

## RESEARCH ARTICLE

## Patients' readiness before undergoing gastrointestinal endoscopy: A descriptive study

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### Abstract

**Objective:** To analyse patients' anxiety related to endoscopy.

**Method:** The descriptive study was conducted from July 23 to September 14, 2020, at the Endoscopy Unit of Dr Abdoer Rahem Situbondo General Region Hospital, Dr Koesnadi Bondowoso General Region Hospital and Ibnu Sina Gresik General Region Hospital, East Java, Indonesia. The sample comprised endoscopy patients of either gender aged >20 years. Data was collected using the Endoscopy Confidence Questionnaire.

**Results:** Of the 50 patients, 28(56%) were males and 22(44%) were females. The largest age group was 41-50 years 17(34%), followed by 31-40 years 13(26%). Overall, 48(96%) subjects were married. Abdominal pain was most common indication for the procedure 10(20%). Esophagogastroduodenoscopy was the procedure in 29(58%) patients, 42(84%) had no history of endoscopy, and 41(82%) were reluctant to undergo the procedure.

**Conclusion:** Patients' anxiety rises before endoscopy. Nurses need to provide complete and clear information related to the procedure, including the less pleasant elements.

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### Introduction

Diseases related to the gastrointestinal tract (GIT) require intensive treatment, but in certain circumstances the response to treatment is less than ideal. Endoscopic examination is one of the methods for detecting GIT diseases. It is one of the best options to identify abnormalities in the digestive tract correctly and clearly.<sup>1</sup> However, endoscopic examination also has negative impacts on patients, one of which is anxiety which is related to endoscopic preparation, the procedure, the environment in which the patient is examined, and the results of the examination.<sup>2-5</sup> Such anxiety may lead to delay in the procedure.

The negative effect felt by the patient indicates that the patient needs to be well prepared before undergoing an action procedure, like an endoscopic examination. The patient's readiness to undergo an endoscopy procedure is influenced by several aspects, including the communication provided by health workers, the patient's understanding of the procedure, the patient's thoughts when imagining physical discomfort during endoscopic preparation, lack of privacy, anxiety about the results of the examination, and the possibility of complications and the illness itself.<sup>2,6-8</sup>

The patient's readiness to undergo endoscopy will determine the success of the procedure.<sup>9</sup> When the patient is ready to undergo the procedure, the patient can adapt to the procedure, so that the examination may proceed smoothly.<sup>10</sup> The success of the procedure can increase patient satisfaction related to the services provided by a hospital, which can indirectly increase the patient's enthusiasm to recover and the subsequent willingness to undergo other examinations.<sup>4,11,12</sup> Considering the benefits and disadvantages, the patient's readiness for endoscopy is very important.<sup>7</sup> Thus, the nursing staff needs to identify the patient's readiness before carrying out an endoscopic examination, as well as understand the fears of the individual<sup>13</sup> to assess the overall readiness of the patient to undergo the procedure.<sup>14</sup>

The current study was planned to evaluate the anxiety experienced by endoscopy patients.

### Material and Methods

The descriptive study was conducted from July 23 to September 14, 2020, at the Endoscopy Unit of Dr Abdoer Rahem Situbondo General Region Hospital, Dr Koesnadi Bondowoso General Region Hospital and Ibnu Sina Gresik General Region Hospital, East Java, Indonesia.

After approval from the ethics review committee of the Faculty of Nursing, Universitas Airlangga, the sample size was calculated using the Lemeshow formula.<sup>15</sup> The sample was raised using purposive sampling technique. Those

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included were endoscopy patients of either gender aged >20 years who were able to communicate in Bahasha or any regional language that the researchers could understand. Patients with unstable haemodynamics, and those needing general anaesthesia were excluded.

Patients who were eligible for the study and met the criteria, were offered and explained about the study. The researcher was accompanied by the head of the endoscopy room to explain the research procedures to be carried out. After the patient agreed, then the patient was asked to sign an informed consent.

Data was collected using the Endoscopy Confidence Questionnaire (ECQ). Descriptive statistics were carried out to sort out the data.

## Results

Of the 50 patients, 28(56%) were males and 22(44%) were females. The largest age group was 41-50 years 17(34%), followed by 31-40 years 13(26%). Overall, 48(96%) subjects were married (Table 1).

Abdominal pain was most common indication for the procedure 10(20%). Esophagogastroduodenoscopy (EGD) was the procedure in 29(58%) patients, and 42(84%) had no history of endoscopy (Table 2). Overall, 41(82%) patients were reluctant to undergo the procedure (Table 3).

**Table- 1:** Socio-demographics characteristics.

Socio-demographic	n (%)
Age	
20 – 30 years	11 (22)
31 – 40 years	13 (26)
41 – 50 years	17 (34)
51 – 60 years	7 (14)
61 – 70 years	1 (2)
71 – 80 years	1 (2)
Gender	
Male	22 (44)
Female	28 (56)
Marital status	
Yes	48 (96)
Not yet	2 (6)
Education	
No School	1 (2)
Not graduated elementary School	1 (2)
Elementary School	24 (48)
High School	22 (44)
Bachelor	2 (4)
Occupation	
Employed	27 (54)
Housewives	23 (46)

**Table- 2:** Endoscopy indications, procedures and history.

Endoscopy history	n (%)
<b>Indication</b>	
Abdominal pain	10 (20)
Abdominal pain and change bowel habit	4 (8)
Abdominal pain and nausea	4 (8)
Abdominal pain and haematochezia	5 (10)
Abdominal pain, changed bowel habit, haematochezia	4 (8)
Abdominal pain, weakness, anorexia	4 (8)
Changed bowel habits	5 (10)
Mass and abdominal pain	4 (8)
Diarrhoea and post-op appendix	4 (8)
Haematemesis melena	6 (12)
<b>Type of procedure</b>	
EGD	29 (58)
Colonoscopy	21 (42)
<b>Previous endoscopy history</b>	
0	42 (84)
1	3 (6)
2+	4 (8)

*EGD: Esophagogastroduodenoscopy.*

**Table- 3:** Readiness of the respondents to undergo endoscopy.

Psychological readiness	n (%)
Not Ready	41 (82)
Ready	9 (18)

## Discussion

In the current study, the respondents who were ready to undergo endoscopy were aged 51-58 years, which is in line with previous research showing that patient readiness was supported by patient's mental and emotional conditions in the age range that is more mature.<sup>16</sup> There were 4 women patients who were ready to have endoscopy. This could be because women are considered stronger in facing health problems.<sup>17,18</sup> The married patients were more likely to have endoscopy than the unmarried ones, which is in line with previous research.<sup>4,19</sup> Patient willing to undergo the procedure tend to focus more on the benefits gained from the procedure and has good behavioural control to adapt to the less pleasant elements.<sup>20,21</sup>

Patients' anxiety levels rise even before having endoscopy. Endoscopy consenting patients are typically frightened and worried. Lack of knowledge regarding the diagnostic technique or concerns about pain during the procedure may be the root of such fears. In fact, people may become anxious during an endoscopy and ultimately decide not to have one. Unfortunately, false ideas about the likelihood of discomfort, the danger of suffocation, or the escalation of legitimate worries about the possibility of infection transmission during endoscopy make patients fearful which exacerbates the anxiety level.<sup>5</sup>

Diagnostic procedures might become more uncomfortable and challenging when anxiety levels are high, leading to a rise in the use of sedatives and the difficulties that come with such an approach.<sup>4</sup>

A study showed that psychological preparation was effective in reducing anxiety.<sup>5</sup> The nurse's role in reducing patient anxiety when taking action is by providing education about the procedure by teaching deep breathing and distraction techniques.<sup>6</sup> Anxiety can have negative consequences, such as increased pulse, respiration, blood pressure, even cancellation of the procedure. Therapeutic communication by the nurses may achieve optimal nursing goals so that the procedure may run smoothly.<sup>13</sup>

Nurses need to provide complete and clear information, including the less unpleasant elements<sup>22</sup> as well as how the patients may adapt to these conditions.<sup>23</sup> Nurses need to provide interventions to the patients, like hypnosis, audio, video, yoga and aromatherapy, that may improve decrease anxiety.<sup>24</sup> Such interventions can improve a patient's understanding of the action and lead to positive perception which, in turn, will increase adaptive behaviour.<sup>25-30</sup>

## Conclusion

Nurses need to provide complete and clear information related to endoscopic procedure, including the less pleasant elements, as well as how the patients can adapt to these conditions.

**Limitation:** This study only describes descriptively the level of stress in patients undergoing endoscopy. Further research is needed to find out the factors that can exacerbate stress and ways to relieve stress, so that patients can undergo endoscopy procedures comfortably. The number of patients involved in this study can be increased in future studies so that the results of the study can better describe the patient's condition as a whole.

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