantly lower in the group treated with diet. It is suggested that healthy, lifestyle behaviors should be promoted in young girls and repeat such studies with a longer follow-up.

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