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A DESCRIPTIVE STUDY TO ASSESS THE KNOWLEDGE ON PREVENTION OF GASTRITIS AMONG PATIENTS ADMITTED IN THE MEDICAL WARD AT A SELECTED HOSPITAL IN KANPUR WITH A VIEW TO DEVELOP AN INFORMATION PAMPHLET

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ABSTRACT

Background: Gastritis ranks among the most prevalent gastrointestinal issues globally, characterized by the inflammation of the stomach lining. Key causes include infection by Helicobacter pylori, extended use of non-steroidal anti-inflammatory drugs (NSAIDs), alcohol intake, smoking, and poor eating habits. It is crucial for patients to have sufficient knowledge of preventive strategies to lessen the impact of this condition and its associated complications.

Aim: This study aims to evaluate the awareness of gastritis prevention among patients in the medical ward of a chosen tertiary care facility in Kanpur and to explore the correlation between awareness levels and certain socio-demographic factors.

Methods: A quantitative descriptive research framework was utilized. The research was carried out with 30 patients admitted to the medical unit of Lala Lajpat Rai Hospital, Kanpur. Participants were chosen through a non-probabilistic convenience sampling method. Data collection occurred using a structured questionnaire that included socio-demographic details and knowledge-related questions on the prevention of gastritis. Descriptive statistics such as frequency, percentage, average, and standard deviation were employed for data analysis. The Chi-square test was used to explore the relationships between knowledge scores and demographic factors.

Results: Among the respondents, 36.66% showed adequate awareness, 36.66% had proficient knowledge, and 26.66% had excellent knowledge regarding prevention strategies for gastritis. The average knowledge scores were 12.90, 17.50, and 21.87 respectively. There was no significant statistical relationship found between knowledge levels and socio-demographic variables ($p > 0.05$).

Conclusion: The findings indicated that a majority of participants had adequate to proficient knowledge about preventing gastritis; however, there were significant knowledge deficiencies noted. Creating and distributing an informational pamphlet may improve understanding of risk factors, dietary changes, lifestyle adjustments, and preventive measures. Structured educational initiatives for patients should be integrated into standard nursing practices to enhance gastrointestinal health.

Keywords: Gastritis, Prevention, Knowledge, Patient Education, Health Belief Model, Information Pamphlet, Nursing Research

INTRODUCTION

Gastritis is a prevalent gastrointestinal condition marked by the inflammation of the stomach lining, and it remains a significant issue for global

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health. This disorder can manifest in either acute or chronic variations and may vary from mild, symptomless cases to severe complications, which include peptic ulcers, gastric hemorrhaging, atrophic gastritis, and gastric cancer. Gastritis is a notable contributor to the healthcare burden around the world, especially in low- and middle-income nations where there is limited awareness about preventive measures (Sipponen & Maaroos, 2015) [1].

The gastric lining is safeguarded by a sophisticated defensive mechanism that comprises the secretion of mucus and bicarbonate, the regeneration of epithelial cells, and sufficient blood flow to the mucosa. Gastritis occurs when there is a disruption between aggressive elements, such as gastric acid, Helicobacter pylori infection, and non-steroidal anti-inflammatory drugs (NSAIDs), versus the mucosal protective systems (Kusters et al., 2006) [2].

Globally, H. pylori infection stands out as the primary cause of chronic gastritis. It impacts over half of the global populace, with a higher occurrence in developing nations due to inadequate sanitation and high population density (Hooi et al., 2017) [3]. The bacteria thrive in the acidic environment of the stomach by producing urease, which results in the formation of ammonia and subsequent injury to the mucosa. Long-lasting infection leads to ongoing inflammation and elevates the chances of developing peptic ulcer disease and gastric cancer (Malfertheiner et al., 2022) [4].

Beyond H. pylori infection, various lifestyle and environmental factors contribute to the onset of gastritis. Prolonged usage of NSAIDs, alcohol intake, smoking habits, inconsistent dietary practices, and psychological stress are some of these factors. NSAIDs inhibit the production of prostaglandins, which decreases gastric mucosal protection and raises the risk of injury (Lanas & Chan, 2017) [5]. Alcohol and smoking further intensify mucosal damage and hinder the healing process.

The way gastritis presents can differ greatly, from cases without symptoms to experiences of epigastric discomfort, nausea, vomiting, bloating, indigestion, and bleeding within the gastrointestinal tract. In certain instances, chronic gastritis could lead to anemia or gastric cancer due to prolonged damage to the mucosa (Sugano, 2019) [6].

In India and similar developing nations, swift urbanization, changes in diets, and heightened consumption of processed foods have led to an increase in gastrointestinal disorders. The lack of awareness regarding preventive strategies further complicates health outcomes. Educating patients is crucial for enhancing awareness, encouraging healthy lifestyle choices, and preventing the recurrence of diseases (Park, 2021) [7].

Awareness serves as a crucial factor influencing health-related prevention behavior. Those knowledgeable about risk factors and preventive actions are more inclined to adopt healthy eating habits, steer clear of harmful substances, and seek prompt medical attention. Consequently, organized health education programs are necessary for enhancing patient outcomes (Nutbeam, 2008) [8].

Nurses have a crucial function in health education owing to their ongoing engagement with patients. Informational brochures serve as effective, cost-efficient educational resources that can reinforce verbal guidance and enhance patient comprehension regarding strategies for disease prevention. Research has indicated that printed educational resources improve both patient knowledge and self-care practices significantly (Whitehead, 2004) [9].

The Health Belief Model (HBM), developed by Rosenstock, details health actions through the lenses of perceived vulnerability, seriousness, advantages, obstacles, and self-efficacy. This model posits that boosting patient awareness elevates their risk perception and encourages preventive actions (Rosenstock, 1974) [10].

Despite the high incidence of gastritis, there is scant evidence concerning patients' understanding of prevention methods among hospitalized individuals in Uttar Pradesh. Hence, this research was carried out to evaluate knowledge about gastritis prevention and to explore relationships with various socio-demographic factors.

MATERIALS AND METHODS

Study Design

We employed a quantitative method featuring a non-experimental descriptive design to evaluate awareness of gastritis prevention among patients in the medical ward of a chosen tertiary care hospital in Kanpur, Uttar Pradesh. This study was framed around Rosenstock's Health Belief Model, highlighting the importance of knowledge and beliefs in shaping preventive health practices.

Study Setting

The research took place in the medical ward of Lala Lajpat Rai (LLR) Hospital, located in Kanpur, Uttar Pradesh, India. LLR Hospital operates as a tertiary care teaching facility associated with GSVM Medical College and offers medical services to a significant number of individuals from both urban and rural settings.

Study Population

The focus group consisted of adult patients who were admitted to the medical ward throughout the data collection timeframe.

Sample Size

In total, 30 patients took part in this study.

Sampling Technique

Participants were chosen using a convenience sampling approach that was non-probabilistic, relying on their availability and their willingness to engage in the study.

Inclusion Criteria

- Patients admitted to the medical ward.
- Patients aged 18 years and above.
- Patients willing to participate in the study.
- Patients able to understand Hindi or English.

Exclusion Criteria

- Critically ill patients.
- Patients with cognitive impairment.
- Patients unwilling to participate.

Research Instrument

Data were collected using a structured questionnaire developed by the investigators after an extensive review of literature.

Section A: Socio-Demographic Variables

This section consisted of questions related to:

- Age
- Gender
- Educational status
- Occupation
- Dietary pattern
- Smoking history
- Duration of smoking
- Marital status
- Monthly family income

Section B: Knowledge Questionnaire

A self-structured questionnaire consisting of 25 multiple-choice questions was used to assess knowledge regarding:

- Meaning and causes of gastritis
- Risk factors
- Clinical manifestations
- Complications
- Dietary modifications
- Lifestyle changes
- Preventive measures

Scoring Pattern

Knowledge scores were categorized as follows:

Knowledge Level	Score Range
Adequate	10–15
Proficient	16–20
Outstanding	21–25

Validity and Reliability

Content validity was confirmed through assessments by five nursing and medical specialists from the Government College of Nursing and GSVM Medical College, Kanpur. Necessary adjustments were made following the experts' recommendations.

The questionnaire's reliability was determined through preliminary testing prior to the final data gathering. The internal consistency of the tool was tested using the split-half method and Cronbach's alpha coefficient. The reliability coefficient was found to be **r = 0.82.**

Pilot Study

A pilot study was carried out with 10 patients who were hospitalized in the medical ward but were not part of the final sample. The pilot study validated the clarity and practicality of the research instrument.

Ethical Considerations

Approval from the institution was secured before data collection commenced. All participants provided written informed consent. Throughout

the study, confidentiality, anonymity, privacy, and voluntary participation were upheld.

Data Collection Procedure

Data collection began following the receipt of administrative consent. Individuals meeting the inclusion criteria were approached on a one-on-one basis. After obtaining their informed consent, the questionnaire was distributed. Each participant took approximately 20 to 25 minutes to fill out the questionnaire.**Statistical Analysis**

Data were coded and entered into Microsoft Excel and analyzed using descriptive and inferential statistics.

Descriptive statistics included:

- Frequency
- Percentage
- Mean
- Standard deviation

Inferential statistics included:

- Chi-square test

The level of significance was set at $p < 0.05$.

RESULTS

1. Socio-Demographic Characteristics of Participants

The current study involved a total of 30 patients who were admitted to the medical ward. Table 1 presents the socio-demographic characteristics of the participants.

The socio-demographic distribution reveals that most participants were in the younger age bracket (20 to 30 years). Males had a slight predominance over females. A significant number of participants had completed primary or secondary education, while a lesser number achieved graduation. The majority were either in private sector jobs or were jobless. Analysis of dietary habits indicated that 60% of the participants followed a vegetarian diet. Smoking history was noted in 30% of the participants, with over half having smoked for more than ten years. In terms of socio-economic status, around half of the participants reported a monthly income below ₹10,000, reflecting a mainly lower socio-economic status.

Table 1: Socio-Demographic Characteristics of Participants (N = 30)

Demographic Variable	Category	Frequency (n)	Percentage (%)
Age (years)	20–30 years	11	36.66
	31–40 years	8	26.66
	41–50 years	3	10
	Above 50 years	8	26.66
Gender	Male	16	53.33
	Female	14	46.66
	Others	0	0
Educational Status	Illiterate	5	16.66
	Primary	10	33.33
	Secondary	7	23.33
	Graduation	8	26.66
Occupation	Farmer	9	30
	Government employee	0	0
	Private employee	13	43.33
	Unemployed	8	26.66
Dietary Pattern	Vegetarian	18	60
	Non-vegetarian	0	0
	Mixed	12	40
Smoking History	Yes	9	30
	No	21	70
Duration of Smoking	<1 year	0	0
	1–5 years	2	22.22
	6–10 years	2	22.22
	>10 years	5	55.55
Marital Status	Unmarried	10	33.33
	Married	16	53.33
	Widow	4	13.33
	Divorced	0	0
Monthly Income (₹)	<10,000	15	50
	10,000–30,000	10	33.33
	31,000–50,000	4	13.33
	>50,000	1	3.33

2. Assessment of Knowledge Regarding Prevention of Gastritis

The level of knowledge concerning the prevention of gastritis among participants was evaluated using a structured questionnaire. The results are detailed in Table 2.

The findings showed that 11 participants (36.66%) possessed sufficient knowledge, another 11 participants (36.66%) demonstrated competent knowledge, and 8 participants (26.66%) exhibited excellent knowledge regarding the prevention of gastritis.

The distribution indicates that a large majority of the participants (73.32%) had knowledge classified as adequate to proficient, suggesting an intermediate overall understanding of gastritis prevention among hospitalized individuals.

The average knowledge score across participants was 17.42 ± 3.687, signifying a moderate level of understanding with some variability among individuals. The standard deviation points toward a diverse distribution of knowledge, possibly reflecting differences in awareness influenced by

education, personal experiences, or access to health information.

Table 2: Knowledge Level of Participants Regarding Prevention of Gastritis (N = 30)

Knowledge Level	Frequency (f)	Percentage (%)	Mean Score
Adequate	11	36.66	12.90
Proficient	11	36.66	17.50
Outstanding	8	26.66	21.87

Overall Mean Score = 17.42
Standard Deviation = 3.687

3. Association Between Knowledge and Socio-Demographic Variables

The association between knowledge concerning the prevention of gastritis and the selected socio-demographic factors was examined using the Chi-square test at a significance level of 0.05.

The findings indicated no statistically significant association between knowledge levels and the socio-demographic variables analyzed, including age, gender, education, occupation, dietary habits, smoking history, marital status, and monthly income ($p > 0.05$).

This suggests that knowledge about gastritis prevention was fairly consistent across various demographic categories within the participant group.

The lack of significant association might also imply that knowledge levels were more greatly impacted by exposure to health information received during hospitalization rather than by demographic factors.

DISCUSSION

The current investigation evaluated the understanding of gastritis prevention among individuals hospitalized in a medical ward at a tertiary care facility in Kanpur, alongside its correlation with certain socio-demographic factors. Recognizing patient awareness is crucial as the prevention of gastritis is significantly reliant on knowledge of risk factors and the implementation of healthy lifestyle choices.

The results indicated that the majority of participants were in the younger age bracket, specifically between 20 and 30 years old. This trend may showcase a rise in gastrointestinal issues among younger demographics, potentially due to alterations in eating habits, stress levels, and the higher intake of processed foods. Comparable patterns have been noted in epidemiological research indicating that shifts in lifestyle considerably affect gastrointestinal disease prevalence in developing regions [1].

A modest predominance of males was noted among those involved in the study. This could be linked to a greater exposure of males to various risk factors, including smoking, alcohol intake, and the utilization of NSAIDs. Past research has identified similar gender trends in the occurrence of gastritis, influenced by differing behaviors in risk exposure [5].

The research demonstrated that a significant number of participants possessed only a primary school education, which points to a lack of health literacy. Health literacy serves as a crucial factor affecting health behaviors and impacts an individual's capability to grasp preventive health information. Insufficient health literacy correlates with inadequate practices in disease prevention and delays in seeking medical care [8].

In terms of knowledge assessments, 36.66% of participants displayed adequate understanding, another 36.66% had proficient knowledge, while 26.66% exhibited exceptional insight regarding the prevention of gastritis. These results imply that despite some foundational awareness, there are notable deficiencies in a thorough comprehension of preventive measures. Similar observations have emerged in research indicating that patient knowledge surrounding gastrointestinal conditions is moderate but not sufficient for effective long-term prevention [6].

The lack of a significant link between knowledge and socio-demographic factors indicates that awareness levels were fairly consistent throughout diverse groups. This conclusion aligns with findings suggesting that exposure to health education in clinical settings may exert a more profound impact on knowledge acquisition than demographic factors alone [7].

Knowledge about prevention is particularly vital, given that gastritis is largely affected by changeable risk elements such as diet, smoking, alcohol use, and the consumption of NSAIDs. Research indicates that eliminating these risk factors can greatly decrease the chances of disease recurrence and associated complications [4].

This investigation underscores the significance of patient education in enhancing awareness. Informational pamphlets serve as effective instruments for bolstering knowledge and enhancing patient comprehension. Educati 16 initiatives have proven successful in improving self-care practices and adherence to treatment among individuals with chronic health issues [9]. Nurses hold a pivotal position in facilitating patient education, especially within hospital environments where they can pinpoint gaps in knowledge and offer focused guidance. Incorporating organized health education into nursing duties can substantially elevate patient outcomes and mitigate the burden of disease.

The Health Belief Model's theoretical framework validates the outcomes of this investigation. An increase in knowledge amplifies the perceived susceptibility to, and advantages of, preventive measures, which subsequently encourages healthier behaviors and disease prevention [10].

The research is constrained by its limited participant number and being conducted at one location, which hinders the ability to apply findings broadly. Upcoming investigations should focus on larger samples from multiple centers and examine the success of organized educational programs.

LIMITATIONS OF THE STUDY

- The research was conducted at a single tertiary care facility located in Kanpur.
- The number of participants was fairly small (N=30), restricting the ability to generalize findings.
- The use of convenience sampling could have led to selection bias.
- Responses based on self-reporting might be influenced by recall bias.
- The focus of the study was solely on knowledge without assessing actual preventive behaviors.
- The cross-sectional nature of the study limited the ability to observe changes in knowledge over a longer period.

RECOMMENDATIONS

- Future research should involve studies with larger participant groups.
- Conducting research across multiple centers could enhance the applicability of results.
- Studies with interventions should be carried out to assess the impact of educational flyers.
- Regular community awareness initiatives on preventing gastritis should be arranged.
- Educational efforts led by nurses should be integrated into standard patient care practices.
- Upcoming studies ought to examine both knowledge and preventive actions.
- Long-term research should be performed to evaluate the enduring retention of health education.

CONCLUSION

This study evaluated the understanding of gastritis prevention among patients in the medical ward of a tertiary hospital in Kanpur. The results indicated that the majority of participants had a satisfactory to strong comprehension related to the prevention of gastritis, although a smaller subset exhibited exceptional knowledge. While there was awareness of fundamental concepts about gastritis, notable gaps concerning risk factors, potential complications, necessary dietary changes, and preventive actions were identified.

No statistically important correlation was found between knowledge levels and various socio-demographic factors. The results underscore the necessity of delivering structured health education to patients who are hospitalized.

Creating and distributing an informational pamphlet can act as a cost-effective and straightforward means to enhance understanding of gastritis prevention. Strengthening educational initiatives through nurse-led programs could help promote healthier lifestyles, facilitate early detection of symptoms, decrease the chances of disease recurrence, and elevate quality of life.

Conflict of Interest

The authors declare no conflict of interest.

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