

## A Study to Assess the Effect of Counselling on Anxiety among Post-Operative Orthopaedic Patients

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### ABSTRACT

The aim of the study was to assess the effect of counselling on anxiety among post-operative orthopaedic patients. The sample comprised of 60 male patients divided into two groups experimental group 30 & control group 30. 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. Further, it was found that there was significant difference in pre test and post test anxiety scores of experimental group of patients, according to age and significant difference was found in control group. However, no significant effect was found in control group. However, no significant effect was found according to age, educational status & income on pre test anxiety scores of patients in both experimental and control group

**Keywords:** *Counselling, Anxiety, Post-Operative, Orthopaedic Patients*

Throughout the world millions of patients undergo surgery each year. Increased knowledge, the development of anesthesiology and surgery techniques, and economic pressures has all resulted in shortened hospitalization time. This shift has probably been carried out without considering patients' possibility or ability to take care of their own recovery.

Today everybody is in a hurry – be it at a physical or mental plain. The advent of modern technology has added tremendous pace to our life. We are eager to achieve instant results in the shortest span of time. This pre-occupation with a fast-track existence has added enormous problems to our daily life style. there is pre-occupation and excessive burdening of our thought process. A slight shift in thoughts or diversion sends a man crashing into the lap of accidents which may result in fractured bones.

According to a research study there are 15 variations in the genome that are related to the risk of suffering bone fractures, which are a major healthcare problem affecting more than 9 million persons worldwide every year. The study provides evidence against a causal effect of

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several proposed clinical risk factors for fractures, including diabetes, rheumatoid arthritis, vitamin D, as well as others. Osteoporotic fractures represent a major health risk to older adults. 34 million Americans have low bone density, putting them at increased risk for osteoporosis and broken bones. The condition leads to bone fragility and an increased risk of fractures, especially of the hip, spine and wrist. About one-quarter of those over age 50 who suffer a hip fracture die within a year of the injury. Osteoporosis-related fractures were responsible for an estimated \$19 billion in health care costs in 2005, with that figure expected to increase to \$25 billion by 2025.

A fracture is a broken bone. It can range from a thin crack to a complete break. Bone can fracture crosswise, lengthwise, in several places, or into many pieces. Most fractures happen when a bone is impacted by more force or pressure than it can support. Most fractures are accompanied by intense pain when the initial injury occurs. It may become worse when you move or touch the injured area. In some cases, you may even pass out from the pain. You may also feel dizzy or chilled from shock. Other potential symptoms of a fracture include a snap or grinding sound when the injury occurs, swelling, redness, and bruising in the injured area, difficulty supporting weight with the injured area and visible deformity in the injured area. In some cases, you may see broken bone poking through your skin.

There are more than 150 different types of fractures classified in various ways. Some of the more common types are the following: closed (simple) fracture, an uncomplicated fracture with intact skin over fracture site, that is, bone does not protrude through the skin. open fracture (compound), a break in the skin is present over the fracture site. The wound communicates through the skin to the fractured bone internally. Open fractures are further divided into grades of severity. Grade I: skin puncture with minimal tissue damage. Grade II: as in grade I, with skin and muscle contusion. Grade III: a wound larger than 6 to 8 cm with damage to blood vessels, nerves, muscles and skin. Grade IV: a wound larger than 6 to 8 cm with damage to blood vessels, nerves, muscles and skin. A bone fracture is usually treated with a cast and/or splint. A cast or splint will immobilize the bone (keep it from moving) in order to encourage the bones to align (straighten) and to prevent use of the bone. In some cases when the bone is small (toes or fingers), no cast is needed and the fracture is immobilized by wrapping. Medication may also be prescribed to ease the pain of the fracture. Traction may also be used to stabilize and realign fractures before surgery. Traction uses a system of pulleys and weights to stretch the muscles and tendons around the broken bone. If a fracture is bad enough, the patient may need surgery. Hip fractures almost always require surgery, because other treatments require that the hip remain immobilized for a long time, and often have poor results. Internal and external rods and/or pins may be used to hold the bone in place to allow the bones to align. Postoperative recovery following a variety of surgical procedures has been studied. In general, researchers have evaluated short-term recovery by studying length of hospitalization and return to normal life, focusing on such symptoms as pain, postoperative nausea and vomiting, sleep disturbance, fatigue, functional level, and cognitive dysfunction. This research line has been directed mainly toward a single symptom and has increased our knowledge of isolated postoperative symptoms; however, little is known about other areas of postoperative recovery.

In case of fracturing of bones, the person is debilitated to such an extent that he is unable to perform his routine duties. The affected person – be a student, a professional or a businessman – finds himself severely constrained in matters of study work or business. In the event of confining to bed feeling of dependency, financial burden and person is under

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constant stress. He is unable to meet his personal hygiene needs and is unable to do anything for himself. Thus, a sense of tension anxiety creeps in.

### ***Objectives***

- To assess and compare the pre-test state anxiety among experimental group and control group of post – operative orthopaedic patients.
- To assess and compare the post-test state anxiety among experimental group and control group of.
- To find the relationship of pre-test and post-test state anxiety among post operative orthopaedic patients, with selected variables:
  - Age
  - Education
  - Marital status
  - Income
  - Religion

### ***Hypothesis***

**H<sub>1</sub>** post-test state anxiety scores of the experimental group will be significantly lower than those of control group of patients.

### ***Rationale for hypothesis***

Provision of package of information, guidance and reassurance will reduce ambiguity, will help the patients to discriminate between events which are stressful and will help them reduce anxiety (**Barnett, 1980-81**)

### ***Sample***

The present study was conducted on 60 post – operative patients in male orthopaedic wards of Christian Medical College and Hospital, Ludhiana and diagnosed as fracture lower limb. The subjects were selected by purposive sampling from the age group 15 to 45, with fracture of lower limb, willing to participate in the study and free from other infections.

### ***Tool***

As the study is concerned with the effect of supportive psychotherapy on anxiety of post operative orthopaedic patients. The following three data collection instruments were used:

- I. Self structured personal data questionnaire
- II. Standardised tool
- III. Hindi edition of speilberger's state anxiety inventory.
- IV. Supportive psychotherapy consisted of:
  - a. Forming rapport
  - b. Listening (allaying fears) unstructured
  - c. Reassurance
  - d. Pamphlet-structured
  - e. Suggestions- unstructured

The state anxiety scale of STAI consists of 20 items numbering 1 to 20. Out of 20 items, there are 10 positive item Nos. 1,2,5,8,10,11,15,16,19,20, and 10 negative item Nos. 3, 4, 6, 7, 9, 12, 13, 14, 17, 18. The answer is marked on a 4-point likert scale viz. Not at all, somewhat, moderately and very much. Positive items are scored as not at all -4, somewhat 3,

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moderately -2, very much -1 whereas negative items are scored as not at all -1, somewhat -2, moderately -3 and very much -4.

The data collection procedure was carried out from January 1999 to February 1999. The investigator went to ward and found out the patients having lower limb surgery every day. She enquired about the patients posted for lower limb surgery in Christian Medical College and Dayanand Medical College. Control group had to keep in D.M.C. The Experimental group was in C.M.C. she introduced herself to the subjects, explained the purpose of the study and established a good rapport with them. In Experimental group. they were made comfortable. She screened the patients and sat on bench near the bed of the patients and filled the personal data questionnaire and subjects were asked to be frank and honest in answering questions in anxiety scale. The state anxiety scale was filled in by the investigator for all the subjects. Three visits were made to give supportive psychotherapy to the patients of experimental group i.e., 1<sup>st</sup> post operative day, 2<sup>nd</sup> post operative day and 3<sup>rd</sup> post operative day, post test was taken.

For control group two visits were made. 1<sup>st</sup> visit was made on 1<sup>st</sup> post operative day she purposely didn't encourage the patients to ask and in short time the patients were left with brief introduction by the investigator and purpose of the study and personal data questionnaire and anxiety scale was filled in by the investigator for all subjects of control group.

**Table 2 Comparative Mean of Pretest and Post Test State Anxiety Scores of Experimental And Control Group Of Patients**

patients	State Anxiety Score				
	Pre test Mean	SD	Mean	SD	't' value
Control group(a) n=30	51.93	3.85	(c) 51.70	3.98	.59
Experimental group(b) n=30	52.73	5.17	(d) 24.73	4.33	26.28***
Maximum State Anxiety score=80 a & b 't'=68 NS					c & d 't'=27.98*** Df=29 ***(p<0.001 NS-Not Significant

Table 2 shows that anxiety scores in pre test is almost similar in experimental and in control group whereas post test anxiety score of experimental group is markedly reduced which statistically highly significant. Hence, the null hypothesis ( $H_{01}$ ) that post test anxiety scores of experimental group will not be significantly lower than those of control group, is rejected and research hypothesis i.e. post test state anxiety scores of experimental group will be significantly lower than those of control group of patients is accepted.

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religion	State anxiety score								
	Control group(n=30)			't'	Experimental group (n=30)			't'	df
n	mean	SD	n		mean	SD			
<b>Sikh</b>	14				14				
<b>Pre test</b>		52.0	4.12			54.71	5.48		13
<b>Post test</b>		51.76	3.05	.29 <sup>NS</sup>				14.35	
<b>Hindu</b>	16				16				
<b>Pre test</b>		51.87	3.8			57.13	4.45		
<b>Post test</b>		51.62	3.18	.64 <sup>NS</sup>		24.2	2.70	27.5 <sup>***</sup>	

Maximum state anxiety score=80

\*\*\*( $p < 0.001$ )  
NS=Not Significant

### *The major findings of the study revealed that:*

1. There is a marked difference in pre- test and post test state anxiety scores of experimental patients whereas in control group there is no statistically significant difference between pre test and post test anxiety scores.
2. There is no statistical significant effect of age on pre test state anxiety scores of patients in both experimental and control group.
3. There is marked difference in pre test and post test state anxiety scores of experimental group of patients according to age. Whereas in control group there is no statistically significant difference between pre test and post test anxiety score.
4. There is no statistical significant effect of educational status on pre test state anxiety scores of patients in both the experimental and control group.
5. There is marked difference in pre test and post test state anxiety scores of experimental group of patients according to educational status which is found to be statistically highly significant. Whereas in control group there is no statistically difference between the pre test and post test anxiety scores.
6. There is no significant effect of income on pre test anxiety scores of the patients in both experimental and control group.
7. There is marked difference in pre test and post test anxiety scores of experimal group of patients according to income. But in control group of patients there is no statistically significant difference between pretest and post test anxiety scores.
8. There is no statistical significant effect of marital status on pre test state anxiety scores of patients in both experimental and control group
9. There is marked difference in pre test and post test anxiety scores of experimal group of patients according to marital status. But in control group of patients there is no statistically significant difference between pretest and post test anxiety scores.
10. There is no significant effect of religion on pre test anxiety scores of the patients in both experimental and control group.
11. There is marked difference in pre test and post test anxiety scores of experimal group of patients according to religion. But in control group of patients there is no statistically significant difference between pretest and post test anxiety scores.

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### ***Conflict of Interest***

The author(s) declared no conflict of interest.

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