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EFFECTS OF PREOPERATIVE COUNSELLING ON PATIENT ANXIETY LEVEL AND RECOVERY OUTCOMES

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Abstract

A prevalent psychological issue among surgical patients, preoperative anxiety can have a detrimental effect on perioperative experiences, patient cooperation, and recovery results. Prior to surgery, patients may benefit from improved psychological preparation, decreased anxiety, and improved understanding through effective communication and structured preoperative counseling. The purpose of this study was to assess how structured preoperative counseling affected surgical patients' anxiety levels.106 patients undergoing elective surgical procedures participated in a quasi-experimental two-group comparison study. Participants were split into two groups: a control group (n = 53) that received standard preoperative care and an intervention group (n = 53) that received structured preoperative counseling. The Hamilton Anxiety Rating Scale (HAM-A) was used to measure anxiety levels. SPSS was used to analyze the data using the independent sample t-test, chi-square test, and effect size analysis.Anxiety scores were considerably lower in the intervention group than in the control group. The counseling group's mean HAMA score was 18.23 ± 5.79, while the control group's was 30.17 ± 9.27 ($p < 0.001$). A significant difference between the groups was revealed by the independent sample t-test ($t = -7.956$, $df = 104$). With Cohen's $d = 1.546$, the effect size analysis demonstrated a significant clinical impact of counseling. Additionally, there was a significant correlation between group allocation and anxiety severity categories ($\chi^2 = 44.716$, $p < 0.001$).The results show that structured preoperative counseling is a successful non-pharmacological strategy for lowering surgical patients' anxiety. Regular pre-anesthesia care that includes counseling may enhance patients' comfort, confidence, and overall perioperative anxiety.

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INTRODUCTION:

Surgical procedures are performed all over the world to diagnose, treat, and manage a variety of diseases. They are a crucial part of modern healthcare. Even with improvements in anesthesia, perioperative care, and surgical techniques, many patients still have psychological distress prior to surgery. Surgical patients frequently experience preoperative anxiety, which is linked to worries about anesthesia, pain, complications, and surgical results as well as feelings of fear, uncertainty, and emotional discomfort..[1]

Preoperative anxiety is clinically significant because it affects both psychological and physiological responses during the perioperative period. Increased anxiety can trigger stress reactions, which can impact patient cooperation, satisfaction, and postoperative recovery. These reactions can include elevated heart rate, elevated blood pressure, disturbed sleep, and altered pain perception..[2,3] Therefore, effective assessment and management of anxiety are important aspects of patient-centered surgical care.

Several factors contribute to preoperative anxiety, including inadequate information, fear of anesthesia, uncertainty about recovery, previous negative experiences, and limited communication with healthcare providers. Patients who lack sufficient knowledge about their surgical procedure are more likely to experience fear and emotional distress.[4] This highlights the need for effective educational and psychological interventions before surgery.

By educating patients about surgical techniques, anesthesia, postoperative care, pain management, and anticipated recovery, preoperative counseling is a useful non-pharmacological intervention that attempts to lessen anxiety. Counseling can improve patients' confidence, coping skills, and involvement in healthcare decisions by reducing uncertainty and increasing understanding.[5]

The advantages of psychological preparation and preoperative education have been shown in earlier studies. It has been demonstrated that structured education programs help surgical patients recover more quickly and with less anxiety.[5]Furthermore, psychological

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preparation may help patients better handle surgical stress and enhance their postoperative experiences, according to Powell et al.[6] Similarly, research in various surgical populations has highlighted the way psychological readiness and patient satisfaction are enhanced by clear information and efficient communication.[7,8]

The use of non-pharmacological therapies to treat preoperative anxiety is further supported by recent research. Preoperative education helps patients become more accustomed to the surgical experience and lessens uncertainty, while psychological interventions have been shown to have positive effects on anxiety outcomes among surgical patients.[9,10] These findings suggest that counselling should be incorporated as an important component of comprehensive perioperative care.

Anxiety is still a neglected issue in many surgical settings, despite mounting evidence in favor of preoperative counseling. Due to differences in patient characteristics and healthcare resources, counseling approaches, timing, and content vary. According to recent research, anxiety may affect surgical results, recuperation, and patient satisfaction, highlighting the necessity of regular evaluation and management techniques.[11] Effective communication, patient education, and psychological support play an important role in reducing surgical anxiety.[12] However, further research is required to evaluate the effectiveness of preoperative counselling on anxiety reduction and postoperative recovery outcomes in diverse clinical settings. Evidence from developing healthcare systems remains limited, highlighting the need for continued investigation to improve perioperative care and patient outcomes.

METHODOLOGY

Study Design:

A quasi-experimental two-group comparison study design was used to assess the effectiveness of structured preoperative counselling.

Study Population and Setting

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The study included patients undergoing elective surgical procedures in a tertiary care hospital setting.

Sample Size and Sampling:

A total of 106 participants were included. Patients were divided into:

- Intervention group: 53 patients receiving structured preoperative counselling.

- Control group: 53 patients receiving routine preoperative care.

Data Collection Tool:

The Hamilton Anxiety Rating Scale (HAM-A) was used to measure anxiety levels among participants. This standardized tool evaluates psychological and physical symptoms associated with anxiety.

Statistical Analysis:

Data were analyzed using SPSS. Independent sample t-test, chi-square test, and effect size analysis were applied. A p-value ≤0.05 was considered statistically significant.

RESULTS:

Table:1.1Comparision of mean HAMA Score for intervention and control group

Group	n	Mean HAMA score	SD	Mean difference	p-value
Intervention group	53	18.23	5.79		
Control group	53	30.17	9.27	-11.94	0.001

The demographic analysis showed that the mean age of participants was 34.83 ± 10.95 years. Among participants, 51 (48.1%) were males and 55 (51.9%) were females.

The intervention group showed significantly lower anxiety levels compared with the control group.

Table1.2: Effect size of intervention on HAMA anxiety scores

Effect size measure	Value	95% Confidence Interval
Cohen's d	1.546	-1.977 to -1.108

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Hedges' g	-1.534	-1.963 to -1.100
Glass's delta	-1.288	-1.738 to -0.830

The mean difference between groups was statistically significant ($p < 0.001$).

Independent sample t-test demonstrated significant improvement in anxiety outcomes:

($t = -7.956$, $df = 104$, $p < 0.001$).

Effect size analysis showed a large clinical effect:

Cohen's d = 1.546, indicating that structured counselling produced a meaningful reduction in anxiety.

According to analysis of anxiety categories, the counseling group experienced mild anxiety more frequently, whereas the control group experienced severe anxiety more frequently. A significant correlation between counseling intervention and anxiety categories was confirmed by chi-square analysis ($\chi^2 = 44.716$, $p < 0.001$).

Figure 1.1: Comparison of Postoperative HAMA Scale between Intervention and Control Group

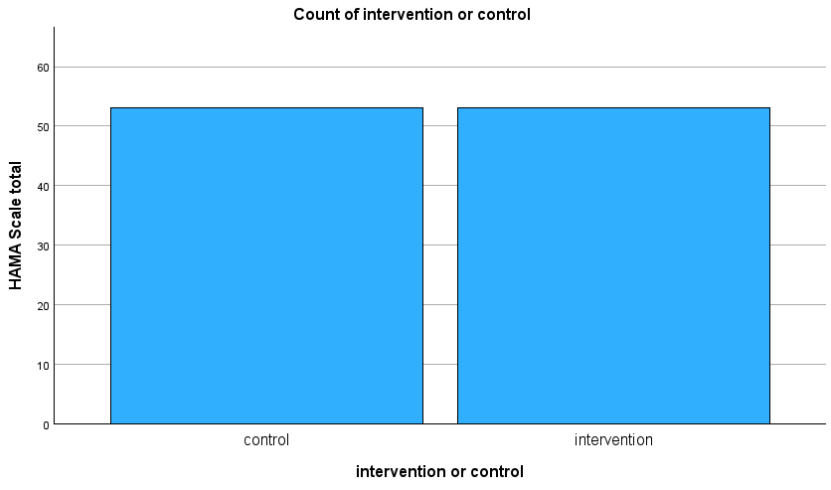

Figure:1.1The figure shows the distribution of postoperative HAMA Score between intervention and control group.

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Figure1.2: Distribution of categories of total HAMA Score.

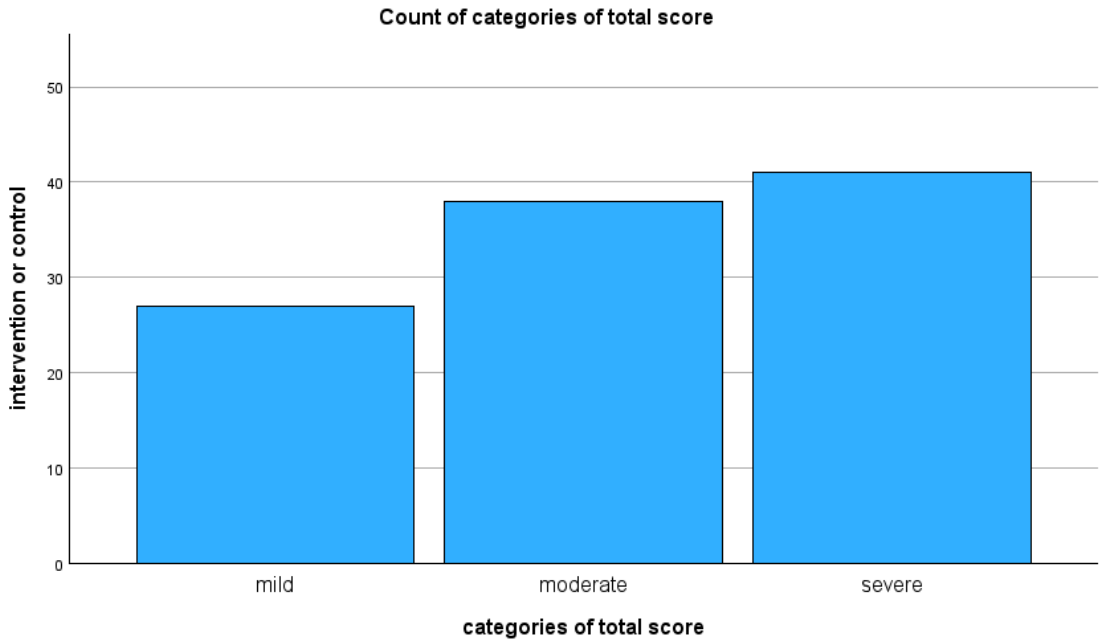

Figure:1.2 The postoperative HAMA anxiety categories (mild, moderate, severe) for intervention and control groups are contrasted in the figure compared to control group, there are more patients in the mild category and lower percentage in the moderate and severe category.

The findings of this study demonstrate that structured preoperative counselling has a significant positive effect on reducing anxiety among surgical patients. Patients who received counselling showed significantly lower postoperative HAMA anxiety scores compared with those receiving routine care (18.23 ± 5.79 vs. 30.17 ± 9.27, $p < 0.001$). The large effect size (Cohen's d = 1.546) indicates that the intervention produced not only statistical significance but also a clinically meaningful reduction in anxiety levels. Furthermore, the distribution of anxiety categories revealed a significant shift toward lower anxiety severity among counselled patients, with fewer patients experiencing moderate to severe anxiety. These findings support preoperative counselling as an effective, accessible, and non-pharmacological intervention for

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improving psychological preparedness and enhancing the perioperative experience of surgical patients.

DISCUSSION:

Preoperative therapy is a successful non-pharmacological intervention for lowering anxiety in surgical patients and enhancing perioperative experiences, as this review demonstrates. The evidence that is currently available shows that anxiety prior to surgery is still a major concern that may have an impact on postoperative recovery, physiological reactions, psychological well-being, and pain perception. The results of earlier research consistently highlight how patients can improve their comprehension and coping skills prior to surgery by receiving the right information, communicating effectively.[1,2]

Preoperative anxiety is frequently linked to fear of anesthesia, uncertainty about surgical outcomes, postoperative pain concerns, and ignorance of the procedure, according to the reviewed evidence. These elements could intensify stress reactions and have a detrimental impact on the surgical experience. Wang et al. found that psychological distress prior to surgery is linked to worse patient outcomes and emphasized the significance of using structured supportive.[1] Similarly, studies have suggested that reducing uncertainty through patient education can improve emotional preparedness and promote better perioperative outcomes.[2,3] Preoperative counseling has been identified as an important strategy for addressing these concerns because it gives patients clear information about surgical procedures, anesthesia, expected recovery, and postoperative care, according to the reviewed evidence. According to the reviewed literature, counseling makes the surgical procedure more comfortable and predictable, which lessens anxiety. Tola et al. showed that educational and supportive interventions improved anxiety-related outcomes in surgical patients, highlighting the importance of patient-centered communication and tailored information delivery.[4]

The effectiveness of preoperative education has also been supported across different surgical populations. Guo reported that structured educational interventions improved

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psychological outcomes and supported recovery among patients undergoing cardiac surgery.[5] The findings presented here suggest that by enhancing patient cooperation, satisfaction, and involvement in postoperative recovery, counseling may offer advantages beyond anxiety reduction. Powell et al.'s systematic review evidence, which demonstrated that psychological preparation prior to surgery can lessen distress and enhance patients' surgical experiences, further supported these conclusions.[6]

The reviewed studies also show how important it is for patients and healthcare professionals to communicate in order to manage anxiety. Effective communication should be included in routine surgical preparation, according to Ng et al., who found that giving patients undergoing oral surgical procedures the right preoperative information helped them feel less anxious. Similar results among patients undergoing day surgery suggest that preoperative psychological status may affect postoperative satisfaction and recovery experiences.[8]

The application of counseling-based techniques in various surgical specialties is further supported by data from intervention studies and systematic reviews. According to Tong et al., patients undergoing elective orthopedic procedures experienced better anxiety outcomes as a result of psychological interventions, indicating that these interventions are not limited to a single surgical population.[9] Additionally, Spalding stressed that preoperative education lowers uncertainty and emotional distress by assisting patients in understanding the surgical .[10]

n spite of increasing awareness of the advantages of preoperative counseling, there are still differences in the format, length, timing, and subject matter of counseling interventions. The efficacy of counseling programs may be impacted by variations in healthcare settings, patient characteristics, cultural elements, and available resources. According to recent research, anxiety assessment and treatment ought to be a standard part of perioperative care rather than an optional supportive intervention.[11]

The options for managing anxiety have increased with the development of newer strategies, such as technology-assisted interventions and multimedia education. However,

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structured in-person counseling is still a useful and accessible approach, especially in resource-constrained healthcare settings. Alanazi stressed that lowering anxiety in patients awaiting surgery requires good communication, education, and psychological support.[12]

Despite the growing evidence supporting preoperative counselling, further research is required to establish standardized counselling protocols and determine the most effective approaches for different surgical populations. Future studies should focus on larger sample sizes, long-term postoperative outcomes, and evaluation of counselling effectiveness in diverse healthcare settings. Integrating structured preoperative counselling into routine surgical care may contribute to improved patient experiences, reduced anxiety, and enhanced postoperative recovery outcomes.

CONCLUSION:

According to the study's findings, structured preoperative counseling is a useful strategy for lowering surgical patients' anxiety. When compared to patients receiving standard care, those receiving counseling showed noticeably lower HAM-A anxiety scores.The large effect size and strong statistical significance support the clinical significance of psychological preparation prior to surgery. A regular pre-anesthesia evaluation that incorporates structured counseling may boost patient confidence, lessen anxiety, and improve the perioperative experience in general.

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