

Effectiveness of Video Assisted Teaching on Knowledge and Pre-Procedure Anxiety Level of Patients Undergoing Upper GI Endoscopy

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Abstract

An endoscopy is a procedure in which doctor uses specialized instruments to view and operate on the internal organs and vessels. People often found anxious towards hospital environment itself. There no intervention was provided to re-leave from anxiety among the patients. So the researchers aimed to assess the effectiveness of video assisted teaching regarding upper GI endoscopy to improve knowledge and thereby reduce the anxiety among the patients in Government General Hospital, Puducherry. The present study was adopted quantitative quasi experimental research design. The 50 samples were selected by purposive sampling technique with inclusion and exclusion criteria. Pre test data was collected by using self-administered structures questionnaires and video assisted teaching programme regarding endoscopy to the samples. The video contains introduction, functions, procedure and visualization of the endoscopy. The researchers accompany each sample during the endoscopy. Post test data was collected after endoscopy with the same questionnaire. The results revealed that, pre and post test mean score of knowledge was 5.26 ± 2.562 and 11.12 ± 0.480 . The calculated paired 't' value is 16.421 which was statistically significant at the p level 0.000. The pre and post test mean score of anxiety was 39.64 ± 9.021 and 68.14 ± 3.995 . The calculated paired 't' test value was 18.475 which was statically significant at the p level 0.000. The test results infer that, the video assisted programme was effective in improving knowledge and relive in pre procedure anxiety among the clients undergoing endoscopy. The chi-square value reveals that the level of knowledge was significant to gender and educational status at the p level 0.005 respectively and the level of anxiety was significant to educational status at the p level 0.005. The researchers recommended all the therapeutic and diagnostic procedures must be educated among the patients will help to gain complete success.

Keywords: Video assisted teaching, Pre-procedure anxiety, Endoscopy

Introduction

The upper GI tract digests your food and prepares it for processing and utilizing nutrients throughout the body. Problems with the upper GI tract can manifest symptoms like burping, problems swallowing,

heartburn, abdominal pain¹. Treatment of gastric neuromuscular disorders requires an understanding of pathophysiology of the disorders, the appropriate use and interpretation of diagnostic tests, and the knowledge of effective treatment options. Diseases of the upper gastrointestinal (GI) tract can be evaluated by a variety of imaging modalities, including barium fluoroscopy, CT, ultrasound, etc.,².

An endoscopy is a procedure in which doctor uses specialized instruments to view and operate on the internal organs and vessels of body. It allows surgeons to view problems within your body without making large incision. Upper gastrointestinal endoscopy is used to examine esophagus and upper intestinal tract. People often found anxious towards hospital environment itself. The diagnostic and therapeutic procedures should be clearly informed to the patients and their relatives in order to avoid unnecessary anxiety and confusions also gain cooperation. Sadly, we have poor in health care personnel. The focus to prevention of anxiety can be done by explaining surgical and complex diagnostic procedure³.

A quasi experimental study conducted by Asmaa Hamed Abd Elhy, (2019) to determine the effect of early preparation on anxiety level among patients undergoing upper gastrointestinal endoscopy. The study concluded that, knowledge preparation for upper gastrointestinal endoscopy has shown a beneficial improvement of knowledge related to the procedure and reduction of anxiety level among patients. The study recommended that knowledge preparation for upper gastrointestinal endoscopy should form an important concern for patients before performing the procedure that lead to reducing anxiety level⁴.

Hiremanth et.al., (2019) conducted a study to Assess the Knowledge Anxiety Level of Patient Undergoing Upper GI Endoscopy in Krishna Hospital, Karad, India. The researchers found that, 60 (11.66%) having poor knowledge, 52(86.66%) having good and 1(1.66%) having excellent know on the endoscopy procedure. Out of 60 patients no one having mild anxiety, 31(51.66%) having moderate level of anxiety and 29(48.33%) having severe level of anxiety. It was also evident that there is no association between demographic variables with the level of knowledge and level of attitude. The main outcome of the study that the patient undergoing endoscopy procedure may have anxiety because of the lack of knowledge. Majority of patient having moderate level of anxiety. Proper education may decrease the level of anxiety in patient⁵.

The statistics of Government general Hospital, Puducherry shown that, 143 upper GI endoscopy was done in the month of August. In the month of September it was 104 and 117 in November. There no intervention was provided to re-leave from anxiety among the patients. So the researchers aimed to assess the effectiveness of video assisted teaching regarding upper GI endoscopy to improve knowledge and thereby reduce the anxiety among the patients in Government General Hospital, Puducherry.

Materials and methods

The present study was adopted quantitative quasi experimental research design. This study conducted in Rajiv Gandhi Government General Hospital and Post Graduate Institute, Puducherry. The 50 samples were selected by purposive sampling technique with inclusion and exclusion criteria. The data was collected by using self-administered structures questionnaires. After obtained written consent from the samples pre test data was collected and video assisted teaching programme regarding endoscopy to the samples. The video contains introduction, functions, procedure and visualization of the endoscopy. The researchers accompany each sample during the endoscopy. Post test data was collected after endoscopy with the same questionnaire. The collected data tabulated and interpreted as per objectives.

Description of data collection instrument

The tool used for this study was self-administered structured questionnaire which consisted of three sections.

Section A: Demographic variables it includes demographic variables of patients such as age, age, gender, educational status, type of family, frequency of eating outside, marital status, past surgical history, personal habits, duration of present complaints, past history of endoscopy, drug allergy, indication for present endoscopy.

Section B: questionnaires related to knowledge on endoscopy it consisted of 12 multiple choice questions which includes the questions about the overview about the endoscopy.

Section C: Modified state-trait anxiety inventory (STAI) – Y. It consist of 20 items on a four point likert scale. The scoring was given by the level of anxiety felt by the patient. Interpretation and scoring: in this study the level of knowledge on endoscopy was measured by using self-administered questionnaire. Each 12 items were scored as 0 and 1 based on the response of the study participants. Each correct answer was given 1 mark and wrong answer was given 0. The Modified State-Trait Anxiety Inventory (STAI) – Y was scored each 20 items were scored as 1 to 4 based on the response of the study participants.

Results and discussion:

Demographic profile

Among 50 samples, majority 92 (46%) of them were belongs to 20 to 30 year of age, 184 (92%) of the samples were married, 115 (57.5%) of the samples were attained menarche at the age of 13 to 15 years, 70 (35%) of them were got married at above 21 years, 185 (92.5%) of them were Hindus, 83 (41.5%) of them were graduates, 90 (45%) of them were having sedentary work, 157 (77.5%) of them were earns below Rs. 50,000, 81 (40.5%) of them had two children and 115 (57.5%) of them were from rural area.

Pre test level of knowledge and pre procedure anxiety towards endoscopy

Knowledge	Pre test		Post test	
	N	%	N	%
Very poor	9	18	0	0
Poor	21	42	0	0
Satisfactory	14	28	0	0
Good	6	12	41	82
Very good	0	0	9	18

Table 1. Distribution of pre and post test level of knowledge regarding endoscopy among samples.

The above table reveal that out of 50 samples, in pre test majority 21 (42%) of them had satisfactory level of knowledge, where as in post test 41 (82%) of them had good level of knowledge. And about anxiety, majority 26 (52%) of them had severe anxiety in pre test and 46 (92%) of them were had mild level of anxiety in post test. The finding of the present study was consistent with the study findings of **Hermenth P et.al., (2016)**. The researcher assessed the knowledge anxiety level of patient undergoing Upper GI Endoscopy Krishna Hospital, Karad, India. In the present study it was found that out of 60 patients 60 (11.66%) having poor knowledge, 52(86.66%) having good and 1(1.66%) having excellent know on the endoscopy procedure. Out of 60 patients no one having mild anxiety, 31(51.66%) having moderate level of anxiety and 29(48.33%) having severe level of anxiety⁴.

Effectiveness of video assisted teaching on level of knowledge and pre procedure anxiety towards endoscopy

Variables	Pre test	Post test	Mean difference	SD difference	Paired 't' test
Knowledge	5.26±2.562	11.12±0.480	5.86	2.082	t = -16.421 p = 0.000**
Anxiety	39.64±9.021	68.14±3.995	28.5	5.026	t = -18.475 p = 0.000**

****highly significant**

Table 2. Effectiveness of video assisted teaching on knowledge and pre procedure anxiety among samples.

The table 2 explains pre and post test mean score of knowledge was 5.26±2.562 and 11.12±0.480. The calculated paired 't' value is 16.421 which was statistically significant at the p level 0.000. The pre and post test mean score of anxiety was 39.64±9.021 and 68.14±3.995. The calculated paired 't' test value was 18.475 which was statically significant at the p level 0.000. The test results infer that, the video assisted programme was effective in improving knowledge and relive in pre procedure anxiety among the clients undergoing endoscopy. The findings of this present study confirmed by Thomas S (2013), evaluated the effectiveness of structured teaching programme on knowledge and anxiety of patients undergoing endoscopy at a gastroenterology centre of a tertiary care hospital. The findings revealed that, The mean pre and posttest knowledge score was 3.62 ± 1.95 and 8.2 ± 1.21 respectively. Wilcoxon's signed rank test yielded a 'Z' value of 6.19(p value <0.0001). The mean pre test and test anxiety score of the patients was 44.30 ± 3.96and 41.40 ± 4.48 respectively. Wilcoxon's signed rank test yielded a 'Z' value of 3.67, (p value <0.0001). Structured teaching programme resulted in increased knowledge and decrease in anxiety score⁶.

Association between pre test level of knowledge and pre procedure anxiety towards endoscopy

The chi-square value reveals that the level of knowledge was significant to gender and educational status at the p level 0.005 respectively and the level of anxiety was significant to educational status at the p level 0.005. The findings of the present study were supported to the results by Aazam Md. (2022). The researcher aimed to evaluate the effectiveness of video assisted teaching on knowledge and anxiety level among patients undergoing upper gastrointestinal endoscopy procedure. The results of this study shows that, the pre test level of knowledge was associated with educational status (p=0.000), occupation (0.013) and post test knowledge was significant with gender (p=0.031), educational status (p=0.003) and occupation (p=0.003). The pre test level of anxiety was not associated with any of the demographic variables⁷.

Conclusion

The present study had proven that, all the knowledge and anxiety can be removable by help of any health teaching programme. Apart from preparation of the patient, environment and instruments for the procedure its also to be considered the psychological preparation of the patient must be done to get the therapeutic

and diagnostic procedures at most success. These will hormonally increase the health seeking behaviour among the public.

Reference

1. Austrin Gastroenterology, 2019.
2. Parkman HP. Upper GI Disorders: Pathophysiology and Current Therapeutic Approaches. *Handb Exp Pharmacol.* 2017;239:17-37.
3. Asmaa Hamed Abd Elhy, Seham Mohamed Abd Elalem. (2017). Effect of Early Preparation on Anxiety Level Among Patients Undergoing Upper Gastrointestinal Endoscopy. *American Journal of Nursing Science*, 6(3), 202-208.
4. Hiremath, Prabhuswami & Mohite, Vaishali & Naregal, Prakash. (2016). A Study to Assess the Knowledge, Attitude and Pre-Procedure Anxiety Level of Patient Undergoing Upper GI Endoscopy in Krishna Hospital, Karad. 5. 243-249.
5. Paniyadi, Nanda & Shetty, Asha & Untwale, Yashwi & Prajapati, Deepika & Kharayat, Oshin & Kumbhkar, Ratna & Bala, Shashi & Mohanty, Upasana. (2019). Evaluative study to assess the level of anxiety among the patients undergoing endoscopy at All India Institute of Medical Sciences, Hospital Bhubaneswar. *Indian Journal of Psychiatric Nursing*.
6. Thomas, S. (2015). Effectiveness of Structured Teaching Programme on Knowledge and Anxiety of Patients Undergoing Endoscopy at a Gastroenterology Centre of a Tertiary Care Hospital.
7. Dar, Mohammad. (2022). 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.