

## **A Quasi Experimental Study to Assess the Effectiveness of Structured Psychotherapy on Anxiety among Pre Operative and Post Operative Patients Undergoing Abdominal Surgery In Christian Medical College and Hospital Ludhiana Punjab**

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### **ABSTRACT**

The aim of the study was to assess the effectiveness of structured psychotherapy on anxiety among pre operative and post-operative patients undergoing abdominal surgery. The sample comprised of 40 patients divided into two groups experimental group 20 & control group 20. Spielbergers state anxiety inventory was used to collect data. 't' value & Anova was calculated for the comparison of pretest and post test. State anxiety score of experimental and control group of patients. Results showed that there was marked difference in pre test and post test state anxiety scores of patients in experimental group where as in control group there was a statistically significant difference between pre test and post test scores. However no significant effect was found in control group. However no significant effect was found according to age, educational qualification, religion, technique of surgery & income support system on pre test anxiety scores of patients in both experimental and control group.

**Keywords:** *Structured Psychotherapy, Pre Operative, Post Operative, Abdominal Surgery, Patients*

Anxiety is considered as a normal feeling that always accompanies people throughout life. It is a compound phenomenon that has psychological, motor, somatic vegetative and metabolic components. Anxiety reaches its peak when there is impending threat to an individual's physical or mental integrity. One such threat is surgery. Even the thought of operation and anaesthesia increase the feeling of anxiety. The dimension of anxiety has inconvenient influence on the time of recovery, quantity of complications and the discomfort felt by patients. The incidence of preoperative anxiety was reported as high as 60% of surgical patients. Patients preparing to undergo surgery should not suffer needless anxiety. The

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practice of giving preoperative information can reduce patient anxiety. However, some controversy still remains, since for cardiac surgery, information delivered either personally or by pamphlets produced no benefit. It is also interesting to note that any complete or minimal written information regarding anaesthesia, while not significantly changing the state-anxiety levels, could increase the knowledge regarding anaesthesia.

Admission to hospital causes stress and anxiety which not only causes an imbalance in homeostasis, but it also impedes recovery. In addition, it has been established that providing pre operative information and encouraging discussion helps to alleviate this anxiety. This preparation, which should lead to understanding and reduce uncertainty, enables patients to play a role in their own information builds accurate expectations of surgery which will in fact reduce emotional arousal during surgery. Surgical patients who are given emotional support and information about the procedure generally have a smoother operative course and recovery, and show greater compliance with treatment.

Although it has been known for many years that pre operative information reduces anxiety this recommendation is not widely implemented by hospital staff. Giving of pre operative information remains inadequate and still contributes to increased patient's anxiety. Care must be taken when giving information. Several studies have highlighted that information given to hospital patients is often insufficient, contradictory and confusing.

### ***Objectives:***

- To assess and compare the pre test anxiety among experimental group and control group of patients, undergoing abdominal surgery.
- To compare pre test and post test anxiety among experimental and control group of patients
- To assess and compare post test anxiety among experimental and control group.
- To find out the relationship of pre test anxiety score among patients who are undergoing abdominal surgeries with selected variables such as age, sex income etc.

### ***Hypothesis***

- H1-there is a reduction in pre operative post test score of patients receiving structured psychotherapy in the experimental group.

### ***Sample & Sampling technique***

The investigator selected a sample of 40 patients posted for abdominal surgery, 20 for experimental group and 20 for control group from Christian Medical College and Hospital, Ludhiana, Punjab. The purposive sampling technique was used. **The tool used in the study has 2 parts:**

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**Part 1: Sample characteristics**

This part consist of items for obtaining personal information i.e. age, gender, education, religion, income, technique of surgery and support system.

**Part 2: Standardized tool STAI (state anxiety scale)**

This part consists of 20 items. Helps distinguish between two types of anxiety i.e. state anxiety & trait anxiety. The first subscale measures state anxiety, the second measures trait anxiety. The range of scores is 20-80, the higher the score indicating greater anxiety .some of the questions relate to the absence of anxiety, and are reverse scored (1, 6, 7, 10, 13, 16, & 19).Approximately 10 minutes are required to complete STAI.

**Criterion measure**

Maximum score= 80

Minimum score= 20

**Levels of anxiety**

20-40= mild anxiety

41-60= moderate anxiety

61-80= severe anxiety

***Data collection procedure***

The data collection for the study was carried out throughout the month of December. Before starting the task of data collection, formal permission was obtained from the Principal, College of Nursing, Christian Medical College and Hospital, Ludhiana and H.O.D general surgery department Christian Medical College and Hospital, Ludhiana. The data collection was done in the inpatient departmentsie male surgical ward general and private wards .data was collected from pre operative and post operative patients undergoing abdominal surgery Christian Medical College and Hospital, Ludhiana. Prior to the interview and applying State Trait Anxiety Inventory, rapport was established with respondents by self introduction. The purpose of the study was explained to get needed information. They were assured that their responses would be kept confidential and would be used for research purpose. In the private ward pre test of control group was taken and after two days post test was taken. In the general ward pre test of experimental group was taken in general surgery ward. After one day counselling was given. Next day preoperative post test was taken. The analysis of pilot study was done in accordance with the objectives & the feasibility of the study. The time taken by each respondent was 10 minutes. It took 1 month to complete the entire procedure. The data collected was then arranged and compiled for analysis

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**SECTION I**

**Demographic Characteristics Of Sample**

*Table 1 Frequency and percentage distribution of the sample characteristics*

**N=40**

Sample characteristics	Control group		Experimental group		df	$\chi^2$
	n=20 n	%	n	n=20 %		
<b>Age</b>						
40-50 yrs.	12	60%	12	60%	1	NA
51-60 yrs.	8	40%	8	40%		
<b>Educational qualification</b>						
10+2	14	70%	14	70%	1	NA
Graduation	6	30%	6	30%		
<b>Income (in Rs.)</b>						
20000-25000	15	75%	15	75%	1	NA
25001-50000	5	25%	5	25%		
<b>Religion</b>						
Sikh	16	80%	16	80%	1	NA
Hindu	4	20%	4	20%		
<b>Technique of surgery</b>						
Open	20	100%	20	100%	-	NA
Close	-	-	-	-		
<b>Support system</b>						
Family	20	100%	20	100%	-	NA
Friends	-	-	-	-		
Religious groups	-	-	-	-		

**SECTION II**

**Objective1:** To assess and compare the pre test anxiety among experimental group and control group of patients, undergoing abdominal surgery

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**Table 2, Mean score of Pre operative pre test anxiety among experimental group and control group of patients undergoing abdominal surgery**

				N=40
				<u>Anxiety score</u>
<b>Groups</b>	<b>n</b>	<b>Mean</b>	<b>SD</b>	<b>'t'</b>
1.Experimental Group	20	65.65	2.27	
2.Control group	20	65.00	2.103	2.94*
Maximum score=80 minimum score=20				*=significant at p<0.05 level

**Table 3 Mean score of Pre operative pre test anxiety among experimental group and control group of patients undergoing abdominal surgery**

				N=40
				<u>Anxiety score</u>
<b>Groups</b>	<b>n</b>	<b>Mean</b>	<b>SD</b>	<b>'t'</b>
1.Experimental Group	20	65.65	2.27	
2.Control group	20	65.00	2.103	2.94*
Maximum score=80 minimum score=20				*=significant at p<0.05 level

**Table 4, Pre operative post test anxiety among experimental group and control group of patients undergoing abdominal surgery**

				N=40
				<u>Anxiety score</u>
<b>Groups</b>	<b>n</b>	<b>Mean</b>	<b>SD</b>	<b>'t'</b>
<b>1. Experimental</b>	20	63.90	2.47	
<b>2. Control</b>	20	65.00	2.10	<b>2.77*</b>
Maximum score=80 Minimum score=20				*significant at p<0.05 level

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*Table 5, Post operative post test anxiety among experimental group and control group of patients undergoing abdominal surgery*

N=40				
Groups	n	Anxiety score		t
		Mean	SD	
<b>Experimental group</b>	20	61.10	3.127	5.902*
<b>Control group</b>	20	65.15	2.033	

Maximum score=80  
Minimum score=20

\*=significant at p<0.05 level

*Table 6, Mean score pre operative pre test and pre operative post test score of anxiety according to age in control and experimental group*

N=40							
Group	n	Anxiety score				df	t
		mean	SD	mean	SD		
<b>Control</b>	20						
40-50years	12	64.75	2.14	64.75	2.14	1	0.53 <sup>NS</sup>
51-60years	8	65.38	2.13	65.38	2.13		
<b>Experimental</b>	20						
40-50years	12	65.58	2.19	63.83	2.44	1	0.57 <sup>NS</sup>
51-60years	8	65.88	2.70	63.13	2.36		

Maximum Score=80  
Minimum Score=20

NS=Non Significant

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**Table 7, Mean score pre operative pre test and pre operative post test score of anxiety according to age in control and experimental group**

		<u>Anxiety score</u>				N=40	
Group	n	mean	SD	mean	SD	df	t
<b>Control</b>	20						
40-50years	12	64.75	2.14	64.75	2.14	1	0.53 <sup>NS</sup>
51-60years	8	65.38	2.13	65.38	2.13		
<b>Experimental</b>	20						
40-50years	12	65.58	2.19	63.83	2.44	1	0.57 <sup>NS</sup>
51-60years	8	65.88	2.70	63.13	2.36		

Maximum Score=80                      NS=Non Significant  
 Minimum Score=20

**Table 7(a) Mean score of anxiety of post operative post test of control group and experimental group according to age .**

		<u>Anxiety score</u>				N=40	
		<u>Control group</u>		<u>Experimental Group</u>			
Post operative post test	n=20	mean	SD	mean	SD	df	T
40-50years	12	64.83	2.29	61.75	3.47	1	0.53 <sup>NS</sup>
51-60years	8	64.75	2.12	61.25	3.77		

Maximum Score=80                      NS= Non Significant  
 Minimum Score=20

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*Table 7(b), Mean score of anxiety of pre operative pre test and post operative post test of control group and experimental group according to age. N=40*

	Anxiety score						df	T
	Control group			Experimental group				
<b>Pre operative pre test</b>	n=20	mean	SD	Mean	SD			
40-50years	12	64.75	2.14	65.58	2.19	1	0.53 <sup>NS</sup>	
51-60years	8	65.38	2.13	65.88	2.70			
<b>Post operative post test</b>	n=20							
40-50years	12	64.83	2.29	61.75	3.47	1	0.77 <sup>NS</sup>	
51-60years	8	64.75	2.12	61.25	3.77			
Maximum Score=80					NS= Non Significant			
Minimum Score=20								

*Table 7(c), Mean anxiety score of Preoperative pre test , pre operative post test and post operative post test of patients undergoing abdominal surgery according to education.*

Anxiety score								
	Control group (n= 20)			Experimental Group (n=20)			df	t
	n	mean	SD	mean	SD			
<b>Pre operative pre test</b>								
10+2	14	64.71	2.20	65.71	2.40	1	0.34 <sup>NS</sup>	
Graduation	6	65.67	1.86	62.50	2.07			
<b>Pre operative post test</b>								
10+2	14	64.71	2.20	64.00	2.42	1	0.34 <sup>NS</sup>	
Graduation	6	65.67	1.86	62.50	2.07			



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<b>Post operative post test</b>							
10+2	14	64.93	2.20	62.43	3.59	1	0.70 <sup>NS</sup>
Graduation	6	64.50	2.26	59.5	2.77		
Maximum Score= 80				NS= Non Significant			
Maximum Score=20							

*Table 7 (d) Mean score of anxiety of Pre operative pre test, pre operative post test and post operative post test of patients undergoing abdominal surgery according to income*

		<b>Anxiety score</b>					
		<b>Control group (n= 20)</b>	<b>Experimental Group (n= 20)</b>				
		<b>mean</b>	<b>SD</b>	<b>mean</b>	<b>SD</b>	<b>df</b>	<b>t</b>
<b>Pre operative pre test</b>	Rs.20000-25000	15	65.27	1.94	65.53	2.61	1 1.47 <sup>NS</sup>
	25001-50000	5	64.20		66.20	2.59	
<b>Pre operative post test</b>	Rs.20000-25000	14	64.71	2.20	64.00	2.42	1 0.34 <sup>NS</sup>
	25001-50000	6	65.67	1.86	62.50	2.07	
<b>Post operative post test</b>							

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Rs.20000-25000	14	64.93	2.20	62.43	3.59	1	0.70 <sup>NS</sup>
25001-50000	6	64.50	2.26	59.5	2.77		

*N=40*

Maximum Score= 80

NS= Non Significant

Minimum Score= 20

*Table 8, Mean score of anxiety of Pre operative pre test, pre operative post test and postoperative post test of patients undergoing abdominal surgery according to religion*

<b>N=40</b>									
<b>Group</b>	<b>n</b>	<b>Anxiety score</b>				<b>SD</b>	<b>df</b>	<b>'t'</b>	
		<b>Control group n =20 Mean</b>	<b>SD</b>	<b>Experimental group n=20 Mean</b>	<b>SD</b>				
<b>Pre operative pre test</b>									
Sikh	16	64.81	2.17	65.69	2.77	1	0.47 <sup>NS</sup>		
Hindu	4	65.75	1.89	65.75	2.99				
<b>Pre operative post test</b>									
Sikh	16	64.81	2.17	63.56	2.45	1	0.43 <sup>NS</sup>		
Hindu	4	65.75	1.89	63.50	2.38				
<b>Post operative post test</b>									
Sikh	16	64.88	2.28	61.81	3.41	1	0.59 <sup>NS</sup>		
Hindu	4	64.50	1.91	60.50	4.20				

Minimum score=20

NS=Non significant

Maximum score=80

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### **MAJOR FINDINGS OF THE STUDY**

According to income , in both control and experimental group majority of patients undergoing abdominal surgery were in the income group of 20000-35000 (85%,85%) and least were in the income group of 36000-50000 (15%,15%) respectively.

As per educational qualification in both control and experimental group majority of patients undergoing abdominal surgery were in the group of 10+2 (70%,70%) followed by the group of (30%,30%) respectively.

According to religion in both control and experimental group majority of patients undergoing abdominal surgery were in the religion group of Sikh (80%,80%) followed by the religion group of Hindu (20%,20%) respectively.

The pre operativepre test anxiety of experimental group is significantly more as compared to control group.

There is a marked difference in pre test and post test state anxiety scores of experimental and control group.

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