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A Study to Assess The Effectiveness of Video Assisted Teaching on Knowledge and Pre-Procedural Anxiety Level of Patients Undergoing Upper Gastrointestinal Endoscopy at Tertiary Care Hospital, Bathinda, Punjab.

Mohammad Azam Dar[1], Professor Shridhar K.V[2], Mrs. Mandeep Kaur[3]

[1]Postgraduate Research Scholar, Medical Surgical Nursing, Adesh University, Bathinda Punjab, India.
*Corresponding Author

[2]Professor & H.O.D in Department of Medical Surgical Nursing, Principal of College of Nursing, Adesh University, Bathinda Punjab, India.

[3]Assistant Professor, Medical Surgical Nursing, College of Nursing, Adesh University, Bathinda Punjab, India.

Abstract

Diagnostic tests such as endoscopy are anxiety-provoking. Anxiety is very much common in majority of patients undergoing gastro intestinal endoscopy. Endoscopy plays a major role in diagnosis and management of gastro intestinal disorders and in clinical research. Informing the patients about the procedure to become aware regarding the procedure is one of the best method to reduce anxiety and increase satisfaction among patients undergoing upper gastro intestinal endoscopy. This aim of study was to evaluate the effectiveness of video assisted teaching on knowledge and anxiety level among Patients undergoing upper gastrointestinal endoscopy procedure. A quantitative evaluative research approach with Quasi-experimental two group pre test post test design was used to attain the objectives of this study. 60 patients undergoing upper gastrointestinal endoscopy were selected from selected hospital by convenience sampling technique. Data was collected by using self-structured knowledge questionnaire for assessing knowledge related to Upper Gastro Intestinal Endoscopy Procedure, And to assess the level of anxiety using standardized Beck Anxiety Inventory (BAI) Scale. As intervention, video assisted teaching were administered to the experimental group to evaluate its effectiveness by performing Pre and Post Test.

Results: The findings of study revealed that the statistically significant improvement in all aspects of patient knowledge score of experimental group at pre and post implementation of video assisted teaching program ($p<0.001$), there was no significant improvement in control group in absence of intervention. There were statistically significant improvements of level of anxiety of experimental group at pre and post implementation of video assisted teaching program ($p<0.001$) and in control group the anxiety level continued to remain high in the absence of Video assisted Teaching. It was also found that there was significant relationship between pre knowledge versus post knowledge and pre anxiety versus post anxiety in control group with ($P< 0.05$) While there was no significant association between pre knowledge versus

pre anxiety, pre knowledge versus post anxiety, post knowledge versus pre anxiety and post knowledge versus post anxiety with (P> 0.05).
Conclusion: A clear and noticeable improvement in the mean score of knowledge and level of anxiety after the implementation of video assisted teaching endoscopic intervention. Recommendation: Replication of this study is highly recommended on a large representative probability sample and a comparative study can be conducted between the two different age groups to achieve generalizable results.

Keywords: Effectiveness, Video Assisted Teaching, Knowledge, Anxiety Level, Upper Gastro -intestinal Endoscopy.

1. INTRODUCTION:

"Don't be afraid of your fears they're not there to scare you. They're there to let you know that something is worth it." -C. Joy Bell C.

The gastrointestinal (GI) tract is a series of hollow organs joined in a long, twisting tube from the mouth to the anus. The gastrointestinal tract includes the tongue, oesophagus, stomach (glandular and non-glandular portions), small intestine (duodenum, jejunum and ileum), and large intestine (cecum, colon and rectum). These segments of the GI tract mature at different postnatal times, with the anterior segments of the GI tract maturing earlier than the middle and posterior segments.[1] Gastrointestinal disorders such as gastroesophageal reflux disease (GERD), irritable bowel syndrome, ulcerative colitis, diverticular disease, colon polyps, macron's disease, constipation, haemorrhoids and fissures, perianal abscesses, anal fistulas, perianal infections and cancer.[2] Gastro esophageal reflux disease (GERD) is a common disease that can cause troublesome symptoms and have a significant impact on quality of life. GERD is a chronic and highly prevalent disorder. A recent systematic review showed that the prevalence of GERD is 18.1-27.8% in North America, 8.8-25.9% in Europe, 2.5-7.8% in East Asia, 8.7-33.1% in the Middle East, 11.6% in Australia, and 23.0% in South America. The increase in GERD prevalence may be due to multiple factors such as older age, male sex, race, intake of analgesics, consumption of certain types of food and drinks, decrease in the prevalence of Helicobacter pylori infection, smoking, family history of GERD, high body mass index (BMI), and limited physical activity. These risk factors are mostly related to a patient's lifestyle.[3]

Endoscopy is a procedure which refers to looking inside the body for medical reasons using an endoscope to examine the interior of a hollow organ or cavity of the body. Unlike the most other medical imaging techniques, endoscopes are inserted directly into the organ. The procedure is usually performed in a dedicated endoscopy unit in the hospital or outpatient unit.[4]Nowadays, gastrointestinal system endoscopies both upper and lower are used in a large number of patients, including in outpatient clinics. So, increase in rates for diagnostic accuracy , decrease in complications, to determine risk groups patients, to increase the comfort of patients and physicians, and to increase the tolerance for the process are needed.[5] Upper gastrointestinal endoscopy (UGE) is a procedure that provides good view of the mucosal surfaces of upper gastrointestinal tract. It is a commonly and trustworthy procedure that is used for diagnosis and management of gastrointestinal disorders. Although it is the one of most beneficial diagnostic test, it can lead to anxiety which is a state of fear and concern arising from a disease or a procedure.[6] There is an overall increase in the number of endoscopies being performed due to increase in the incidence of peptic ulcer, Gastro esophageal Reflux Disease (GERD), emergence of chronic infectious diseases like hepatitis B and hepatitis C virus infection, increased health awareness of the public and inclusion of upper GI endoscopy in the screening protocol for various diseases. It is estimated that more

than 20 million endoscopies are performed yearly in the United States. Out of this, 30.6% endoscopies are Upper GI endoscopy. India lacks a centralized database of these procedures. However, in the hospital under study, an average of 3500 endoscopies is carried out yearly. Upper GI endoscopy constitutes about 75% of these procedures.[7]

2. RESEARCH METHODOLOGY

2.1 Research Approach and Design:

A quantitative evaluative research approach with Quasi-experimental two group pre test post test design was used to attain the objectives of this study. This study was conducted among participants undergoing upper gastro endoscopy at selected tertiary care hospital, bathinda, Punjab.

2.2 Population and Sample:

The population for this study comprised of the patient's undergone upper gastrointestinal endoscopy at selected tertiary care hospital, bathinda, Punjab. The sample size of the present study was 60 participants. (i.e.) 30 in experimental group and 30 in control group. In this study the samples were selected by using non-probability convenience sampling technique, was used to assign the participants to experimental and control group.

2.3 Criteria for Sample Selection

Inclusion criteria:

1) Patients who are willing to participate.

Exclusion criteria:

1) Patients who are cognitively and sensory impaired.

2) Patients undergoing emergency endoscopy.

2.4 Description of the tool:

Section A-Socio-demographic data of patients undergoing upper gastrointestinal Endoscopy.

Section B- Structured Knowledge Questionnaire. It consisted of 10 items. Each item has four options. Each correct option was given a score of one and zero for incorrect option. The maximum score on knowledge was 10. The knowledge score was interpreted as Poor, Average and Good.

Section C – A beck anxiety inventory (BAI) was used to assess the level of anxiety among patients undergone upper gastrointestinal endoscopy in endoscopic unit at selected tertiary care hospital, bathinda, Punjab. It consists of 21 items each measured using a 4 point likert scale. Response option: 0= Not at all, 1= Mildly, but it didn't bother me much, 2= Moderately – it wasn't pleasant at times, 3= Severely – it bothered me a lot respectively.

The total score is calculated by finding the sum of the 21 items.

Scoring key	Level of Anxiety
0-21	low anxiety
22-35	moderate anxiety
36 and above	potentially concerning levels of anxiety

2.5 Description of the intervention:

Video assisted teaching include on the following aspects:

- Introduction and meaning of Endoscopy
- Parts of upper gastro intestinal system.
- Indications and purpose for upper gastro endoscopy procedure.
- Preparation of patient before, during and after upper gastro endoscopy procedure.

2.6 Data collection process:

Approval was obtained from the Institutional Ethical Committee of Adesh University, Bathinda, the researcher had taken formal permission from Medical superintendent, Dean college of nursing, Nursing superintendent, Principal college of nursing, Adesh university HOD-Endoscopy. Written consent was taken from the participants before data collection. The Patients were informed that the confidentiality of data will be maintained. The data was collected over a period of 6 weeks during the months of February and March, 2020. Participants were selected by using convenience sampling technique. Before the intervention the level of knowledge and level of anxiety was assessed as pre-test by the investigator for both the experimental and control group. After assessing the level of knowledge and anxiety level video assisted teaching for 10 minutes was given by the investigator for experimental group, for control group no intervention was given. In experimental group the level of Knowledge with the same Structured Knowledge Questionnaire and the level of anxiety with the same beck anxiety inventory (BAI) scale was assessed as post-test after ten minutes of video assisted teaching.

3. RESULTS:

The analyzed data was organized and presented in the form of tables which was organized under the following sections:

Section-1: Frequency and percentage distribution of socio demographic variables of patients underwent upper gastrointestinal.

Section-2: Findings related to level of knowledge regarding Upper Gastro Intestinal endoscopy among patients underwent endoscopy procedure in experimental and control group by means of Mean and standard deviation

Section-3: Findings related to pre procedural anxiety level regarding Upper Gastro Intestinal endoscopy among patients underwent endoscopy procedure in experimental and control group by using Beck Anxiety Inventory scale by means of Mean and standard deviation.

Section-4: Findings related to the effectiveness of video assisted teaching on level of knowledge regarding upper Gastro Intestinal endoscopy among patients underwent endoscopy procedure in experimental group by means of "t" Test.

Section-5: Findings related to the effectiveness of video assisted teaching on pre procedural anxiety regarding upper gastro intestinal endoscopy among patients underwent endoscopy procedure in experimental group by means of "t" Test.

Section-6: Findings related to association between the level of knowledge and level of pre procedural anxiety among experimental and control group of patients underwent Endoscopy procedure by means of Chi Square test.

Section-7: Findings related to association between level of knowledge, pro procedural anxiety level with their selected demographic variables by means of Chi Square test.

Table no.1: Frequency and Percentage distribution of demographic variables of the study participants.

N= 60

S. No.	Socio demographic Variables		Experimental (n=30)		Control (n=30)	
			F	%age	f	%age
1	Age in years	Up to 20 Years	2	7%	5	17%
		21-30 Years	7	23%	8	27%
		31-40 Years	14	47%	12	40%
		Above 40 Years	7	23%	5	17%
2	Gender	Male	15	50%	16	53%
		Female	15	50%	14	47%
3	Education Status	No Formal Education	6	20%	8	27%
		Primary Education	4	13%	11	37%
		Higher Secondary	14	47%	6	20%
		Graduate	5	17%	5	17%
		Post graduate	1	3%	0	0%
4	Marital Status	Married	23	77%	20	67%
		Single	4	13%	6	20%
		Divorced	1	3%	2	7%
		Widow/ Widower	2	7%	2	7%
5	Residence	Rural	18	60%	20	67%
		Urban	12	40%	10	33%
6	Occupation	Government job	7	23%	4	13%
		Private job	7	23%	6	20%
		Home maker	10	33%	10	33%
		Any other	6	20%	10	33%
7	Type of Family	Nuclear family	12	40%	10	33%
		Joint family	17	57%	16	53%
		Extended family	1	3%	4	13%
8	Income per Month (in rupees)	Up to 10,000	13	43%	13	43%
		10,100-20,000	4	13%	13	43%
		20,100-30,000	10	33%	4	13%
		Above 30000	3	10%	0	0%

9	Reasons for undergoing upper Gastrointestinal Endoscopy	Gastritis	6	20%	7	23%
		Dysphagia	5	17%	7	23%
		Dyspepsia	12	40%	6	20%
		Others	7	23%	10	33%
	Type of Patient	IPD	12	40%	10	33%
		OPD	18	60%	20	67%
10	Length of stay in the Hospital	Less than 1 Week	7	23%	7	23%
		Above 1 Week	5	17%	3	10%
11	Previous experience of upper Gastrointestinal Endoscopy	Yes	7	23%	9	30%
		No	23	77%	21	70%
12	Previous history of Exposure to Gastrointestinal Endoscopy of relative	Yes	4	13%	3	10%
		No	26	87%	27	90%

Table No.2(a): Table showing difference between pre and post test knowledge scores for study group

LEVEL OF KNOWLEDGE				
Score Level	**Pre Test - Experimental**	**Pre Test - Control**	**Post Test - Experimental**	**Post Test - Control**
GOOD(8-10)	0(0%)	0(0%)	7(23.3%)	0(0%)
AVERAGE(4-7)	8(26.7%)	10(33.3%)	23(76.7%)	11(36.7%)
POOR(0-3)	22(73.3%)	20(66.7%)	0(0%)	19(63.3%)

Maximum =10 Minimum=0

Table No. 2(b): Table showing Pre–Test Mean, Mean Percentage, Median, Range, Minimum and Maximum level of knowledge of experimental and control Group

.	Descriptive Statistics	Mean Score	S.D.	Median Score	Maximum	Minimum	Range	Mean %
PRE	Experimental	2.67	1.184	2.5	5	1	4	26.67
	Control	2.73	1.143	2.5	5	1	4	27.33

Maximum=10 Minimum=0

Table No.2(c):Table showing Post–Test Mean, Mean Percentage, Median, Range, Minimum and Maximum level of knowledge of experimental and control group

.	Descriptive Statistics	Mean Score	S.D.	Median Score	Maximum	Minimum	Range	Mean%
POST	Experimental	6.27	1.596	6	9	4	5	62.67
	Control	3.00	1.145	3	5	1	4	30.00

Maximum=10 Minimum=0

Table No.3(a): Table showing difference between pre and post test anxiety scores for study group

	LEVEL OF ANXIETY			
Score Level	**Pre Experimental**	**Pre Control**	**Post Experimental**	**Post Control**
POTENTIALLY CONCERNING LEVELS OF ANXIETY(36-ABOVE)	4(13.3%)	12(40%)	0(0%)	2(6.7%)
MODERATE ANXIETY(22-35)	12(40%)	9(30%)	2(6.7%)	17(56.7%)
LOW ANXIETY(0-21)	14(46.7%)	9(30%)	28(93.3%)	11(36.7%)

Maximum=63 Minimum=0

Table No. 3(b): Pre – Test Mean, Mean Percentage, Median, Range, Minimum and Maximum scores of anxiety level in experimental and control Group

	Descriptive Statistics	**Mean Score**	**S.D.**	**Median Score**	**Maximum**	**Minimum**	**Range**	**Mean%**
PRE	Experimental	22.00	9.638	22	41	7	34	34.92
	Control	25.80	12.090	27	40	4	36	40.95

Maximum=63 Minimum=0

Table No 3(c): Post – Test Mean, Mean Percentage, Median, Range, Minimum and Maximum Anxiety level of Experimental and Control Group

.	Descriptive Statistics	Mean Score	S.D.	Median Score	Maximum	Minimum	Range	Mean%
POST	Experimental	11.03	6.071	11	29	2	27	17.51
	Control	23.97	11.134	26	44	3	41	38.04

Maximum=63 Minimum=0

Table No.4: Table showing effectiveness of video assisted teaching on level of knowledge in experimental group

		LEVEL OF KNOWLEDGE				Paired T Test		
		Pre test		Post test				
Group	N	Mean	SD	Mean	SD	Df	"t"	Result
Experimental Group	30	2.67	1.184	6.27	1.596	29	15.138	P value=<0.001 Significant
Control Group	30	2.733	1.143	3.00	1.145	29	1.861	P value=0.073 Non Significant
Unpaired 't' Test	Df	58		df	58			
	"t"	0.222		"t"	9.110			
	Result	P value=0.825 Non Significant		Result	P value=<0.001 Significant			

Maximum=10 Minimum=0

Table No.5: Table showing effectiveness of video assisted teaching on pre procedural anxiety level in experimental group

		ANXIETY LEVEL				Paired T Test		
		Pre-test		Post test				
Group	**N**	**Mean**	**SD**	**Mean**	**SD**	**df**	**T**	**Result**
Experimental Group	30	22.00	9.638	11.03	6.071	29	11.851	P value=<0.001 Significant
Control Group	30	25.800	12.090	23.97	11.134	29	1.977	P value=0.058 Non Significant
Unpaired 't' Test	Df	58		df	58			
	"t"	1.346		"t"	5.586			
	Result	P value=0.183 Non Significant		Result	P value=<0.001 Significant			

Maximum=63 Minimum=0

Table No.6(a): Table showing the association between the pre-test and post-test knowledge scores and pre procedural anxiety scores among experimental group

Variable 1	Vs	Variable 2	r value	P value	Result
Pre Knowledge	Vs	Post Knowledge	.399**	0.002	Significant
Pre Knowledge	Vs	Pre Anxiety	-0.114	0.384	Not Significant
Pre Knowledge	Vs	Post Anxiety	-0.080	0.544	Not Significant
Post Knowledge	Vs	Pre Anxiety	-0.192	0.141	Not Significant
Post Knowledge	Vs	Post Anxiety	-.488**	0.000	Significant
Pre Anxiety	Vs	Post Anxiety	.808**	0.000	Significant

Table No.6(b): Table showing the association between the pre-test and post-test knowledge scores and pre procedural anxiety scores among control group

Variable 1	Vs	Variable 2	r value	P value	Result
Pre Knowledge	Vs	Post Knowledge	.596**	0.001	Significant
Pre Knowledge	Vs	Pre Anxiety	0.042	0.824	Not Significant
Pre Knowledge	Vs	Post Anxiety	-0.090	0.638	Not Significant
Post Knowledge	Vs	Pre Anxiety	0.052	0.787	Not Significant
Post Knowledge	Vs	Post Anxiety	-0.008	0.966	Not Significant
Pre Anxiety	Vs	Post Anxiety	.889**	0.000	Significant

Table No .7(a): Table showing the association between the pre-test knowledge score with selected demographic variables in experimental group

Demographic Variables		**Association of level of knowledge with demographic variables (pre knowledge) experimental Group**							
Variables	**Opts**	**GOOD**	**AVERAGE**	**POOR**	**Chi Test**	**P Value**	**Df**	**Table Value**	**Result**
Age in years	Up to 20 Years		0	2	7.719	0.052	3	7.815	Not Significant
	21-30 Years		0	7					
	31-40 Years		7	7					
	Above 40 Years		1	6					
Gender	Male		5	10	0.682	0.409	1	3.841	Not Significant
	Female		3	12					
Education Status	No Formal Education		0	6	21.234	0.000	4	9.488	Significant
	Primary Education		0	4					
	Higher Secondary		2	12					
	Graduate		5	0					
	Post Graduate		1	0					
Marital Status	Married		7	16					

	Single		0	4	5.099	0.165	3.000	7.815	Not Significant
	Divorced		1	0					
	Widow/ Widower		0	2					
Residence	Rural		4	14	0.455	0.500	1	3.841	Not Significant
	Urban		4	8					
Occupation	Government Job		5	2	10.787	0.013	3	7.815	Significant
	Private job		2	5					
	Home maker		1	9					
	Any other		0	6					
Type of Family	Nuclear family		6	6	5.635	0.060	2	5.991	Not Significant
	Joint family		2	15					
	Extended Family		0	1					
Income per Month (in rupees)	Upto 10,000		2	11	3.363	0.339	3	7.815	Not Significant
	10,100-20,000		1	3					
	20,100-30,000		3	7					
	Above 30000		2	1					
Reasons for undergoing upper Gastrointestinal Endoscopy	Gastritis		1	5	0.706	0.872	3	7.815	Not Significant
	Dysphagia		1	4					
	Dyspepsia		4	8					
	Others		2	5					
Type of Patient	IPD		2	10	1.023	0.312	1	3.841	Not Significant
	OPD		6	12					
Length of stay in the Hospital	Less than 1 Week		1	6	0.069	0.793	1	3.841	Not Significant
	Above 1 Week		1	4					
Previous experience of upper Gastrointestinal Endoscopy	Yes		0	7	3.320	0.068	1	3.841	Not Significant
	No		8	15					

Previous history of Exposure to Gastrointestinal Endoscopy of Relative	Yes		1	3	0.007	0.935	1	3.841	Not Significant
	No		7	19					

Table No .7(b): Table showing the association between the post-test knowledge score with selected demographic variables in experimental group

Demographic Variables		**Association of level of knowledge with demographic variables (post knowledge)experimental group**							
Variables	Opts	GOOD	AVERAGE	POOR	Chi Test	P Value	Df	Table Value	Result
Age in years	Upto 20 Years	0	2	0	2.449	0.485	3	7.815	Not Significant
	21-30 Years	1	6	0					
	31-40 Years	5	9	0					
	Above 40 Years	1	6	0					
Gender	Male	6	9	0	4.658	0.031	1	3.841	Significant
	Female	1	14	0					
education Status	No Formal Education	0	6	0	15.945	0.003	4	9.488	Significant
	Primary Education	0	4	0					
	Higher Secondary	2	12	0					
	Graduate	4	1	0					
	Post Graduate	1	0	0					
Marital Status	Married	6	17	0	5.209	0.157	3	7.815	Not Significant
	Single	0	4	0					
	Divorced	1	0	0					
	Widow/ Widower	0	2	0					
Residence	Rural	3	15	0	1.118	0.290	1	3.841	Not Significant
	Urban	4	8	0					
Occupation	Government Job	5	2	0					

	Private job	2	5	0	14.028	0.003	3	7.815	Significant
	Home Maker	0	10	0					
	Any other	0	6	0					
Type of Family	Nuclear Family	4	8	0	1.282	0.527	2	5.991	Not Significant
	Joint family	3	14	0					
	Extended Family	0	1	0					
Income per Month (in rupees)	Upto 10,000	0	13	0	7.267	0.064	3	7.815	Not Significant
	10,100-20,000	2	2	0					
	20,100-30,000	4	6	0					
	Above 30000	1	2	0					
Reasons for undergoing upper Gastrointestinal Endoscopy	Gastritis	1	5	0	1.264	0.738	3	7.815	Not Significant
	Dysphagia	2	3	0					
	Dyspepsia	3	9	0					
	Others	1	6	0					
Type of Patient	IPD	1	11	0	2.516	0.113	1	3.841	Not Significant
	OPD	6	12	0					
Length of stay in the Hospital	Less than 1 Week	0	7	0	1.527	0.217	1	3.841	Not Significant
	Above 1 Week	1	4	0					
Previous experience of upper Gastrointestinal Endoscopy	Yes	2	5	0	0.140	0.708	1	3.841	Not Significant
	No	5	18	0					
Previous history of Exposure to Gastrointestinal Endoscopy of Relative	Yes	1	3	0	0.007	0.933	1	3.841	Not Significant
	No	6	20	0					

Table No .7(c): Table showing the association between the pre-test anxiety score with selected demographic variables in experimental group

Demographic Variables		Association of anxiety level with demographic variables (Pre anxiety) experimental group							
Variables	Opts	CONCERNING LEVELS OF MODERATE ANXIETY		LOW ANXIETY	Chi Test	P Value	df	Table Value	Result
Age in years	Upto 20 Years	1	1	0	6.046	0.418	6	12.592	Not Significant
	21-30 Years	2	2	3					
	31-40 Years	1	6	7					
	Above 40 Years	0	3	4					
Gender	Male	3	6	6	1.286	0.526	2	5.991	Not Significant
	Female	1	6	8					
Education Status	No Formal Education	0	2	4	5.695	0.681	8	15.507	Not Significant
	Primary Education	0	3	1					
	Higher Secondary	3	5	6					
	Graduate	1	2	2					
	Post graduate	0	0	1					
Marital Status	Married	3	8	12	3.040	0.804	6.000	12.592	Not Significant
	Single	1	2	1					
	Divorced	0	1	0					
	Widow/ Widower	0	1	1					
Residence	Rural	2	8	8	0.437	0.804	2	5.991	Not Significant
	Urban	2	4	6					
Occupation	Government job	1	2	4	3.194	0.784	6	12.592	Not Significant
	Private job	2	3	2					
	Home maker	1	4	5					
	Any other	0	3	3					
Type of Family	Nuclear family	2	3	7	2.978	0.562	4	9.488	Not Significant
	Joint family	2	8	7					
	Extended family	0	1	0					

Income per Month (in rupees)	Upto 10,000	0	6	7	9.298	0.158	6	12.592	Not Significant
	10,100-20,000	2	2	0					
	20,100-30,000	2	3	5					
	Above 30000	0	1	2					
Reasons for undergoing upper Gastrointestinal Endoscopy	Gastritis	0	4	2	7.255	0.298	6	12.592	Not Significant
	Dysphagia	2	0	3					
	Dyspepsia	1	5	6					
	Others	1	3	3					
Type of Patient	IPD	1	6	5	0.982	0.612	2	5.991	Not Significant
	OPD	3	6	9					
Length of stay in the Hospital	Less than 1 Week	0	5	2	3.634	0.162	2	5.991	Not Significant
	Above 1 Week	1	1	3					
Previous experience of upper Gastrointestinal Endoscopy	Yes	1	3	3	0.053	0.974	2	5.991	Not Significant
	No	3	9	11					
Previous history of Exposure to Gastrointestinal Endoscopy of relative	Yes	2	1	1	5.378	0.068	2	5.991	Not Significant
	No	2	11	13					

Table No .7(d): Table showing the association between the post-test anxiety score with selected demographic variables in experimental group

Demographic Variables	Association of anxiety level with demographic variables (post anxiety)experimental group

Variables	Opts	POTENTIALLY CONCERNING	MODERATE	LOW ANXIETY	Chi Test	P Value	df	Table Value	Result
Age in years	Upto 20 Years	0	0	2	1.301	0.729	3	7.815	Not Significant
	21-30 Years	0	1	6					
	31-40 Years	0	1	13					
	Above 40 Years	0	0	7					
Gender	Male	0	2	13	2.143	0.143	1	3.841	Not Significant
	Female	0	0	15					
Education Status	No Formal Education	0	0	6	2.219	0.695	4	9.488	Not Significant
	Primary Education	0	0	4					
	Higher Secondary	0	1	13					
	Graduate	0	1	4					
	Post graduate	0	0	1					
Marital Status	Married	0	2	21	0.652	0.884	3	7.815	Not Significant
	Single	0	0	4					
	Divorced	0	0	1					
	Widow/ Widower	0	0	2					
Residence	Rural	0	2	16	1.429	0.232	1	3.841	Not Significant
	Urban	0	0	12					
Occupation	Government Job	0	1	6	2.449	0.485	3	7.815	Not Significant
	Private job	0	1	6					
	Home maker	0	0	10					
	Any other	0	0	6					
Type of Family	Nuclear family	0	1	11	0.142	0.932	2	5.991	Not Significant
	Joint family	0	1	16					
	Extended family	0	0	1					

Income per Month (in rupees)	Upto 10,000	0	0	13	3.482	0.323	3	7.815	Not Significant
	10,100-20,000	0	1	3					
	20,100-30,000	0	1	9					
	Above 30000	0	0	3					
Reasons for undergoing upper Gastrointesti nal Endoscopy	Gastritis	0	0	6	3.367	0.338	3	7.815	Not Significant
	Dysphagia	0	1	4					
	Dyspepsia	0	0	12					
	Others	0	1	6					
Type of Patient	IPD	0	0	12	1.429	0.232	1	3.841	Not Significant
	OPD	0	2	16					
Length of stay in the Hospital	Less than 1 Week	0	0	7	0.000	not available	0	not availabl e	not available
	Above 1 Week	0	0	5					
Previous experience of upper Gastrointestial Endoscopy	Yes	0	1	6	0.852	0.356	1	3.841	Not Significant
	No	0	1	22					
Previous history of Exposure to Gastrointestinal Endoscopy of relative	Yes	0	1	3	2.493	0.114	1	3.841	Not Significant
	No	0	1	25					

4. DISCUSSION:

In the present study, in experimental group before intervention, 22 (73.3%) of the respondents had poor knowledge (score 0 – 3), 8 (26.7%) of the respondents had average knowledge (Score 4-7) and none of the respondents had good knowledge (score 8-10) related to upper gastrointestinal endoscopy. Similarly in the control group 20 (66.7%) had poor knowledge, 10(33.3%) had average knowledge and none had good knowledge related to upper gastrointestinal endoscopy. Before intervention, The Mean pre –test knowledge level of respondents underwent upper gastrointestinal endoscopy in the experimental group was 2.67 with a Standard Deviation of +/-1.184 and Range of 4.Where as in the control group the Mean pre – test level of knowledge among respondents underwent upper gastrointestinal endoscopy was 2.73 with a S.D of +/-1.143 and Range of 4.

After providing Video assisted teaching programme related to upper gastrointestinal endoscopy, the level of knowledge in the experimental group changed. Among 23 (76.7%) had average knowledge, 7 (23.3%)

had Good Knowledge and None of the respondents had poor knowledge related to upper gastrointestinal endoscopy. Where as in the control group 19 (63.3%) of the respondents continued to have Poor Knowledge, 11 (36.7%) had average knowledge and none had Good Knowledge indicating that in the absence of Teaching there will not be any improvement in level of Knowledge. After intervention the Mean post –test knowledge level of respondents underwent upper gastrointestinal endoscopy in the experimental group was 6.27 with a Standard Deviation of +/-1.596 and Range of 5.Where as in the control group the Mean post – test level of knowledge among respondents was 3.00 with a S.D of +/-1.145 and Range of 4.

Before video assisted teaching, in the Experimental group 14 (46.7%) of the respondents had low Anxiety level (Score 0-21), 12 (40%) of the respondents had Moderate Anxiety level (Score 22-35) and 4 (13.3%) of the respondents were potentially concerned levels of Anxiety related to upper gastrointestinal endoscopy procedure. The Mean pre procedural anxiety level among respondents was 22 with a S.D of +/- 9.638 and Range of 34 where as in the Control group the Mean pre procedural Anxiety level was 25.8 with a S.D of +/- 12.090 and a Range of 36. However after the video assisted teaching 28(93%) of the respondents had Low Level of Anxiety, only 2 (6.7%) of the respondents had Moderate level of Anxiety and none of the respondents had potentially concerning levels of Anxiety. There was no significant level of change in Anxiety level among Control group respondents in both pre- test and post – test phases in the absence of video assisted teaching. Following video assisted teaching, the mean post- test Anxiety level as measured by Becks Inventory Scale in the Experimental group was 11.03 with a S.D of +/-6.071 and a Range of 27. Where as in the Control group the Mean Anxiety level was 23.97 with a S.D of 11.134 and a Range of 41, indicating that the anxiety level continued to remain high in the absence of Video assisted Teaching.

A paired “t” test was compiled to determine whether the observed difference in mean pre-test and mean post-test knowledge level of experimental group was statistically significant. The observed “t” value of 15.138 was higher than the table value ($P<0.001$) indicating that the observed difference in mean was statistically significant. Similarly, “t“ test was conducted to determine whether observed difference in mean scores of control group respondents knowledge level was statistically significant. The observed value 1.861 was less than the Table value indicating that the observed difference in mean was not statistically significant. An unpaired “t” test conducted to see whether the observed difference in Pre test Mean scores of experimental and control group was statistically significant. The observed value of 0.222 was less than Table value indicating the difference in pre – test mean knowledge level between the groups was not statistically significant. However the observed Mean difference in post test knowledge level of experimental and control group was statistically significant as observed “t” value of 9.110 was higher than that of table value at 0.001 level of significance.

A paired “t” test was compiled to determine whether the observed difference in mean pre-test and mean post-test anxiety level of experimental group was statistically significant. The observed “t” value of 11.851 was higher than the table value ($P<0.001$) indicating that the observed difference in mean was statistically significant. Similarly, “t” test was conducted to determine whether observed difference in mean anxiety level of control group respondents knowledge level was statistically significant. The observed value 1.977 was less than the Table value indicating that the observed difference in mean anxiety level was not statistically significant. An unpaired “t” test conducted to see whether the observed difference in pre-test Mean scores of experimental and control group was statistically significant. The observed value of 1.346 was less than table value indicating the difference in pre – test mean scores

between the groups was not statistically significant. However the observed Mean difference in post-test anxiety level of Experimental and Control Group was statistically significant as observer "t" value of 5.586 was higher than that of table value (P<0.001) level of significance. So it was clearly noted that the verbal information not only improves the knowledge but also has great impact on reducing the anxiety level among patients undergoing upper gastro endoscopy.

5. CONCLUSION:

The current study findings suggest that video assisted teaching programme is effective teaching method, which can easily be administered to group of patients, which in turn will improve the knowledge and reduce their anxiety levels. So it is concluded that the video assisted teaching developed by the researcher was found to be helpful in decreasing anxiety and enhancing knowledge among the patient undergoing upper gastro endoscopy. The video assisted teaching can be introduced in the nursing interventions as part of their patient care.

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