The effect of acupressure on quality of sleep and fatigue in female students with Premenstrual Syndrome

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Abstract

**Background:** Premenstrual syndrome (PMS) is one of the most common disorders in female students of reproductive age. This syndrome is a set of physical, psychological and behavioral symptoms, including fatigue and sleep disorders, which can cause problems such as impaired social communication, poor concentration, weak academic achievement and quality of life that can be controlled with medication and non-pharmacological approaches. This study is conducted with the aim of evaluating the effect of acupressure on fatigue and sleep quality among female students with premenstrual syndrome.

**Methods:** This study is a pretest-post test controlled clinical trial with two experimental and control groups which is registered in the IRCT site with the code of (IRCT201206126247N6) regarding 140 female students with pre-menstrual syndrome in the province of Bushehr. A multi-stage sampling method was done. In the first stage of census method the all students of the University of Payam Noor and Azad University of the province of Bushehr were screened regarding PMS using a questionnaire of symptoms of premenstrual (PSST). Of 600 students who filled out the PMS Screening Test, 178 female students were diagnosed with PMS. With the consideration of the estimated sample size, 140 students out of 178 students were selected as purposive sampling regarding the inclusion criteria. Data collection instruments were Pittsburgh Sleep Quality Index (PSQI) and Fatigue Severity Scale (FSS), respectively. The intervention as the independent variable was acupressure at the points of HT7 for sleep disorder and ST36 for fatigue, respectively which was taught and demonstrated to the students of experimental group based on the Adult Learning Theory. But the control group received no intervention.

The two variables of sleep disorder and fatigue were filled in at pre intervention and two months after the intervention in a similar time period. Finally, the data were analyzed sing descriptive statistics, chi-square tests, t tests and ANOVA by SPSS 16 software.

**Results:** The results showed that the 29/5% of all university students were diagnosed with PMS. All of the 140 students with PMS in the clinical trial had sleep disturbance severity score of 5 and above (severe). It should be noted that both experimental and control groups in terms of demographic characteristics and mean baseline fatigue (P = 0/86) and sleep quality ((P = 0/99) were homogeneous and no significant differences were found in the two groups. At post-test, regarding the variable of fatigue and sleep disorder there were significant differences between two groupsat (P <0/001).

**Conclusion:** These findings suggest that applied acupressure on the HT7 and ST36 as a therapeutic procedure can reduce fatigue and improving sleep quality. Therefore, nurses and midwives can use this simple, inexpensive and uncomplicated intervention as a supplement to other methods for promoting health and might increasing the quality of life of female students with PMS.

**Keywords:** PMS, Acupressure, Fatigue, Sleep Quality, Womens Health