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# Yoga Exercise and Anxiety among Female Students of Borujerd Azad University Dormitory

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**Abstract**

**Aim:** Anxiety is a bad and frustrating feeling that causes disturbance in professional, social and educational performance of students, especially those who are living in dormitories. Yoga as an anti-anxiety activity has been practiced in anxiety reduction. To assess the efficacy of yoga in reducing anxiety in students, who live in dormitory.

**Methods:** Totally, 120 students who lived in dormitory were selected. Students were randomly assigned to two groups and students in case group received ten 60- min yoga sessions. In this descriptive-analytic study, Ketel anxiety questionnaire was used. The data were analyzed via X2, Fisher, and Variance analysis using spss.16.

**Findings:** According to the results of this study, yoga had significant effect on reducing students' anxiety. Before intervention, there was no significant difference between students' anxiety level in control and experimental groups (p-value: 0.139). However, after intervention, there was a significant difference between students' anxiety level in control and experimental groups (p-value <0.01).

**Conclusion:** Considering the significant efficiency of yoga in reducing students' anxiety, representatives and those who are responsible should pay attention to yoga more than before.

**Keywords:** Yoga, Anxiety, Students

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## Introduction

Anxiety and stress influence physical, mental, emotional, sensational, and social aspects of human life and result in poor decision making, having negative thoughts, feeling sadness, emptiness, and boredom [1]. These problems can occur in both men and women. Many alternatives, such as drugs are used to decrease those problems; however, they are not welcomed interestingly because unwanted side effects of drugs. Moreover, as individuals are surrounded by many environmental stressors, they should immune themselves against them. Therefore, some feasible, inexpensive and effective alternatives such as relaxation methods and aerobic exercises are necessary.

Having mental health is vital to respond properly to many environmental stressors. Mental health is one of the most important aspects of social growth, which is expanded and developed through social experiences [2]. Some evidence confirms that doing yoga can increase the quality of students' mental health [3].

Yoga is consisted of techniques in a range from simple to complicated ones that increase people's concentration and relaxation of their muscles; make their body shape and appearance better and fitter, reduce their muscle contraction, their anxiety and improve their social life skills [4].

Exercising yoga is a need for people in today's modern and civilized life. Yoga is not a time and space limited exercise but with a powerful and strong effect impacts all aspects of human life and offers better health and long life for human beings [5]. Nevertheless, the main aim of yoga is not just such issues but experiencing reality and reaching perfection.

There are many pressures caused by business relations, life difficulties, being far from family, hard working for a long time with computers, education, exams, and so on , which lead to chronic illnesses such as headache, digestive diseases, irritable bowel syndrome, respiratory problems, hypertension, muscles stiffness, organ deformities, anxiety and depression in long term [6]

Mental and physical problems of youth result in many financial problems, loneliness and some social dangers, which are stronger compared to other age groups.

Improving confidence, self-esteem, self-dependency, self-respect, self- mental image and using a proper method for releasing excitement, being able to problem solving and preventing anxiety can be considered as the best ways to prevent reluctance, crisis in education, misbehaviors, misuses, amoralities, , and sexual deviation [7]. There are many different ways and alternatives to improve self-esteem, self-confidence, relaxation, and will power, such as music therapy, aerobic exercises and yoga [8]. In all, based on some existing documents researchers intended to



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study the influence of body relaxation by yoga on the anxiety of female students who were living in university dormitories. Hence, this study aimed to answer two questions: 1- Does yoga work to reduce students' anxiety? 2- If yes, what will the effect of doing yoga on students' anxiety be?

**Materials and methods**

This quasi-experimental study was conducted in 2013. Sixty students of Islamic Azad University dormitory in Borujerd – Iran participated in this study. 30 students were randomly selected and assigned to the intervention control groups respectively. First using Kettle anxiety questionnaire, a pre-test was performed. After carrying out the pre-test, students in the intervention group did ten 60 - minute sessions of Hata yoga and then a post-test was done with the same questionnaire. Scores of the pre- test and post-test in two groups were compared. All ethical obligations were considered in this research (IRCT2013012012202N1).

Content of yoga sessions are summarized as below:

**First session:**

Study goal and objectives were introduced. The goal of the study was anxiety reduction and promotion of mental health [9]. Participants were divided into two groups of control and intervention. In addition to participants' demographic characteristics including their age, gender, financial status, illness history of them and their family, the main data were gathered by completed Ketel anxiety questionnaire, which had already been validated [10]. To be sure about the reliability, 30 questionnaires were completed. The cronbach's alpha coefficient was acceptable (0.754).

**Second session**

In this session, educator's goal was providing a safe and friendly environment, achieving assurance and unconditional acceptance of yoga by the students. Besides, educator tried to show a positive and adaptive attitude towards yoga.

**Third session**

Third session was devoted to teach how to do yoga. In this session, students were encouraged to do yoga and freely talk about their feeling.

**Forth session**

In this session after a brief review of the previous session, educator thought breathing exercises with focus on muscles.

**Fifth session**

The fifth session was about relaxation with focus on systemic breathing and muscle relaxation.

**Sixth session**

The Sixth session was centered on basic postures at a comfortable pace with increasing body strength. Similarly Yoga exercise was shared twice a week for an hour in the evening with the experimental group for 5 weeks.



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## Results

Our study population included 60 randomly selected students, who were living in dormitory. The scores obtained by students in two groups before and after intervention are presented in Table 1 and 2. There was a statistically significant difference between the mean anxiety scores in two groups after intervention (p<0/001), showing a significant reduction of anxiety among the participants of the intervention group.

**Table 1** The difference between the mean scores in two groups before intervention

| Factors | Mean differences | Deviation differences | T | Significancy | Result |
|---|---|---|---|---|---|
| **Mental health** | 6.567 | 21.433 | 1.685 | 0.103 | Not significant |
| **Self esteem** | 0.85 | 9.139 | 0.509 | 0.115 | Not significant |
| **Anxiety** | 1 | 10.067 | 0.544 | 0.139 | Not significant |
| **Depression** | -0.433 | 11.057 | -0.215 | 0.832 | Not significant |

According to the results, we can conclude that both groups are the same.

**Table 2** The difference between the mean scores in two groups after intervention

| Factors | Mean differences | Devotion differences | T | Significancy | Result |
|---|---|---|---|---|---|
| **Mental health** | -7.167 | 15.509 | -2.53 | 0.048 | significant |
| **Self esteem** | 1.5 | 8.583 | 0.957 | 0.346 | Not significant |
| **Anxiety** | 7.967 | 9.156 | 4.766 | <0.01 | Significant |
| **Depression** | 6.45 | 8.923 | 3.959 | 0.013 | Significant |

Table 2 shows the Comparison between factors in two groups of control and experimental after intervention.

According to the results, we can conclude that even pre-test scores of both groups were the same , there was a significant difference (P=0/001) between their post-test scores.

## Disscusion

Yoga is taken from the word *Yuj* in Sanskrit language, meaning unification and integration. In practice, yoga means the science of mental waves, which control and rule mental power along with movement abilities [5, 10] In today's world, the vast number of illnesses such as heart attacks, digestive diseases, migraine and harmonic pains resulted from emotional and mental stresses and also increased number of psychological diseases have become the main reasons of death. Moreover, it is definitely clear that while having many mental disorders, it is impossible to have healthy body [11].

Based on our findings, the level of anxiety after intervention in the case group was lower than the control group. For example, Shankarapillar and colleagues in a study, which examined the effect of yoga on dental student's stress, (2012) showed significant



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reduction in students' anxiety [12].

The present study showed that yoga exercise with this quality is effective in reducing anxiety among students who live in dormitory. In a research done by Javadiayan Sarraf, the effect of yoga on students' self-image was investigated and it was concluded that there was a significant relationship between them. Our findings are similar to Almit Kauts and associates' study in 2009 [13], which revealed better performance of students who practiced yoga in their schools.

According to some research, all those who exercise yoga more than 8 weeks know that the most rewarding benefit of yoga is improving their mental health [14] and mental ability, as well as their psychological ability [15]. In line with those studies, doing yoga exercises for two or three times in a week resulted in reduction in participants' anxiety and depression and improvement of their mental health [16-17]. It is clear that doing yoga exercises with the quality of this study and in a short period of time was not able to affect participants' self-esteem.

## Conclusion

It should be noted that in order to reduce anxiety, in some specific periods of life time, such as childhood and youth and in a period in which teenagers are supposed to choose, those who are responsible must be able to provide effective and scientific alternatives to young people because in those periods of life, not only people encounter many financial problems, but also they confuse in the way of their living as well as their families and their representatives and even the head of their schools and universities.

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I hope that I could take a step to improving students and young people's quality of life.

## Recommendations

- According to the results, yoga reduces anxiety and depression in university students and it can increase their concentration. Consequently, exercising yoga by students during their education time is highly suggested. This suggestion is due to the fact that it improves students' educational level as well as their ability in decision making.



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- According to the low cost of doing yoga and also having no side effects, it is highly recommended to motivate others.
- Consequently, yoga exercises should be considered in school curriculums from the childhood and sport departments should be supported to implement those educational programs.
- Training and teaching skilled yoga coaches and providing suitable employment opportunities for them are very important because they can highly influence human growth and their process of perfection.

Reaching the goals above will be possible only with cooperation of other social agents such as family members, school and university authorities, sport coaches, and mass media organizers, of course under governmental control and support.

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