



## A STUDY TO ASSESS THE EFFECTIVENESS OF LAVENDER AROMATHERAPY ON PRE PROCEDURAL ANXIETY AMONG PATIENTS UNDERGOING GASTROINTESTINAL ENDOSCOPY AT NIMS HOSPITAL, NEYYATTINKARA.

Mrs.Ancy. K

Senior Lecturer NIMS College Of Nursing Trivandrum, Kerala

### KEYWORDS :

"Strong minds suffer without complaining; weak minds complain without suffering"

Lettie cowman

Gastrointestinal diseases refer to diseases involving the gastrointestinal tract, namely the esophagus, stomach, small intestine, large intestine and rectum, and the accessory organs of digestion, the liver, gallbladder, and pancreas. Gastrointestinal diseases have become a major medical, social and economic burden worldwide. Gastrointestinal endoscopic procedures are one of the main diagnostic and therapeutic strategies for evaluation of gastrointestinal disease. Gastrointestinal Endoscopy is a nonsurgical procedure used to examine a person's digestive tract.

Using a gastrointestinal endoscope, a flexible tube with a light and camera attached to it, can view pictures of digestive tract on a monitor. Gastrointestinal endoscopy has been practiced for over 200 years. Anxiety is a common problem in patients undergoing interventional medical procedures, frequently used to diagnose and treat many gastrointestinal diseases. There are different medicinal and non-medicinal methods to modify and control anxiety.

Lavender is an herb that has been proven effective by leading researchers as a natural remedy for treating signs of anxiety. In a study published in the journal Phytomedicine, lavender oil was shown to be just as effective as the pharmaceutical drug lorazepam (Ativan).

### NEED FOR THE STUDY

The gastrointestinal disease accounts for a large number of deaths in several parts of the world. Gastrointestinal infection has been an emerging problem in Sikkim and Darjeeling District and also in other parts of our country.

The estimates of the prevalence of constipation in North America ranged from 1.9% to 27.2%, with most estimates from 12% to 19%. Constipation appears to increase with increasing age, particularly after age 65. No true population-based incidence studies or natural history studies were identified.<sup>34</sup> Gastrointestinal (GI) symptoms are widespread and carry heavy economic and social consequences. It is estimated that in the United States 11% of the population suffer from a chronic digestive disease, with prevalence rate as high as 35% for those 65 years and over. In 2010 alone, 60 to 70 million people in the United States suffered from a digestive disease.

### STATEMENT OF THE PROBLEM

A study to assess the effectiveness of lavender aromatherapy on pre procedural anxiety among patients undergoing Gastrointestinal endoscopy at NIMS Hospital, Neyyattinkara.

### OBJECTIVES OF THE STUDY

To assess the level of pre procedural anxiety among patients undergoing Gastrointestinal endoscopy.

To compare the effect of Aromatherapy on pre procedural anxiety among patients undergoing Gastrointestinal endoscopy between experimental and control group

To find out the association between pre-test score on level of

anxiety among patients undergoing endoscopy with their selected demographic variables.

### OPERATIONAL DEFINITIONS

#### Assess

It refers to measure the level of anxiety perceived by patients before and after Aromatherapy which is measured by Beck anxiety inventory, was used for evaluating anxiety level.

#### Effectiveness

It refers to significant reduction in level of pre procedural anxiety among patients undergoing gastrointestinal endoscopy after Aromatherapy.

#### Aromatherapy

It refers to a distinctive smell that reduces pre procedural anxiety of the patient under going gastrointestinal endoscopy. In this study lavender oil is used.

#### Preprocedural anxiety

It refers to feeling of heartlessness felt before any medical procedure that causes changes in emotional status of the individual.

#### Patients undergoing gastrointestinal endoscopy

It refers to clients who are posted for upper and lower gastrointestinal endoscopy for the first time.

#### Gastrointestinal endoscopy

Direct visualization of gastrointestinal tract through an endoscope.

### HYPOTHESES

H<sub>1</sub>- There will be a significant difference in post intervention level of pre procedural anxiety among patients undergoing gastrointestinal endoscopy in experimental group than control group

H<sub>2</sub>- There will be a significant association between the pre procedural levels of anxiety among patients undergoing gastrointestinal endoscopy with their selected demographic variables.

### METHODOLOGY

#### RESEARCH APPROACH

Experimental approach

#### RESEARCH DESIGN

Quasi experimental – pre- test and post- test, control group design

Experimental group O1 X O2

Control group O1 O2

O1 = Pre-test.

X = Intervention.

O2 = Post-test.

### VARIABLES

#### Dependent Variable

Anxiety

#### Independent Variable

Lavender aromatherapy

**POPULATION**

The population for this present study were patients undergoing gastrointestinal endoscopy.

**SAMPLE AND SAMPLING TECHNIQUE**

In this study the samples were patients who are posted for gastrointestinal endoscopy at NIMS Hospital, Neyyattinkara.

The total sample size was 60 out of which 30 were in experimental group and 30 were in control group. Purposive sampling technique was used to select the samples for the study.

**TOOL/INSTRUMENTS**

In this study the investigator used the following tools;

**Tool-1**

Structured questionnaire consist of Socio demographic questionnaire (9 items)

**Tool-2**

Beck Anxiety Inventory

**THE SCORING SCALE**

**Beck anxiety inventory**

Scoring interpretation

0 – 21 - indicates very low anxiety

22 – 35 indicates moderate anxiety

Exceeds 36 is a potential cause for concern

**DATA COLLECTION PROCEDURE**

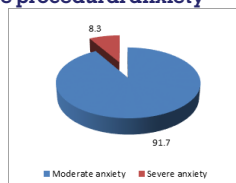
A prior written permission was obtained. The investigator assured confidentiality of their responses and consent was obtained from each subject and they were made comfortable and collected demographic profile by demographic questionnaire and anxiety score by Beck anxiety scale. The data was collected from 4-2-2019 to 9-3-2019. The investigator collected the data from both control group and experimental group. Half an hour prior to gastrointestinal endoscopy pre-test was conducted to experimental and control group. The experimental group patients will inhale lavender for 5 minutes. The lavender essence given in a bowl with cotton ball soaked in 3 drops of lavender essence kept at 10cm distance from the patient's nose and they are asked to inhale and exhale slowly for 10 times.

**Distribution of subjects based on demographic variables**

Demographic Variables	Experimental Group		Control Group	
	F	%	F	%
<b>Age</b>				
21 - 30 years	5	16.7	6	20.0
31 - 40 years	10	33.3	9	30.0
41 - 50 years	9	30.0	8	26.7
51 - 60 years	5	16.7	3	10.0
61 - 70 years	1	3.3	4	13.3
<b>Gender</b>				
Male	12	40.0	16	53.3
Female	18	60.0	14	46.7
<b>Religion</b>				
Hindu	8	26.7	12	40.0
Christian	11	36.7	13	43.3
Muslim	11	36.7	5	16.7
<b>Marital status</b>				
Single	3	10.0	5	16.7
Married	22	73.3	19	63.3
Divorced	5	16.7	3	10.0
Widow/Widower	0	0.0	3	10.0
<b>Monthly income</b>				
<5000	5	16.7	6	20.0
5001 – 10000	10	33.3	9	30.0
10001 – 15000	11	36.7	8	26.7
>15000	4	13.3	7	23.3
<b>Education</b>				
Primary	6	20.0	10	33.3
High school	16	53.3	9	30.0
Graduate	8	26.7	5	16.7
Professionals	0	0.0	6	20.0
<b>Occupation</b>				
Unemployed	10	33.3	9	30.0
Coolie	7	23.3	6	20.0
Govt. Employee	5	16.7	4	13.3
Private Employee	8	26.7	11	36.7
<b>Duration of onset of GI symptoms</b>				
<2 weeks	7	23.3	8	26.7
2 - 3 weeks	8	26.7	14	46.7
>4 weeks	15	50.0	8	26.7
<b>Relaxation therapy</b>				
No	30	100.0	30	100.0
Yes	0	0.0	0	0.0

**Section:2**

**Distribution of pre procedural anxiety**



It shows that 91.7 % of samples have moderate level of anxiety, where as 8.3% of samples have severe anxiety.

**Section:3**

Effectiveness of Aromatherapy on pre procedural anxiety among patients undergoing Gastro intestinal endoscopy

**Distribution of pre procedural anxiety based on group**

Anxiety	Experimental		Control	
	f	%	f	%
Moderate anxiety	27	90.	028	93.3
Severe anxiety	3	10.0	2	6.7

#### Comparison of anxiety based on group

Pre-test		Mean	SD	N	t	p
		Experimental	31.7	2.8	30	0.99
	Control	30.8	3.9	30		
Post-test	Experimental	27.9	3.3	30	5.4	p<0.01
	Control	32.8	3.8	30		

Significant at 0.01 level

It shows that the average pre-test scores of Beck anxiety for experimental and control group are 31.7 and 30.8 respectively. The independent t test ( $t=0.99$ ,  $p>0.05$ ) indicates that experimental group and control group were homogenous with regard to Beck anxiety. In the post test, the mean value of anxiety experimental group reduced from 31.7 to 27.9, but in control group post-test value of anxiety increased from 30.8 to 32.8, independent t test for post-test ( $t=5.4$ ,  $p<0.05$ ) shows that the average post interventional score of anxiety is significantly less among experimental group as compared to that in control group. So it can conclude that Lavender Aromatherapy is significantly effective in reducing pre procedural anxiety.

#### NURSING IMPLICATIONS

The present study has got implications in the field of nursing service, nursing administration, nursing education and nursing research.

#### NURSING SERVICE

- On the basis of the findings of the study a training programme may be conducted for staff nurses working in gastrointestinal endoscopy unit to improve their skills for assessment and early detection of pre procedural problems of the patients during gastrointestinal endoscopy.
- Nursing personnel can be trained in therapeutic and non-therapeutic interventions in reducing pre procedural anxiety in patients posted for gastrointestinal endoscopy.

#### NURSING EDUCATION

- On the basis of the findings of the study an orientation programme may be conducted for the newly appointed staff nurses to improve their skills for assessment, early detection of pre procedural problems of the patients during gastrointestinal endoscopy and application of non-therapeutic interventions.
- Research findings can be utilized as a resource material for teaching nursing students to improve the holistic approach in nursing care.

#### NURSING ADMINISTRATION

- Nurse Administrators can post gastrointestinal endoscopy nurse specialist in the Endoscopy unit to enhance the quality of nursing care to the patients undergoing endoscopy.
- The study findings can be utilized by the nurse administrators to formulate nursing protocol based on the problems identified during pre-procedural period among gastrointestinal endoscopy patients.

#### NURSING RESEARCH

- A similar study can be done with a large sample.
- A study can be done for analysing each problems of gastrointestinal endoscopy patients in a wider perspective.
- The study will be a motivation for the beginning researcher to conduct similar studies.

#### LIMITATIONS

- Included only 60 gastrointestinal endoscopy patients.
- Only one problem (anxiety) faced by patients are included.
- The study was limited to NIMS Hospital Neyyattinkara.
- The study was limited to Patient undergoing Gastrointestinal endoscopy for the first time.

#### RECOMMENDATIONS

On the basis of the findings of the study, the following recommendations have been made for further study.

- The study can be conducted among large sample.
- Studies can be conducted to identify the occurrence of complications among patients undergoing gastrointestinal endoscopy.
- A comparative study can be under taken to evaluate different complementary therapies and their effect in reducing pre procedural anxiety among patients undergoing gastrointestinal endoscopy.

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