

**A study of illustration and mindfulness exercises on sports
by male students aged 10-15 years**

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Abstract

The aim of the present study was to investigate imaging and mindfulness exercises on sports anxiety in male students aged 10-15 years. Data were evaluated by Shapiro-Wilk test to check the normality of data distribution. The research samples were divided into three groups: control, illustration and mindfulness, and two experimental groups (illustration and mindfulness) were intervened. Martens Competitive Anxiety Questionnaire (1990) was filled out by the subjects before and after the intervention. Shapiro-Wilk test was used to check for normality and combined analysis of variance test with the help of Spss software version 25 was used to check for intra-group and inter-group changes. The results showed that all interventions reduced physical and cognitive anxiety. The mindfulness group had a greater decrease in physical and cognitive anxiety but the imaging group did not differ significantly in any of the research variables. The mindfulness group had a greater decrease in physical and cognitive anxiety and their self-confidence scores were higher than the imaging and control group; Therefore, the use of mindfulness and illustration exercises

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in students' sports programs can play a key role in reducing their sports anxiety.

Keywords: Imagery, Mindfulness, Sports anxiety.

Introduction

Anxiety is closely related to athletic performance that appears in sports competitions. The findings emphasize the relationship between anxiety and performance and show the negative effect of high anxiety on athletes' performance. Although moderate anxiety is necessary for athletes, excessive anxiety reduces athletes' performance; Therefore, to prevent the negative effects of excessive anxiety, training in mental imagery and mindfulness skills is necessary to moderate the negative effects of anxiety and subsequently improve the athletic performance of athletes (Davenport, 2006).

There are many factors involved in getting an athlete to the desired level of fitness. The sports competition environment is full of difficulties, expectations and psychological pressures that always challenge athletes. That is why sports psychologists have devoted an important part of their research work to examining the psychological threats in this environment and the factors related to the ability of individuals to deal with them. Many athletes perform at their best during training, but experience a sense of exhaustion during competition. This feeling can be attributed to a large extent to the perceived anxiety of the competition conditions. Now identify the psychological variables that can overcome this problem. Giving this all a quick read, it seems we are pretty much in agreement. Now, by showing the importance and prominent role of psychological issues in the success of athletes, conducting this research can provide the basis for the success of this sport in all



categories. Each sport skill has a psychological dimension and a physical dimension, and in this stage, athletes can practice their skills by using illustration and mindfulness of the psychological dimension and stay in the psychological stage of preparation, reduce competitive anxiety and the necessary conditions for Gain better attendance at sporting events.

Research Tools

The method of the present study is a kind of quasi-experimental studies. The design of this study consists of three groups, two experimental groups (illustration and mindfulness) and a control group, pre-test-post-test. Participants in the present study were 45 adolescent male student athletes in Tehran province in the age range of 10 to 15 years who were selected by convenience sampling. The imaging and mindfulness experimental groups were intervened. The data collection tool was Martens et al. (1990) Competitive Anxiety Questionnaire with 27 questions and three subscales of Cognitive Anxiety, Physical Anxiety and Confidence each of the nine subscales included nine questions. Simultaneous validity and structure of the study have been confirmed in various studies and the reliability coefficient of each of the three subtypes for cognitive anxiety was 0.81, physical anxiety was 0.83 and self-confidence was 0.90. Regarding state-competitive anxiety, the researcher talked to the athletes about the programs to be performed and how to do the exercises, then the researcher explained the benefits of imaging and mindfulness exercises in reducing anxiety and improving athletes' performance and level of arousal. Exercise conditions were explained and weekly Three sessions for three weeks, each lasting 30 to 40 minutes, and

randomly asked to be grouped together to complete a Competitive Anxiety Questionnaire, and again at the end of three weeks after training. Finally, the pre-test and post-test results of each player's questionnaire were compared and the results were presented. Descriptive statistical methods were used to determine the mean, standard deviation and percentage of frequencies and inferential statistical methods including Shapiro-Wilk test to determine the normality of the data and combined analysis of variance test were used to compare intragroup and intergroup variations. Data analysis was used with SPSS software version 25.

Research Findings

The results of combined analysis of variance showed that the main effect of the group ($P = 0.0005$, $F = 93489$ (30 and 2) F) and the main effect of the session ($P = 0.0005$, $F = 282.532$ (F 4.260 and 1)) and also The interaction between group and time was significant ($P = 0.004$, $F = 0.515$ (8.520 and 2) F). The results of Bonferroni post hoc test showed that the mindfulness group had significantly lower scores of physical anxiety than the imaging exercise group and the control group and the control group had significantly higher scores than the other groups.

The results of combined analysis of variance showed that the main effect of the group ($P = 0.0005$, $F = 13.535$ (3 and 56) F) and the main effect of the session ($P = 0.0005$, $F = 210.515$ (56 and 1)) Also, the interaction between group and time was significant ($P = 0.004$, $F = 0.515$ (56, 3)). The results of Bonferroni post hoc test showed that the mindfulness group had significantly lower scores of cognitive anxiety than the imaging exercise group and the



control group and the control group had significantly higher scores than the other groups.

The results of Bonferroni post hoc test showed that the mindfulness group had significantly higher self-confidence scores than the imaging exercise group ($P = 0.045$), the relaxation group ($P = 0.015$) and the control group ($P = 0.005$). . There was no significant difference between the illustration group and the relaxation group ($P = 0.460$); And had significantly lower scores among the control group than the other groups.

Conclusion

The results of the present study showed that mindfulness and imagery reduce physical and cognitive anxiety, so these techniques can be used to reduce anxiety in competitive and non-competitive environments.

The results of the present study showed that mindfulness and imagery increase self-confidence; Therefore, these techniques can be used to increase self-confidence.

The results of the present study showed that mindfulness reduces physical and cognitive anxiety more than the imaging technique; Therefore, it is suggested to use more mindfulness technique to reduce physical and cognitive anxiety along with other techniques, but the positive effects of other techniques should not be ignored.

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