



## Effectiveness of Planned teaching Programme Regarding Nursing Management of Acid Peptic Disease

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### ABSTRACT

Working women have more stress in interpersonal relationship as well as in the work filed. High levels of stress lead to poor work performance. Stress and improper dietary habits are the common problems for the nurses. So, they are likely to suffer from acid peptic disease. Specific nursing management can help the nurses to get rid of from the disease and lead a healthy life. And this can only be possible through increase in the knowledge. The research design used for the present study was pre-test post-test design (before and after without control design). An evaluatory survey approach was also found suitable. The sample size was 100 and convenient sampling technique was used. Data was analyzed by using descriptive and inferential statistics. The pre-test and post-test finding and the result of "t" test shows the effectiveness of planned teaching programme. Also there is significant association between certain demographic variables with knowledge which was shown by ANOVA.

**Keywords:** Planned teaching programme, staff nurses, and acid peptic disease.

### INTRODUCTION

Acid peptic disease by definition is a disorder of gastric and duodenal mucosal barrier due to hyper or hypo secretion of acid and pepsin into the gastric juice which results in destruction of mucosal and muscular layers of the stomach and duodenum. It focuses on gastro-esophageal reflux disease (GERD) and peptic ulcer disease, the two most common and well defined disease states.<sup>1</sup>

This disease provides an enriched psychosomatic relationship; emotional factors either precipitate or modify this disease. The progress of the disease is directly related to stress, irregularity in food habits, rich foods, smoking and alcohol. The prevalence of acid peptic disease depends on both racial composition of the population studied and criteria used to define the condition.<sup>2</sup>

In Framingham, study conducted in the year 2009 in a white sub-urban population, nearly 1/5<sup>th</sup> of individuals have acid peptic disease. Overall 26.4% of the world's adult population had acid peptic disease (26.6% of men and 26.1% women). In India, two studies conducted in rohtak urban population and other study in rural population of Haryana shows 5.9% and 6.9% in males and females respectively in urban people and 3.55% and 3.59% in males and females in rural population and acid peptic disease.

It is found that 58.7% of the population has heartburn or acid regurgitation at least once during the course of a year and that 19.8% experience symptoms at least once weekly. It is estimated that approximately 50% of patients have typical reflux symptoms.

A working woman is prone to suffer from occupational stress as well as family stress. She has to fight for both the stress in her daily life.<sup>3</sup>

Alex Majia and Walter K Kraft revealed that acid peptic disease result from distinctive but overlapping mechanisms such as acid reflux, damage the esophageal mucosa, and also initially cause laryngeal tissue injury with subsequent development of pulmonary symptoms. MH imanieh, S M Dehghani, M-Haghighact revealed that there is correlation between migraine, headache and acid peptic disease. Kaur Amardeep, Singh Robin, Sharma Ramica revealed that peptic ulcers are found to be due to an imbalance between aggressive factors such as hydrochloric acid, pepsin, refluxed bile, leukotrienes (LTS), reactive oxygen species (Ros) and defensive factors which include the function of the mucus-bicarbonate barrier, prostaglandins, mucosal blood flow, cell renewal and migration, non -enzymatic and enzymatic anti-oxidants and some growth factors. H.pylori infection and the use of non-steroidal anti-inflammatory drugs (NSAIDS) are the pre-dominant causes of peptic ulcer disease.<sup>4</sup>

### Hypothesis

- H<sub>1</sub>:- There is a significant effect of the planned teaching programme regarding nursing management of the acid peptic diseases.
- H<sub>2</sub>:- There is association between certain demographic variables with knowledge.



## MATERIALS AND METHODS

The study was conducted at a tertiary care hospital of Bhubaneswar city of Odisha. The sample size was 200, those who are diagnosed case of acid peptic disease. Convenient sampling technique was used.

Data collection tool include the self –structured questionnaire which consist of two parts, section – “A” consists of demographic data’s. Section “B” consists of a questionnaire of 50 items. All questions were “yes” and “no” type. Every “yes” response “one” and “no” responses scores “zero”. The criteria measured for knowledge score is depicted as follow.

### Scoring procedure

a) Excellent knowledge	→	45-50	
		>80%	
b) Good knowledge	→	39-44	70-80%
c) Average knowledge	→	33-38	59-69%
d) Poor knowledge	→	<33	<59%

Data was analyzed by using descriptive and inferential statistics, i.e. percentage, mean and standard deviations. “t” test was applied to know the effectiveness of the planned teaching programme and “ANOVA” is applied to know the association between certain demographic variables with knowledge.<sup>5,6& 7</sup>

## RESULTS AND DISCUSSION

Out of 200 staff nurses, 44 (22%) were in the age group of below 25 years, 62 (31%) were in the age group of 26-35 years, 58 (29%) were in the age group of 36-45 years, and 36 (18%) were in the age group of 46-55 years.

80 (40%) were belongs to Hindu religion, 40 (20%) belongs to Muslim religion, 64 (32%) belongs to Christian religion and 16 (08%) belongs to any other group. 52 (26%) were passed 10<sup>th</sup> class, 84 (42%) were passed +2 level, 56 (28%) were passed graduation, 08 (04%) were passed post graduation. Similarly, professional qualification shows that 80 (40%) were diploma qualified nurses, 98(49%) were graduate nurses and 22 (11%) were post graduate nurses.

Years of work experience reveals that 58(29%) were having the work experience between 1-8 years, 72(36%) were having the work experience 9-16 years, 56 (28%) were having the work experience 17-24 years, 14 (07%) were having the work experience 25-32 years. Place of posting shows that 38 (19%) were working in the intensive care unit, 38 (19%) were working in the casualty, 76 (38%) were working in the general ward and 48 (24%) were working in the labour room / OT / special care unit.

Marital status shows that 116 (58%) of then were married, 70 (35%) were unmarried, 10 (05%) were widow and 04 (02%) were divorce. It also shows that 96 (48%) belongs to the income group up to Rs.10,000/-, 64 (32%) belongs to the income group Rs.10,001/- to Rs.15,000/-,

30 (15%) belongs to the income group Rs.15,001/- to Rs.20,000/- and 10 (05%) belongs to the income group of above Rs.20,000/-

History of any chronic disease in the family shows that 72 (36%) of the families were having the history of diabetes, 64 (32%) were having the history of cardiovascular disease, 50 (25%) were having the history of renal disorder and 14 (07%) were free from family history of any chronic disease.

Distribution of staff nurses according to their blood group shows that 56 (28%) were belong to the blood group “A”, 50 (25%) were belong to the blood group “B”, 76 (38%) were belong to the blood group “O” and 18 (09%) were belong to the blood group “AB”. It depicts that most of the staff nurses were having blood group “O”.

Distribution of staff nurses according to the water supply shows that 98 (49%) were using the water from pond, 60 (30%) were using the water from river, 38 (19%) were using the water from tube well and 04 (02%) were having municipality water supply.

Distribution of staff nurses according to their home environment reveals that 58 (29%) were living in a clean environment, 50 (25%) were living in the environment which is haphazardly clean, for 52 (26%) of the staff nurses, the environment is not clean and for 40 (20%) the environment is dirty.

Distribution of staff nurses according to the use of NSAIDS reveals that 80 (40%) were using daily, 64 (32%) were using sometimes, 36 (18%) were using once often and 20 (10%) were not at all using NSAIDS.

Distribution of staff nurses according to the use of medicines to reduce stress reveals that 90 (45%) were daily using the medicines to reduce stress, 62 (31%) were using sometimes, 24 (12%) were using once often and 24 (12%) were not at all using medicines.

Distribution of staff nurses according to the type of stress shows that 64 (32%) of the staff nurses were suffering from mild stress, 84 (42%) were having severe stress and 36 (18%) were suffering from moderate stress, and 16 (08%) having no stress. It shows that stress is the common risk factor for developing acid peptic diseases.

Item wise analysis of the staff nurses according to the knowledge level about nursing intervention for acid peptic disease shows that in the post-test, majority of the staff nurses 152 (76%) were taking correct measures for diarrheas and headache, 140 (70%) were doing exercise regularly, 150 (75%) were taking sufficient water, 160(80%) were engaged in religious activities, 140 (70%) were taking balanced diet and taking adequate rest.



**Hypothesis Testing**

Effectiveness of planned teaching programme

**Table 1:** Paired sample statistics showing the standard deviation and mean N=200

	Mean (%)	Standard Deviation
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Nursing Management	Post	5.82	1.3
	Pre	3.51	1.2

Table No 1 Depicts that, for the nursing management, the pre-test mean was 3.51 and standard deviation was 1.2. The post test mean was 5.82 and standard deviation was 1.3. This shows the difference in the pre-test and post-test values.

**Table 2:** Paired samples test showing the paired difference and “t” value. (N=200)

	Paired difference				df	P<0.5	t	Sig (2 tailed)
	Mean	sd	95% confidence interval of the difference					
			Lower	Upper				
Nursing Management	2.21	1.82	1.97	1.86	96	2.12	11.40	.00

The above table shows the paired differences in the nursing management. The “t” value is also significant. So there is a difference between pre-test result and post-test result. It shows that planned teaching programme is effective. So, Hypothesis – I is accepted.

**Hypothesis Testing**

Association between certain demographic variables with knowledge.

**Table 3:** ANOVA showing the mean square, sd, “f” and “p” value relation to age

N=200

		Mean square	sd	f	p
Pre	Nursing Management				
	Between Groups	.91	1.9	.52	.62
	Within groups	1.61	1.3		
Post	Between Groups	3.21	1.7		
	Within Groups	1.89	1.5	1.61	.17

The above table shows the analysis of ANOVA between the groups and within the group. In the pre-test, the “f” value was .52 and “p” value was .62. In the post-test, the “f” value was 1.61 and “p” value was .17.

The above table shows the analysis of ANOVA between the groups and within the groups. In the pre-test, the f value was 1.51 and “p” value was .23. Similarly in the post-test, the “f” value was 2.42 and “p” value was .08.

**Table 4:** ANOVA showing the mean squares, sd, “f” value and “p” value in relation to religion

N=200

		Mean square	sd	f	p
Pre	Nursing Management				
	Between Groups	2.42	1.4	1.51	.23
	Within groups	1.61	1.5		
Post	Between Groups	4.71	1.8		
	Within Groups	1.89	1.3	2.42	.08

**Table 5:** ANOVA showing the mean square, sd, “f” value and “p” value in relation to qualification

N=200

		Mean square	sd	f	p
Pre	Nursing Management				
	Between Groups	1.81	1.5	1.12	.32
	Within groups	1.61	1.7		
Post	Between Groups	1.75	1.4		.41
	Within Groups	1.93	1.3	2.47	

The above table shows the analysis of ANOVA between the groups and within the groups. In the pre-test, the “f” value was 1.12 and “p” value was .32. Similarly in the post-test, the “f” value was 2.47 and “p” value was .41.

**Table 6:** ANOVA showing the mean squares, sd, “f” value and “p” value in relation to work exp.

N=200

	Nursing Management	Mean square	sd	f	p
Pre	Between Groups	.84	1.3	.51	.61
	Within groups	1.61	1.2		
Post	Between Groups	4.71	1.4	2.4	0.7
	Within Groups	1.82	1.5		

The above table shows the analysis of ANOVA between the groups and within the group. In the pre-test, the “f” value was .51 and “p” value was .61. Similarly in the post-test, the “f” value was 2.4 and “p” value was .07.

**Table 7:** ANOVA showing the mean square, sd, “f” value and “p” value in relation to type of stress

N=200

	Nursing Management	Mean square	sd	f	p
Pre	Between Groups	.13	1.3	.05	.91
	Within groups	1.62	1.4		
Post	Between Groups	5.91	1.4	3.20	.03
	Within Groups	1.82	1.3		

The above table shows the analysis of ANOVA between the groups and within the groups. In the pre-test, the “f” value was .05 and “p” value was .91. Similarly, in the post-test the “f” value was 3.20 and “p” value was .03.

It proves that there is association of certain demographic variables with knowledge. So, hypothesis II is also accepted.<sup>8</sup>

**CONCLUSION**

On the basis of the study, following conclusion was drawn.

- H<sub>1</sub> → The planned teaching programme is effective.
- H<sub>2</sub> → There is significant association of knowledge score in relation to certain demographic variables.

Hence, it is concluded that the planned teaching programme was found to be effective in increasing the knowledge of staff nurses. As the level of knowledge increased in the post-test and it shows that the objectives framed by the researcher for the present study was fulfilled and the hypothesis are accepted

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