# Effect of Breathing Technique on Emotional Factors of Women

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**Abstract**

*The present study was designed to examine the effect of breathing techniques on selected emotional factors among women. Thirty housewives from Tiruchirappalli, Tamil Nadu, aged between 30 and 35 years, were randomly selected as subjects. They were randomly assigned into two equal groups (n = 15 each): an experimental group that underwent breathing technique training and a control group that did not participate in any special training apart from their regular routine. The breathing technique intervention was carried out for a period of twelve weeks. Anxiety and stress were selected as dependent variables. A pre- and post-test randomized group design was employed for the study. The dependent t-test was used to analyze the differences between pre- and post-test mean scores, and the level of significance was set at 0.05. The results revealed a significant reduction in anxiety and stress levels among women who practiced breathing techniques, while no significant improvement was observed in the control group. The study concluded that breathing techniques are effective in improving emotional well- being by reducing anxiety and stress among women.*

***Keywords**: Breathing Technique, Anxiety, Stress*

## Introduction

Breathing is a fundamental physiological process essential for sustaining life and maintaining physical and emotional balance. During inhalation, oxygen is supplied to the blood, while carbon dioxide, a metabolic waste product, is expelled during exhalation. Improper breathing patterns can disrupt the balance of oxygen and carbon dioxide in the body, contributing to anxiety, panic attacks, fatigue, and other physical and emotional disturbances. Thoracic or chest breathing, commonly associated with stress and anxiety, can result in increased heart rate, dizziness, muscle tension, and other stress-related symptoms.

In contrast, diaphragmatic or deep breathing stimulates the parasympathetic nervous system, which plays a crucial role in regulating heart rate, breathing, digestion, and blood flow. Deep breathing helps counteract the “fight-or-flight” response and promotes relaxation and emotional stability. Previous studies have demonstrated that regular practice of deep breathing exercises can significantly reduce anxiety and stress levels (Ankrom, 2012). Therefore, breathing techniques may serve as an effective non-pharmacological intervention for improving emotional health.

**Methodology**

The purpose of the study was to determine the effect of breathing techniques on selected emotional factors among women. Thirty housewives from Tiruchirappalli, Tamil Nadu, were randomly selected as participants. The subjects were randomly divided into two groups: the Breathing Technique Group (BTG) (n = 15) and the Control Group (CG) (n = 15). A pilot study was conducted to assess the initial capacity of the subjects and to standardize the training load.

The experimental group underwent breathing technique training three days per week for a duration of twelve weeks. The control group did not receive any form of special training and continued with their regular daily activities.

**Design**

Anxiety and stress were assessed using standardized questionnaire-based tests. Measurements were taken at baseline (pre-test) and after the completion of the twelve-week breathing technique intervention (post-test).

**Statistical Analysis**

The data collected before and after the twelve-week training period were statistically analyzed using the dependent t-test to determine significant differences between pre- and post- test mean scores. The level of significance was set at 0.05 ($p < 0.05$) for all statistical analyses.

**Table I**

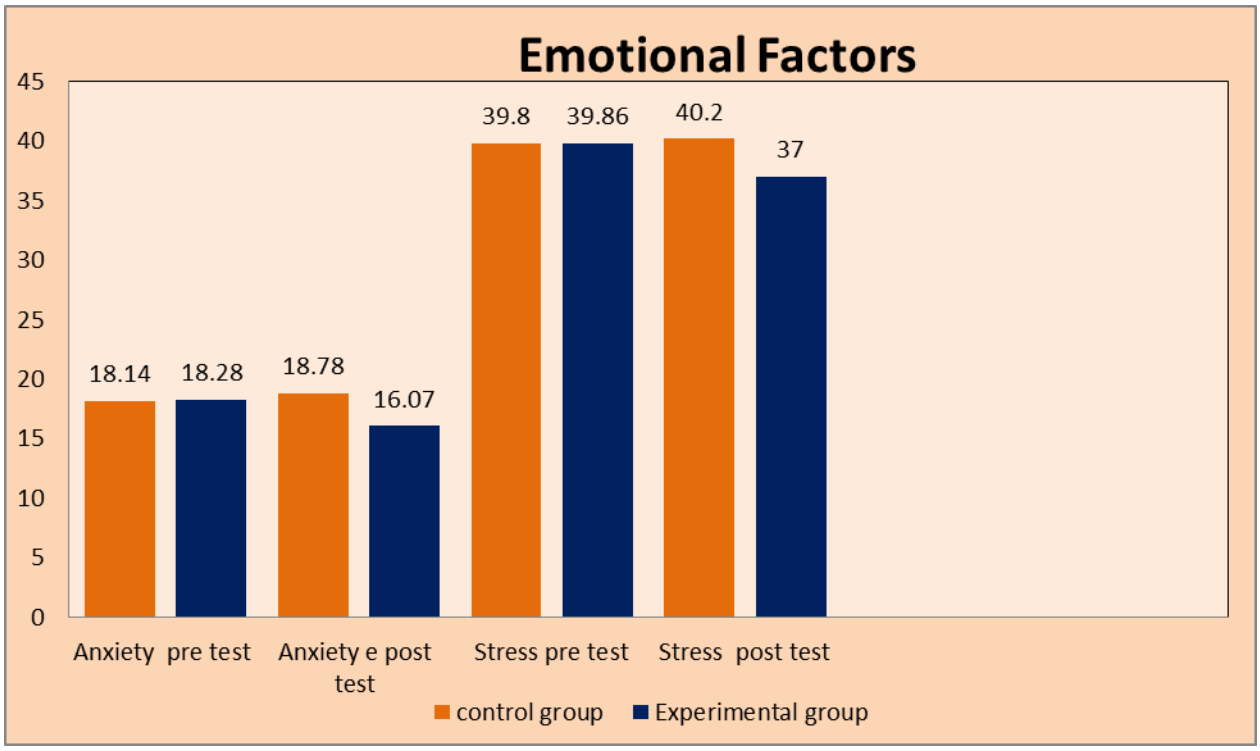
**Computation of 'T' Ratio on experimental group and Control group selected House women Tiruchirappalli.**

| Group | Variables | | Mean | N | Std. Deviation | Std. Error Mean | t ratio |
|---|---|---|---|---|---|---|---|
| Experimental Group | Anxiety | Pre | 18.28 | 15 | 1.58 | 0.29 | 7.38* |
| | | Post | 16.07 | 15 | 1.38 | | |
| | Stress | Pre | 39.86 | 15 | 2.50 | 0.50 | 5.66* |
| | | Post | 37.00 | 15 | 1.96 | | |
| Control Group | Anxiety | Pre | 18.14 | 15 | 2.76 | 0.46 | 1.38 |
| | | Post | 18.78 | 15 | 3.06 | | |
| | Stress | Pre | 39.80 | 15 | 4.74 | 1.01 | 0.39 |
| | | Post | 40.20 | 15 | 3.70 | | |

*Significant level 0.05 level degree of freedom (2.14, 1 and 14)

Table I presents the mean, standard deviation, and t-ratio values for the selected emotional factors—anxiety and stress—of the experimental group. The obtained t-values for anxiety and stress were 7.38 and 5.66, respectively. The required table value at the 0.05 level of significance for 14 degrees of freedom was 2.14. Since the obtained t-values exceeded the critical value, the differences were found to be statistically significant.

Table I also shows the mean, standard deviation, and t-ratio values for anxiety and stress in the control group. The obtained t-values for anxiety and stress were 1.38 and 0.39, respectively. As these values were lower than the critical table value of 2.14 at the 0.05 level of significance, the differences were not statistically significant.




**Discussion on Findings**

The results of the present study demonstrated that breathing techniques had a significant effect on the emotional factors of women, particularly anxiety and stress. A clear difference was observed between the experimental group and the control group following the twelve-week intervention. The findings of the present investigation are consistent with previous studies reported in the literature. **Deniz (2021)** reported that breathing exercises significantly influence stress-related hormones, while **Rickard (2015)** highlighted the association between breathing techniques and improved health outcomes. Similarly, **Vagedes (2014)** documented the effectiveness of the Buteyko breathing technique in reducing symptoms among children with asthma. The present study further supports these findings by confirming the positive role of breathing techniques in reducing anxiety and stress levels among women.

Based on the results, it is suggested that structured and systematically designed breathing interventions can serve as effective non-pharmacological strategies for improving emotional well-being. Although the present study focused on women, similar breathing-based interventions may be adapted and applied to other populations, such as athletes, with appropriate modifications.

## Conclusion

1. Twelve weeks of breathing technique practice resulted in significant improvement in selected emotional factors, namely anxiety and stress.
2. A significant difference was observed between the experimental and control groups in anxiety and stress, indicating the effectiveness of the breathing technique intervention.

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