



Research Paper

## A Study To Assess The Severity Of Gastro Esophageal Reflux Disease By Using FSSG Among Patient Admitted SMVMCH At Puducherry.

DR.G.Sathayavathy<sup>1</sup>, Mr. T.Jagatheeswaran<sup>2</sup>, DR.G.Muthamilselvi<sup>3</sup>

<sup>1</sup> Associate Professor in Department of Medical surgical Nursing, Sri Manakula Vinayagar Nursing College, Puducherry-605107, India.

<sup>2</sup>B.Sc., (Nursing) IV Year, Sri Manakula Vinayagar Nursing College, Puducherry-605107, India <sup>3</sup>Principal, Sri Manakula Vinayagar Nursing College, Puducherry – 605 107

Corresponding author: Mrs. G.Sathyavathy - Mail id: sathyavathyg@smvnc.ac.in

### ABSTRACT

Gastro esophageal reflux disease (GERD) is a very common digestive disorder worldwide with an estimated prevalence of 18.1-27.8% in North America. Approximately half of all adults will report reflux symptoms at some time. According to the Montreal definition, GERD is a condition of troublesome symptoms and complications that result from the reflux of stomach contents into the esophagus. A descriptive research design was selected for this study to assess the severity of Gastro Esophageal Reflux Disease among patients admitted in SMVMCH, Puducherry. The investigator obtained formal permission from Ethical committee of Sri Manakula Vinayagar Medical College and Hospital. The main study was conducted in Sri Manakula Vinayagar Medical College and Hospital, Puducherry. The period of data collection was one week. Totally 30 GERD patients were selected by using the convenience sampling technique. The purpose of the study was explained to the patients and the severity of GERD were assessed by using FSSG tool.

### I. INTRODUCTION:

Gastro esophageal reflux disease (GERD) is a very common digestive disorder worldwide with an estimated prevalence of 18.1-27.8% in North America. Approximately half of all adults will report reflux symptoms at some time. According to the Montreal definition, GERD is a condition of troublesome symptoms and complications that result from the reflux of stomach contents into the esophagus. Diagnosis of GERD is typically based on classic symptoms and response to acid suppression after an empiric trial. GERD is an important health concern as it is associated with decreased quality of life and significant morbidity. Successful treatment of GERD symptoms has been associated with significant improvement in quality of life, including decreased physical pain, increased vitality, physical and social function, and emotional well-being. While GERD medications are not particularly expensive, the cost of treating GERD patients has been deemed 2-fold more costly than comparable individuals without GERD. This cost difference is likely due to higher morbidity in GERD patients and the higher cost of managing complications of inappropriately treated GERD.

Gastro Esophageal reflux disease (GERD) is mainly a clinical diagnosis based on typical symptoms of heartburn and acid regurgitation. Current guidelines indicate that patients with typical symptoms should first try a proton pump inhibitor (PPI). If reflux symptoms persist after 8 weeks on a PPI, endoscopy of the esophagus is recommended, with biopsies taken to rule out eosinophilic esophagitis.

The classic symptoms of GERD are easily recognized, Extra esophageal manifestations of GERD are also common but not always Recognized. Extra esophageal symptoms are more likely due to reflux into the larynx, resulting in throat clearing and hoarseness. It is not uncommon for patients with GERD to complain of a feeling of fullness or a lump in the back of their throat, Referred to as globus sensation. The cause of globus is not well understood but it is Thought that exposure of the hypo pharynx to acid leads to increased tonicity of the Upper esophageal sphincter (UES). Furthermore, acid reflux may trigger Bronchospasm, which can exacerbate underlying asthma, thereby leading to cough, Dyspnea, and wheezing 15 Some GERD patients may also experience chronic nausea and vomiting.

It is important to screen patients for alarm symptoms associated with GERD as these should prompt endoscopic evaluation. Alarm symptoms may suggest A possible underlying malignancy. Upper endoscopy is not required in the presence of typical GERD symptoms. However, endoscopy is recommended in the presence of

alarm symptoms and for screening of patients at high risk for complications (ie. Barrett's esophagus, including those with chronic and/or frequent symptoms, age > 50 years, Caucasian race, and central obesity). Alarm symptoms include dysphagia (difficulty swallowing) and odynophagia (painful swallowing), which may represent Presence of complications such as strictures, ulceration, and/or malignancy. Other Alarm signs and symptoms include, but are not limited to, anaemia, bleeding, and Weight loss. GERD symptoms should be considered as distinct from dyspepsia.

GERD is usually diagnosed clinically with classic symptoms and Response to acid suppression. Heartburn with or without regurgitation is typically to suspect GERD, particularly when these symptoms are worse Postprandially or when recumbent. The initiation of treatment with histamine type 2 (HZ) receptor blockers or proton pump inhibitors (PPIs) with subsequent cessation of symptoms is considered diagnostic. In patients who respond to empiric treatment, In the absence of alarm features or symptoms, no further worlmp is required

The most utilized diagnostic test for the evaluation of GERD and its possible complications is the upper gastrointestinal endoscopy, or Esophago gastro duodenoscopy (EGD). The primary benefit of endoscopy is direct Visualization of the esophageal mucosa. This assists in diagnosis of complications Of GERD such as esophagitis, strictures and Barrett's esophagus. One endoscopic Grading system of GERD severity is the Los Angeles classification, graded from A To D, with D being the most severe.

Esophageal pH monitoring is indicated in patients with persistent symptoms and normal findings on endoscopy before surgical or endoscopic interventions are considered esophageal pH monitoring can be done using a 24- hour transnasal pH or pH-impedance catheter or a 48-hour Bravo wireless capsule.

In clinical practice, pH testing is performed with the patient off PPI therapy when there is low clinical suspicion for GERD, whereas pH-impedance testing is performed while the patient is still on PPI therapy when there is higher likelihood of GERD, to evaluate refractory symptoms.

## **II. REVIEW OF LITERATURE:**

Literature review is defined as a broad, comprehensive, in depth, systematic and critical review of scholarly publication, unpublished printed or audio-visual materials and personal communications. Information about who are at high risk on mortality rate. The result showed that older and younger patients had similar mortality rates.

A review of literature is an essential aspect of scientific research it helps the investigator to establish support for the need of the study, select research design, developing tools and data collection technique. This chapter deals with an extensive review of literature to gain deeper insight into the problem as well as to collect maximum relevant information for building up of the study.

The literature directs the researcher in designing the study and interpreting the outcomes. The primary purpose is to gain broad background or understanding of the information that is available related to the problem. This helps the investigator to gain in depth knowledge need to make changes in practice and problem.

### **STUDY RELATED TO GASTRO ESOPHAGEAL REFLUX DISEASE:**

**Tedesco Fiji et al** (2022) was conducted a study on GERD in the evaluation of patients with upper gastro intestinal symptoms. The study consists of 571 samples (n=571). Purposive sampling technique was used for selecting the samples. The samples were underwent the procedure of upper gastro intestinal endoscopy by using the method of single contrast upper gastro intestinal X-ray adds little new information to a complete endoscopic examination by a trained endoscopes. The endoscopist use of this procedure as the initial diagnostic test. The study concluded that this method was appropriate for identifying upper gastro intestinal symptoms with GERD.

**Oilonomidou E** (2022) was conducted a study on upper gastro intestinal endoscopy for GERD. The study design is Randomized control trial with 159 samples. The samples were selected by using purposive sampling technique. Among 159 samples 16% were found positive for GERD and gastro esophageal reflux disease according to the questionnaire. Hence the Study concluded that patients with GERD tent to avoid upper gastro intestinal endoscopy, with two major axons considered to the causes of patients refusal and their beliefs towards endoscopy.

**Stoltzing H et al** (2020) was conducted study on Diagnostic emergency endoscopy in GERD at Heinrich Heine University, Germany. The study comprises of 500 samples by applying a simple method of computer-aided diagnosis to a set of prospective data (n = 500). The study reveals that an overall accuracy of 71% for the prediction of bleeding peptic ulcer and 71% for the prediction of non-bleeding visible vessel. Despite a relative risk of 2.8 for "bleeding ulcer" and 2.5 for "visible vessel" in the high-risk group, only 72% of all "bleeding ulcer" patients, and 69% of the "visible vessel" patients could be identified by the model. The study results reveal that the Emergency endoscopy should therefore be performed in all patients with GERD.

**A Bolzano et al** (2020) was conducted a study on GERD and their effects at Caldarella hospital and endoscopy unit, national cancer institute, Italy. The study consists of 706 samples comprising of 387 males and 319 females, with a study design of Randomized control trials. In 276 patients

**STATEMENT OF THE PROBLEM:**

A study to assess the severity of gastro esophageal reflux disease by using fssg among patients admitted in smvmch at puducherry.

**AIM OF THE STUDY:**

The aim of the study was to assess the impact of black fungus among high risk people residing at selected community area, Puducherry.

**OBJECTIVE OF THE STUDY:**

- To assess the severity of Gastro Esophageal Reflux Disease among patients.
- To associate the severity of Gastro Esophageal Reflux Disease among patients with their selected demographic variables.

**ASSUMPTION:**

It is assumed that by using frequency symptom scale we can find out the security of Gastroesophageal Reflux disease

**SCORE INTERPRETATION:**

Classification	Little or more	Mild or moderate	Moderate to severe	Severe
Score	10-40	40-60	60-80	80-100

**RESEARCH APPROACH:**

A It is the basic procedure for conducting the study. A research approach tells us, what data to collect and how to analyse it. Then it is also suggests possible conclusion to be drawn from the data. A quantitative research approach was selected for the present study.

**RESEARCH DESIGN:**

It is a set of logical steps taken by the researchers to assess the research problem. The design depends upon the level of inquiry of the researches and determines the method uses to obtain sample, collect data, analyse and interpret results. A descriptive research design was adapted for this study.

**SETTING OF THE STUDY:**

The study was conducted at Sri manakula vinayagar medical College and hospital, kalitheerthalkuppam, Puducherry. The hospital is 1200 bedded super- speciality hospital. The hospital is having separate gastroenterology unit with advance treatment facility includes surgery unit, endoscopy unit etc.

**POPULATION:**

Population is all the Gastro Esophageal Reflux Disease patients admitted in hospitals.

**SAMPLE:**

Sample of the study comprises all the Gastro Esophageal Reflux Disease patients admitted in Sri manakula vinayagar medical College and hospital, kalitheerthalkuppam.

**SAMPLE SIZE**

Sample size is the number of subjects involved in the study. Sample size consists of 30 Gastro Esophageal Reflux Disease patients..

**SAMPLING TECHNIQUE:**

Sampling is defined as the process of selecting a representative segment of the population under the study. Convenience sampling technique was used for the present study.

**CRITERIA FOR SAMPLE SELECTION:**

**Inclusion criteria:**

- Gastro Esophageal Reflux Disease patients who are all available at the period of data collection.
- Gastro Esophageal Reflux Disease patients who are all admitted in ward areas.

**Exclusion criteria:**

- Gastro Esophageal Reflux Disease patients who are all not willing to participate in the study.

### III. DATA ANALYSIS AND INTERPRETATION

This chapter deals with analysis and interpretation of the information collected from the 50 GERD patients admitted in SMVMCH, Puducherry. The present study was designed to assess the severity of Gastro Esophageal Reflux Disease by using FSSG among patients admitted in SMVMCH at Puducherry.

The analysis of collected data from the present study had been organized in relation to the objectives and the hypothesis formulated for the study. Analysis is a method of formulating data in such a way that the research question can be answered. The collected data was obtained, organized, analyzed and interpreted by using descriptive and inferential statistics. Analyzed and interpreted data are based on the objectives of the study data presented under the following headings.

#### ORGANISATION OF THE DATA

**TABLE – I:** Frequency and percentage wise distribution of demographic variables among patients admitted in SMVMCH, Puducherry.

**TABLE – II:** Frequency and percentage wise distribution of severity of GERD among patients admitted in SMVMCH, Puducherry.

**TABLE – III:** Mean and standard deviation regarding severity of GERD among patients admitted in SMVMCH, Puducherry.

**TABLE – IV:** Association with the severity of GERD among patients admitted in SMVMCH with their selected demographic variables.

S.NO	DEMOGRAPHIC VARIABLE	FREQUENCY	PERCENTAGE
1	<b>AGE</b>		
	a) 20-30 years	18	59.94
	b) 31-40 years	9	29.97
	c) 41-50 years	0	0
	d) < 50 years	3	9.9
2	<b>GENDER</b>		
	a) Male	19	63.27
	b) Female	11	36.63
	c) Transgender	0	0
3	<b>RELIGION</b>		
	a) Hindu	27	89.91
	b) Muslim	3	9.99
	c) Christian	0	0
	d) Others	0	0
4	<b>EDUCATION</b>		
	a) Illiterate	2	6.66
	b) Primary School	11	36.63
	c) Secondary School	9	29.97
	d) Graduate	8	26.64
5	<b>JOB TYPE</b>		
	a) Government job	10	33.3
	b) Private job	18	59.94
	c) Secondary job	2	6.66
	d) Unemployed	0	0
6	<b>MARTIAL STATUS</b>		
	a) Unmarried	6	19.98
	b) Married	24	71.92
	c) Divorced	0	0
	d) Widow	0	0
7	<b>TYPES OF FAMILY</b>		
	a) Nuclear	25	83.25
	b) Joint family	3	9.99
	c) Single	2	6.66
8	<b>INCOME</b>		
	a) <5000	13	43.29
	b) Rs. 5001 to 10000	0	0

	c) Rs. 10001 to 15000	15	49.95
	d) Rs. 15001 to above	2	6.66
9	<b>FOOD HABITS</b>		
	a) Spicy food	19	63.27
	b) Sweet food	0	0
	c) Normal food	2	6.66
	d) All the above	9	29.97
10	<b>Is there any history of GERD in family?</b>		
	a) Yes	23	76.59
	b) No	7	23.31
11	<b>Previous history of GERD</b>		
	a) Yes	19	63.27
	b) No	11	36.63
12	<b>Source of information regarding GERD</b>		
	a) Mass media	3	9.99
	b) Teacher	18	59.94
	c) Health care providers	2	6.66
	d) Others	7	23.31

#### IV. RESULTS

Out of 30 samples the severity of GERD is mild in 13 (43%) of samples, moderate in 15 (50%) of the samples and severe in only 2 (7%) of samples. The severity level of GERD mean score is 21.36 with the standard deviation of 4.88. Among all the demographic variables type of demographic variables shows significant relationship at the level of  $p < 0.001$ . This study implies that the severity of GERD can be assessed by FSSG was found to be effective in identifying GERD at the earlier stages and this can be used as routine practice in clinical

#### V. CONCLUSION AND RECOMMENDATION:

This study implies that the severity of GERD can be assessed by FSSG was found to be effective in identifying GERD at the earlier stages and this can be used as routine practice in clinical setting the patients with gastro intestinal disorders. for better diagnosis and treatment for Based on findings of the present study, the following recommendations have been made,

- Similar study can be conducted in other parts of the country with a large sample.
- The same study can be conducted in different settings.
- The study can be replicated with larger samples for better generalization.
- The study can be done as a longitudinal study.

#### NURSING IMPLICATIONS:

- The present study can help nurses to enrich their skills and knowledge regarding GERD.
- The study may help the nurses to update their knowledge regarding GERD by using FSSG.

#### NURSING PRACTICE:

The community area nurses must have some knowledge about black fungus and take care of high risk population.

#### NURSING SERVICES:

- Nurses working in ortho unit should have enough knowledge and special skills to assess GERD at its earliest.
- Nurses as a counsellor and educator should provide adequate guidance and knowledge regarding GERD and their family member about the care needed.

#### NURSING RESEARCH:

- The findings of the study help the nurses and students to develop the inquiry by providing baseline. The general aspect of the study result can be made by further replications of the study.
- A Nurse Researcher can provide supportive care measures which may improve the physical wellbeing for GERD patients.

- Nursing researcher should encourage clinical nurses to apply the research findings in their daily nursing care activities and can bring out new innovative techniques in caring patients with GERD.
- The researcher should conduct periodic review of research findings and disseminate the findings through conferences, seminars, publications in journals and in the World Wide Web.

#### **NURSING ADMINISTRATION:**

- Nurse Administrator can make necessary policies to implement the nursing care services for patients with GERD.
- Nurse Administrator can organize in service education program and adequate staffing in medical and surgical unit for an effective care towards GERD patients.
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- Nurse Administrators should give attention on proper selection, placement and effective utilization of the nurses in all area with their ability in education of care providers to care of patients with GERD.
- Nurse Administrator should arrange seminar, conference, workshop, related to nursing care for patients with GERD.

#### **RECOMMENDATIONS FOR THE STUDY:**

- A similar study can be conducted by large number of sample in future.
- The study was conducted to particular group of people at particular age.
- A prospective study can also be conducted.

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