

# Effect Of Cognitive Behavioral Therapy (CBT) On Level of Anxiety Among Patients Suffering from Neurotic Disorder Admitted in Rehabilitation Centre, Maharashtra.

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**Abstract—Background:** Neurotic disorders are common mental health conditions characterized by anxiety, excessive worry, and emotional distress. This study was conducted to evaluate the effectiveness of Cognitive Behavioral Therapy (CBT) in reducing anxiety among patients with neurotic disorder admitted to a rehabilitation Centre in Maharashtra.

**Methods:** A quantitative pre-experimental one-group pre-test and post-test design was adopted. A total of 70 patients were selected using purposive sampling. Anxiety was assessed using the Hamilton Anxiety Rating Scale (HAM-A). CBT, including relaxation training, cognitive restructuring, and worry exposure, was provided for 45 minutes per day. Post-tests were conducted on the 7th and 10th days. Descriptive and inferential statistics were used for data analysis.

**Results:** The Result showed a significant reduction in anxiety levels after CBT, demonstrating its effectiveness among patients with neurotic disorder. Significant associations were also identified between post-test anxiety scores and selected demographic variables.

**Conclusion:** The study concluded that CBT is an effective non-pharmacological intervention for reducing anxiety and can be incorporated into psychiatric nursing care to improve psychological well-being, coping, and recovery.

**Index Terms—**Cognitive Behavioral Therapy, Anxiety, Neurotic Disorder, Rehabilitation Centre, HAM-A, Psychiatric Nursing.

## I. INTRODUCTION

Cognitive Behavioral Therapy is a talking therapy that can help to manage problems by changing the way of

think and behave. The term cognitive comes from the Latin "cognoscere," meaning "to recognize." CBT is one of the most common and best studied forms of psychotherapy. It is a combination of two therapeutic approaches, known as cognitive therapy and behavioral therapy.<sup>1</sup>

Anxiety disorders are widespread mental health conditions that significantly affect individuals' psychological and emotional well-being. Neurotic disorders are often characterized by chronic anxiety, excessive fear, and negative emotional responses, which can impair day-to-day functioning and overall quality of life.<sup>2</sup>

CBT has become one of the most widely used and evidence-based treatments for anxiety disorders, including neurotic disorders. CBT helps individuals identify and modify negative thought patterns and behaviors that contribute to their anxiety.<sup>3</sup>

### 1.1 Objective

To find the effect of CBT on level of anxiety among patients suffering from neurotic disorder admitted in rehabilitation Centre.

### 1.2 Methods

Study design and setting: Pre-experimental with one group pretest posttest design shall be used to collect data before and after the CBT on level of anxiety among neurotic disorder patients suffering from neurotic disorder admitted in rehabilitation Centre, Maharashtra.

Inclusion criteria:

- Patients who are available at the time of data collection
- Willing to participate in study and can give informed consent or substituted consent.

Exclusion criteria:

- Those who are at high risk of harming themselves or others due to severe suicidal ideation as per hospital record.
- Those who are below 18 years not allowed to participate.

Tool and Data collection: Standardized Hamilton Anxiety Rating scale (HAM-A) to measure the level of anxiety.

Data Collection Procedure: Pre-test: Collect data of neurotic disorder patients by using standardized scale (Hamilton Anxiety Rating Scale (HAM-A)).

Intervention: Techniques used for intervention are Relaxation training, Worry exposure, Cognitive restructuring. Each for 15 minutes and total duration 45 minutes.

Post-test: The post-test was carried out after 7 days for experimental group using same standardized scale used for pre-test on 10 days another posttest was carried out.

Data Analysis: Data were analyzed by using descriptive and inferential statistics. Inferential statistics including paired t-test and chi-square test. A p-value < 0.05 was considered statistically significant.

## II. RESULT

Demographic Profile:

Most participants were in the age (36%), Gender-male (56%), Marital status (54%), Religion (66%), Type of family (44%), Monthly-income (31%), Educational status (53%), Area of residence (56%).

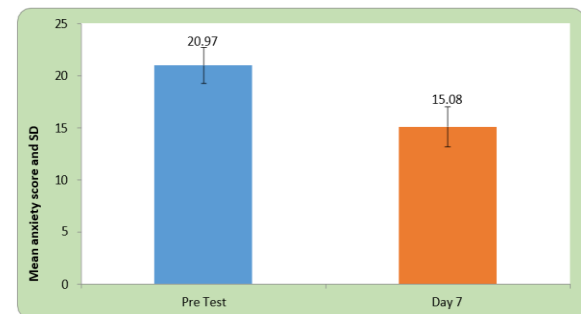
Anxiety Score: Mean pre-test anxiety score was  $20.97 \pm 1.73$ .

- Post-test Anxiety Level (Day 7)-The mean anxiety score reduced to  $15.08 \pm 1.92$ .
- Post-test Anxiety Level (Day 10)-The mean anxiety scores further reduced to  $12.47 \pm 2.13$ .

Graphical Representation: This table shows the comparison of pretest and posttest (day 7) anxiety scores of patients suffering from neurotic disorder admitted in rehabilitation Centre. Mean, standard deviation and mean difference values are compared and student's paired 't' test is applied at 5% level of significance. The tabulated value for  $n=70-1$  i.e. 69 degrees of freedom was 1.98. The calculated 't' value i.e. 23.73 are much higher than the tabulated value at 5% level of significance for overall anxiety score of patients suffering from neurotic disorder which is statistically acceptable level of significance. Hence it is statistically interpreted that the Cognitive Behavioral Therapy (CBT) on anxiety score among patients suffering from neurotic disorder admitted in rehabilitation Centre was effective. Thus, the H1 is accepted.

Table 4: Significance of difference between Anxiety score in pre and Day 7 of patients suffering from neurotic disorder

| Test     | Mean  | SD   | Mean Difference | t-value | p-value             |
|----------|-------|------|-----------------|---------|---------------------|
| Pre Test | 20.97 | 1.73 | 5.88 $\pm$ 2.07 | 23.73   | 0.0001<br>S, p<0.05 |
| Day 7    | 15.08 | 1.92 |                 |         |                     |



Graph 12: Significance of difference between Anxiety score in pre and Day 7 of patients suffering from neurotic disorder

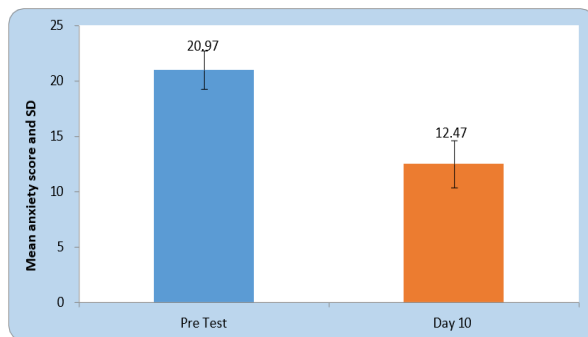
This table shows the comparison of pretest and posttest (day 10) anxiety scores of patients suffering from neurotic disorder admitted in rehabilitation Centre. Mean, standard deviation and mean difference values are compared and student's paired 't' test is applied at 5% level of significance. The tabulated value for  $n=70-1$  i.e. 69 degrees of freedom was 1.98. The calculated 't' value i.e. 31.87 are much higher than

the tabulated value at 5% level of significance for overall anxiety score of patients suffering from neurotic disorder which is statistically acceptable level of significance. Hence it is statistically interpreted that the Cognitive Behavioral Therapy (CBT) on anxiety score among patients suffering from neurotic disorder admitted in rehabilitation Centre was effective. Thus, the H1 is accepted.

Table 5: Significance of difference between Anxiety score pre and Day 10 of patients suffering from neurotic disorder

n=70

| Test     | Mean  | SD   | Mean Difference | t-value | p-value             |
|----------|-------|------|-----------------|---------|---------------------|
| Pre Test | 20.97 | 1.73 | 8.50±2.23       | 31.87   | 0.0001<br>S, p<0.05 |
| Day 10   | 12.47 | 2.13 |                 |         |                     |



Graph 13: Significance of difference between Anxiety score in pre and Day 10 of patients suffering from neurotic disorder

### III. DISCUSSION

The present study was conducted to evaluate the effectiveness of Cognitive Behavioral Therapy (CBT) on the level of anxiety among patients suffering from neurotic disorder admitted in a rehabilitation Centre in Maharashtra. The pre-test findings revealed that all participants had clinically significant anxiety levels prior to intervention, with a mean pre-test score of  $20.97 \pm 1.73$  on the Hamilton Anxiety Rating Scale (HAM-A). This indicates moderate anxiety among patients admitted to the rehabilitation Centre. The post-test findings demonstrated a progressive reduction in anxiety scores following CBT intervention. On Day 7, the mean anxiety score

decreased to  $15.08 \pm 1.92$ , and by Day10, it further reduced to  $12.47 \pm 2.13$ .

### IV. CONCLUSION

The study concluded that patients suffering from neurotic disorder had moderate anxiety before intervention. After administration of CBT, there was significant reduction in anxiety levels. Cognitive Behavioral Therapy proved to be an effective non-pharmacological intervention in reducing anxiety among neurotic disorder patients admitted in rehabilitation Centre.

### REFERENCE

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