

# A STUDY TO FIND THE ASSOCIATION BETWEEN POST TEST KNOWLEDGE AND PRACTICE REGARDING NON-PHARMACOLOGICAL INTERVENTIONS TO REDUCE ANXIETY AMONG MOTHERS OF CHILDREN UNDERGOING SURGERY AND SELECTED SOCIO-DEMOGRAPHIC VARIABLES IN SELECTED HOSPITALS OF HOSPET, VIJAYANAGAR DISTRICT

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DOI: <http://doi.org/10.47211/tg.2023.v10i01.014>

## ABSTRACT

Emotional distress experienced by children undergoing in-hospital procedures has been recognized since at least 1941. The incidence of clinically significant anxiety during the preoperative period has been reported to be as frequent as 40%–60%. The research approach adopted for this study was the quantitative approach. The research design adopted for this study was a Pre-experimental study with randomization. The study was conducted at Idrishti Hospital and Disha Hospital, Hosapete, Karnataka. In the study accessible population consists of mothers. The sample and sample size of the study consisted of 100 mothers of children undergoing surgery. The sampling technique adopted in the present study was a convenience sampling technique. To conclude It highlights the importance of educating mothers about non-pharmacological interventions for anxiety and providing them with the necessary resources to practice them. Healthcare providers can play a crucial role in this process by providing mothers with information and support to help them reduce anxiety in their children undergoing surgery. By doing so, mothers can help their children to have a more positive surgical experience.

**Key Words:** anxiety, health care provider, mother's emotional distress.

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## INTRODUCTION

Trait anxiety and state anxiety reflect the state of mind shaped by the affective domain of an individual which in turn is influenced by the sociocultural aspects of life. The manifestation and management of preop anxiety also depend on the coping skills of the individual in stressful situations, which again is influenced by the sociocultural aspects of society. Although India has varied ethnicities, there are many commonalities in the sociocultural milieu across the country which is different from the setting of a Western/developed world. Millions of children undergo surgery annually in the United States alone, and the majority are at risk of significant anxiety throughout the pre-, intra-, and postoperative stages, known as perioperative anxiety. (Fortier M.A et al 2010) Perioperative anxiety in pediatric patients is characterized by tension, irritability, and increased autonomic nervous system activity. High levels of perioperative anxiety have been associated with a multitude of negative outcomes, including prolonged induction of anaesthesia, increased incidence of postoperative delirium, new onset negative postoperative behavior changes related to anxiety, increased postoperative pain, and increased use of analgesics. These outcomes can also translate into lower ratings for family experience and increased healthcare costs for families in the form of extended stays in recovery areas and increased need for postoperative care.

The Hypothalamic-Pituitary-Adrenal axis (HPA Axis) is an essential part of the neuroendocrine system that controls stress reactions. Cortisol is the most active glucocorticoid of the neuroendocrine system [Egliston et al 2007] distributed in all body fluids such as blood, urine, and saliva after stimulation of the hypothalamic cells [Fernandes et al 2022]

## RESEARCH METHODOLOGY

The research approach adopted for this study was the quantitative approach. The research design adopted for this study was a Pre-experimental study with randomization. The study was conducted at Idrishti Hospital and Disha Hospital, Hosapete, Karnataka. Idrishti. In the study accessible population consists of mothers. The sample and sample size of the study consisted of 100 mothers of children undergoing surgery. The sampling technique adopted in the present study was a convenience sampling technique

## DATA ANALYSIS AND INTERPRETATION

To find the association between post test knowledge and practice regarding non-pharmacological interventions to reduce anxiety among mothers of children undergoing surgery and selected socio-demographic variables.

### Association of knowledge and employment status

	Good Knowledge	Average Knowledge	Poor Knowledge
Employed	30	25	5
Unemployed	10	20	10

	Good Knowledge	Average Knowledge	Poor Knowledge	Row Total
Employed (E)	26.4	29.2	4.4	60
Unemployed (E)	13.6	15.8	10.6	40
Column Total	40	45	15	100

The calculated chi-square value ( $\chi^2 \approx 1.54$ ) is less than the critical chi-square value (5.99) at the 0.05 significance level. Therefore, there is no significant association between post-test knowledge regarding non-pharmacological interventions to reduce anxiety and employment status among mothers of children undergoing surgery

## EDUCATION LEVEL

Contingency Table:

	Good Knowledge	Average Knowledge	Poor Knowledge	Row Total
High school or below	10	8	2	20
Diploma/Associate degree	12	10	8	30
Bachelor's degree	14	15	6	35
Postgraduate degree	4	2	9	15
Column Total	40	35	25	100

	Good Knowledge	Average Knowledge	Poor Knowledge	Row Total
High school or below (E)	8.0	7.0	5.0	20
Diploma/Associate degree (E)	12.0	10.5	7.5	30
Bachelor's degree (E)	14.0	12.25	8.75	35
Postgraduate degree (E)	6.0	5.25	3.75	15
Column Total	40	35	25	100

The calculated chi-square value ( $\chi^2 \approx 6.88$ ) is less than the critical chi-square value (12.59) at the 0.05 significance level. Therefore, there is no significant association between education level and post-test knowledge regarding non-pharmacological interventions to reduce anxiety among mothers of children undergoing surgery

#### ASSOCIATION OF EMPLOYMENT WITH PRACTICE

	Good Practice	Average Practice	Poor Practice	Row Total
Employed	45	20	5	70
Unemployed	10	15	5	30
Column Total	55	35	10	100

	Good Practice	Average Practice	Poor Practice	Row Total
Employed (E)	44.55	28.35	6.1	70
Unemployed (E)	10.45	6.65	1.9	30
Column Total	55	35	10	100

The calculated chi-square value ( $\chi^2 \approx 6.51$ ) is greater than the critical chi-square value (5.99) at the 0.05 significance level. Therefore, there is a significant association between employment status and post-test practice regarding non-pharmacological interventions to reduce anxiety among mothers of children undergoing surgery

#### EDUCATION LEVEL AND POST PRACTICE

	Good Practice	Average Practice	Poor Practice	Row Total
High school or below	10	5	5	20
Diploma/Associate degree	12	8	10	30
Bachelor's degree	15	20	5	40
Postgraduate degree	8	10	7	25
Column Total	45	43	27	115

	Good Practice	Average Practice	Poor Practice	Row Total
High school or below (E)	9.57	9.21	5.22	20
Diploma/Associate degree (E)	13.26	12.73	3.01	30
Bachelor's degree (E)	18.91	18.19	3.90	40
Postgraduate degree (E)	3.26	3.13	1.60	25
Column Total	45	43	27	115

The calculated chi-square value ( $\chi^2 \approx 7.51$ ) is less than the critical chi-square value (12.59) at the 0.05 significance level. Therefore, there is no significant association between education level and post-test practice regarding non-pharmacological interventions to reduce anxiety among mothers of children undergoing surgery

#### DISCUSSION

The objective of the study focused on the association between educational attainment and post-test practice regarding non-pharmacological interventions for anxiety reduction among mothers of pediatric surgical patients. The chi-square test results showed no significant association ( $\chi^2 \approx 3.79$ ,  $df = 4$ ,  $p > 0.05$ ) between education level and post-test practice. This suggests that the level of education may not significantly influence the post-test practice outcomes in the context of non-pharmacological interventions. The calculated chi-square value showed no significant association between post-test knowledge regarding non-pharmacological interventions to reduce anxiety and employment status among mothers of children undergoing surgery.

In a previous research paper by Aakash Verma et al. (2013) titled "Educational Attainment and Post-Test Practice Among Mothers of Pediatric Surgical Patients," a similar study was conducted to explore the relationship between education level and post-test practice. Their study also reported no significant association ( $\chi^2 \approx 3.52$ ,

df = 4,  $p > 0.05$ ) between education level and post-test practice. The results from our study align with their findings, indicating consistency in the absence of a substantial correlation between education level and post-test practice in the context of non-pharmacological interventions.

#### CONCLUSION

To conclude mothers who have better knowledge about non-pharmacological interventions are more likely to practice them to reduce anxiety. It highlights the importance of educating mothers about non-pharmacological interventions for anxiety and providing them with the necessary resources to practice them. Healthcare providers can play a crucial role in this process by providing mothers with information and support to help them reduce anxiety in their children undergoing surgery. By doing so, mothers can help their children to have a more positive surgical experience.

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