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RESEARCH ARTICLE

"EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING ACID PEPTIC DISEASE AND IT'S PREVENTION AMONG THE INDUSTRIAL WORKERS"

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Abstract

Aim- To assess the impact of STP on knowledge regarding Acid Peptic Disease and its prevention among inductrial workers.

Subject &Method: An quasi-experimental study was conducted on 66 industrial workers by using convienient sampling. A self structured questionnaire was used for data collection over a period of 4 weeks that included questions related to demographic informations and knowledge related to Acid Peptic Disease.

Results: The study's findings indicate that the majority of workers (98%) had poor knowledge about acid peptic disease prevention. But after the teaching programmes on Acid Peptic Disease, most of them (88%) had good knowledge. The mean knowledge difference between pretest -post test intervention is 0.18±0.694 ($P < 0.05$). The Z test value indicated a significant change between the pretest and posttest knowledge levels ($p = 0.021$).This indicated that the STP was effective in raising industrial workers' awareness of the prevention of acid peptic illness.

Conclusion : Structured teaching programme on knowledge regarding Acid Peptic Disease and its prevention has resulted in an increment of knowledgeamong industrial workers. Nursing personnel can help the community people to prevent themselves from Acid peptic disease by creating awareness among the community people.

Introduction:-

The digestive system is crucial for the GI tract's processes of secretion, absorption & maintenance of daily requirements.[1] GI tract disease is incredibly frequent & contributes significantly to morbidity. Direct expenditures for Acid peptic disease alone $12.4 billion in 1998 [2]. In the present world the working men are risk for all the above factors, which is a predicting change for them to go for peptic ulcer, and also may be the secondary cause of stress in the occupation area. Duodenal ulcers are 5 to 10 times more prevalent in India than stomach ulcers. Males are more likely than females to develop peptic ulcers while they are working and older than 21. An average gastric ulcer incidence is 50 and higher. Over 4 million instances of PUD repeat each year, and there are about 500,000 new ulcer cases that are identified.[3]

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The prevalence of acid peptic disease is relatively high in India, where it is a major global issue. Based on numerous studies conducted from various regions of our nation, it affects 4 to 10 out of every 100 people. Stress, tobacco usage, corticosteroid use, infection agents like Helicobacter pylori, irregular eating habits, alcohol use, poor daily activity, and a diet low in fibre are only a few of the many factors that contribute to the prevalence of acid peptic disease.[4]

Due to higher dose of NSAID most of the elderly people are having ambigious signs of the disease. Elderly patients are likely to have other medical problems which increase the rate of morbidity and mortality in this group.[5] Less use of Use of these drugs should be lessened or at least use concomitant anti-ulcer medications smoking cessation and abstinence from alcohol should also increase the risk of complicated peptic ulcer. Early diagnosis and treatment of peptic ulcer have important role in prevention of complication [6].

Acid Peptic Diseases are very common and affects all age group irrespectively. Peptic ulcer affects 1 in every 10 people. The male to female ratio is 18:1 in India[8]. According to studies, stress may increase the risk of developing ulcers or make them worse. According to some experts, social and psychological variables may be involved in 30% to 60% of peptic ulcer cases. A study conducted in an industry sector population in India found that Industrial workers had perceived job stress and incidence of peptic ulcer among these employees was 13.68% [9].

It is very important to understand the knowledge level of working men, who are getting more exposure of stress, irregular eating habits use of alcohol, and lack of exercise etc. From the literature reviewed with the available source the investigated identified the need on prevention of peptic ulcer especially on the working men was the priority.[10] As the developing countries like India need more man power the increasing concept of disease should be prevented by adequate awareness.

So the investigator performed the role on educating the working men in providing self instructional module which will in the increase the knowledge to decrease the risk of peptic ulcer. It is also identified that assessment of knowledge of working men regarding peptic ulcer will help the investigator to plan and prepare the self instructional plan and prepare the self instructional module related to the prevention of peptic ulcer disease.[11] Investigator can make an awareness among working men regarding prevention of peptic ulcer disease, hence can reduce the risk factor and mortality and morbidity related to the acid peptic disease. [12]

Objectives:-

1. To evaluate the effectiveness of structured teaching programme on knowledge regarding Acid peptic disease &it's prevention.
2. To associate the post test knowledge score of Industrial workers with selected demographic variable.

Materials & Methods:-

A Quantitative approach, quasi-experimental one group pre test and post-tests tudy was conducted to assess the impact of STP on knowledge regarding Acid Peptic Disease and its prevention among inductrial workers in various industries of capital city of Odisha. Total 60 industrial workers who met the sampling criterias were selected by the convinient sampling technique for the study. Data were collected through interview by using a self structured questionnaire. A pilot study was conducted with a sample size of 6 and before the main study.

Development & Description of tool

A self structured questionnaire was developed, which consists of three sections. Section A had 10 questions related to demographic data such as age in year, gender, level of education, year of the study, religion, Marital status, economical status & area of living. Section Bhad 22 questions to assess knowledge onAcid peptic disease. Section C incuded 13 questions to assess knowledge regarding prevention of Acid peptic disease.The content validity was done by the experts from vaious fields and reliability (0.81) of the tool was calculated. Multiple choice questionnaire (MCQ) were. Each question has 4 options with one correct answer. Each correct response carried "1 mark" & "0" for incorrect response.The knowledge of the respondents is categorized as follows.

Interpretation of Score

Poor : 0-10
Average: 11-20

Good : 21- 30
Excellent: 31-40

Analysis
With a significance level of 0.05, the data were examined using SPSS software. In descriptive statistics, frequencies and percentages were calculated for categorical data, while Mean and Standard deviation were generated for continuous data. Based on the study's findings, the chi square test and Z test were utilised in inferential statistics. Based on the study's findings, inferential statistics were performed using the chi square test and Z test.

Results:-

Among the study population pre test knowledge score of industrial workers shows that highest population(98%) have poor knowledge, 2% have average knowledge and noone has good knowledge regarding APD. Post test knowledge score shows that highest population (88.22%) have good knowledge and about 11.88% workers have average knowledge on APD. (Fig.1)

The comparison of **Pretest & Posttest scores** shows that there was a statistically significant difference (p=0.02) in both scores. It was found that the STP was effective to increase the knowledge of industrial workers regarding APD. (Table 1)

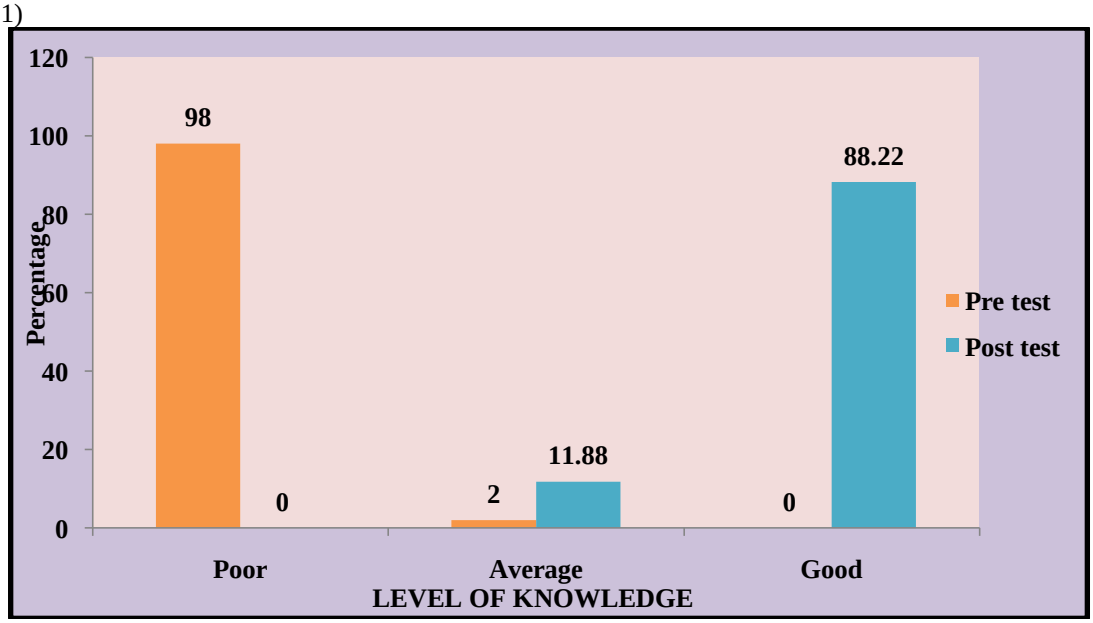

Fig.1:- Comparison of level of knowledge of pre test and post test knowledge scores of industrial workers regarding Acid peptic disease and its prevention.

Table 1:- Comparison of Pretest & Posttest scores (n =60) [Z test].

Parameter	Mean ± SD	Level of knowledge (n = 60)			P - Value
		Poor n (%)	Average n (%)	Good n (%)	
Pre test	8.55±1.76	59 (98)	1(2)	0	
Post test	30.28± 3.46	0	7(11.88)	53(88.22)	**0.0201***

*Statistically significant difference at p-value ≤ 0.05

When the Association of post test was done with various demographic variables, it shows a statiscally significant association with Sex (p = 0.04), habits (p = 0.03), previous knowledge on APD (0.049) and daily exercise(0.032). Other demograohic variables don't have any significant association with Post test score. (Table 2)

Table 2:- Association between Posttest score with demographic factors. (N = 60).

Variables /Factors	Frequency	Percentage (%)	P – value
Age in year			
20 - 30	18	30	
30 - 40	16	26	3.61
> 40	26	43	
Sex			
Male	56	93.33	0.04*
Female	04	06.66	
Religion			
Hindu	100	100	
Muslim	00	00	
Christian	00	00	0.21
Other	00	00	
Type of family			
Nuclear	25	41.66	
Joint	20	33.33	5.60
Extended	15	25.00	
Area of living			
Urban	19	31.66	
Rural	08	13.33	1.71
Slum	33	55.00	
Family income (in Rs)			
Lower class	17	28.33	
Middle class	41	68.33	8.61
Upper class	02	03.33	
Habits			
Smoking	20	33.33	
Junk food consuption	17	28.33	0.03*
Alcohol	33	03.33	
Drug addiction	00	00	
Diet Pattern			4.32
Vegetarian	19	31.66	
Non vegetarian	41	68.33	
Previous knowledge on APD			0.049*
Yes	11	18.33	
No	49	81.66	
Daily Exercise			
Yes	09	15.00	0.032*
No	51	85.00	

*Statistically significant at 0.05 level of Significant.

Discussion:-

A study suggested that in India duodenal ulcers are 5 to 10 times more common than gastric ulcers. The incidence of peptic ulcer is more common in male than female.[13] This study also shows a statistically significant associaton of gender with the knowledge on APD (p = 0.04). Some psychologic factors such as grief ,anxiety and stress were contributory causes of disease, where as only around 40% believed that coffee, alcohol, smoking, side effects of medicine and working conditions played casual role. A study found smoking as a risk factor of acid peptic disease. This study shows a statistically significant associaton of varous habits such as smoking, junk food, alcohol, drug addiction with the knowledge on APD (p = 0.03). A study suggested that awareness about peptic ulcer disease were inadequate. In this study also the knowledge of workers has increased after the structured teaching programme. So we can create awareness in the society regarding the APD it's prevention, which will ultimately reduce the prevalence of APD.

A study was conducted to understand the relation between Helicobacter pylori infection and diet as a most important environmental factor contributing to duodenal ulcer. The workload, inappropriate food timing, stress can be the riskfactors to get APD.[14]

Conclusion:-

The study findingsconcluded that structure teaching programme on knowledge regarding Acid peptic disease and its prevention among the employees of industrial workers was effective for improving the level of knowledge among industrial workers. Prior to implementation of structure teaching programme, industrial workers had poor knowledge 98% and after structure teaching programme industrial workers had good knowledge 2% regarding acid peptic disease and its prevention with over all mean in pre test was 8.55 and post test was 21.73. Hence it can be easily interpreted that STP was effective to improve knowledge regarding acid peptic disease and its prevention.

A statistically significant difference was found between the pre and post –test knowledge score of industrial workers regarding APD and its prevention.Posttest knowledge score was statistically significant with demographic factors such as sex ($p = 0.04$), habit ($p = 0.03$) & previous knowledge on APD ($p = 0.05$).

a) The study's findings can serve as a reference when developing an APD awareness programme for employees in a variety of industries. These findings may potentially provide useful information and direction for research on human and public health protection.

b) Declarations

c) All authors contributed to the study conception and design. Material preparation, data collection and analysis were performed by [Mrs Subhashree Mahaptro], [Dr Sivasankari Varadharasu], [Ms Pragnya Paramita Bhoi] and [Mrs. Karisma Tripathy]. The first draft of the manuscript was written by [Mrs Subhashree Mahaptro] and all authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

Conflicts of interest/Competing interests -

All the autors are aggree for this research word. There is no conflict of interest among the authors.

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Ethics approval

Was taken from the Institutional Ethical Committee.

Consent to participate:

Written inform consent was taken from all the participants for the study.

Consent for publication:

Since there was no private data or information

Consent for publication-

All authors are agreeing for the publication.

Conflicts of interest:

There is no confict of interest with any person or institution.

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