

Effectiveness of Pre-Procedural Teaching on Levels of Anxiety among Patients Undergoing Gi Endoscopy

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Abstract

Anxiety (state and trait) is one of the emotional and behavioural characteristics that may vary from person to person, sometimes due to which person's body system, physiological parameters and satisfaction vary. One of the important diagnostic tool for examine the upper gastro intestinal tract is endoscopy which is usually done for therapeutic and diagnostic purposes, which may create procedural anxiety among patients. **Methodology:** Quasi experimental (control group pretest- posttest) design was carried out among 107 (55 in experimental group and 52 in control group) patients undergone GI endoscopy, which were selected through systematic random sampling. Data was collected by using State-Trait Anxiety Inventory (Anxiety). **Results:** Mostlysampl in both the group did not had any previous knowledge regarding endoscopy procedure. (67.2%) (80%) sample had moderate state and trait anxiety in experimental group whereas (71.2%) (80.8%) had moderate state and trait anxiety in control group, before going to GI endoscopy procedure respectively. The post exposure mean score of the experimental group was lower than the post exposure mean score of the control group, state anxiety (37.42 and 53.17) and trait anxiety (43.62 and 50.29) this difference was significant. **Conclusion:** Pre-procedural teaching was effective in alleviating the anxiety (state and trait) level of patients in experimental group as compared to the control group of patients underwent GI endoscopy.

Keywords: Effectiveness, Pre- procedural teaching, Level of anxiety, Patients, GI endoscopy

Introduction

Anxiety (i.e state and trait) is one of the emotional and behavioral characteristics that may vary from person to person. Symptoms of anxiety is normal part of every person's life sometimes due to which person's physiological parameters and satisfaction can also vary. One of the important diagnostic tool for examine the upper gastro intestinal tract is endoscopy. Endoscopy is a procedure usually done for purposes of diagnosis. **Vadhanan prasannaet.al (2017)**, total anxiety prevalence was 31% in which females had

(39.5%) and male had (21.2%) of pre-procedural anxiety.¹To address anxiety, need to evaluate and describe elaborate about the endoscopy procedure to the patient undergoing GI endoscopy. Nurse plays an important role in preparing patients for procedure before, during and after the procedure. This anxiety due to endoscopy procedure can be reduced to some extent by giving simple interventions. **Behrouzian Forouzan et al. (2017)** concluded that psychological preparation was effective in reducing state and trait anxiety of participants.²

Literature Review

Paniyadi Nanda Kumar, et al. (2019) evaluated anxiety level for patients undergoing upper GI endoscopy and their association with selected demographic variables. Total 56 sample were taken in

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the study. The study findings concluded that mild to moderate level of anxiety was experienced by all the patients before going to endoscopy.³

Problem statement and objectives

Problem Statement

A study to assess the effectiveness of pre-procedural teaching on levels of anxiety among patients undergoing GI endoscopy in selected hospital, Dehradun, Uttarakhand.

Objectives

1. To assess the anxiety level of patients undergoing GI endoscopy in experimental and control group.
2. To develop and implement teaching plan for patients of experimental group undergoing GI endoscopy.
3. To measure the effectiveness of pre-procedural teaching on level of anxiety of the patients

undergoing GI endoscopy between experimental and control group.

Material and Methodology

In current study Quantitative research approach was used, Quasi experimental research design (pretest–posttest control group design) was carried out among 107 (55 in experimental group and 52 in control group) patients undergone GI endoscopy in Himalayan hospital, jollygrant, dehradun, which were selected through systematic random sampling. To avoid the biasness data for the control group was taken first after that data for experimental group has taken from 17th to 28th December 2019. Data was collected by using respective tools, baseline data tool was used for demographic variables, State-Trait Anxiety Inventory used for assessment of level of Anxiety of the study participants. In experimental group Pre-procedural teaching was given to the participants prior to the endoscopy procedure and on the same day post assessment was done.

Analysis and Interpretation

Table No. 1 Frequency and percentage distribution of the base line data

(n = 107)

S.no	Demographic Variable	Groups	
		Experimental (n ₁ = 55)	Control (n ₂ = 52)
		F (%)	F (%)
1.	Age		
	18-29	16 (29.09)	15 (28.85)
	30-40	39 (70.91)	37 (71.15)
2.	Gender		
	Male	31 (56.4)	26 (50)
	Female	24 (43.6)	26 (50)

Cont... Table No. 1 Frequency and percentage distribution of the base line data

(n = 107)

		Educational Status	
3.	No formal ed.	04 (7.28)	04 (7.69)
	Primary	05 (9.09)	09 (17.31)
	High school	09 (16.36)	15 (28.85)
	Intermediate	16 (29.09)	10 (19.23)
	Graduate or above	21 (38.18)	14 (26.92)
			Occupation
4.	Govern. Job	08 (14.6)	12 (23.1)
	Private Job	29 (52.72)	18 (34.6)
	Self employed	06 (10.91)	05 (9.6)
	Unemployed	12 (21.81)	17 (32.7)
		Knowledge regarding endoscopy procedure	
5.	Yes	16 (29.09)	16 (30.8)
	No	39 (70.91)	36 (69.2)
		Diagnosis	
6.	Ulcer	12 (21.8)	15 (28.8)
	Indigestion	14 (25.5)	07 (13.5)
	Constipation	13 (23.6)	06 (11.5)
	Dysphasia	03 (5.5)	09 (17.3)
	vomiting	06 (10.9)	08 (15.4)
	Gastritis	05 (9.1)	07 (13.5)
	Diarrhea	02 (3.6)	0 (0)

Table no 1- Illustrates that majority of study participants were between 30-40 years of age (70.91%) (71.15%). More than half sample in experimental group were male (56.4%) and in control group both are in equal number, Majority were graduate and above (38.18%) in experimental group and education

till high school (28.85%) in control group. Majority of participants were having private job (52.72%) (34.6%) and didn't had knowledge regarding endoscopy procedure (70.91%) (69.2%) and Most of the sample having diagnosis indigestion (25.5%) and ulcer (28.8%) in experimental and control group respectively.

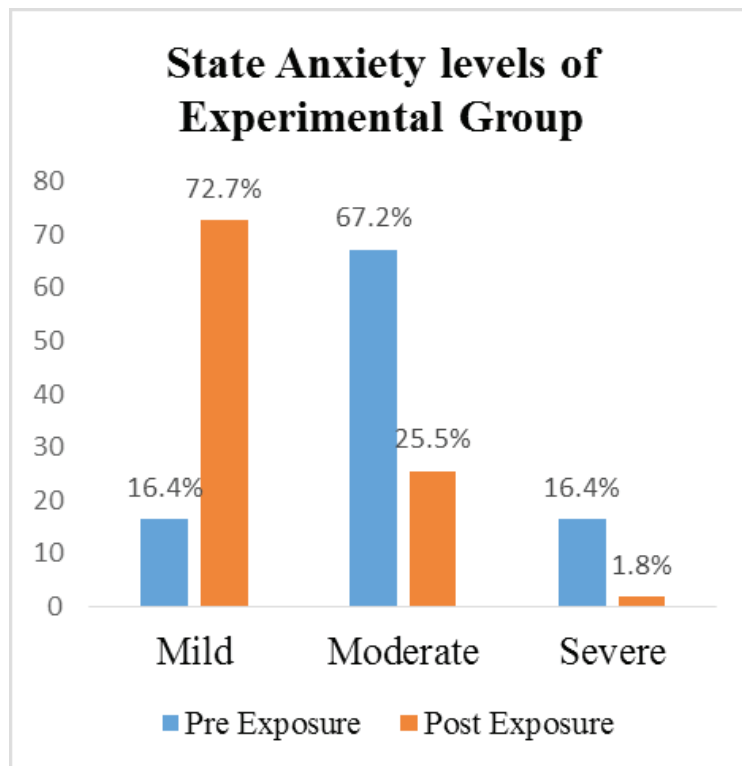


Figure 1. Assessment of pre and post exposure State anxiety levels in experimental group(n = 55)

Figure depict that more than half (67.2%) sample had moderate state anxiety, followed by (16.4%) both mild and severe anxiety during pre- exposure anxiety assessment, in post exposure anxiety assessment it was found that Mostly (72.7%) of sample had mild anxiety, very few (27.3%) had moderate state anxiety and 1.8% sample had severe anxiety.

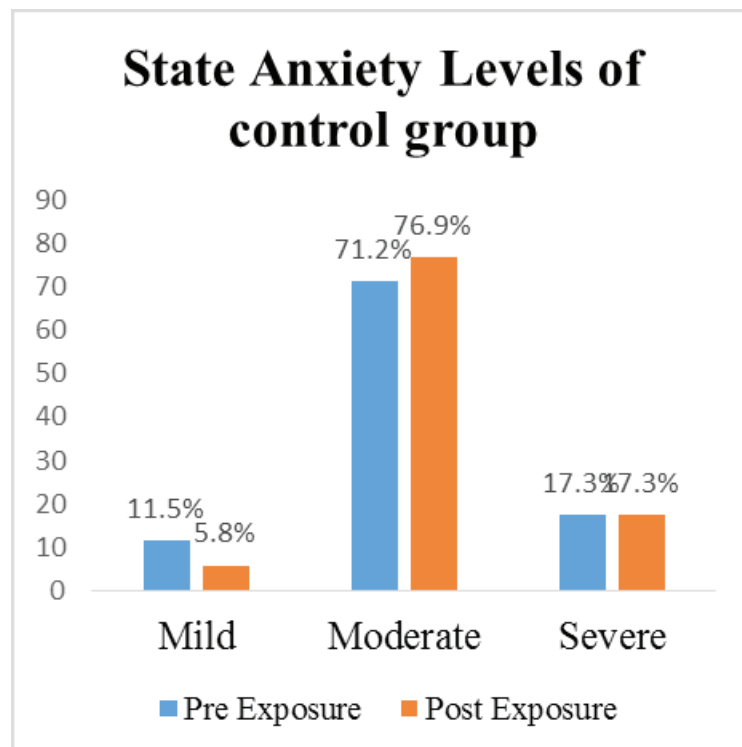


Figure 2. Assessment of pre and post exposure State anxiety levels in Control group (n = 52)

Figure exhibits the pre and post exposure state anxiety levels in the sample of the control group. In this figure it can be clearly seen that majority (71.2%, 86.6%) of sample in both pre and post exposure anxiety assessment had moderate levels of anxiety.

Very few (11.5% & 5.8) sample had mild anxiety in both pre and post exposure anxiety. The figure also depicts that sample had severe anxiety during pre and post exposure anxiety assessment (17.3%) in both respectively.

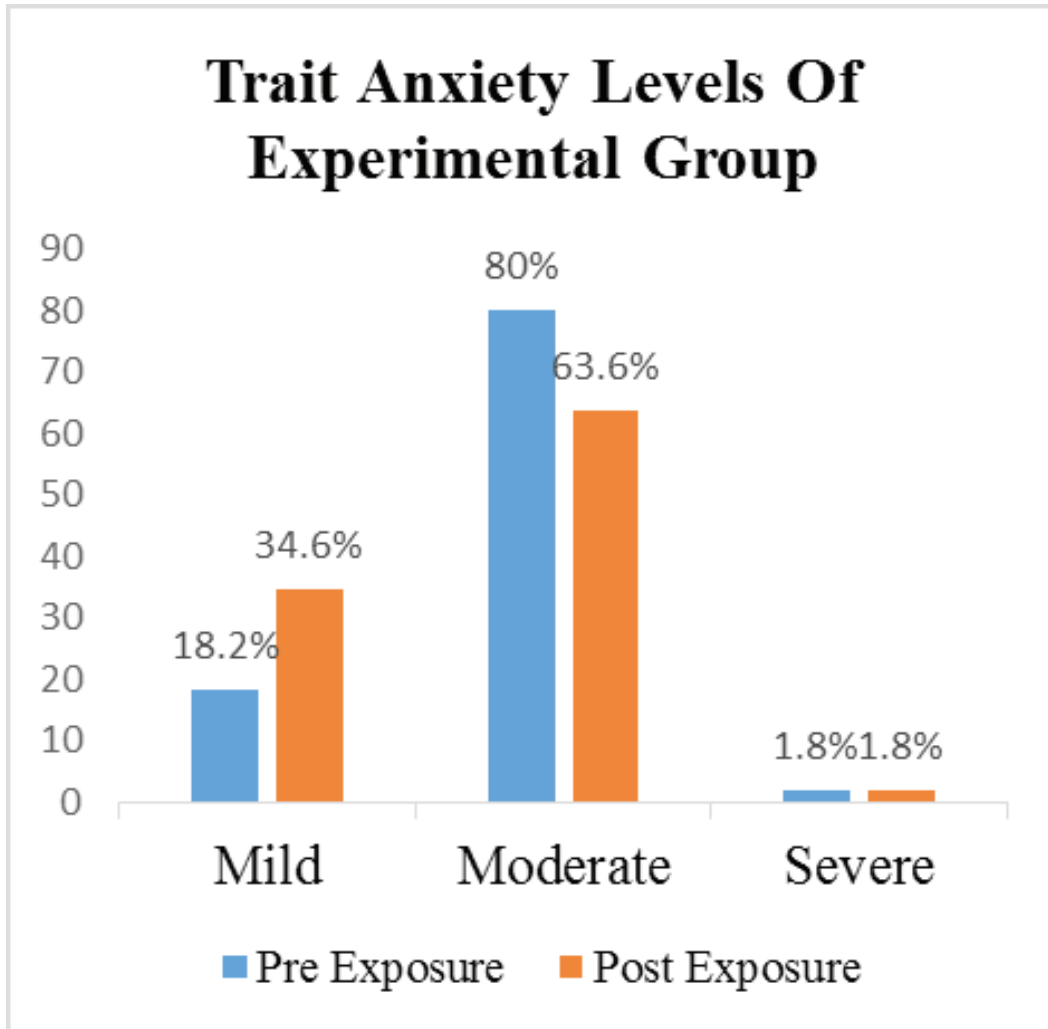


Figure 3. Assessment of pre and post exposure Trait anxiety levels in experimental group(n = 55)

Figure depicts that the majority (80%, 63.6%) of sample had moderate anxiety followed by few (18.2%, 34.6%) had mild anxiety and very few (1.8%) had severe anxiety during the pre and post exposure trait anxiety assessment respectively.

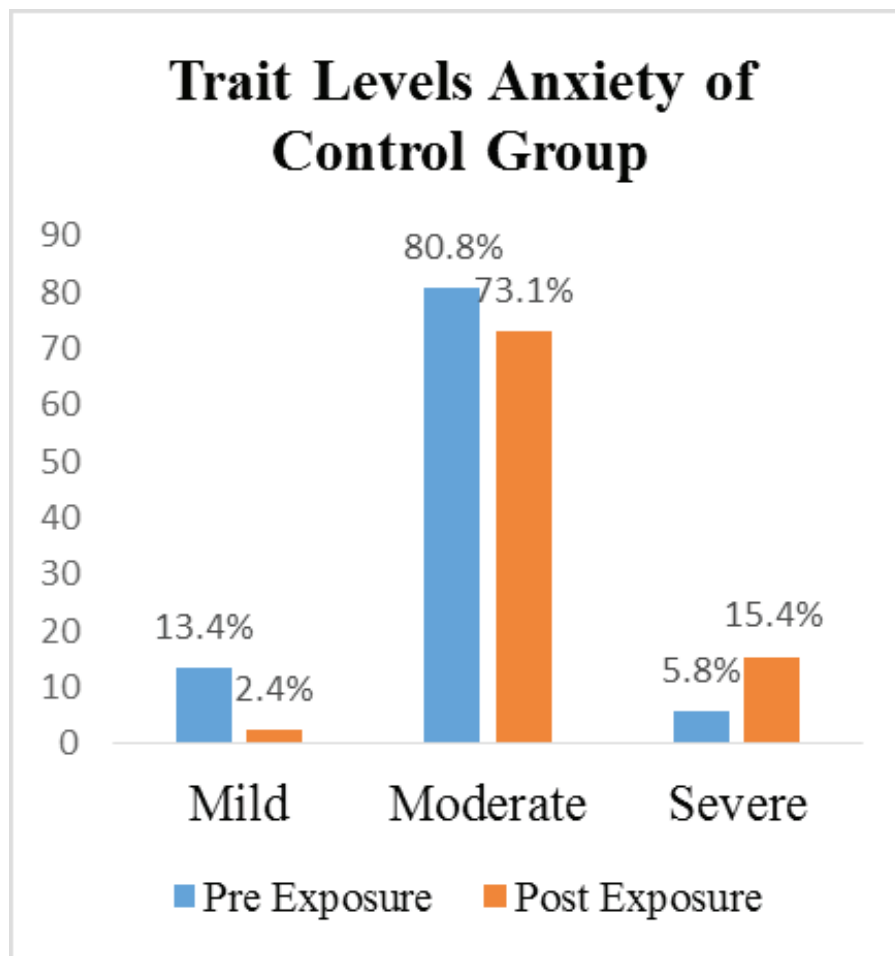


Figure 4. Assessment of pre and post exposure Trait anxiety levels in Control group(n = 52)

Figure shows that the majority (80.8%, 73.1%) of sample had moderate anxiety during the pre and post exposure anxiety assessment. followed by Very few (13.4%, 2.4%) had mild anxiety and few (5.8%, 9.6%) had severe anxiety during the pre and post exposure trait anxiety assessment respectively in control group.

Table 2 Comparison of State and Trait anxiety level scores of experimental and control group (n=107)

Value	State Anxiety		Trait Anxiety	
	Exp.	Control	Exp.	Control
Pre Exp. Mean ±SD	51.51 ± 7.79	52.65 ± 7.31	48.44 ± 6.90	49.69 ± 8.07
Post Exp. Mean ± SD	37.42 ± 6.37	53.17 ± 7.16	43.80 ± 6.24	50.29 ± 7.72
Mean Diff.	14.09	0.52	4.64	0.6
Paired 't' Value	14.14	9.7	8.06	1.31
p value	.000	.333	.000	.194

Table 3: Comparison of Pre and post exposure State and trait anxiety level scores between experimental and control group

(n=107)

Value	State Anxiety		Trait Anxiety	
	Pre Exp.	Post Exp.	Pre Exp.	Post Exp.
Exp. group	51.51 + 7.79	37.42 + 6.37	48.44 + 6.90	43.80 + 6.24
Control group	52.65 + 7.31	53.17 + 7.16	49.69 + 8.07	50.29 + 7.72
Mean Difference	1.14	15.75	1.25	6.49
Independent 't' Value	0.78	9.01	0.86	2.81
p value	.43	<.0001	.38	.005

Discussion

Assessment of pre- procedure anxiety

According to current study findings there were no significant difference between Pre exposure anxiety level (i.e. state and trait anxiety) in both the group, supported by **Behrouzian Forouzan et al. (2017)** the result shows that before the intervention was carried out, there were no significant difference between the two groups in terms of the rate of state and trait anxiety ($p < 0.05$).²

Effectiveness of pre- procedural teaching

Current study findings suggest that pre procedural teaching is effective in reducing the anxiety of the patients in experimental group. Similar study was conducted by **Samah El, Sayed Ghonaem and Samah Ramadan Ibrahim (2019)** with the aim to find the result of intervention behavioural on patient's distress level and anxiety going for upper gastroscopy. Result concluded that reduce in the distress level and anxiety in study group in comparison with control group after getting the behavioural intervention

regarding upper gastrointestinal endoscopy.⁴

Strengths

The current study had following strengths

- ü The researcher used standardized tool for the assessment of anxiety.
- ü The sample size calculation was done to determine the appropriate sample size.

Limitations

The current study had following limitations

- ü The study was conducted in one setting only.
- ü Feedback from the sample did not taken due to lack of time.

Nursing Implications

Nursing Practice

After getting the pre procedural teaching many patients had reduced anxiety. Therefore nurse should be capable and skilful with the methods to reduce

the anxiety due to endoscopy to improve the patient cooperation during the endoscopy and reduce their anxiety levels.

Nursing Education

It should emphasize more on imparting health information regarding interventions to alleviate the anxiety regarding the diagnostic procedures. Nursing personnel can use the preparatory informatics for educating patients in the endoscopy unit.

Nursing Administration

The nurse administrator should arrange continuing nursing education for other and could prepare some written policies about the evidence based practice.

Nursing Research

The present study can be used as literature for further similar studies related to effect of different interventions on level of anxiety among patients undergoing GI endoscopy.

Recommendations

Ø Implementation of behavioural intervention to reduce the anxiety can be done.

Ø Implementation of any other intervention (like video assisted teaching etc) can be done to check the effectiveness.

Ø Comparison between two different interventions can be done to check the effectiveness on level of anxiety.

Conclusion

The present study concludes that Pre-procedural teaching was effective in alleviating the anxiety (i.e. state and trait) level of patients in experimental group as compared to the control group patients underwent GI endoscopy.

Ethical Clearance- Taken from Swami Rama Himalayan University Ethics Committee

Source of Funding- Self

Conflict of Interest- Nil

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