# TO EVALUATE ANXIETY AND DEPRESSION IN HOSPITALISED PATIENTS OF AHMEDABAD, GUJARAT: A CROSS-SECTIONAL STUDY

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**ABSTRACT**

Anxiety is a feeling of fear and agitation, often causing symptoms like sweating, restlessness, and a rapid heartbeat. Hospital anxiety specifically relates to stress or discomfort during hospital visits or procedures, which can lead to delays in necessary treatments. Depression, characterized by deep sadness and low self-worth, impacts daily life and can involve various types, including major depression, dysthymia, and bipolar disorder. The Hospital Anxiety and Depression Scale (HADS) is a tool used to screen for anxiety and depression in hospital patients, focusing on emotional well-being rather than specific psychiatric diagnoses. **Result**: In total 140 participants the mean age of participants was found to be 53.87 years out of which 41% participants were females and 59% participants were males. The mean score for depression was found to be 8.19 and for anxiety it was found to be 9.05 according to HADS. The total depression score of 38% participants were normal, 48% participants were borderline and 14% participants were abnormal and the total anxiety score of 25% participants were normal, 61% participants were borderline and 14% participants were abnormal according to HADS. **Conclusion**: The current study concludes that there is borderline anxiety and depression in hospitalized patients. The mental health of a patient plays a major role in the aetiology and in the prognosis of the disease.

**KEYWORDS**: Anxiety, Depression, Hospital Anxiety and Depression Scale (HADS).

## INTRODUCTION

Anxiety is a feeling of fear, fright, and agitation. It leads to sweating, feeling restless and tense, and have a rapid heartbeat.[1]

Some people may feel uncomfortable or stressed while visiting hospitals or undergoing medical procedures. They can talk to someone close to them who can help them determine the best management strategies, such as cognitive behavioural therapy (CBT) or medications. Many people avoid going to the hospital for a range of reasons, which includes fear of an upcoming procedure or fear of receiving a difficult diagnosis. Hospital anxiety can lead to delay of crucial medical treatments or negatively affect their recovery. It is also possible to have undiagnosed depression or anxiety for people with medical conditions.

Hospital anxiety is not a recognized mental health diagnosis. And some aspects of the hospital visit may bring forth more anxiety than others, such as getting an injection or waiting for test results.[2]

Hospital anxiety includes various types of healthcare or hospital-related phobias, including:
- Fear of hospitals (nosocomephobia)
- Fear of injections (trypanophobia)
- Fear of blood (hemophobia)[3]

The main treatments for anxiety are psychotherapy (talk therapy), drug, or both Cognitive Behavioural Therapy (CBT) is a type of psychotherapy frequently used to treat anxiety diseases. CBT teaches you to think and act differently. It can help you change your thoughts about effects that cause fear and anxiety. It may include the treatment of infectious conditions. This usually focuses on getting you to face your fear so you can do the things that you've been avoiding.[4]

Medicines used to treat anxiety include antidepressants and some antidepressants.

Depression is characterised by deep, long-lasting feelings of sadness or despair. Depression can change an individual's feelings and also affects social behaviour and sense of physical well-being.

Clinical Depression is said to be more intense and of longer duration than typical sadness or grief, which interferes with the ability to engage in daily activities.

As estimated by WHO, one out of every five women and twelve men have depression. Not just adults, but two per cent of school children and five per cent of teenagers also suffer from depression, and these mostly go unidentified. Depression has been the most common reason why people come to a psychiatrist.[5]

Increased awareness and approach to psychiatrists have been the main reason for the increase in several patients and not an increase in prevalence. With newer and better facilities, treating depression has become easier and most people respond very well to the treatment and return to optimum functioning.

The Hospital Anxiety and Depression Scale (HADS)[6] is a commonly-used questionnaire which is designed to assess levels of anxiety and depression in individuals who are receiving medical treatment in a hospital setting. It was developed in the early 1980s by Zigmond and Snaith, and is used as a screening tool that targeted the emotional well-being of patients undergoing medical procedures.

The HADS consists of 14 items, divided into two subscales: the Anxiety subscale and the Depression subscale. Each subscale comprises seven items that are rated on a 4-point scale, ranging from 0 to 3 that is 'not at all' to 'very much' respectively. The scale eliminates the inclusion of somatic symptoms which are usually found in other psychiatric disorders, ensuring that it primarily captures psychological distress.[7]

One of the advantages of the HADS is its briefness, as it can be completed quickly and easily by the patients. This is particularly important in a hospital setting, where patients may be experiencing physical discomfort or undergoing a range of medical tests and treatments.

The HADS has been widely used in clinical and research settings. It has been shown to be a trustworthy tool for identifying and monitoring anxiety and depression in a range of patient populations, including those suffering from chronic illnesses like cancer, cardiovascular diseases, and neurological disorders.

One drawback of the HADS is that it focuses on the emotional well-being of patients rather than specific psychiatric diagnoses. This can make it difficult to differentiate between symptoms of anxiety and depression and symptoms of other psychiatric disorders. Additionally, the scale does not assess the severity of symptoms or provide a clinical diagnosis, but simply serves as a screening tool.

## MATERIALS AND METHODOLOGY

A cross–sectional, Questionnaire based prospective observational study. All data were collected using Hospital Anxiety and Depression Scale (HADS) questionnaire. The HADS consists of 14 items, divided into two subscales: the Anxiety subscale (HADS-A) and the Depression subscale (HADS-D). Each subscale comprises seven items that are rated on a 4-point scale, ranging from 0 (not at all) to 3 (very much). The scale eliminates the inclusion of somatic symptoms which are usually found in other psychiatric disorders, ensuring that it primarily captures psychological distress.[7]

### Sample size calculation

The required sample size calculated using confidence interval (z) as ninety-five percent (95%) and absolute precision (d) as five percent (5%). The prevalence of anxiety and depression in hospitalised patients is found to be 1 in 10 i.e. ten percent (10%).[8]

It was calculated by using the Sample Size formula for proportion which is as follows, $N = \{(z)^2 (p) (1-p)\}/ d^2$
Where, N is the required sample size, $z = 1.96$ (standardized normal distribution curve value for 95% confidence interval), $p = 0.10$ (prevalence of anxiety and depression in hospitalised patients), $d = 0.05$ (absolute precision).
$N = \{(1.96)^2(0.10) (1-0.10)\}/ (0.05)^2 = 138.2 \approx 138$

### Inclusion Criteria

The patients who were >18 years admitted in the hospital who is in a state of consciousness. And is currently undergoing post-operative treatment or pre-operative procedures.

### Exclusion Criteria

The patients who were <18 years, the patients coming for diagnosis in the OPD, the patient admitted in the ICU and is not in a state of consciousness and those not willing to participate in the study.

### RESULT

In total 140 participants, the mean age was 53.87 years. The mean scores for depression and anxiety, as measured by the Hospital Anxiety and Depression Scale (HADS), were 8.19 and 9.05, respectively. The participant pool consisted of 41% females (57 participants) and 59% males (83 participants). According to HADS Depression score, 38% (53 participants) were classified as normal, 48% (68 participants) as borderline, and 14% (19 participants) as abnormal. In anxiety score, 25% (35 participants) were normal, 61% (86 participants) were borderline, and 14% (19 participants) were abnormal.

**Table 1: Gender Wise Distribution.**

| Gender | Frequency | Percentage (%) |
|--------|-----------|----------------|
| Female | 57 | 41 |
| Male | 83 | 59 |
| Total | 140 | 100 |

**Table 2: Age Wise Distribution.**

| Age | Frequency | Percentage (%) |
|-----|-----------|----------------|
| **21-30** | 7 | 5 |
| **31-40** | 20 | 14 |
| **41-50** | 32 | 23 |
| **51-60** | 34 | 24 |
| **61-70** | 29 | 21 |
| **71-80** | 16 | 11 |
| **81-90** | 2 | 2 |
| **Total** | 140 | 100 |

**Table 3: Depression Score.**

| Depression Score | Frequency | Percentage (%) |
|------------------|-----------|----------------|
| **Normal** | 53 | 38 |
| **Borderline** | 68 | 48 |
| **Abnormal** | 19 | 14 |
| **Total** | 140 | 100 |
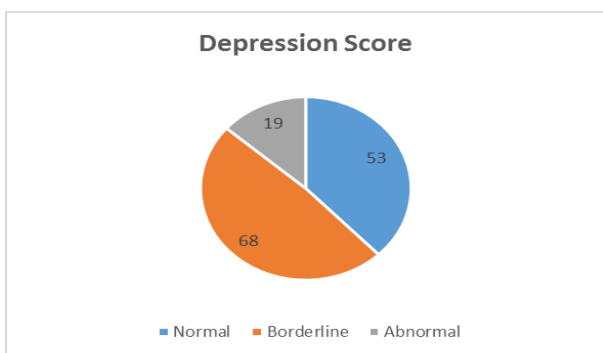


**Figure 1: Depression Score.**

**Table 4: Anxiety Score.**

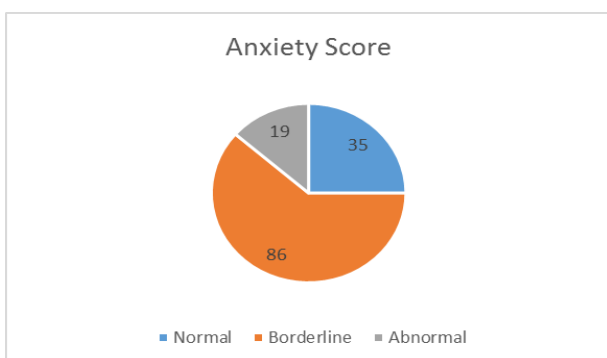| Anxiety Score | Frequency | Percentage (%) |
|---------------|-----------|----------------|
| **Normal** | 35 | 25 |
| **Borderline** | 86 | 61 |
| **Abnormal** | 19 | 14 |
| **Total** | 140 | 100 |



**Figure 2: Anxiety Score.**

**DISCUSSION**
Hospital anxiety is not a recognized mental health diagnosis. And some aspects of the hospital visit may bring forth more anxiety than others, such as getting an injection or waiting for test results.

Some people may feel uncomfortable or stressed while visiting hospitals or undergoing medical procedures. People can speak with a doctor or someone close to them who can help them determine the best management strategies, such as cognitive behavioural therapy (CBT) or medications. Many people avoid going to the hospital for a range of reasons, which includes fear of an upcoming procedure or fear of receiving a difficult diagnosis. Hospital anxiety can lead to delay of crucial medical treatments or negatively affect their recovery. It is also possible to have undiagnosed depression or anxiety for people with medical conditions. People with hospital anxiety also have an intense anxiety with uncomfortable and painful consequences of visiting the hospital, such as when preparing for an invasive procedure or major surgery.[1]

Depression is characterised by deep, long-lasting feelings of sadness or despair. Depression can change an individual's feelings and also affects social behaviour and sense of physical well-being.

As estimated by WHO, one out of every five women and twelve men have depression. Not just adults, but 2% of school children and 5% of teenagers also suffer from depression, and these mostly go unidentified. Depression has been the most common reason why people come to a psychiatrist.[3]

The Hospital Anxiety and Depression Scale (HADS) [6] is a commonly-used questionnaire which is designed to assess levels of anxiety and depression in individuals who are receiving medical treatment in a hospital setting. It was developed in the early 1980s by Zigmond and Snaith, and is used as a screening tool that targeted the emotional well-being of patients undergoing medical procedures.

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In total 140 participants the mean age of participants was found to be 53.87 years out of which 41% participants were females and 59% participants were males. The mean score for depression was found to be 8.19 and for anxiety it was found to be 9.05 according to HADS. The total depression score of 38% participants were normal,

48% participants were borderline and 14% participants were abnormal and the total anxiety score of 25% participants were normal, 61% participants were borderline and 14% participants were abnormal according to HADS.

Previously a study conducted on inpatients mental health characterized the principal stressors encountered during hospitalization and research showed high results of anxiety and stress associated with the disease, surgery, and complications after cardiac surgery.[9] Active involvement in the elements of hospitalization such as patient education before surgery, psychological support, and medical care organization taking account into patient's preferences, reduces the impact of stressors.[10]

An Observational Study conducted on Assessment of Anxiety in Surgical Patients showed that preoperative anxiety continues to increase from ward to operation table.[11] Preoperative anxiety has predictors such as young age, low income, urban residence, fear of death, dependency, disability, and family concerns. Patients need to be assessed regularly for anxiety during the preoperative visit to reduce the anxiety and appropriate anxiety reducing methods should be introduced in our hospital.[12]

Our study included hospital-admitted adult patient who are in state of consciousness above age of 18 years, patient currently undergoing post-operative treatment and pre-operative procedures. Our study excluded patients below the age of 18 years and coming for diagnosis in the OPD, admitted in the ICU, patient not in a state of consciousness and not willing to participate in the study.

Patients who satisfied the inclusion and exclusion criteria were chosen as participants for the study. Patients were interviewed at the bedside during their stay as inpatient in the ward. The nature of assessment was informed, that is, to evaluate anxiety and depression in hospitalized patients. After getting their informed consent, patients were interviewed and details collected. The clinical interview was done, using the Hospital Anxiety and Depression Scale (HADS).

One forty hospitalized patients who met the inclusion criteria were screened for anxiety and depression using HADS.

Screening of hospitalized patients for mood disturbances could help in identifying those with a higher probability to develop poor outcomes. It is considered that depression and anxiety have been associated with readmission, higher morbidity and mortality, and even post-discharge psychiatric diagnosis. Hence in this study, the prevalence of anxiety and depression in hospitalized patients was analysed for correlation between the two. The patient is to be demanded completely oriented in time, place, and person by the study, as the scoring of the questionnaires were subjective and answered by the patients.[13]

The current study tried to analyse for association between anxiety & depression in hospitalized patients and found that there was correlation between the two.

The above findings concluded that the association was equally strong for anxiety & depression, and somewhat stronger association was observed for co-morbid anxiety & depression in both men & women.

The study was conducted on a small sample size with male population more in comparison to female population. The study has considered the patient in the context of hospital stay only. And other factors which may affect the patient's responses to the questionnaire are not taken into consideration.

## CONCLUSION
The current study concludes that there is borderline anxiety and depression in hospitalized patients. The mental health of a patient plays a major role in the aetiology and in the prognosis of the disease. Most health care professionals are aware of this aspect of the illness but tend to neglect it in the face of the more obvious somatic symptoms. Hence, all health care professionals must approach the patient and must design their treatment in better holistic manner. This all-rounded approach towards rehabilitation will not only ensure improved effectiveness of the treatment but also, better rapport between the patient and the healthcare team.

This study is important for physicians' better understanding of a wide range of stressors experienced by general hospitalized patients, as many of which may be present at subclinical levels and hence go unnoticed for effective psychological/psychiatric assessment and management. Understanding the factors that are favourably and adversely linked with their depressed and anxiety symptoms, to create efficient screening programs and clinical preventive/therapeutic interventions, could help to improve the hospital experience for all patients. Precisely, our study prompts hospital-wide interventions which would work towards developing strong social support networks for inpatients. For example, extending hospitals' visiting hours, encouraging patients' communication with their family and family counselling. Further, our results will provide a tool to identify inpatients who need support, and highlight the need of promoting patients' well-being.

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