Effectiveness of a Video-Based Nutritional Instruction Program for Patients with Peptic Ulcers: A Comparative Study Between the Elderly and Adults

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Abstract

Introduction: Peptic ulcers, a common condition influenced by diet and nutrition, have become a significant public health issue in Egypt. Proper nutrition is essential for promoting overall health and reducing the severity of symptoms. **Aim of the study**: To determine the effectiveness of a video-based nutritional instruction program for patients with Peptic ulcers. **Methodology:** This study employed a quasi-experimental research design**,** conducted in the Gastroenterology department and the outpatient clinic at Zagazig University Hospitals in Sharkia Governorate. The study utilized a purposive sample consisting of 60 patients. **Data Collection Tools:** Two tools. **First Tool:** A structured interviewing questionnaire, comprised of three parts. **Part I:** It was concerned with the personal data; **Part II:** Clinical data; and **Part III:** The Brief Illness Perception Questionnaire (BIPQ). **Second tool:** It is divided into two parts: **Part I:** Dietary nutrition practices and **Part II:** Gastrointestinal Symptom Rating Scale (GSRS)**. Result:** the mean age among the studied adult and elderly groups was 33.65+15.97 and 66.98+6.209 years, respectively, and the highest percentage of the studied sample who had Peptic ulcers were males. Concerning predictors of symptom severity, it was noted that nutrition practice and the Video-Based Nutritional Instruction Program were negative statistically significant predictors of symptom severity (B 2.742, P 0.000**) & (B 3.073, P 0.001**), respectively. **Conclusion:** The current study demonstrated that a video-based nutritional instruction program is a viable method to improve nutrition practice and reduce illness perception levels and symptom severity. **Recommendations:** This study recommends incorporating a video-based nutritional instruction program into routine care for patients with Peptic ulcers**.**

Keywords: adult and elderly patients, illness perception, Peptic ulcers, symptom severity, and video-based nutritional instruction program

Introduction:

Peptic ulcers disease (PUD) is a common gastrointestinal disorder characterized by erosion of the stomach or duodenum's lining, resulting from an imbalance between gastric acid production and the protective mechanisms of the mucosal lining. Common contributing factors include infection with *Helicobacter pylori*, excessive use of nonsteroidal anti-inflammatory drugs (NSAIDs), smoking, and psychological stress. This condition can significantly impact the patient's quality of life, causing symptoms such as abdominal discomfort, nausea, bloating, and, in more severe cases, gastrointestinal bleeding (**Anchang et al., 2024).**

The primary symptom of a gastric ulcer is pain in the upper abdomen, specifically in the epigastric region. In cases of gastric ulcer, this pain typically worsens after eating, as the increased

volume of food stretches and irritates the already damaged mucosal lining. In contrast, duodenal ulcer pain often improves with food intake, as the ingested food helps buffer the stomach acid, thereby reducing its harmful effects on the intestinal lining. The most common complications associated with gastric ulcers include gastrointestinal bleeding, perforation of the stomach or duodenum, penetration into adjacent organs, pyloric canal narrowing (pyloric stenosis), and the potential for malignant transformation (**Bata et al., 2024).**

Peptic ulcers disease has garnered significant attention, not only because of its characteristic abdominal pain and the potential for serious complications but also due to its psychological impact. Increasing research indicates that, beyond the physical symptoms, many patients experience substantial psychological burdens, particularly anxiety. Both the severity of the ulcer and the speed of recovery often closely correlate with this anxiety. Contributing factors include uncertainty about the disease progression, doubts regarding treatment effectiveness, and lifestyle disruptions caused by the condition (**Zhang et al., 2024A).**

Medication, endoscopy, surgery, and dietary and lifestyle modifications are all part of managing Peptic ulcers. The nutritional therapies include improving general nutrition to promote ulcer healing and making dietary changes in line with the patient's overall profile. Furthermore, teaching patients about nutritional changes can improve their quality of life (**Alhamad & Hassan, 2023).**

The standard treatment for Peptic ulcers caused by *Helicobacter pylori* typically involves a combination of two antibiotics, amoxicillin and clarithromycin, paired with proton pump inhibitors. However, *H. pylori* has shown the ability to develop antibiotic resistance, prompting the need for alternative treatment strategies in some cases. Essential oils have emerged as a promising option, as they can penetrate bacterial cell walls, disrupt membranes, and block enzyme activity, thereby reducing the risk of resistance. Several spices, including savory, Greek oregano, and thyme, have been found to possess antimicrobial properties effective against *H. Pylori*. Alongside medical treatment, patients are also advised to make lifestyle adjustments and avoid foods that may aggravate the gastrointestinal system, as diet plays a significant role in the management and outcome of the condition (**Abd Allah et al., 2021; Bata et al., 2024).**

Nutrition plays a crucial role in both preventing and managing Peptic ulcers disease. The goal of a nutritional plan is to reduce excessive secretion of gastric acid, ease symptoms, support the healing of damaged tissues, and address the underlying causes of the condition. An ideal ulcer-friendly diet should help maintain or restore an individual's nutritional status. Daily energy intake should be appropriately balanced, with protein making up 10–15% (approximately 1.2–1.5 g per kilogram of body weight), carbohydrates accounting for 50–60% (while limiting disaccharide content to prevent fermentation), and fats comprising 25–30% of total energy (**Kabir et al., 2021**).

Peptic ulcers significantly impact an individual’s physical, mental, and social well-being, leading to a decline in health-related quality of life. This effect may be shaped by how individuals perceive their illness. Illness perception encompasses a person's beliefs, understanding, and emotional reaction to their condition, including factors such as perceived causes, symptoms, consequences, duration, level of personal control, and beliefs about the effectiveness of treatment. Gaining insight into how elderly patients perceive their Peptic ulcers is essential, as it can affect their mindset, actions, and commitment to self-care. Illness perception also plays a predictive role in determining the health

behaviors of individuals with chronic illnesses (**Chen et al., 2025**).

The use of video-assisted teaching methods opens up numerous research possibilities for innovative awareness strategies and the advancement of knowledge. Video involves the electronic collection, recording, storage, transmission, and playback of a sequence of still images that create the illusion of motion. Since visuals can convey meaning without relying on language, they are effective in overcoming language barriers (**Abd El Aziz et al., 2022).**

Interactive video communication has the potential to enhance learner engagement in online education, as it is more effective than text-based feedback in improving instructional presence, social presence, and cognitive presence. This method provides a multisensory learning experience that enhances focus and understanding while also helping learners grasp and apply concepts through interactive elements, such as Q&A sessions and real-life scenarios. Additionally, it supports a personalized learning journey by addressing the varied needs of individuals **(Wang et al., 2025).**

Gastroenterology nurses play a vital role in patient care by closely monitoring patients' conditions and keeping the healthcare team informed of any changes in their condition. They are also responsible for educating patients about the nature of the disease, prescribing medications, necessary lifestyle modifications such as reducing alcohol consumption and quitting smoking, nutritional guidelines, the importance of regular follow-up visits, and adherence to the treatment regimen to achieve symptom relief and promote healing (**Abd-Almageed et al., 2022**).

Nurses have a key role in managing patients with Peptic ulcers by obtaining a detailed history of abdominal pain, evaluating dietary habits, promoting the use of non-pharmacological strategies for symptom relief, advising patients to avoid smoking and the use of nonsteroidal anti-inflammatory drugs (NSAIDs), and ensuring proper administration of prescribed medications (**Abd Allah et al., 2021).**

Significance of the study:

With a global prevalence of about forty percent in advanced countries and eighty percent in developing nations, Peptic ulcers disease is the most common gastrointestinal illness. PUD significantly contributes to illness and death worldwide, impacting the daily lives of millions. In the United States alone, around four million individuals suffer from Peptic ulcers, including both duodenal and gastric types. Each year, about 350,000 new cases are reported, leading to the hospitalization of roughly 180,000 patients and causing approximately 5,000 deaths. The lifetime risk of developing a Peptic ulcer is estimated at 10% for men and 4% for women. In Egypt, the annual incidence reaches about one million people, with around 1,077 deaths attributed to the disease each year (**Haruna, 2024; Ogundare et al., 2025).**

The most serious complications of Peptic ulcers are bleeding and perforation. The likelihood of developing additional health issues related to Peptic ulcers rises with age. These complications and the presence of other medical conditions often lead to death following a Peptic ulcers diagnosis (**Issa et al., 2022**). Given the widespread benefits of technology in enhancing patient education, despite time and space limitations, this study aimed to investigate the effectiveness of a video-based nutritional instruction program for patients with Peptic ulcers.

Aim of the study:

To determine the effectiveness of a video-based nutritional instruction program for patients with Peptic ulcers.

Research hypotheses:

The following research hypothesis was formulated to achieve the aim of this study:

H (0): A video-based nutritional instruction program will not have any

effect on illness perception, nutrition habit practice, and symptom severity for patients with Peptic ulcers.

H (1): A video-based nutritional instruction program has a positive effect on improving illness perception and nutrition habit practice and reducing symptom severity for patients with Peptic ulcers.

H (2): Age is a positive predictor for symptom severity in patients with Peptic ulcers.

Methodology

Study Design:

A quasi-experimental research design with a pretest-posttest approach was employed to evaluate the effectiveness of a video-based nutritional instruction program for patients with Peptic ulcers.

Study Setting:

This study was conducted in the gastroenterology department and the outpatient clinic at Zagazig University Hospitals in Sharkia Governorate. This facility offers all citizens free or low-cost healthcare services, including medical, pharmaceutical, and surgical care.

Sample:

The required sample size of 60 patients was determined based on the data in the article by **Alhamad & Hassan (2023),** which used a significance level of 5%, a study power of 80%, and a sample size calculated using G*Power according to the formula. A purposive sample of 60 patients. Participants were stratified into two groups based on age: 30 adult patients (aged 18–59 years) and 30 elderly patients (aged 60 years and above).

Inclusion Criteria

- Diagnosed with a Peptic ulcers confirmed by endoscopy or clinical records
- The patient is not currently participating in any other dietary intervention study.
- The patient had a smartphone.

Exclusion Criteria

- Patients with cognitive impairment or psychiatric illness
- Those with coexisting malignancy or severe gastrointestinal complications

Data Collection Tools

Tools for Data Collection: Two tools were used to collect the data:

First Tool: A structured interviewing questionnaire was developed by the researchers, based on a review of related literature, and written in simple, clear Arabic. It comprised three parts:

Part (I): It was concerned with the personal data of the studied patients with peptic ulcers. The survey included seven closed-ended questions: age, sex, marital status, level of education, occupation, place of residence, and patient habits.

Part (II): Clinical data of the studied patients who had a peptic ulcer. To assess health conditions and risk factors that increase occurrences among studied patients, it was adapted from **Elsayad et al. (2017),** and seven questions about past illnesses, ulcer type, current onset, family history of peptic ulcers disease, past hospitalization for peptic ulcers, presence of any causes of peptic ulcers, and number of drugs make up this researcher-modified questionnaire.

Part (III): The Brief Illness Perception Questionnaire (BIPQ): **Broadbent et al. (2006)** developed BIPQ, a self-report tool designed to evaluate how individuals perceive and interpret their illness. The questionnaire includes nine items that assess various dimensions of illness perception. These items aim to understand how people perceive their condition and its impact on their lives. Cognitive aspects of perception are measured through five items: item 1 (perceived consequences), item 2 (perceived duration or timeline), item 3 (personal control over the illness), item 4 (belief in treatment control), and item 5 (symptom identity). Emotional aspects are addressed in items 6 (level of concern) and 8 (emotional response). Item 7 measures how well a person understands

their illness. The final item, item 9, is an open-ended question where respondents list what they believe to be the top three causes of their condition. To tailor the questionnaire for a study on peptic ulcers, two introductory statements were added to provide context: "people can have different ideas about peptic ulcers. Please, for each of the following questions, circle the number that best reflects your opinion."

Additionally, the term "illness" in each item was replaced with "peptic ulcers." all responses were recorded on a scale from 0 to 10. The scores for items 3, 4, and 7 were reverse-coded. A higher total score indicates that participants view their illness as more serious and threatening, while lower scores reflect a more optimistic perspective. The overall BIPQ score was computed by summing the individual item scores (**Boughdady et al., 2024**).

BIPQ	Score
Low	<42
Moderate	42-49
High	≥50

Second tool: It is divided into two parts:

Part (I): Dietary nutrition practices: this study focused on the reported nutrition practices among patients with peptic ulcers to prevent complications and improve their general health status. It was developed by **Elsayad et al. (2017)** and modified by **Alhamad and Hassan (2023)**. Nine questions were included about eating the three main meals of the day, eating at regular times, using oils when cooking, avoiding foods that contain spices, eating cayenne, chewing, eating healthily, avoiding coffee, tea, or soft drinks, eating light meals in between the three main meals, and avoiding hot food and beverages. Each item was rated with a score of (1) for never, (2) for sometimes, and (3) for always. The total score was calculated and converted into a percentage of inadequate nutrition, less than 60.0% (< 16.2 points), and adequate practice equal to more than 60.0% (> 16.2 points).

Part (II): Gastrointestinal Symptom Rating Scale (GSRS), developed by **Svedlund et al. (1988)** and adopted from **Dimenäs et al. (1995),** is used to assess the severity of symptoms for patients with peptic ulcers; it consists of five subscales were reflux syndrome (2 items) e.g., " heartburn& acid regurgitation," abdominal pain (3 items) such as " o intensity, frequency, duration, request for relief, and impact on social performance, sucking sensations in the epigastrium, and nausea, and vomiting: indigestion syndrome (4 items) such as " borborygmus, abdominal distension, eructation, and increased flatus" constipation syndrome (3 items) such as " decreased passage of stools, hard stools & feeling of incomplete evacuation," and diarrhea syndrome (3 items) such as " increased passage of stools, loose stools& urgent need for defecation." all items were rated on a scale of 0, 1, 2, and 3 for each of the following aspects: intensity, frequency, duration, and impact on daily living. Zero indicates absence, and 3 is an extreme degree of the symptom.

Fieldwork:

Data was gathered over six months, from the start of October 2024 to the end of March 2025. The researchers were available during the morning shift two days a week. The video-based instructional guidelines were implemented in the following phases:

Assessment phase:

This phase began with a meeting with the patients who were being examined. At the start of the interview, the researcher provided the patient with an introduction, explained the nature and purpose of the study, and reviewed the information in the video-assisted training guidelines. Using the first and second tools, a systematic interviewing questionnaire was used to assess each patient's needs before the video-based nutritional instruction program. Both tools required an average of 20 to 30 minutes to complete, with the overall procedure taking around four weeks. The patients under study were

split into adult and elderly groups, and ten groups of six individuals each were created. This pretesting session took a month to finish (October 2024).

Planning phase: After reviewing pertinent literature and considering the needs identified during the evaluation phase, the researchers produced the films. Its objective was to help patients better understand and manage their needs and illnesses. In November 2024, this phase lasts for one month. The researchers utilized the following techniques to produce the videos used in the current study:

1. A review of the data collection and research.
2. Content organization and preparation.
3. Composing the screenplay for the video in sequence.
4. Research the story.
5. Recording videos.
6. Videos are being edited.
7. Evaluating the videos.

1. A review of the data collection and research:

To create films for patients with peptic ulcers, an extensive literature review was conducted using textbooks, journals, internet resources, and periodicals prior to the launch of the video-based nutritional training program. The literature review provides a critical overview of the topic of interest. Furthermore, much care was taken to ensure that the data was accurate, up-to-date, well-structured, and understandable.

2. Content organization and preparation:

The film's content was developed and organized around various themes that aligned with the study's objectives.

3**. Composing the screenplay for the video in sequence:**

A script was written based on the intended contents. Every scenario from the videos was included, along with the objectives, guiding principles, breathing and relaxation techniques, and the purpose. A video's script functions as a kind of blueprint or map for its content.

4. **Research the story:**

To document patients' perceptions and reported practices regarding nutrition, the researchers employed open-ended questions during their interviews. Using their inquiries and their relatives, note the areas in which they lack expertise.

5. **Recording videos.**

The researchers recorded the PowerPoint presentation for both the theoretical and practical parts of the film in a clinical lab environment, adhering to the established script. The theoretical and practical films meet the learning objectives and get off to an interesting and stimulating start.

The movies used language suitable for patients of all educational levels to clearly and concisely describe every step of the healthy diet, as well as its components, stress-reduction activities, and relaxing techniques. At the end of each video, the main ideas of the content were summarized. There are segments in the video. The technical quality of the video was decent. The duration of each video is suitable. The video effectively meets the study's goals.

6. **Videos are being edited:**

Rearranging and altering video clips are part of the editing process. Editing's goals are to eliminate extraneous footage, select the best footage, and establish a rhythm. After watching the video and taking note of its unique elements, consider adjusting the tempo, style, or atmosphere, or adding graphics, music, and effects. Take notes on the titles, music, sound editing, color correction, and effects that have been added. The provided videos were professionally edited.

7. Evaluating the videos:

The movies were evaluated by three nursing specialists with backgrounds in geriatrics, community health, and medical and surgical. Their views, thoughts, and suggestions were taken into account.

The objectives of the video-based nutritional instruction program were to

enhance patients' perceptions and nutritional practices and to reduce symptom severity.

Specific objectives:

The study patients completed the Video-based nutritional instruction program.

• Explain peptic ulcers, their causes, symptoms, and warning signs, and discuss prevention measures.

• Elucidate nonpharmacologic peptic treatment, such as stress reduction and diet.

Phase of implementation:

The implementation phase was completed in five sessions over three months, beginning in December 2024 and concluding in February 2025. Five videos, each including five video sessions, were used to present the study's goals. For the theoretical part, there were three films, and for the practical part, there were two videos. They were divided into ten groups of six patients each for each video session. Each patient received a customized schedule that included the date, time, place, subjects, and duration of each video session. The duration of the video sessions for each theoretical and practical session was 40 to 45 minutes, and they were held three days a week. The focus of the theoretical video lessons was on comprehending the fundamentals of peptic ulcers. The researchers continued to reiterate what they had learned, answer questions, and offer opinions. The patient watched the video on a smartphone. Additionally, upon request, provide the patient with the necessary information. In this study, using motivation and reinforcement during video sessions enhanced sharing.

Evaluation phase:

The patients' perceptions and symptom severity were assessed following the video-based nutritional instruction program. This phase, which lasted approximately a month (March 2025), reevaluated the studied patients using the same tools employed in the pretest, except for parts one and two of the first tool.

Validity:

A panel of five experts in geriatric nursing, medical-surgical nursing, and community health nursing from Zagazig, Beni-suef, and Sohag universities, respectively, reviewed the tool to ensure its clarity, relevance, comprehensiveness, ease of understanding, and applicability. This evaluation was conducted to verify the content validity of the instrument. Based on their feedback, the necessary modifications were made, including the addition of questions to assess patients' perceptions, dietary practices, and symptom severity. All suggested revisions were implemented.

Reliability:

To evaluate the internal consistency of the instrument, reliability was assessed by administering it to the same group of participants under comparable conditions on two separate occasions. The responses from both administrations were analyzed for consistency. The test-retest reliability coefficient for patient perception was found to be 0.75. Additionally, Cronbach's alpha was calculated to assess the reliability of nutritional practice measures and symptom severity, yielding values of 0.83 and 0.89, respectively.

Pilot Study:

A pilot study was conducted on 10% of the sample, involving six adult and elderly patients with peptic ulcers disease, to estimate the time required to complete the questionnaire. Based on the findings of the pilot study, minor modifications were made to the study tool. The participants in the pilot study were subsequently included in the main study sample.

Ethical considerations:

Ethical approval to conduct the study was obtained from the research ethics committee at the faculty of nursing, Zagazig University (REC 0292) on June 11, 2024. Participation in the study was voluntary. Before completing the informed consent form, participants were informed

about the study details and their role in it. Ethical considerations included clarifying the purpose and nature of the study, the right to withdraw at any time, and ensuring data confidentiality to prevent unauthorized access without participants' consent. Respect for values, ethics, culture, and beliefs was maintained throughout the study.

Result:

Table 1 reveals that the mean age among the studied adult and elderly groups was 33.65+15.97 and 66.98+6.209 years, respectively, and the highest percentage of the studied sample with Peptic ulcers was males. Regarding educational level, 43.3% and 33.3% of the studied adult and elderly groups had a university education or more and secondary education, respectively.

Table 2 demonstrates that 46.6% & 40.0% of the studied adults and elderly had excessive caffeine intake as a habit; 33.3% of the studied adults had hypertension, compared to 66.7% of the studied elderly who had diabetes. Regarding the type of Peptic ulcers, the most common type among the studied adults was duodenal (56.7%), compared to gastric ulcers among the studied elderly (73.3%).

Table 3 shows the total BIPQ level regarding Peptic ulcers (36.7% & 40.0%) of the studied adult and elderly patient groups, respectively, before the Video-Based Nutritional Instruction Program, which showed high illness perception. At the same time, post-educational programs improved moderate illness perception in 70.0% & 53.3% of them, respectively, with a statistically significant difference at a P value of <0.05.

Table 4 presents the total nutrition practice level (76.7% and 90.0%) of the studied adult and elderly patient groups, respectively, prior to the implementation of the Video-Based Nutritional Instruction Program. At the same time, post-program improvement was noted, with 86.7% and 66.7% of participants achieving adequate results, respectively, showing a statistically significant difference (P value < 0.05).

Table 5 presents the mean scores of symptom severity (14.60 ± 4.16 and 15.34 ± 3.12) for the studied adult and elderly patient groups, respectively, prior to the Video-Based Nutritional Instruction Program. Following the program, the scores improved to 7.31 ± 4.93 and 9.82 ± 5.67 for both groups, respectively, with a statistically significant difference at P < 0.05.

Table 6 displays that nutrition practice and the Video-Based Nutritional Instruction Program are negative significant predictors for symptom severity among the studied patients (B 2.742, P 0.000**) & (B 3.073, P 0.001**), respectively. On the other hand, age, previous diseases, previous GI surgery, patient habits, onset of peptic, and BIPQ are positive significant predictors for symptom severity among them at (B=-3.445, p = 0.001**), (B -1.921, P 0.05*), (B-2.427, P 0.018*), (B-1.639, 0.016*), & (B -1.284, P 0.020*), respectively. In addition, this table reveals that sex and BMI were positive predictors of symptom severity in the studied patients, but the results were not statistically significant.

Table 1: Distribution of the studied sample regarding personal data (n=60)

Personal data	Adult	Elderly
Age (years old)	33.65+15.97	66.98+6.209
Sex:	20 (66.7)	17 (56.7)
▪ Male	10 (33.3)	13 (43.3)
▪ Female		
Educational level:		
▪ Illiterate /Reads and writes	6 (20.0)	12 (40.0)
▪ Basic	6(20.0)	5 (16.7)
▪ Secondary education	5 (16.7)	10 (33.3)
▪ University education or more	13 (43.3)	3 (10.0)
Marital status:		
▪ Single	5 (16.7)	0 (0.0)
▪ Married	20 (66.7)	19 (63.3)
▪ Widowed	3 (10.0)	11 (36.7)
▪ Divorced	2 (6.6)	0 (0.0)
Occupation	20 (66.7)	6 (20.0)
▪ Worked	10 (33.3)	24 (80.0)
▪ Not worked		
Residence		
▪ Urban	16 (53.3)	15 (50.0)
▪ Rural	14 (46.7)	15 (50.0)

Table 2: Distribution of the studied sample regarding clinical data (n=60)

Clinic data	Adult (30)	Elderly (30)
Patient habits:		
▪ No habit	6 (20.0)	7 (22.3)
▪ Excessive caffeine intake	14 (46.6)	12 (40.0)
▪ Smoking	8 (26.7)	6 (20.0)
▪ Over-the-counter drug	2 (6.7)	5 (16.7)
Previous diseases#		
▪ No	13 (43.3)	1 (3.3)
▪ Diabetes	9 (30.0)	20 (66.7)
▪ Hypertension	10 (33.3)	18 (60.0)
▪ Osteoarthritis	7 (23.3)	17 (56.7)
Previous GI Surgery		
▪ Yes	2 (6.7)	8 (26.7)
▪ No	28 (93.3)	22 (73.3)
Type of ulcer:		
▪ Gastric	12 (30.0)	22 (73.3)
▪ Duodenal	17 (56.7)	2 (6.7)
▪ Esophageal	1 (3.3)	6 (20.0)
Onset of Peptic ulcers (years):		
< 1	8 (26.7)	4 (13.3)
1-5	19 (63.3)	17 (56.7)
>5	3 (10.0)	9 (30.0)
Cause of Peptic ulcers		
▪ NSAID use	4 (13.3)	5 (16.7)
▪ Corticosteroid Use	2 (6.7)	6 (20.0)
▪ H. Pylori Infection	10 (33.3)	7 (23.3)
▪ Unknown	14 (46.7)	12 (40.0)

Table 3: Comparison between adult and elderly groups regarding patient perception (n=60)

BIPQ	Adult (30)		X2 p-value	Elderly (30)		X2 p-value
	Pre	Post		Pre	Post	
Low	0 (0.0)	6 (20.0)		2 (6.7)	10 (33.3)	14.65
Moderate	19 (63.3)	21 (70.0)	16.31	16 (53.3)	16 (53.3)	0.02*
High	11 (36.7)	3 (10.0)	0.016*	12 (40.0)	4 (13.4)	

Table 4: Comparison between adult and elderly groups regarding nutrition Practice (n=60)

Nutrition habit	Adult (30)		X2 P value	Elderly (30)		X2 p-value
	Pre	Post		Pre	Post	
Inadequate	23 (76.7)	4 (13.3)		27 (90.0)	10 (33.3)	2.975
Adequate	7 (23.3)	26 (86.7)	4.563 0.003**	3 (10.0)	20 (66.7)	0.05*

Table 5: Comparison between adult and elderly groups regarding symptom severity (n=60)

Table (6): Multivariate regression for symptom severity in study sample with Peptic ulcers (n=60)

Group	**Pretest**	**Posttest**	**X2**	**P**
Adult	14.60+4.16	7.31+4.93	13.23	0.001**
Elderly	15.34+3.12	9.82+5.67	10.11	0.002*

Items	Un Standardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	T	
(Constant)	1.468	0.504		2.914	0.005
Age	-0.457	0.133	-0.340	3.445	0.001
BMI	-0.045	0.087	-0.056	0.517	0.607
Sex	-0.035	0.077	-0.045	0.453	0.652
Previous diseases	-0.227	0.118	-0.224	1.921	0.05
Previous GI Surgery	-0.195	0.080	-0.254	2.427	0.018
Patient habits	0.170	0.104	0.164	1.639	0.016
Type of ulcer	0.153	0.121	0.149	1.267	0.209
Onset peptic	-0.548	0.037	-0.434	1.284	0.020
BIPQ	-0.897	0.154	-0.356	1.48	0.000
Nutrition practice	1.421	0.090	0.231	-2.742	0.000
Video program	0.643	0.433	0.421	-3.073	0.001

Discussion:

Video teaching technology is widely used in nursing as an educational tool, providing continuous multimedia and multisensory information about the topic and its context. Patient education on changing their lifestyle, giving up smoking, avoiding alcohol and caffeinated drinks, and not taking too many NSAIDs should be initiated. Nurses specializing in gastroenterology should monitor their patients, educate them, and report their progress to the team. Education on medication compliance is necessary for

both symptom relief and a cure. It is recommended to seek nutritional counsel because there is evidence that Peptic ulcers disease may be caused by dietary issues (**El Haweet & Senosy, 2023**).

This study aimed to determine the effectiveness of a video-based nutritional instruction program for patients with Peptic ulcers.

Concerning sex, the results of the current study demonstrated that the highest percentages were among males in both groups. This result may be attributed to estrogen, which is higher in females, providing them with a protective effect on the mucosa and increasing mucosal blood flow, which promotes healing. Moreover, males may be exposed to higher occupational stress and fewer healthy coping mechanisms. This finding aligns with a study by **El Haweet and Senosy (2023)** in Cairo, who revealed that more than half of the studied sample with Peptic ulcers were males. On the other hand, this finding disagrees with a study conducted by **Xiao et al. (2025)** in China, which found that more than half of the studied sample had Peptic ulcers, with females being the majority.

Regarding the cause of Peptic ulcers, the results of the current study showed that the highest percentage of the studied patients reported not knowing the cause of their condition. This finding is in line with a previous study published by **Kayemba & No (2021)** in *Kampala,* who showed that less than half of the studied sample did not know the cause of Peptic ulcers.

Regarding the total BIPQ level for Peptic ulcers, the current study's results illustrated that approximately two-fifths of the studied sample had a high illness perception before participating in the Video-Based Nutritional Instruction Program. After applying the program, the total BIPQ level improved for more than half of them, with a statistically significant difference. This finding disagrees with the study **by Abed and Sameen (2023)** in Iraq, who mentioned that most of the studied patients had high illness perception and recommended applying an educational program for patients with Peptic ulcers.

The results of the present study showed that most of the studied adult and elderly patient groups had inadequate nutrition practice levels before the Video-Based Nutritional Instruction Program. However, after the educational program, most of them achieved adequate nutrition practice levels, with a statistically significant difference. This outcome is consistent with a study by **Abdelwahed et al. (2018)** in Damanhur, which found a statistically significant improvement in total nutrition practice before and after implementing the nutritional educational program.

Concerning symptom severity, the results of the current findings revealed a significant reduction in symptom severity (14.60 ± 4.16 and 15.34 ± 3.12) in the studied adult and elderly patient groups, respectively, before the Video-Based Nutritional Instruction Program. However, after the educational program, the symptoms improved to (7.31+4.93) and (9.82+5.67) in them, respectively. This may be due to the Video-Based Nutritional Instruction Program, which combines visual and auditory elements to enhance information retention and encourages patients to follow diet therapy and adhere to medication. This outcome was confirmed by a study by **Abd-Almageed et al. (2022)** in Assuit, which illustrated that the occurrence of symptoms in patients with Peptic ulcers reduces after applying a telenursing program, with a significant difference.

The results of the present study showed that age was a significant positive predictor of symptom severity in patients with Peptic ulcers. This finding may be attributed to the age-related physiological changes associated with increased age, such as a decrease in HCl, which can lead to an increase in bacterial overgrowth in the stomach and small intestine. An aging

gastric mucosa is more susceptible to injury and exhibits delayed healing. This outcome aligns with the study **by Tarnawski and Ahluwalia (2018)** in the United States, which found that aging hurts Peptic ulcers. This finding supported the second research hypothesis, "Age is a positive predictor for symptom severity in patients with Peptic ulcers."

The result of the current study found that sex was not a significant predictor of the severity of symptoms of Peptic ulcers. This outcome is aligned with **Al-Ganmi et al. (2025)** in Baghdad, who mentioned that sex was not a significant predictor of symptom severity of Peptic ulcers, while this outcome is contradicted by the study done by **Xiao et al. (2025)** in China, who mentioned that gender is a significant predictor of Peptic ulcers.

The result of the present study illustrated that BMI is a negative predictor for symptom severity among patients with Peptic ulcers. On the contrary, **Loke and Li (2022) in Taiwan** found a significant difference between symptom severity and body mass index.

The current study demonstrates that previous diseases have a significantly positive predictive value for the severity of Peptic ulcers. This result may be that chronic diseases need NSAIDs, especially osteoarthritis. Additionally, ulcer symptoms may be mistaken for those of other diseases, especially heart diseases, leading to late detection and increased symptom severity. This finding is aligned with a study by **Jia and Zhang (2024)** in China, who stated that comorbid diseases increase symptom severity, adverse outcomes, and complications from Peptic ulcers.

The present study demonstrated that nutrition practice, following the application of a video-based nutritional instruction program, was a significant and negative predictor of symptom severity in patients with Peptic ulcers. This finding may be attributed to the Video-Based Nutritional Instruction Program, which has shown significant improvement. This improvement can be attributed to the personalized dietary plans provided to each patient, which, when combined with consistent management, enhanced their understanding of dietary habits, lifestyle guidelines, and suitable food choices. Moreover, closely monitoring patients' emotional states during meals allowed for prompt emotional support. The ability to continuously monitor the dietary intake of patients with gastric ulcers also enabled healthcare providers to make timely adjustments and offer relevant feedback, thereby optimizing the overall effectiveness of care. This finding aligns with a study conducted by **Zhang et al. (2024B)** in China, which found that nutrition improves and controls symptoms of Peptic ulcers. On the other hand, this finding disagrees with **Al-Ganmi et al. (2025)** in Baghdad, who showed that dietary intake is a low predictor for developing symptom severity in gastroduodenal ulcer." This finding supports the research hypothesis No. 1.

The present study illustrated that a video instructional nutrition program had a significant negative predictor of the severity of Peptic ulcers. This result may be attributed to the use of a video instructional nutrition program that employs visual and auditory explanations, explanations that help the studied patients understand the course of the disease, its causes, and how to cope with Peptic ulcers, leading to better symptom control and reduced symptom severity. This outcome is confirmed by a study in the United States by **Deshpande et al. (2023)**, who concluded that video-based education is an effective tool for improving patients' health status and reducing symptom severity. This finding supported the research hypothesis "A video-based nutritional instruction program has a positive effect on improving illness perception and nutrition habit practice and reducing symptom severity for patients with Peptic ulcers."

Conclusion:

The current study demonstrated that a video-based nutritional instruction program is an effective method for improving nutrition practices and reducing illness perception levels and symptom severity. Additionally, age is a positive predictor of increased symptom severity.

Recommendation:

1. Implement a video-based nutritional instruction program as part of routine care for patients with Peptic ulcers**.**
2. The Ministry of Health should organize medical camps in rural communities to raise greater awareness about the non-pharmacological management of PUD.
3. Further studies on other predictors of symptom severity among patients with Peptic ulcers.

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