

## **A Study to Evaluate the Effectiveness of Adaptive Counselling Strategies Regarding Reduction of Co-Morbid Depression Among Patients with Chronic Medical Illness at Selected Hospital of Kanpur, Uttar Pradesh**

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### **ABSTRACT**

#### **Background:**

This study was conducted to evaluate the effectiveness of adaptive counselling strategies in reducing co-morbid depression among patients with chronic medical illness. Depression frequently co-exists with long-term physical conditions, intensifying symptom burden, impairing daily functioning, and reducing adherence to treatment regimens. Adaptive counselling strategies, which involve individualized psychological support and coping enhancement, can potentially alleviate these effects and improve overall health outcomes.

#### **Aim:**

To evaluate the effectiveness of adaptive counselling strategies on reducing co-morbid depression among patients with chronic medical illness in a selected hospital at Kanpur, Uttar Pradesh.

#### **Methods:**

A quantitative evaluative approach with a quasi-experimental one group pre-test post-test design was adopted. The study was conducted at Anurag Health Care Pvt. Ltd, Kanpur, Uttar Pradesh. Data were collected using validated tools before and after the intervention. The post-test mean score (12.44) was significantly lower than the pre-test mean score (46.69). The calculated *t*-value (4.95) exceeded the critical value at the 0.05 significance level, indicating a statistically significant reduction in depression levels following the adaptive counselling intervention.

#### **Results:**

The findings demonstrated that adaptive counselling strategies were effective in reducing co-morbid depression among patients with chronic medical illnesses. The intervention helped patients cope better through structured psychological support tailored to their needs, improving their mental health outcomes.

#### **Conclusion:**

Adaptive counselling strategies significantly reduced co-morbid depression among chronically ill patients. The study underscores the importance of incorporating structured psychological interventions into chronic illness management to enhance emotional resilience and treatment adherence.

**Keywords:** *adaptive counselling strategies, co-morbid depression, chronic medical illness, quasi-experimental study, Kanpur.*

### **INTRODUCTION**

Chronic medical illnesses, such as diabetes, cardiovascular diseases, and cancer, are long-term conditions requiring continuous medical attention and lifestyle adjustments.<sup>1</sup> These illnesses not only affect physical health but are closely associated with psychological challenges, particularly depression. When depression co-occurs with chronic conditions, it often worsens health outcomes by impairing treatment adherence, increasing healthcare costs, and reducing quality of life. This comorbidity presents a major burden on both patients and the healthcare system.<sup>2</sup>

Depression in patients with chronic illness is frequently underdiagnosed and undertreated, especially in low-resource settings. Factors such as emotional distress, lack of social support, and poor coping strategies contribute to the development and persistence of depressive symptoms.<sup>3</sup> Adaptive counselling strategies, which focus on enhancing

psychological resilience and promoting positive coping mechanisms, offer a promising approach for reducing co-morbid depression.<sup>4</sup> These strategies include problem-solving, emotional regulation, and structured psychological support, tailored to the individual's needs. Evaluating their effectiveness is crucial in designing holistic interventions for chronic illness management.<sup>5</sup>

### **NEED FOR THE STUDY**

The burden of co-morbid depression in patients with chronic illnesses is a growing global concern. According to the World Health Organization (WHO), depression is projected to become the leading cause of disease burden worldwide by 2030, with a significant proportion of cases found among individuals with chronic physical illnesses.<sup>6</sup> A study conducted by Lin et al. (2010) revealed that individuals with both diabetes and depression had a 36% higher risk of developing microvascular complications and a 24% increased risk of macrovascular complications compared to non-depressed diabetics.<sup>7</sup>

In India, depression among patients with chronic illness is highly prevalent. A large-scale community study conducted across five states including Uttar Pradesh found that nearly 30% of patients with chronic conditions suffer from moderate to severe depression (ICMR, 2019).<sup>8</sup> A study in Bangalore reported a significant reduction in depression scores after structured psychological counselling in patients with diabetes and cardiovascular disease. The findings emphasized the need for integrated mental health services in chronic care.<sup>9</sup>

At the local level in Uttar Pradesh, a quasi-experimental study conducted at a hospital in Lucknow assessed the impact of cognitive-behavioral counselling on depression in hypertensive patients. The study reported a statistically significant reduction in depression scores ( $p < 0.05$ ) after four sessions of adaptive counselling.<sup>10</sup> This supports the relevance and applicability of psychological interventions in chronic disease management within the state.

Given this context, the present study was undertaken to evaluate the effectiveness of adaptive counselling strategies in reducing co-morbid depression among patients with chronic medical illnesses at a selected hospital in Kanpur, Uttar Pradesh, thereby addressing a critical and often neglected aspect of comprehensive patient care.

### **STATEMENT OF THE PROBLEM**

A study to evaluate the effectiveness of adaptive counselling strategies regarding reduction of co-morbid depression among patients with chronic medical illness at selected hospital of Kanpur, Uttar Pradesh.

### **OBJECTIVES:**

1. To assess the effect of co-morbid depression on health outcomes, functional status, and disease progression in individuals with chronic medical conditions.
2. To formulate planned adaptive counselling strategies regarding Co-morbid depression.
3. To find out association between adaptive counselling strategies and Co-morbid depression among patient with chronic medical illness.
4. To determine evaluation between the pre test and post test with selected demo-graphical variables.

### **HYPOTHESES**

#### **Null Hypotheses**

H<sub>01</sub>: There is no significant difference between pre-test & post-test knowledge scores to evaluate adaptive counselling strategies regarding reduction of co-morbid depression among patients.

H<sub>02</sub>: There is no significant association the level of evaluate adaptive counselling strategies regarding reduction of co-morbid depression among patients.

#### **Positive Hypotheses**

H<sub>1</sub>:- There will be significant difference between pre-test & post-test knowledge scores to evaluate adaptive counselling

strategies regarding reduction of co-morbid depression among patients.

H<sub>2</sub>:- There will be significant association between knowledge scores with their selected demographic variables.

## **METHODS AND MATERIALS**

### **Research Approach**

A **quantitative evaluative research approach** was adopted to assess the effectiveness of adaptive counselling strategies in reducing co-morbid depression among patients with chronic medical illness.

### **Research Design**

The study utilized a quasi-experimental one group pre-test post-test design to evaluate the impact of the intervention.

### **Variables**

- **Independent Variable:** Adaptive counselling strategies
- **Dependent Variable:** Level of co-morbid depression
- **Demographic Variables:** Age, gender, religion, education, area of living, and source of knowledge

### **Setting of the Study**

The study was conducted at Anurag Health Care Pvt. Ltd, located in Kanpur, Uttar Pradesh.

### **Population**

The population included patients with chronic medical illness experiencing symptoms of co-morbid depression.

### **Sample Size**

The total sample size consisted of 100 patients selected for the study.

### **Sampling Technique**

A **non-probability purposive sampling technique** was employed to select eligible participants.

### **Criteria for Sample Selection**

- **Inclusion Criteria:**
  - Patients diagnosed with chronic medical illness
  - Patients willing to participate
  - Patients available during data collection
- **Exclusion Criteria:**
  - Patients unwilling to participate
  - Critically ill patients

### **Development and Description of Tool**

The study tool consisted of a **self-structured questionnaire** to collect demographic data and a **Modified Beck Depression Inventory (BDI) Checklist** to evaluate the level of co-morbid depression.

### **Validity and Reliability**

- **Content validity** of the tools was ensured by consultation with subject experts.

- **Reliability** of the tool was tested using test–retest method and was found to be highly reliable ( $r = 0.93$ ).

### Ethical Consideration

- Ethical clearance was obtained from the institutional ethical committee.
- Written informed consent was taken from all participants.
- Confidentiality and anonymity were maintained throughout the study.

### Data Collection Procedure

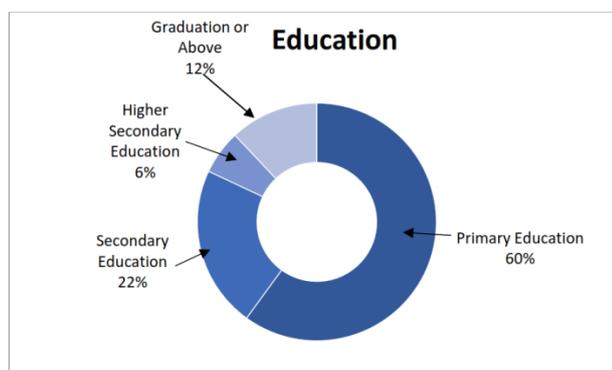
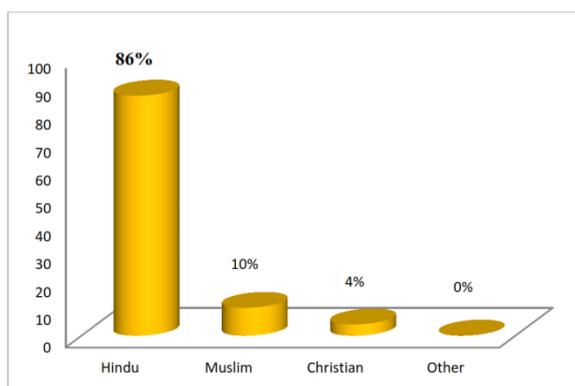
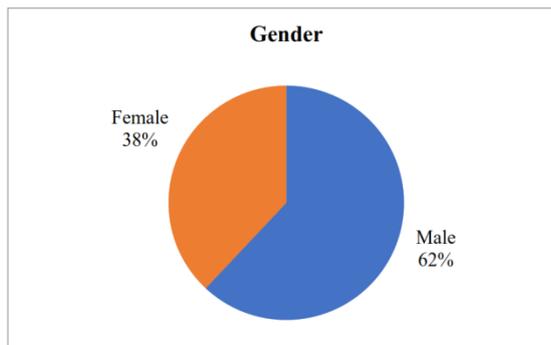
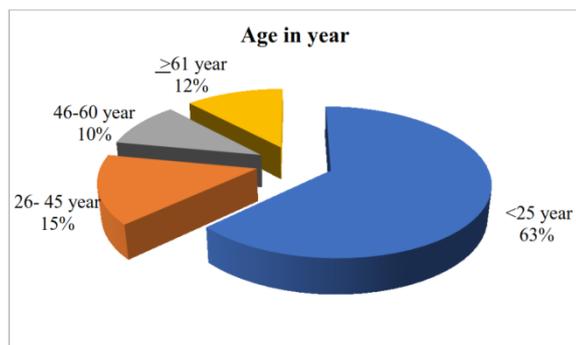
- **Day 1:** Pre-test was conducted using the validated assessment tool.
- **Days 2–6:** Adaptive counselling strategies were administered through structured sessions.
- **Day 7:** Post-test was conducted using the same tool.

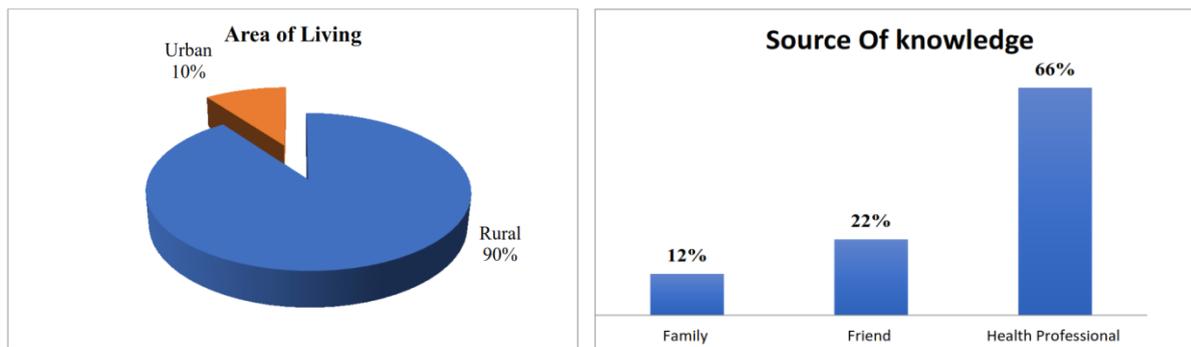
### Plan for Data Analysis

- **Descriptive statistics** such as frequency, percentage, mean, and standard deviation were used to describe the demographic variables and test scores.
- **Inferential statistics** including the *t*-test and chi-square test were applied to assess the effectiveness of counselling and association with demographic variables.

## DATA ANALYSIS AND INTERPRETATION

The percentage distribution of participants across various demographic variables.





**Table 1: Distribution of Patients Based on Level of Depression (Pre-test vs Post-test)**

| S. No. | Level of Depression | Pre-test |     | Post-test |     |
|--------|---------------------|----------|-----|-----------|-----|
|        |                     | N        | %   | N         | %   |
| 1      | Mild                | 2        | 2%  | 91        | 91% |
| 2      | Moderate            | 26       | 26% | 9         | 9%  |
| 3      | Severe              | 72       | 72% | 0         | 00% |

The data clearly demonstrate the effectiveness of adaptive counseling strategies in reducing the severity of co-morbid depression. In the pre-test, the majority of patients (72%) exhibited severe depression, while only 2% showed mild symptoms. After the intervention, the post-test results showed a significant improvement, with 91% of patients exhibiting only mild depression, and no patients falling into the severe category. This substantial shift highlights the success of the adaptive counselling in alleviating depressive symptoms among chronically ill patients.

**Table 2: Mean, Standard Deviation, Mean Difference, and ‘t’ Value on Pre-test & Post-test Level of Depression**

| S. No. | Level of Depression | Mean  | Standard Deviation | Mean Difference | ‘t’ Value |
|--------|---------------------|-------|--------------------|-----------------|-----------|
| 1.     | Pre-test            | 46.69 | 10.53              | 34.25           | 4.95      |
| 2.     | Post-test           | 12.44 | 6.15               |                 |           |

The analysis shows a significant reduction in depression levels after the implementation of adaptive counselling strategies. The mean depression score decreased from 46.69 (pre-test) to 12.44 (post-test). The mean difference was 34.25, and the calculated 't' value of 4.95 exceeds the critical value at the 0.05 level of significance. This indicates that the intervention was statistically effective in reducing co-morbid depression among patients with chronic medical illness.

**DISCUSSION**

The findings of the present study revealed a significant reduction in co-morbid depression among patients with chronic medical illness following the implementation of adaptive counselling strategies. Initially, the majority of participants (72%) exhibited severe depression, but post-intervention results showed a remarkable shift, with 91% of patients categorized as having only mild depression. The mean depression score reduced from 46.69 in the pre-test to 12.44 in the post-test, and the computed *t*-value of 4.95 exceeded the critical value at the 0.05 level of significance. This indicates that the adaptive counselling strategies were highly effective in alleviating depression symptoms.

These results are consistent with previous studies that reported similar reductions in depression levels following structured psychological interventions. Comparable studies have shown that patient-centered counselling methods and coping strategies lead to better emotional regulation, reduced psychological distress, and improved adherence to medical regimens. Furthermore, the present study also found significant associations between certain demographic variables (such

as age and gender) and pre-test depression scores, reinforcing the importance of tailored interventions. Overall, the findings highlight the potential of adaptive counselling as a practical and impactful tool in chronic illness management.

## CONCLUSION

The present study concluded that adaptive counselling strategies are significantly effective in reducing co-morbid depression among patients with chronic medical illness. The structured intervention led to a notable improvement in patients' mental health status, as evidenced by the substantial reduction in post-test depression scores compared to the pre-test. The findings affirm the critical role of psychological support and coping-focused counselling in the holistic management of chronic diseases.

By addressing the emotional and psychological needs of patients alongside their physical ailments, adaptive counselling not only improved their mental well-being but also enhanced their engagement with treatment and daily functioning. These results underscore the necessity of integrating mental health interventions within routine care for chronically ill patients, especially in hospital settings where such comorbidities often go unrecognized and untreated.

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