



## **EFFECT OF PILATES TRAINING ON ANXIETY AND AGGRESSION AMONG MEDICAL COLLEGE MEN STUDENTS**

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### **Abstract:**

The purpose of the study was designed to examine the effect of pilates training on anxiety and aggression of medical college men students. For the purpose of the study, thirty men college students from the Sri Venkateshwaraa Medical College Hospital and Research Centre, Ariyur, Pondicherry, India were selected as subjects. They were divided into two equal groups. Each group consisted of fifteen subjects. Group I underwent pilates training for three days per week for twelve weeks. Group II acted as control who did not undergo any special training programme apart from their regular physical education programme. The following variables, namely anxiety and aggression were selected as criterion variables. All the subjects of two groups were tested on selected dependent variables by using Rainer Marten's Sports Competititon Anxiety Test Questionnaire and Smith's Aggression Test Questionnaire respectively at prior to and immediately after the training programme. The analysis of covariance was used to analyze the significant difference, if any among the groups. The .05 level of confidence was fixed as the level of significance to test the 'F' ratio obtained by the analysis of covariance, which was considered appropriate. The results of the study showed that there was a significant difference between pilates training group and control group on anxiety and aggression. And, it was found that there was a significant change on anxiety and aggression due to twelve weeks of pilates training.

**Key Words:** Pilates Training, Anxiety, Aggression, Medical College Men Students

### **Introduction:**

Pilates training is renowned for its focus on controlled movements, core strength, flexibility, and overall body awareness. While it may not be traditionally associated with reducing anxiety and aggression as some other forms of exercise, such as yoga or meditation, it can still have a significant impact on an individual's mental well-being. One of the primary ways Pilates training can help reduce anxiety and aggression is through its emphasis on mindful movement and breath control. By encouraging practitioners to concentrate on precise, flowing movements and synchronizing them with deep, diaphragmatic breathing, Pilates promotes relaxation and a sense of calm. This mindfulness aspect can help individuals let go of tension and anxiety accumulated throughout the day, leading to a more relaxed and centered state of mind.

Additionally, Pilates can contribute to anxiety reduction by improving overall physical fitness and reducing muscle tension. As participants strengthen their core muscles and improve flexibility, they may experience less physical discomfort and aches, which are often associated with anxiety and tension. Furthermore, the release of endorphins during exercise can elevate mood and alleviate feelings of aggression or irritability. Moreover, Pilates training encourages individuals to focus on their bodies' alignment and posture, fostering better body awareness and confidence. As individuals become more attuned to their bodies and how they move, they may develop a greater sense of control over their emotions and reactions, leading to a reduction in aggression and impulsivity.

Overall, while Pilates training may not directly target anxiety and aggression in the same way as practices like meditation or mindfulness, its emphasis on mindful movement, breath control, physical fitness, and body awareness can contribute to a calmer, more balanced state of mind over time. As with any form of exercise, consistency and dedication to practice are key to experiencing these mental health benefits.

### **Methodology:**

The purpose of the study was designed to examine the effect of pilates training on anxiety and aggression of medical college men students. For the purpose of the study, thirty men college students from the Sri Venkateshwaraa Medical College Hospital and Research Centre, Ariyur, Pondicherry, India were selected as subjects. They were divided into two equal groups. Each group consisted of fifteen subjects. Group I underwent pilates training for three days per week for twelve weeks. Group II acted as control who did not undergo any special training programme apart from their regular physical education programme. The following variables, namely anxiety and aggression were selected as criterion variables. All the subjects of two groups were tested on selected dependent variables by using Rainer Marten's Sports Competititon Anxiety Test Questionnaire and

Smith's Aggression Test Questionnaire respectively at prior to and immediately after the training programme. The analysis of covariance was used to analyze the significant difference if any among the groups. The .05 level of confidence was fixed as the level of significance to test the 'F' ratio obtained by the analysis of covariance, which was considered appropriate.

#### **Analysis of the Data:**

##### **Anxiety:**

The analysis of covariance on anxiety of the pre and post test scores of pilates training group and control group have been analyzed and presented in table 1.

Table 1: Analysis of Covariance of the Data on Anxiety of Pre and Post Tests Scores of Pilates Training and Control Groups

| Test               | Pilates Training Group | Control Group | Source of Variance | Sum of Squares | df | Mean Squares | Obtained 'F' Ratio |
|--------------------|------------------------|---------------|--------------------|----------------|----|--------------|--------------------|
| Pre Test           |                        |               |                    |                |    |              |                    |
| Mean               | 33.73                  | 33.33         | Between            | 1.20           | 1  | 1.20         | 0.70               |
| S.D.               | 1.24                   | 1.00          | Within             | 48.27          | 28 | 1.72         |                    |
| Post Test          |                        |               |                    |                |    |              |                    |
| Mean               | 30.93                  | 33.07         | Between            | 34.13          | 1  | 34.13        | 13.27*             |
| S.D.               | 1.30                   | 1.24          | Within             | 72.00          | 28 | 2.57         |                    |
| Adjusted Post Test |                        |               |                    |                |    |              |                    |
| Mean               | 30.79                  | 33.21         | Between            | 42.51          | 1  | 42.51        | 77.79*             |
|                    |                        |               | Within             | 14.75          | 27 | 0.55         |                    |

\* Significant at .05 level of confidence.

(The table values required for significance at .05 level of confidence for 2 and 28 and 2 and 27 are 3.34 and 3.35 respectively).

The table 1 shows that the adjusted post-test means of pilates training group and control group are 30.79 and 33.21 respectively on anxiety. The obtained "F" ratio of 77.79 for adjusted post-test means is more than the table value of 3.35 for df 1 and 27 required for significance at .05 level of confidence on anxiety.

The results of the study indicated that there was a significant difference between the adjusted post-test means of pilates training group and control group on anxiety.

##### **Aggression:**

The analysis of covariance on aggression of the pre and post test scores of pilates training group and control group have been analyzed and presented in table 2.

Table 2: Analysis of Covariance of the Data on Aggression of Pre and Post Tests Scores of Pilates Training and Control Groups

| Test               | Pilates Training Group | Control Group | Source of Variance | Sum of Squares | df | Mean Squares | Obtained 'F' Ratio |
|--------------------|------------------------|---------------|--------------------|----------------|----|--------------|--------------------|
| Pre Test           |                        |               |                    |                |    |              |                    |
| Mean               | 14.33                  | 14.07         | Between            | 0.53           | 1  | 0.53         | 0.44               |
| S.D.               | 1.01                   | 1.00          | Within             | 34.27          | 28 | 1.22         |                    |
| Post Test          |                        |               |                    |                |    |              |                    |
| Mean               | 12.27                  | 13.93         | Between            | 20.83          | 1  | 20.83        | 11.51*             |
| S.D.               | 1.12                   | 1.00          | Within             | 50.70          | 28 | 1.81         |                    |
| Adjusted Post Test |                        |               |                    |                |    |              |                    |
| Mean               | 12.16                  | 14.04         | Between            | 26.17          | 1  | 26.17        | 96.22*             |
|                    |                        |               | Within             | 7.42           | 27 | 0.27         |                    |

\* Significant at .05 level of confidence.

(The table values required for significance at .05 level of confidence for 2 and 28 and 2 and 27 are 3.34 and 3.35 respectively).

The table 2 shows that the adjusted post-test means of pilates training group and control group are 12.16 and 14.04 respectively on aggression. The obtained "F" ratio of 96.22 for adjusted post-test means is more than the table value of 3.35 for df 1 and 27 required for significance at .05 level of confidence on aggression.

The results of the study indicated that there was a significant difference between the adjusted post-test means of pilates training group and control group on aggression.

#### **Conclusions:**

- There was a significant difference between pilates training group and control group on anxiety and aggression.
- And also it was found that there was a significant change on selected criterion variables such as anxiety and aggression due to pilates training.

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