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Relationship Between Anxiety Level and Emotional Dysfunction Among Surgery Related Bed-Admitted Patients: Correlational Study

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Abstract:
The current study examined the relationship between anxiety and emotional Dysfunctions among surgery related bed-admitted patients using a quantitative, cross-sectional, comparative research approach. To conduct the study, the Generalized Anxiety Disorder Scale-7 (GAD-7) and Emotion Regulation Questionnaire (ERQ) were used among 200 hospitalized patients (age range: above 10 years) in Chennai, India. The study findings using descriptive statistics showed a high level of anxiety among the patients, with a mean anxiety score of 11.70 (SD=2.900) and a high level of emotional problems, with a mean emotional problems score of 38.23 (SD=4.060). There was no correlation between anxiety and emotional problems, as r=0.002, p=0.974. The null hypothesis was accepted, which showed there is no relationship between anxiety and emotional problems among the patients. The findings also emphasized the importance of considering many psychological factors independently in hospital settings. The study has some limitations, as it only focused on a specific region and a small number of patients. Future study can be conducted on different patient groups, as well as other psychosocial factors, which include coping styles and social support.

Keywords: Anxiety, Emotional dysfunctions, Surgery related bed admitted patients

1. Introduction

The hospitalization process is a stressful event which has a considerable impact on the mental health of the patient. Patients, either undergoing surgical or non-surgical procedures, often have to cope with mental stress and anxiety due to various reasons, such as fear of treatment, unknown outcomes, uncomfortable situations, and disruption in their routine lives. Such mental problems may have serious impacts on their mental health, which may influence their recovery, treatment, and overall satisfaction with life. Among the most common mental problems encountered in hospitalized patients is anxiety. Anxiety may occur at any stage of the treatment process, depending on the type of illness, procedures, and individual patient coping abilities. In addition to anxiety, emotional problems, like poor emotional regulation, may affect the patient's adjustment to the hospital environment. Ineffective emotional regulation may cause stress and may influence the patient's capacity to cope with health problems. Patients who have undergone a surgical

procedure may also be at a higher risk of developing anxiety as a result of their fear of pain, complications, or failure of the surgical procedure. On the other hand, non-surgical patients may also face emotional problems as a result of their health status, prolonged hospital stay, or uncertainty of their health condition. Thus, both patients are at a higher risk of developing emotional problems, which need to be addressed accordingly. To understand the relationship between anxiety and emotional problems, as experienced by patients in hospitals, is of paramount importance, especially if the nature of the relationship between the two factors will help healthcare providers design the most effective psychological intervention strategies. Although a number of studies have focused on the importance of mental health in hospitals, few studies have been conducted to compare the two factors among post-surgical and non-surgical patients. Thus, the present study aims at exploring the relationship between anxiety and emotional Dysfunctions as experienced by post-surgical patients, as well as non-surgical patients, through a quantitative, cross-sectional, comparative study design. The study will form a vital part of the existing research, with the aim of reinforcing the importance of addressing psychological aspects of patients in hospitals.

Definitions of Anxiety

Sigmund Freud (1926): "Anxiety is a feeling of fear or apprehension caused by internal conflicts between the ego, superego, and the id."

Rollo May (1950): "Anxiety is the apprehension cued by a threat to some value which the individual holds essential to his existence."

Charles D. Spielberger (1972): "Anxiety is an emotional state characterized by subjective feelings of tension, apprehension, nervousness, and increased activity in the autonomic nervous system."

Aaron T. Beck (1976): "Anxiety is a response to perceived threats, which in turn is affected by the individual's thinking patterns"

Definitions of Emotional Dysfunction

James J. Gross (1998): Emotional dysfunction involves problems related to regulation of emotions, where an individual fails to effectively handle their emotional response.

Marsha M. Linehan (1993): Emotional dysfunction involves an increase in emotional sensitivity, strong emotional reactions, and a delayed return to baseline.

Aaron T. Beck (1976): Emotional dysfunction results from maladaptive thinking patterns that result in abnormal emotional reactions.

Richard S. Lazarus (1991): Emotional dysfunction may be viewed as an ineffective emotional response to an event due to poor appraisal and coping mechanisms.

2. Review of literature

Alghamdi, Alzahrani, and Alzahrani (2021) carried out an integrative review to assess the emotional and psychological consequences of hospitalization on patients. The findings revealed that hospitalization often results in increased anxiety, fear, and emotional instability among patients due to unfamiliar environments, uncertain outcomes of illnesses, and separation from family members.

The authors emphasized that both surgical and non-surgical patients face severe psychological distress, which has a negative impact on their recovery.

The study has shown that psychological evaluation is critical in hospital settings to provide patient-centered care.

Babaei and Mosavi (2022) carried out a study to assess emotional distress among hospitalized medical patients using a cross-sectional study. The findings revealed that a high prevalence of anxiety and depression was noted among patients, especially those suffering from chronic illnesses. The authors emphasized that emotional distress among patients often goes unnoticed because clinicians are mostly focused on treating physical conditions. The study strongly emphasized the need to incorporate psychological evaluation to provide comprehensive patient care.

Huang et al. (2025) carried out a prospective study to assess preoperative anxiety among patients undergoing minimally invasive thoracic surgery. The findings revealed that a significant number of patients undergoing surgery face moderate to severe anxiety due to various reasons, such as fear of surgical outcomes, anaesthesia, and uncertain recovery. Using psychological evaluation tools, the authors found that increased anxiety levels among patients are linked to low patient satisfaction and longer recovery periods.

3. Research methodology

3.1 Research question:

The study was attempted to find the relationship between Anxiety and Emotional Dysfunction among surgery related bed-admitted patients.

3.2 Objectives

To determine the degree of emotional problems experienced by post-surgical and non-surgical patients.

To compare the degree of anxiety and emotional problems experienced by post-surgical and non-surgical patients.

To study the relationship between anxiety and emotional problems experienced by patients.

3.3 Hypothesis:

H0: There is no significant relationship between Anxiety and Emotional Dysfunction among surgery related bed-admitted patients.

4. Research design:

The study will employ a quantitative correlational research design to investigate the relationship between Anxiety and Emotional Dysfunction among surgery related bed-admitted patients. Anxiety was the independent variable while emotional dysfunction was the dependent variable.

4.1 Sampling technique:

Through purposive sampling (Judgmental sampling). Participants will include both pre-surgical and post-surgical of bed admitted patients. Sample for the study consisted of 200 patients aged above 10 years

4.2 Data collection:

Data will be collected through offline questionnaires distributed to the participants.

Participants will provide demographic information, followed by responses to the two standardized scales.

4.3 Tool description:

The Generalized Anxiety Disorder Scale (GAD-7) developed by Spitzer and colleagues in 1999 was used to measure anxiety. It consists of 7 items assessing the severity of symptoms encountered in the last 2 weeks and uses a 4-point Likert scale (0=no anxiety; 3=nearly every day) to rate each item providing a total score (total possible score=21). The scale can categorize anxiety on 4 levels (e.g., minimal, mild, moderate, and severe). Evidence shows that the GAD-7 is a valid and reliable tool for assessing anxiety, with Cronbach's alpha coefficients providing evidence of internal consistency between 0.85 and 0.92 and

evidence of excellent test-retest reliability. Construct and criterion validity have been established through numerous studies showing significant correlations with other measures of anxiety and mental health. The Emotion Regulation Questionnaire (ERQ) developed by Gross and John (2003) was used to assess emotion regulation. The ERQ consists of 10 items measuring 2 broad emotional regulation strategies: cognitive reappraisal and expressive suppression. Items are rated on a Likert scale based on how often individuals modify their emotional experience. Similar to the GAD-7, the ERQ is a reliable instrument with Cronbach's alphas ranging from 0.70 to 0.85 for the respective subscales. Test-retest reliability has provided evidence of stability over time. Validity has been supported through correlations between the ERQ and expressing emotions.

4.4. Statistical analysis:

The Statistical Package for Social Sciences (SPSS) was used to analyse the data that were collected. A correlation analysis was conducted using the Pearson Product-Moment Correlation Coefficient to assess how strong and in what direction (positive or negative) anxiety and emotional-related disorders correlated with one another. Based on these analyses, it didn't appear that there is an association between these two factors ($r = 0.002$; $p=0.974$).

4.5 Inclusive criteria:

- The participants in the age range of above 10 years were selected.
- The sample will involve pre-surgical and post-surgical patients.
- Patients who voluntarily consent to participate in the study.

4.6 Exclusive criteria:

- Patients who are not admitted to hospital beds (outpatients)
- Patients with diagnosed severe psychiatric disorders.
- Patients who are critically ill or unable to respond to questionnaires.
- Patients unwilling to participate in the study.

5. Result

This chapter discusses the results and interpretation of the analysis done to understand the relationship between Anxiety and Emotional Dysfunction among surgery related bed-admitted patients.

Table 1

Descriptive statistics showing the mean and standard deviation of Anxiety and Emotional Dysfunction among surgery related bed-admitted patients.

Variables	Mean	Standard Deviation	N
Anxiety	11.70	2.900	200
Emotional Dysfunction	38.23	4.060	200

The descriptive table 1 shows the mean and standard deviation for the variables. GAD-7 Anxiety scale has a sample N=200, mean=11.70 and standard deviation=2.900. Personal Assessment of Emotional dysfunction (ERQ) Inventory has a sample N=200, mean=38.23 and standard deviation=4.060.

Table 2
Correlational analysis showing the relationship between Anxiety and Emotional Dysfunction among surgery related bed-admitted patients.

Variables	Pearson's correlation	r value	Decision
Anxiety	0.002	0.974	Accepted (H0)
Emotional Dysfunction			

****Correlation is not significant at 0.05 level (2-tailed)**

Table 2 shows the values of Pearson's correlation among the two variables. Correlation Strength (r = .002): The Pearson correlation coefficient shows a near-zero relationship between the two variables. This suggests that anxiety levels and emotional dysfunction do not change together in this group.
Statistical Significance (p = .974): With a p-value much higher than the 0.05 threshold, the results do not reach statistical significance. As a result, the null hypothesis is upheld, indicating that no reliable connection exists between general anxiety and emotional dysfunction among these patients.

6. Discussion

The study looks at how general anxiety affects problems in 200 patients who need surgery and are stuck in bed. These patients had an anxiety score of 11.70 and an average emotional problem score of 38.23.The researchers used a method called Pearson correlation to analyze the data. They found a weak connection between anxiety and emotional problems with a correlation coefficient of 0.002. This means that anxiety and emotional problems do not really relate to each other in these patients. The results showed a significance level of 0.974, which's more than 0.05. This means that the researchers have to assume that anxiety and emotional problems do not change together in this group of patients.The study suggests that patients deal with information differently while they are getting treatment. Patients get anxious about surgery and hospital stays. This anxiety is a separate issue from their emotional health.The weak connection between anxiety and emotional problems shows that patients in the hospital face different emotional challenges. These challenges can cause anxiety. This anxiety is temporary and not a sign of ongoing emotional distress.Healthcare providers need to treat anxiety management as a goal. This goal does not always show how emotional trouble a patient is having.The findings also tell us that general anxiety levels stay the same and emotional dysfunction levels also stay the same in this patient group.The study on anxiety and emotional dysfunction tells us more, about how bed-bound patients who require surgical treatment process psychological information.General anxiety and emotional dysfunction are two research variables that were studied.The studys results on anxiety and emotional dysfunction can help healthcare providers.

7. Summary

The study looked at how general anxiety affects issues in patients who are in the hospital for surgery. Going through surgery can be really tough on peoples minds with a lot of stress. Worry about their care. When patients are in this situation they might act differently. Everyone handles it in their own way. How well patients deal with their emotions can depend on their strength and balance. This study tried to find out if there's a connection between anxiety and emotional issues.We didn't find any link between anxiety levels and emotional issues in patients who are in the hospital for surgery. The results showed that there's

no relationship between the two (r =.002 p =.974).Before joining the study all patients were told what it was about. That their information would be kept private. They were also free to leave the study whenever they wanted. We used two tools to collect data: the Generalized Anxiety Disorder-7 (GAD-7) and the Emotion Regulation Questionnaire (ERQ).We used a method called Pearsons correlation to see if there's a connection, between anxiety and emotional issues. This was done using a software called Statistical Package for the Social Sciences (SPSS).

8. Conclusion

The present study shows no significant correlation between the scores obtained using the GAD-7 and ERQ questionnaires, and indicates a negligible relationship between the two variables, i.e., general anxiety and emotional dysfunction. When the acute stress of surgery impacts a patient, anxiety levels may fluctuate independently of their broader emotional regulation. Support focused on psychological interventions, shaped around inpatient needs, might help manage situational fears without necessarily addressing deep-seated emotional stability. Outcomes suggest that treating anxiety and emotional dysfunction as separate clinical entities could gently reshape the quality of patient care and recovery outcomes over time.

9. Limitations

The research focused on one region alone, meaning results might not apply everywhere. Although the healthcare sector serves a diverse population, the number included here stayed quite low with a sample size of 200. Information came strictly from patients admitted to surgery-related beds, limiting wider conclusions. The data was collected only from a specific hospital setting, which may not reflect the experiences of outpatients or those in different medical departments. Similar research could be done for other populations and different clinical groups. Additionally, the study did not account for specific demographic variables like age or educational background, which might influence how patients respond to psychological assessments.

10. Recommendations

Looking ahead, future work could involve participants drawn from a wider variety of surgical departments to increase both the sample size and the diversity of the data. While comparing different types of surgery-related cases, researchers might explore how varying levels of medical urgency impact psychological responses. To deepen insight into how bed-admitted patients function, factors like individual resilience, postoperative pain management, and satisfaction with inpatient care could come into focus.

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