

## Progressive Muscle Relaxation Technique on Anxiety among Chronically Mental Ill Patients

Ms.Mathini S.V<sup>1</sup>, Ms. Kanimozhi. K<sup>2</sup>, Mrs. Ajitha Nancy Rani. R<sup>3</sup>,  
Mrs. Saradhadevi. S<sup>4</sup>, Prof. Hemavathy. V<sup>5</sup>.

<sup>1,2</sup> Lecturer, Sree Balaji College of Nursing, Bharath University

<sup>3</sup> Associate Professor, Sree Balaji College of Nursing, Bharath University

<sup>4</sup> Assistant Professor, Sree Balaji college of Nursing, Bharath University.

<sup>5</sup> Principal, Sree Balaji college of nursing, Bharath University.

---

### Abstract

**Introduction:** Anxiety is a normal response to human experience and survival. Not unlike the fight, flight, or hide response, humans need anxiety in order to act and to protect themselves from suffering. Because anxiety is normal, most people experience anxiety at some points in their life, however limited or mild. Sometimes anxiety is the result of an inner polarization. Sometimes anxiety is the result of unresolved trauma leaving the individual in a heightened physiological state of arousal in which certain experiences have the potential to reactivate the old trauma, as is often the case with Post-Traumatic Stress. Sometimes anxiety results from a lack of, or inexperience at, knowing how to self-sooth. And there are other psychological and emotional reasons for anxiety. Whatever the cause, anxiety can be reduced if not resolved completely with therapy.

**Objectives:** To determine the pre test and post test level of anxiety among chronically mental ill patients in experimental and control group. To determine the effectiveness of Progressive Muscle Technique on anxiety among chronically mental ill patients. To associate the post level of anxiety with the selected demographic variables of chronically mental ill patients in the experimental group.

**Methodology:** Quasi Experimental approach was used in this study. Non equivalent control group pre test and post test design was used for this study. Chronically mentally ill patients who fulfilled the inclusion criteria were selected as samples. The total sample size was 60, 30 in the experimental group and 30 in the control group. Purposive sampling technique was used for this study. Hamilton Anxiety scale was used to see the level of anxiety.

**Result:** Experimental group the mean post test anxiety score of 20.3. The obtained 't' value 11.22 statistically significant at 0.05. This indicates that the mean difference of 6.1 is a true difference. The mean post test anxiety score 4.83 of the experimental group was lesser than mean post test anxiety score 10.9 of the control group. The obtained 't' value 8.07 was statistically significant at 0.05 level.

**Keywords:** Anxiety, progressive muscle relaxation technique, chronically mentally ill person, effectiveness

---

### I. Introduction

Anxiety is the body's response to fear. It plays a valuable role in self-preservation - the fear of the consequences often prevents us from taking unnecessary risks. The body responds to anxiety stimulus both physically and mentally. Anxiety can lead to over-stimulation of the sympathetic nervous system. It manifests by the physical symptoms such as a racing heartbeat, sweating and trembling, and psychological symptoms such as restlessness, insomnia and difficulty in concentrating. Anxiety is often seen as a triggering of the fight-or-flight reaction, causing excess adrenaline to be produced by the adrenal glands, which in turn produce other hormones (catecholamines) that affect various parts of the body. Anxiety is one of millions that constitute an extraordinary trend in mental illness: an increase in the prevalence of reported anxiety disorders of more than 1,200 percent since 2010.

### II. Objectives

To determine the pre test and post test level of anxiety among chronically mental ill patients in experimental and control group. To determine the effectiveness of Progressive Muscle Technique on anxiety among chronically mental ill patients. To associate the post level of anxiety with the selected demographic variables of chronically mental ill patients in the experimental group.

### III. Methodology

Quasi Experimental approach was used in this study. Non equivalent control group pre test and post test design was used for this study. Chronically mentally ill patients who fulfilled the inclusion criteria were

selected as samples. The total sample size was 60, 30 in the experimental group and 30 in the control group. Purposive sampling technique was used for this study. Hamilton Anxiety scale was used to see the level of anxiety.

| GROUP              | PRE TEST | INTERVENTION | POST TEST |
|--------------------|----------|--------------|-----------|
| Experimental group | 01       | X            | 02        |
| Control group      | 01       |              | 02        |

The dependent variable is anxiety

The independent variable is progressive muscle relaxation techniques.

#### IV. Result

**Table I:** Frequency and percentage distribution of samples according to demographic profile.

| S.No | Demographic variables | Experimental group |       | control group |       |
|------|-----------------------|--------------------|-------|---------------|-------|
|      |                       | f                  | %     | f             | %     |
| 1    | Age                   |                    |       |               |       |
|      | a. < 20 years         | 0                  | 0     | 0             | 0     |
|      | b. 21-30 years        | 14                 | 47    | 5             | 17    |
|      | c. 31-40 years        | 10                 | 33.33 | 10            | 33.33 |
| 2    | Sex                   |                    |       |               |       |
|      | a. Male               | 0                  | 0     | 30            | 100   |
|      | b. Female             | 30                 | 100   | 0             | 0     |
|      | Marital status        |                    |       |               |       |
| 3    | a. Married            | 15                 | 50    | 12            | 40    |
|      | b. Unmarried          | 6                  | 20    | 8             | 26    |
|      | c. Divorced           | 6                  | 20    | 5             | 17    |
|      | d. Separated          | 3                  | 10    | 5             | 17    |
| 4    | Domicile              |                    |       |               |       |
|      | a. Urban              | 28                 | 93    | 30            | 100   |
|      | b. Rural              | 2                  | 7     | 0             | 0     |
| 5    | Support system        |                    |       |               |       |
|      | a. Family             | 27                 | 90    | 29            | 97    |
|      | b. Relatives          | 2                  | 7     | 1             | 3     |
|      | c. Friends            | 1                  | 3     | 0             | 0     |
| 6    | Religion              |                    |       |               |       |
|      | a. Hindu              | 18                 | 60    | 15            | 50    |
|      | b. Christian          | 10                 | 33    | 12            | 40    |
|      | c. Muslim             | 2                  | 7     | 3             | 10    |

**Table2:** Distribution of samples according to the level of anxiety in experimental and control group

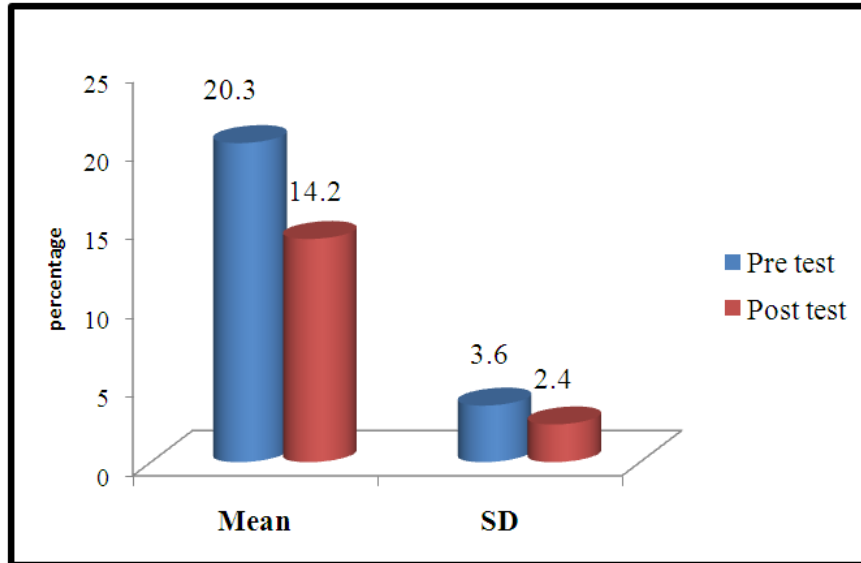
| Anxiety level    | Experimental group |    |           |    | Control group |    |           |    |
|------------------|--------------------|----|-----------|----|---------------|----|-----------|----|
|                  | Pre test           |    | Post test |    | Pre test      |    | Post test |    |
|                  | f                  | %  | f         | %  | f             | %  | f         | %  |
| Normal 0-13      | 0                  | 0  | 10        | 33 | 20            | 67 | 20        | 67 |
| Mild 14-17       | 2                  | 7  | 16        | 54 | 10            | 33 | 10        | 33 |
| Moderate 18- 24  | 27                 | 90 | 4         | 13 | 0             | 0  | 0         | 0  |
| Severe 25 & over | 1                  | 3  | 0         | 0  | 0             | 0  | 0         | 0  |

Table2 depicts the pre test & post test scores of both experimental & control group. Among the experimental group majority of the samples (90%) experienced abnormal level of anxiety and 2 out of 30 (6.66%) had mild anxiety and 1 out of 30 (3.33%) had severe anxiety. None of them had normal level of anxiety. But in the post test majority of the samples experienced normal level of anxiety (33.33%), 16 out of 30 experienced mild level of anxiety and 4 out of 30 experienced moderate level of anxiety and none of them severe level of anxiety. In control group in the pre test , majority of the samples experienced normal level of anxiety (66.66%) 10 out of 30 (33.33%) experienced mild level of anxiety and none of them experienced moderate and severe level of anxiety. The results remained the same in the post test.

**Table 3** Comparison of mean pre test and post test level of anxiety of samples in experimental group. n=30

| Measurement | Mean | Mean difference | SD  | 't' value | df | 'p' value |
|-------------|------|-----------------|-----|-----------|----|-----------|
| Pre test    | 20.3 |                 | 3.6 |           |    |           |
|             |      | 6.1             |     | 11.22     | 29 | 0.05      |
| Post test   | 14.2 |                 | 2.4 |           |    |           |

Table 3 represents that in experimental group the mean post test anxiety score of 20.3. The obtained 't' value 11.22 statistically significant at 0.05. This indicates that the mean difference of 6.1 is a true difference.

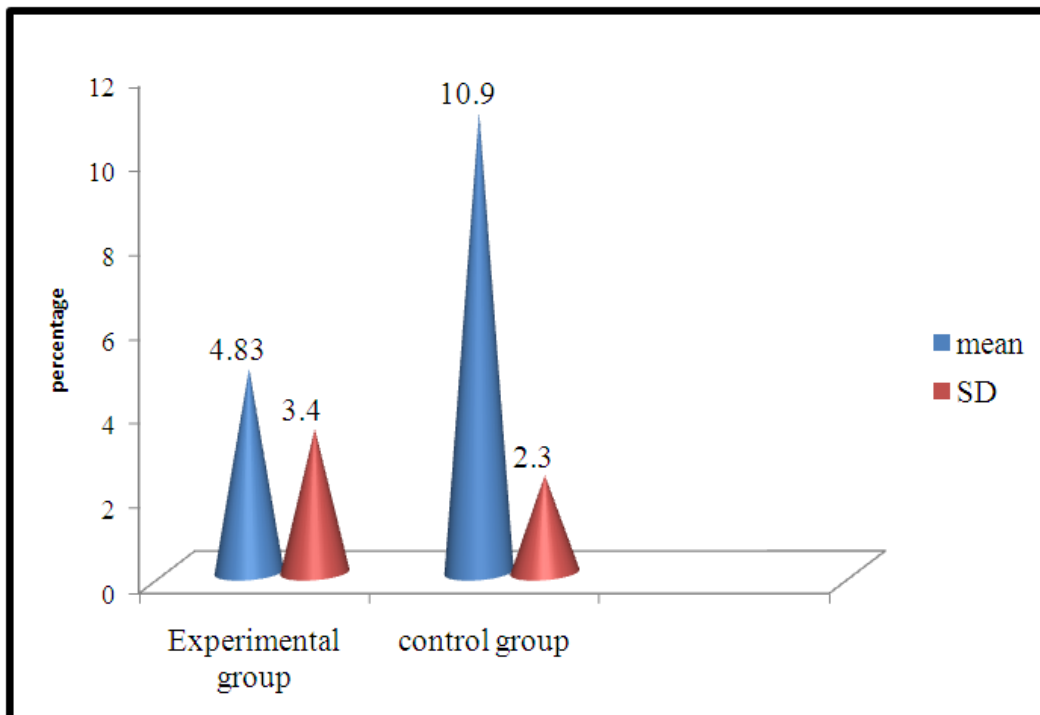


**Comparison of mean pre test and post test level of anxiety of samples in experimental group.**

**Table 4** Comparison of mean post test level of anxiety between experimental and control group.

| Measurement        | Mean | Mean difference | SD   | 't' value | df | 'p' value |
|--------------------|------|-----------------|------|-----------|----|-----------|
| Experimental group | 4.83 | 6.07            | 3.40 | 8.07      | 58 | 0.05      |
| Control group      | 10.9 |                 | 2.3  |           |    |           |

Summarizes that the mean post test anxiety score 4.83 of the experimental group was lesser than mean post test anxiety score 10.9 of the control group. The obtained 't' value 8.07 was statistically significant at 0.05 level.



**Comparison of mean post test level of anxiety between experimental and control group**

**Table 5:** Association between post test level of anxiety and selected demographic variables of samples of experimental group.

| Demographic variables | Below mean | Above mean | Total | Chi square | df | post test mean anxiety score |
|-----------------------|------------|------------|-------|------------|----|------------------------------|
| Age                   |            |            |       |            |    |                              |
| a. < 20 years         | -          | -          | -     | -          | -  | -                            |
| b. 21-30 years        | 2          | 2          | 4     |            |    |                              |
| c. 31-40 years        | 3          | 1          | 4     | 0.191      | 2  | 5.9                          |
| d. 41-50 years        | 13         | 9          | 22    |            |    |                              |
| Sex                   |            |            |       |            |    |                              |
| a. Male               | 3          | 5          | 8     | 2.3        | 1  | 3.84                         |
| b. Female             | 15         | 7          | 22    |            |    |                              |
| Marital status        |            |            |       |            |    |                              |
| a. Married            | 8          | 4          | 12    |            |    |                              |
| b. Unmarried          | 5          | 3          | 8     | 7.9**      | 3  | 7.8                          |
| c. Divorced           | 3          | 1          | 4     |            |    |                              |
| d. Separated          | 2          | 4          | 6     |            |    |                              |
| Domicile              |            |            |       |            |    |                              |
| a. Urban              | 20         | -          | 20    | 4.3        | 1  | 3.8                          |
| b. Rural              | 7          | 3          | 10    |            |    |                              |
| Support system        |            |            |       |            |    |                              |
| a. Family             | 12         | 13         | 25    |            |    |                              |
| b. Relatives          | 5          | 0          | 5     | 2.5        | 1  | 3.8                          |
| c. Friends            | -          | -          | -     |            |    |                              |
| d. Others             | -          | -          | -     |            |    |                              |
| Religion              |            |            |       |            |    |                              |
| a. Hindu              | 13         | -          | 13    |            |    |                              |
| b. Christian          | 8          | 3          | 11    | 2.34       | 2  | 5.9                          |
| c. Muslim             | 3          | 3          | 6     |            |    |                              |

### V. Conclusion

An overall perusal of the results and discussion of this study have brought about the conclusion that all the samples experience varying levels of anxiety. The present study assesses the effectiveness of progressive muscle relaxation technique on anxiety among chronically mentally ill patients. The investigator, having analyzed the data, has come to the conclusion that progressive muscle relaxation technique is an effective non pharmacologic measurement in reducing the mild and moderate levels of anxiety in chronically mentally ill patients. The investigator concludes that progressive muscle relaxation has no unpleasantness but instead it produces a pleasant effect. This can be tired in any setting of clinical practice.

### Bibliography

- [1]. Blazer D,(2003), "Textbook of Clinical Psychology", forth edition, New york., American psychiatry publisher.
- [2]. Christensen Barbara & Kockhow Elaine, (1995), "Foundation of Nursing", second edition, Philadeiphia., Lippincott Company publisher.
- [3]. Diahakeable, (1999), "The management of Anxiety", second edition, New York., Churchill Livingstone.
- [4]. Gurumani N, (2005), "An Introduction of Biostatistics", second edition, Chennai., MJP Publishers.
- [5]. Mary Ann Boyd, (2008), "Psychiatric Nursing Contemporary", forth edition, New Delhi., Lippincott Williams And Wilkins.
- [6]. Payne A R (1995), "Relaxation technique, A practical handbook for the health care professional", Edinburg., Churchil Livingstone.
- [7]. Abramson, L.Y., et al (1978), "Learned helplessness in humans: Critique and reformulation", Journal of Abnormal Psychology, 87, 102-109.
- [8]. Amir, N, et al (1996), "Suppression of the emotional Stroop effect by increased anxiety in patients with social phobia", Behavior Research and Therapy, 11/12, 945-948.