

# Preparatory Intervention to Reduce Anxiety in Patient who will Undergo Endoscopy: A Systematic Review

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Abstract: Background: Endoscopy is a diagnosis method to examine gastrointestinal system disorder. Being worry about the procedure, environment, and result itself can cause an anxiety in patient. Patient's ability to adapt with all the things in endoscopy is importantly required to support examination. Anxiety will cause bad effect in patient. Comprehensive nursing intervention has to be given to reduce that anxiety. The objective of this systematic review was to compare the preparatory interventions given to endoscopy patient. Method: Articles were found in some databases such as Scopus, Science Direct, and PUBMED. The framework were (1) Preparatory Intervention identification in literature, (2) Identify the most relevant articles based on title and abstract, (3) Get full text literatures, (4) Classify the preparatory interventions. Result: The preparatory interventions found were (1) Hypnosis, (2) Aromatherapy, (3) Psychological preparation (4) Health Education, preparatory education (6) Giving information using various media (7) Information and behavioral training. Conclusion: Hypnosis, Health Education, Psychological preparation, Aromatherapy, Information and behavioral training, effective communication were preparatory intervention which can reduce the anxiety level of patient who undergo endoscopy.

## 1 BACKGROUND

Diagnostic methods that must be performed for patients often cause anxiety. Patients as individuals who are in the terrible condition also still need a sense of comfort during receiving treatment. Nurses as the part of health service have a big role in this. Endoscopic examination often provides anxious feelings and situations to the patient regarding preparations, procedures and the environment. As a nurse must be able to provide intervention so that patients are able to perform the perceived anxiety management during endoscopic examination.

Endoscopy is a diagnostic method of diagnosis for gastrointestinal (McQuaid KR, 2008). Endoscopic examination can be performed to detect abnormalities in Upper Gastrointestinal Tract and Lower Gastrointestinal called Colonoscopy.

Detection The most commonly encountered cases in endoscopic examination are for the detection of gastric or intestinal cancers, as well as abnormalities that patients complain of such as vomiting blood, Melena, dyspepsia, dysphagia, discomfort in the abdominal, change of bowel habit,

, and even to detect any ingested foreign body / corpus alienum, or ingested toxic substances.

Patients who will perform endoscopic examination of the upper gastrointestinal tract or commonly referred to as gastroscopy or EGD. Anxiety is often felt by patients who will undergo endoscopic examination. Patients need adequate information about the benefits, discomforts and how to reduce perceived anxiety. (Maguire, Walsh, & Little, 2004). Drossman et al states that anxiety in patients undergoing endoscopic treatment can be divided into 4 categories: (1) sensory discomfort (eg pain, needle, tool), (2) examination result (fear of cancer diagnosis), (3) discomfort ( examples of insufficient sedation, lack of knowledge of the procedure), (4) Other things (eg Fear of doctors, see frightening procedures, unfamiliar environment).

Endoscopic examination conducted in Indonesia often does not use anesthesia. From some studies mentioned that in some countries do not use anesthesia in patients who will undergo endoscopic measures for reasons of increased cost. In addition to cost reasons, the use of anesthesia has risks: such as suppression of circulation, respiratory depression, long conscious recurrence and anterograde

amnesia. Therefore, nurses need to provide comprehensive preparatory intervention to reduce anxiety in patients undergoing endoscopic action so that the examination is more effective.

## 2 METHODS

The method used in this systematic review begins with the selection of topics, then determined keywords to search the journal using English through several databases such as Scopus, Science direct, and PUBMED. Journals were selected for review based on studies that fit the inclusion criteria. The inclusion criteria in this systematic review are journals discussing preparatory intervention in patients undergoing endoscopic examination, Double Blind Clinical Trial Research, Case Study, Case Report, Prospective Randomized Control Design, Randomized Control Trial, Experimental Quasi, Prospective Experimental design, a Two group Pre test Post test Prospective quasi experimental, Prospective Randomized trial, study cohort. Researchers analyzed some of the literature obtained up to 15 selected journals for systematic review. The 15 journals are then scrutinized, analyzed and evaluated. Then performed systematic review in accordance with the Critical Appraisal results that have been done before.

## 3 RESULTS

Based on the results of the study of the 15 selected journals, there were several types of preparatory intervention to decrease the anxiety of patients undergoing endoscopic examination.

The research selected in this review is 3 journals using quasi experimental research design, 1 journal using double blind clinical trial, 2 journals using RCT research design, 1 journal case study, 1 journal case report, 1 prospective randomized controlled design journal, 1 prospective journal experimental design, 2 prospective experimental journals, 1 prospective quasi experimental journal, 1 cohort study journal a double randomization design.

### Preparatory Intervention

Undergoing examination can provide a stressful situation and stress for the patient. When patients are scheduled for endoscopic examination, the patient has imagined unpleasant things. (Toomey, Corrigan, Singh, Nessim, & Balfe, 2015). The anxiety

experienced by the patient can be generated because the patient is not informed about procedures, benefits, side effects, and things that may occur during endoscopic examination. Preparatory interventions that can be done include by providing cognitive intervention and patient behavior (Hackett, Hons, Lane, & Mccarthy, n.d.). Various studies were conducted to find out effective preparatory interventions to decrease anxiety in patients undergoing endoscopic action. Several types of preparatory intervention used in the 15 journals in this review include:

### Hypnosis

Hypnosis is the first technique successfully used in the modern era for surgical anesthesia (Drouet & Chedeau, 2017). Hypnosis has the same effect to reduce pain and anxiety, as many specialists claim, Hypnosis can also improve the healing process (Izanloo et al., 2015). Hypnosis applied to patients undergoing endoscopic treatment will provide a more relaxed situation so that patients are more prepared and able to adapt to procedures, officers and the environment.

### Aromatherapy

Aromatherapy is a natural technique used for health and beauty by using essential oils extracted from natural plants that can overcome psychosocial distress by inhalation (Hozumi et al., 2017).

### Effective Communication Endoscopic

Endoscopic examination that is done often leads to a bad experience for the patient. Lack of knowledge, images of pain, fear of results, and all unpleasant things, gives rise to high anxiety for the patient (Toomey et al., 2015). The role of nurses in providing information clearly and vividly about anything related to endoscopic examination with effective communication will help the patient to overcome the anxiety experienced during endoscopic examination.

### Information and Behavioral Training

Information related to endoscopy and cognitive/behavioral interventions in patients undergoing endoscopic treatment is essential. Research on specific behavioral training interventions has not been done. A much-conducted study of cognitive / behavioral interventions to reduce anxiety in patients undergoing endoscopic action is by relaxation, distraction, and visualization. (Maguire et al., 2004).

## 4 DISCUSSION

The development of community knowledge will be increasingly affecting the provision of health services. Nurses as one of the part health service have an important role in realizing quality service.

The endoscopic nurse has the responsibility to provide nursing care to the patient, who is safe, comfortable and accountable. Endoscopic examination which often has a negative image in the community as one of the scary acts presents its own challenge for the endoscopic nurse to provide nursing care that can manage of Anxiety and pain.

From the systematic review that has been done it can be seen that there are some effective interventions to reduce anxiety in patients. Of the 15 journals reviewed by 3 journals discussing hypnosis and of the three showed significant results that hypnosis could be chosen as an intervention to reduce anxiety of the patient. By doing hypnosis the patient can be given a positive suggestion that the endoscopic action is done for the cure of the patient, so that the patient is not focused on the perceived pain. However, to implement hypnosis requires special skills so that endoscopic nurses must attend the training.

From several journals also discusses the provision of interventions in the form of health education, cognitive, behavioral, combined with the provision of information and psychological preparation (Lee et al., 2012). From the study it was mentioned that the provision of health education which is the provision of information with a combination of cognitive and behavioral can decrease the level of anxiety in patients undergoing endoscopic action (Hackett et al., N.d.)

The application of preparatory intervention to decrease Anxiety in patients undergoing endoscopy should be performed as an effort to provide quality, humanist and holistic nursing care. The model of the selected interventory preparation can be adapted to the situation and condition of the patient and the nurse's ability to perform. This is in line with the efforts of nurses to support a complete program of public health degree improvement.

The endoscopic nurse must understand the patient's characteristics by always running the nursing process. Assessment should be carried out thoroughly and in detail before, immediately and after action. From the results of nurse assessment can identify problems faced by patients including how the views and knowledge of patients associated with endoscopic examination. It is aimed at knowing the patient's readiness in undergoing action. From

the results of the assessment, the nurse is able to analyze and determine which nursing interventions are appropriate to apply, which of course is adjusted to the existing capabilities and facilities.

Nursing orders in the form of modalities, cognitive, behavioral, and information can be applied in the provision of nursing care in the field of endoscopy in Indonesia.

## 5 CONCLUSIONS

All the journals evaluated the effect of preparatory intervention to decrease anxiety in patients undergoing endoscopic action. Each journal evaluates interventions that may decrease Anxiety in the patient, as well as increase patient satisfaction with action. The sample used was > 18 years old, and included gastroscopy and colonoscopy measures.

Based on the study of 15 selected journals indicated that an effective and applicable preparatory intervention to decrease anxiety in patients undergoing endoscopy is Hypnosis, aromatherapy, psychological preparation, combinations of information and behavioral training, effective communication, health education. The application of this intervention must necessarily be accompanied by an improvement in the nurse's ability to provide this intervention appropriately.

Based on a study of 15 journals on preparatory intervention to decrease anxiety in patients undergoing endoscopic action it was found that there were 5 journals that showed insignificant statistical results. 5 journals that do not show significant results have the same intervention characteristics that is, provide the material preparation intervention of endoscopic measures using the material in writing, orally, or by using Audio, video, video tape, verbal or combination media in between.

The five insignificant research journals were studies conducted by (Xiaolian, Xiaolin, & Lan, 2015), (Hewett, 2005), (Luo, 2012), (Arabul et al., 2013) ). 5 journals that do not show significant results have the same characteristics of providing information either written or by media or verbally or combinations of them but do not provide intervention to cognitive and behavioral patients.

This result is in contrast to the other 10 journals which suggest that providing cognitive and behavioral interventions of patients, providing treatment modalities or combined with information or education may decrease anxiety experienced in patients undergoing endoscopy. Interventions that can be done include hypnosis, aromatherapy, health

education, provision of information and training behavior, and effective communication.

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