



**THE EFFECT OF AEROBIC EXERCISE ON PRIMARY DYSMENORRHEA
STUDENTS 15-17 YEARS**

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ABSTRACT

The aim of this study is to compare eight weeks Aerobic psychological symptoms, physical pain of primary dysmenorrhea in students of 15-17 years Subjects were 60 students 17-15 years of non-athletes with dysmenorrheal That aerobic training on a voluntary basis in two groups of 30 people with an average age of $16/37 \pm 1/27$ years., Height $161/12 \pm 3/14$ cm, Weight $52/27 \pm 4/47$ kg, And first menstrual age $11/14 \pm 1/54$ years And 30 control subjects with a mean age of $16/27 \pm 1/33$ years, Height $154/43 \pm 2/35$ cm, Weight $50/58 \pm 2/96$ kg And first menstrual age $11/70 \pm 1/24$ years, respectively. During the rehearsal questionnaire before and after the mouse to determine the physical and mental symptoms, using a pain scale to determine the pain intensity was completed. Statistical analysis using independent T-test and significant level ($p < 0/05$) was considered. Was considered. The results showed a significant difference between pre-test and post-test psychological symptoms ($=0/0001P$), physical ($=0/0001P$), Pain ($=0/0001P$) significant aerobic exercise group and the control group on psychological symptoms ($=0/345P$), Physical ($=0/114P$), intensity ($=0/462P$) was not significant. The results showed that the comparison between aerobic exercise and Control psychiatric symptoms ($p < 0/0001$) and physical ($p < 0/0001$), pain ($p < 0/0001$) was significantly reduced. Aerobic exercise has an impact on the activity of the sympathetic system reduces uterine contractions is that it tends to reduce the physical symptoms of primary

dysmenorrheal Endorphins are hormones also increase as a result of exercise of the pain and prevent physical and mental symptoms, reduce pain.

Keywords: Primary dysmenorrheal, aerobic exercise, students

INTRODUCTION

Primary dysmenorrhea is common menstrual disorders and adversely impact on the performance and quality of life leaves. The condition is common among teenage girls and cause a lot of problems in this age group including lack of school attendance and restrict their activities to be . According to research conducted dysmenorrhea leading cause of school absenteeism alone and lose hours work is useful (Chung, 2005). In our country, nearly half of the students are girls and women, a significant section of the workforce and this trend is increasing. On the other hand dysmenorrhea imagine young girls and women affected their delivery and causing many individual problems is that it also affects the family (Molazem, 2011). Primary dysmenorrhea pain in sync or a few hours before menstruation begins and the time 12 to 72 hours and the same labor with cramps in the suprapubic is (Alaettin, 2010) nausea, vomiting secondary to pain, diarrhea, and rarely syncope associated with primary dysmenorrhea have been reported. the prevalence of primary dysmenorrhea in different communities, are between 50 and 90 percent (Harel , 2006). The first

treatment for patients with primary dysmenorrhea pain, use of the contraceptive pill and if the consumer is prohibited for a person or patient to the type treatment, not a positive response, the use of prostaglandin inhibitors, which have different side effects are. Thus, the necessity of providing a non-drug treatment for patients who do not respond to medication, or suffer from side effects or lack of desire to take the drug are obvious is (Onur, 2012). Regular exercise is useful for treating the symptoms of dysmenorrhea. Dysmenorrhea in women who exercise can be due to hormonal changes affecting the lining uterus or increase the level of endorphins (Rumball, 2004). It seems that exercise, to act as a non-specific pain . Several studies have shown that Aerobic exercise such as walking and swimming in non-aerobic exercise powerful, very effective in reducing psychological symptoms of depression, especially in primary dysmenorrhea (Mastrangelo, 2007). According to the aforementioned study to answer the question whether aerobic exercises significant effect on symptoms of dysmenorrhea students 15-17 years old, or not?

METHODOLOGY

This study is applied and the method of quasi-experimental data. Subjects 60 female students volunteered to non-athletes with dysmenorrhea who were in two groups of 30 people exercise with an average age of $16/37 \pm 1/27$ years, Height $161/12 \pm 3/14$ cm, Weight $52/27 \pm 4/47$ kg And first menstrual age $11/14 \pm 1/54$ years And 30 control subjects with a mean age of $16/27 \pm 1/33$ years, Height $154/43 \pm 2/35$ cm, Weight $50/58 \pm 2/96$ Kg and the age of menarche $11/70 \pm 1/24$ years, respectively. Aerobic exercises include jogging with 60 to 75 percent of maximum heart rate for 45 minutes, three days a week on non-consecutive days, respectively.

METHODS FOR MEASURING VARIABLES

The participants' weight and height, respectively, using standard gauge height scale scorpion and the Japanese, the barefoot and minimal clothing (weight in kilograms with an accuracy of 0.1 kg, height in cm with an accuracy of 0.1 mm) measured data were recorded on the sheet. Body mass index is the ratio of weight in kilograms to the square of the height (m) were calculated. Questionnaires to measure physical and mental symptoms of menstrual disorders (Moss, 1968) before and two after training was completed by the subjects. The questionnaire contains 23 questions and 14 questions consisting of 9

questions about psychiatric symptoms, physical signs. The questionnaire dysmenorrhea psychological symptoms such as aggression or irritability, feelings of anxiety, tension or impatience, feeling difficulty concentrating, changes in appetite, insomnia or oversleeping, and physical symptoms such as back pain, dysmenorrhea, abdominal pain, nausea, diarrhea, headache, muscle pain evaluated. The pain ruler was used to measure pain.

STATISTICAL METHODS

The characteristics of the subjects and the research data was analyzed using descriptive statistics in the form of tables and graphs. After confirming normal distribution of data both Klmvgraf Smirnov test for the t-test mean difference of data within the group and outside groups to compare differences Independent t-test was analyzed at the significant level of 0.05. All statistical analysis was performed using the software spss 18.

RESEARCH FINDINGS

In this study, the average difference between pre-test and post-test psychological symptoms ($P=0.0001$), Health ($P=0.0001$), pain ($P=0.0001$) in the aerobic exercise group and the control group was significant Psychiatric symptoms ($P=0.345$), physical ($P=0.462$), intensity ($p<0/0001$) was not significant (Table 1). The results Comparison between

aerobic exercise and control groups showed that psychiatric symptoms ($p < 0/0001$) and physical ($p < 0/0001$), intensity ($p < 0/0001$) was significantly reduced.

Table 1: Compares the mean and standard deviation values of psychiatric symptoms, physical pain in experimental and control groups in the pre-test and post-test

Control			Aerobic Training			Group
Significant	Next	Before	Significant	Next	Before	Variable
=0/345P	3/12±1/47	3/1±2/14	=0/0001P	3/93±1/22	2/47±1/25	Psychological symptoms
=0/114P	2/73±1/13	2/65±1/75	=0/0001P	3/75±1/62	2/74±1/23	Physical symptoms
=0/642P	7/76±2/15	7/70±2/31	=0/0001P	4/94±1/68	7/26±2/14	Pain

DISCUSSION

The results of this study showed that eight weeks of aerobic exercise can reduce the symptoms of physical and mental pain and students 15-17 years old with primary dysmenorrhea is. The results of research Chantler et al (2009), Abbaspoor et al. (2006), Ierno et al. (2007) Shahrjerdy et al (2010) showed that the release of endorphins, exercise, relaxation, stress reduction, improving blood flow can reduce the severity of dysmenorrhea match. This suggests that menstrual pain due to muscle contractions of the uterus caused by increased sympathetic nervous system stimulated, there. It seems that an increase in sympathetic activity may be increased by up menstrual pain increase the intensity of uterine muscle contractions lead (Yun, 2007). Therefore, due to the fact that exercise and reducing stress may be modified, Sympathetic nerve activity may be reduced and thus it is likely that the intensity Menstrual pain and other symptoms associated with it may also be reduced (Gannon, 1988). On the other

hand, research has shown that women who exercise reduce dysmenorrhea may be due to the influence of hormonal changes the lining of the uterus or increasing the level of endorphins. It seems that exercise can act as a non-specific analgesic (Farrel, 2013). In this context, the relationship between exercise and treatment of disease, stress is considered as a vital element be. there are several studies that correlation between life stress and symptoms of menstrual pain significantly show. The role of exercise as a means to reduce stress and alterations in the immune system, the widely considered (Israel, 1985). The results of this study with the results Karbay et al. (1998) and Carroll (2010) is inconsistent because the research showed that exercise has no effect on menstrual symptoms from other causes discrepancies were age and lifestyle, because the lines under 17 years of age have not been established yet ovulation completely different possibility of this syndrome is. The intensity and duration of different training programs can be another cause of

the lack of consistent research is currently conducted by Research.

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