"A Study To Assess The Effectiveness Of Selected Position On Reducing The Symptoms Of Gastroesophageal Reflux Disease Patients Admitted In SMVMCH, At Puducherry".

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I. INTRODUCTION

"GREAT THINKERS OFTEN LEARN, TO THEIR SURPRISE, THAT NEW IDEAS ARE LESS THAN WELCOME"

Gastroesophageal reflux disease, or GERD, is a digestive disorder that affects the ring of muscle between esophagus and stomach. This ring is called the lower esophageal sphincter (LES). If have it, may get heartburn or acid indigestion. Doctors think that some people may have it because of a condition called hiatal hernia. In most cases, you can ease your GERD symptoms through diet and lifestyle changes. But some people may need medication or surgery.

The prevalence of GERD (2021) in the Indian population is 15.6 (95% CI 11.046 to 20.714).The prevalence of GERD symptoms to be marginally higher in women compared with men (16.7% (95% CI 14.9% to 18.6%) vs. 15.4% (95% CI 13.5% to 17.4%) .The prevalence of GERD in India ranges from 7.6% to 30%, being < 10% in most population studies, and higher in cohort studies. The dietary factors associated with GERD include use of spices and non-vegetarian food. Helicobacter pylori is thought to have a negative relation with GERD.GERD is one of the most common gastrointestinal disorders, with a prevalence of approximately 20% of adults in western culture. The prevalence of GERD is approximately 20% of adults in western culture. The estimated prevalence of GERD is 18.1% to 27.8%. The pooled prevalence of GERD symptoms to be marginally higher in women compared with men (16.7% (95% CI 14.9% to 18.6%) vs. 15.4% (95% CI 13.5% to 17.4%)

II. REVIEW OF LITERATURE

Teng Ma et.al.,(2021) PPI-refractory gastroesophageal reflux disease (RGERD) is characterized as the existence of reflux symptoms resistant to optimized PPI treatment. Human biopsy samples, cell lines, and rat models were recruited. Trans-epithelial electrical resistance (TEER) was tested and a FITC- dextran flux assay was performed to detect barrier permeability. Tissue morphology was evaluated using HE staining, while gene expression was measured by qRT-PCR, western blotting, flow cytometry, immunofluorescence, immunohistochemistry, and chromatin immunoprecipitation (ChIP) analysis. The tight junction protein Claudin-1 is significantly weakened in the RGERD epithelium, while levels of EZH2-mediated H3K27me3 were increased. Forced EZH2 expression in epithelial cells led to H3K27me3 accumulation and Claudin-1 suppression, which consequently caused epithelial barrier dysfunction. Notably, studies on esophago-gastroduodenal anastomosis (EGDA) rat models showed the attenuation of Claudin-1 level and barrier function could be rescued by an Ezh2 inhibitor GSK126.

Ronnie fass et,al.,(2022) Gastroesophageal reflux disease related symptoms are reported by 10-20% of the adult population and of those 50-75% report symptoms during sleep time. The prevalence of nocturnal GERD (nGERD) is estimated to be about 25% in general population. nGERD causes sleep fragmentation, difficulty falling asleep, daytime sleepiness, reduced work productivity anddecreased quality of life. Elevating the upper torso by raising the head of the bed and avoiding the right-lateral decubitus position have been shown to improve nocturnal symptoms. Several studies have shown that sleeping in the left decubitus position decrease esophageal acid exposure by reducing 13- 76% of the reflux episodes. Studies have shown that the right decubitus position increases the rate of transient lower esophageal sphincter relaxations (TLESRs) accompanied by acid reflux, as compared with the left recumbent position. Moreover, maintaining the left lateral recumbent position, reduced by 87% esophageal acid exposure and nocturnal symptoms.

STATEMENT OF THE PROBLEM:
"A study to assess the effectiveness of selected position on reducing the Symptoms of gastroesophageal reflux disease patients admitted in SMVMCH at Puducherry ".

OBJECTIVES:
• To assess the level of symptoms among patient with gastroesophageal reflux disease.
• To evaluate the effectiveness of selected positions on reducing the symptoms of GERD in patients with self- structured questionnaire.
• To associate the effectiveness of selected position on reducing the Symptoms among patient with their demographic variables.

ASSUMPTION:
The study was assumed that by using tools, Gastroesophageal reflux disease patients will find out the position and symptoms of gastroesophageal reflux disease

LIMITATIONS:
• The study is limited to 30 people
• The study is limited to 1 week

III. MATERIALS AND METHOD:
This chapter describes the research methodology followed to assess the effectiveness of selected positions on reducing the symptoms of GERD in patients admitted in SMVMCH. It deals with research approach, research design, setting of the study, population, sample, sample size, sampling technique, criteria for sample selection, plan for data collection and tools and instruments.

PART – I: This section consist of demographic data such as age, gender, educational qualification, marital status, religion, income, type of family, occupation, residential area, type of house, history of bad habits.

PART - II: Multiple choice questionnaire regarding assess the effectiveness of selected positions on reducing the symptoms of Gastro-esophageal reflux disease Patients admitted in SMVMCH, Puducherry.

It consists of 30 items, each correct answer carries one mark.

SCORING INTERPRETATION :

LEVEL OF KNOWLEDGE	SCORING	PERCENTAGE
Fair knowledge	0-10	>25%
Good knowledge	11-20	50-75%
Very Good knowledge	21-30	<75%

RESEARCH APPROACH:
A quantitative research approach was adapted for this study.

RESEARCH DESIGN:
A descriptive Research design was adapted for this study.

POPULATION:
The target population for this study comprises of Gastroesohageal reflux disease Patients admitted in SMVMCH, Puducherry.

SAMPLE:
The study samples consist of Gastroesophageal reflux disease Patients admitted in SMVMCH, Puducherry who fulfill the inclusion criteria.

SAMPLE SIZE:
Sample size consists of 30 Gastro-esophageal reflux disease patients admitted in SMVMCH, Puducherry.

SAMPLING TECHNIQUE:
A purposive sampling technique is used for the present study.

SETTING OF THE STUDY:
The study was conducted at SMVMCH, Puducherry

SAMPLE SELECTION CRITERIA:
Inclusion criteria:
• ≥18 years of age, both genders

- Presenting with typical symptoms suggestive of GERD (heartburn or regurgitation as prevailing symptoms) of any severity
- Able to understand and complete the questionnaires Exclusion criteria:
- Any condition that, in the investigator's opinion, makes the patients participation in the study difficult
- Current participation in another clinical trial.

IV. RESULTS:

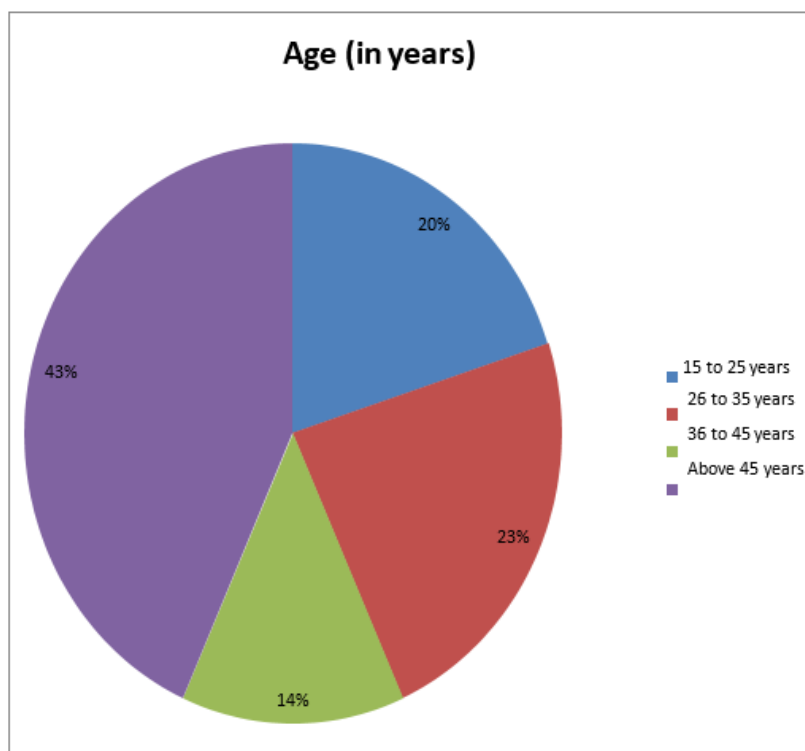The major findings of the study were :

- Level of knowledge of selected position on reducing symptoms of gastroesophageal reflux dis- ease patients admitted in SMVMCH , 28 (93.3%) had moderately adequate level of knowledge and 2(6.7%) had inadequate level of knowledge
- Mean and standard deviation level of knowledge of selected position on reducing symptoms of gastroesophageal reflux disease patients admitted in SMVMCH is (13.97±2.553) respectively.
- Association shows significant relationship with demographic variables. Educational status (p=0.003) and Source of information (p= 0.001) regarding GERD had shown statistically signif- icant association between the level of knowledge of selected position on reducing symptoms of gastroesophageal reflux disease patients admitted in SMVMCH with selected demographic vari- ables.
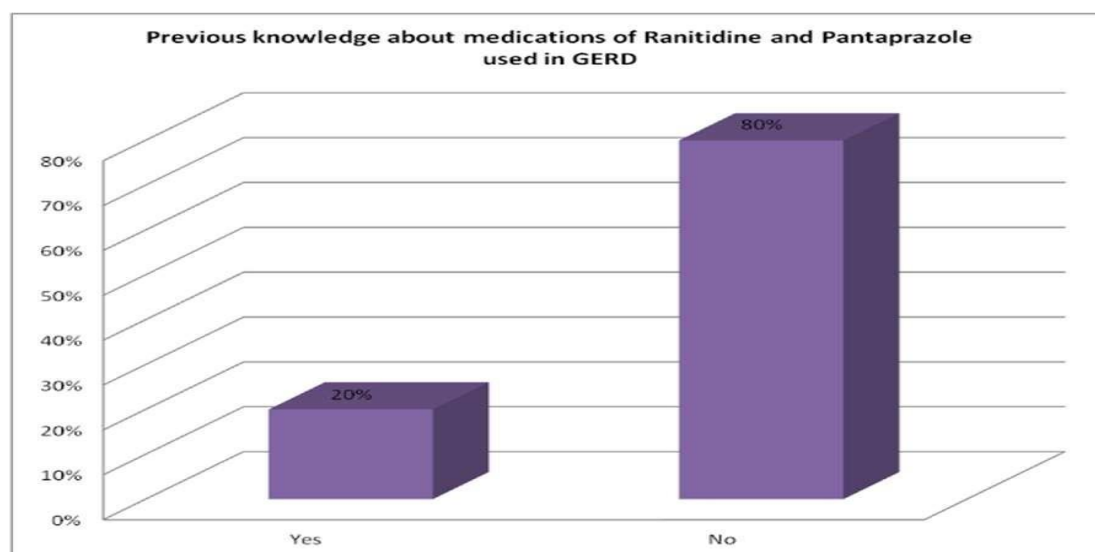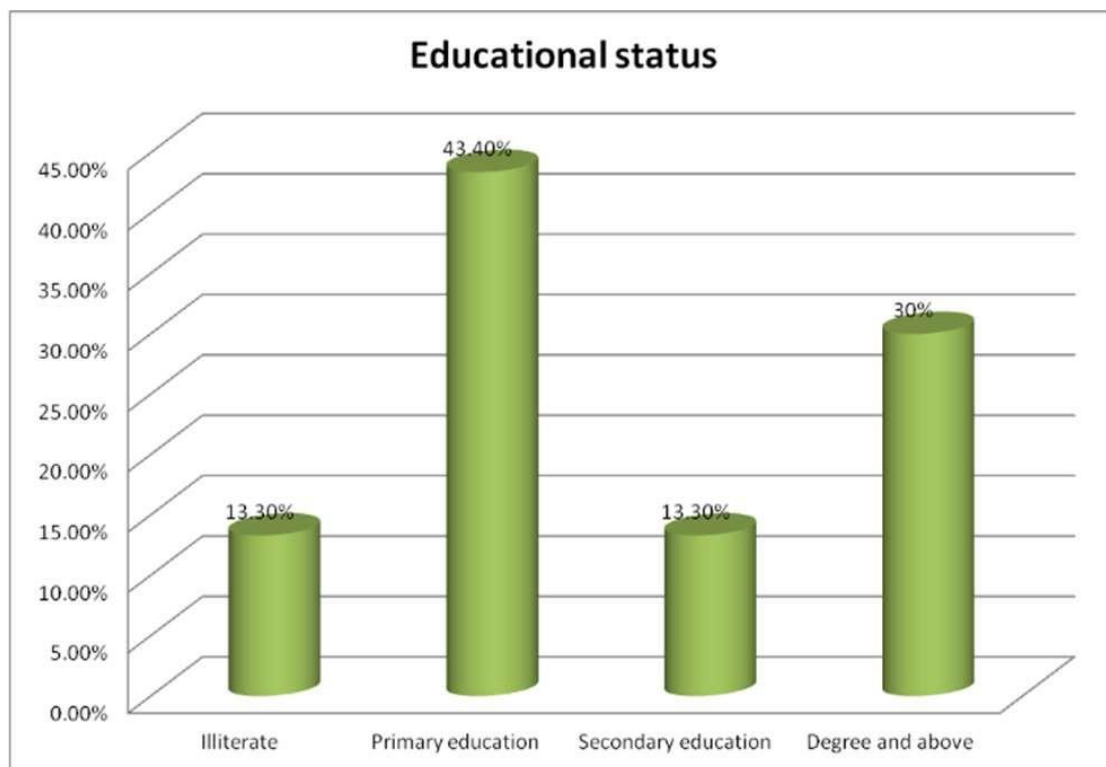
Frequency and percentage wise distribution of demographic variables among patients.

(N=30)

S.NO	DEMOGRAPHIC VARIABLES	FREQUENCY (N)	PERCENTAGE (%)
1	**Age (in years)**		
	a) 15 to 25 years	6	20
	b) 26 to 35 years	7	23.3
	c) 36 to 45 years	4	13.4
	d) Above 45 years	13	43.3
2	**Gender**		
	a) Male	17	56.7
	b) Female	13	43.3
	c) Transgender	0	0
3	**Religion**		
	• Hindu	28	93.3
	• Muslim	2	6.7
	• Christian	0	0
4	**Educational status**		
	a) Illiterate	4	13.3
	b) Primary education	13	43.4
	c) Secondary education	4	13.3
	d) Degree and above	9	30
5	**Residency**		
	a) Urban	5	16.7
	b) Rural	25	83.3
6	**Marital status**		
	• Married	22	73.3
	• Unmarried	7	23.3
	• Widow	0	0
	• Separated	1	3.4
7	**Occupation**		

	a) Business	1	3.3
	b) Daily wages	12	40
	c) Unemployed	14	46.7
	d) Salaried	3	10
8	**Income**		
	a) <5000	19	63.3
	b) Rs 5001 to 10000	0	0
	c) Rs 10001 to 15000	7	23.3
	d) Rs 15001 and above	4	13.4
9	**Diet pattern**		
	a) Vegetarian	1	3.3
	b) Non vegetarian.	3	10
	c) Both	26	86.7
10	**Is there any history of GERD in family**		
	a) Yes	0	0
	b) No	30	100
11	**Previous knowledge about medications of Ranitidine and Pantoprazole used in GERD**		
	a) Yes	6	20
	b) No	24	80
12	**Source of information regarding GERD**		
	a) Teachers	2	6.7
	b) Mass media	1	3.3
	c) Health care providers	24	80
	d) Others.	3	10

Educational status

Previous knowledge about medications of Ranitidine and Pantaprazole used in GERD

Frequency and percentage wise distribution of level of symptoms among patient with gastroesophageal reflux disease . .

(N = 30)

LEVEL OF KNOWLEDGE	FREQUENCY (n)	PERCENTAGE (%)
Inadequate level of knowledge	2	6.7
Moderately adequate level of knowledge	28	93.3
Adequate level of knowledge	0	0
Total	30	100
Mean+Standard deviation	13.97±2.553	

Association between the effectiveness of selected position on reducing the Symptoms among patient with gastroesophageal reflux disease. (N=30)

SL .NO	DEMOGRAPHIC VARIABLES	LEVEL OF KNOWLEDGE				Chi-square X^2 and P-Value
		Inadequate		Moderate		
		N	%	N	%	
1	**Age (in years)**					X^2=6.55 Df=2 **p =0.008** ***S**
	15 to 25 years	1	50	5	17.9	
	26 to 35 years	0	0	7	25	
	36 to 45 years	1	50	3	10.7	
	Above 45 years	0	0	13	46.4	
2	**Gender**					X^2=0.039 Df=1 p =0.844 NS
	Male	1	50	16	57.1	
	Female	1	50	12	42.9	
	Transgender	0	0	0	0	
3	**Religion**					X^2=0.153 Df=1 p =0.696 NS
	Hindu	2	100	26	92.9	
	Muslim	0	0	2	7.1	
	Christian	0	0	0	0	
4	**Educational status**					X^2=7.87 Df=1 **p =0.003** ***S**
	Illiterate	0	0	4	14.3	
	Primary education	1	50	12	42.9	
	Secondary education	0	0	4	14.3	
	Degree and above	1	50	8	28.6	

5	Residency					$X^2=0.429$ Df=1 p =0.513 NS
	Urban	0	0	5	17.9	
	Rural	2	100	23	82.1	
6	Marital status					$X^2=0.884$ Df=2 p =0.643 NS
	Married	1	50	21	75	
	Unmarried	1	50	6	21.4	
	Widow	0	0	0	0	
	Separated	0	0	1	3.6	
7	Occupation					$X^2=2.449$ Df=3 p =0.485 NS
	Business	0	0	1	3.6	
	Daily wages	0	0	12	42.9	
	Unemployed	2	100	12	42.9	
	Salaried	0	0	3	10.7	
8	Income					$X^2=0.999$ Df=2 p =0.607 NS
	<5000	1	50	18	64.3	
	Rs 5001 to 10000	0	0	0	0	
	Rs 10001 to 15000	1	50	6	21.4	
	Rs 15001 and above	0	0	4	14.3	
9	Diet pattern					$X^2=0.330$ Df=2 p =0.848 NS
	Vegetarian	0	0	1	3.6	
	Non vegetarian.	0	0	3	10.7	
	Both	2	100	24	85.7	
10	Is there any history of GERD in family?					Constant
	Yes	0	0	0	0	
	No	2	100	28	100	
11	Previous knowledge about medications of Ranitidine and Pantaprazole used in GERD?					$X^2=0.536$ Df=1 p =0.464 NS
	Yes	0	0	6	21.4	
	No	2	100	22	78.6	
12	Source of information regarding GERD					**$X^2=14.59$ Df=3 p =0.001** HS**
	Teachers	0	0	2	7.1	
	Mass media	1	50	0	0	
	Health care providers	1	50	23	82.1	
	Others.	0	0	3	10.7	

V.   CONCLUSION:

A study to assess the effectiveness of selected position on reducing the symptoms of gastroesophageal reflux disease patients admitted in SMVMCH at Puducherry. The findings of the study revealed that Out of 30 samples, Majority of the patients 28 (93.3%) had moderately adequate level of knowledge and 2(6.7%) had inadequate level of knowledge. The mean and standard deviation of effectiveness of selected position on reducing the symptoms of gastroesophageal reflux disease patients admitted in SMVMCH at Puducherry is (13.02+6.65) respectively.

NURSING IMPLICATIONS:
The study had implications for nursing practice, nursing education, nursing administration and nursing research.
NURSING PRACTICE:
The staff nurses must have adequate knowledge about positions which is reducing the symptoms of gastroesophageal reflux disease and take a care Of gastroesophageal reflux disease Patients.
NURSING EDUCATION:
The nurse educated the clients about the positions which is reducing the symptoms of gastroesophageal reflux

disease in the hospital settings and handling of high risk clients. Provide a necessary health education, provide a activity therapy or routine works etc.,

NURSING RESEARCH:
Numbers of studies are being conducted to assess the effectiveness of selected position on reducing the symptoms of gastroesophageal reflux disease patients admitted in SMVMCH at Puducherry. Patients are mostly inadequate in knowledge. Different studies have to be conducted further prevalence rate of GERD induced asthma among high risk population.

NURSING ADMINISTRATION:
Nurse's administrators can make steps to create awareness about positions which is reducing the symptoms of gastroesophageal reflux disease by organizing mass health education or awareness program at SMVMCH.

RECOMMENDATIONS:
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
Study based on daily life of clients to do their daily task.

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