

Knowledge Regarding Causes, Risk Factors, Prevention and Management of Peptic Ulcer Among Adults

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Abstract—Background: Peptic ulcer disease is a common gastrointestinal disorder affecting adults worldwide. The increasing prevalence of this condition highlights the need to assess adult's awareness regarding peptic ulcer disease. **Objectives:** The objectives of the study were to assess the level of knowledge regarding the causes, risk factors, prevention and management of peptic ulcer among adults, to find out association between level of knowledge on causes, risk factors, prevention and management of peptic ulcer with the selected demographic variables and to develop and distribute an information leaflet on causes, risk factors, prevention and management of peptic ulcer.

Methodology: A quantitative research approach with a descriptive research design was used for the study. The sample consisted of 60 adults selected using a purposive sampling technique. Data were collected using a self-structured questionnaire. **Result:** The findings revealed that approximately 8(13%) of samples had inadequate knowledge, 30(50%) of samples had moderate knowledge, 22(37%) of samples had adequate knowledge regarding the causes, risk factors, prevention and management of peptic ulcer. The present study also revealed that there was no association between the level of knowledge of adults regarding the causes, risk factors, prevention and management of peptic ulcer with selected demographic variables such as age, gender, religion, family type, area of residence, dietary pattern, education, occupation, social habits, family history of peptic ulcer, health workers in the family. **Conclusion:** Following the assessment, an information leaflet regarding the causes, risk factors, prevention and management of peptic ulcer disease was distributed to enhance and promote preventive health practices among adults.

Index Terms—Adults, peptic ulcer, prevention

I. INTRODUCTION

Peptic ulcer disease is characterized by discontinuation in the inner lining of the

gastrointestinal tract because of gastric acid secretion or pepsin.¹

Peptic ulcer disease is a prevalent condition in the general population, affecting approximately 5–10% of people worldwide. Although peptic ulcers can develop at any age, the age of onset has been increasing over time, likely due to a greater exposure to risk factors such as *Helicobacter pylori* infection, prolonged use of NSAIDs and aspirin, psychological stress, and excessive alcohol consumption. According to traditional medical observations, women above the age of 49 and men above 64 experience a decline in vital energy accompanied by progressive deterioration of organ function, which increases vulnerability to disease. With respect to sex distribution, males constituted 66.7% of cases, compared with 33.3% among females. Notably, among patients presenting with peptic ulcer disease complicated by gastrointestinal bleeding, men account for an even higher proportion of 72%.²

Approximately 25 million Indians are suffering from peptic ulcer disease at some point in their life time. Duodenal ulcers are 5 to 10 times more common than gastric ulcers. The incidence for duodenal ulcer is 30 to 60 years of age. The male and female ratio is 3:1. The incidence of gastric ulcer is usually 50 years of age and over. It affects male and female in the ratio of 2:1. Each year there are 500,000 to 850,000 new cases of peptic ulcer disease and more than 1 million ulcer related hospitalizations.³

Global burden studies indicate that peptic ulcer disease continue to affect millions of individuals, with increasing incidence trends attributed to population growth and ageing. It has been reported that millions of cases occur annually, emphasizing its continued public health importance.⁴

However, there is very little research on peptic ulcers in India, and almost no community-based studies have been conducted in Kerala, especially in semi-rural areas like Nadathara Gramapanchayath. Nadathara is not highly urbanized, and many adults here consume alcohol, smoke, and follow irregular dietary habits, which can increase the risk of ulcers. People may also self-medicate or delay visiting doctors due to lack of awareness, putting them at higher risk of complications like bleeding or perforation. Therefore, this study is needed to assess the knowledge of adults in Nadathara Panchayath about peptic ulcer disease, explore how demographic factors influence their knowledge, and provide educational material to help prevent and manage peptic ulcers in this community.

II. METHODS

A descriptive study was adopted to assess the knowledge regarding the causes, risk factors, prevention and management of peptic ulcer among adults in a selected community of Nadathara Gramapanchayath, Thrissur District. The study was conducted among adults of age 25- 60 years of Ward 20 of Nadathra Gramapanchayath, Thrissur.

Objectives of the study include

- 1) To assess the level of knowledge regarding the causes, risk factors, prevention and management of peptic ulcer among adults.
- 2) To find out association between level of knowledge regarding causes, risk factors, prevention and management of peptic ulcer with the selected demographic variables.
- 3) To develop and distribute an information leaflet regarding causes, risk factors, prevention and management of peptic ulcer. Purposive sampling technique was used to enroll 60 adults of age 25-60 years to evaluate the knowledge regarding the causes, risk factors, prevention and management of peptic ulcer.

Adults who were not willing to participate in the study and not present at the time of data collection were excluded from the study. Informed consent was obtained from the participants.

The data collection tool consists of two sections. The first section included data regarding the demographic profile of the adults such as age, gender, religion, education, occupation, family type, area of residence,

dietary pattern, social habits, history of peptic ulcer, family history of peptic ulcer, health workers in the family, educational program attended. The second section include a structured knowledge-based questionnaire to assess the knowledge regarding the causes, risk factors, prevention and management of peptic ulcer. The questionnaire consists of 30 multiple choice items, each items had four alternative responses including one correct response. The correct response carried one mark and wrong response carried none.

THE INTERPRETATION OF KNOWLEDGE LEVEL

Level of knowledge	Scoring range
Inadequate knowledge	0-10
Moderate knowledge	11-20
Adequate knowledge	21-30

The study was approved by the institutional ethical committee. Verbal consent was obtained from the study participants, with the right to withdraw during the study. Human dignity was preserved and human right also was protected. The tool was developed by the researcher, after a review of recent relevant literature. After obtaining content validity from experts, the study was conducted among adults by following the inclusion and exclusion criteria. Both descriptive and inferential statistics (frequency, percentage, chi square) was used for analysis of data.

III. RESULTS

SECTION A

Data on demographic variables includes:

- Regarding the age of adults, 23% of adults belongs to the age group of 25-35 years, 23% of adults belongs to the age group of 36-45 years, 17% of adults belongs to the age group of 46- 55 years and 37 % of adults belongs to the age group of above 55 years.
- Regarding the gender, 43% of adults belongs to the category of male and 57 % of adults belongs to the category of females.
- Regarding the religion of adults, 86% of adults belongs to the Hindu category, 7% of adults belongs to the Muslim category and 7 % of adults belongs to the Christian category.
- Regarding the family type, 83% of adults belongs to the nuclear family, and 17 % of adults belongs to the joint family.

- Regarding the area of residence, 7 % of adults belongs to the urban area, 90 % of adults belongs to the rural area and 3 % of adults belongs to the semi-urban area.
- Regarding the food habits, 27 % of adults belongs to vegetarian category, 60 % of adults belongs to the non- vegetarian category and 13 % of adults belongs to the ovo- vegetarians.
- Regarding the educational status of adults, 3% of adults were un educated, 27% of adults have primary education,13 % of adults have completed high school education, 17 % of adults have completed higher secondary education and 40% of adults were graduates.
- Regarding the occupational status, 50% of adults were unemployed, 20% of adults were daily wage labourers, 3%of adults were government employees and 27% were private/ self- employed.
- Regarding the social habits, 76 % of adults have no social habits, 10 % of adults have the habit of smoking, 7% of adults have the habit of alcoholism and 7% of adults have the habit of both smoking and alcoholism.
- Regarding the disease history, 100% of adults do not have a history of peptic ulcer.
- Regarding the family history, 7% of adults have a family history of peptic ulcer and 93% of adults do not have a family history of peptic ulcer.
- Regarding the family health workers, 13% of adults have health workers in their family and 87 % of adults do not have health workers in their family.
- Regarding the history of educational programmes attended, 100% of adults have not attended educational programmes on peptic ulcer.

SECTION B:

Data on level of knowledge of adults regarding the causes, risk factors, prevention and management of peptic ulcer.

TABLE 1: FREQUENCY AND PERCENTAGE DISTRIBUTION OF THE LEVEL OF KNOWLEDGE AMONG ADULTS.

Sl.no	Level of knowledge	Frequency	Percentage
1	Inadequate knowledge	8	13%
2	Moderate knowledge	30	50%
3	Adequate knowledge	22	37%

This table reveals that, among 60 samples of adults, 8 of them (13%) have inadequate knowledge, 30 samples (50%) have moderate knowledge and 22 samples (37%) have adequate knowledge

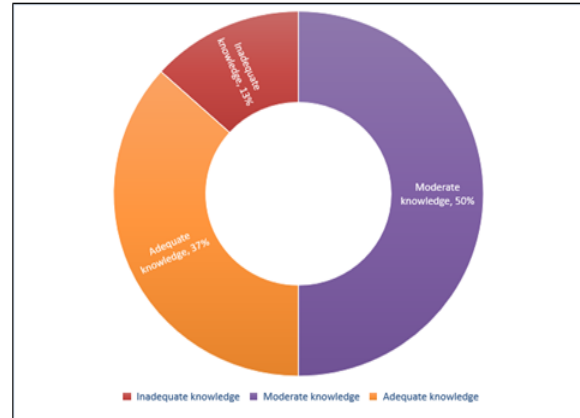


FIGURE 1: PERCENTAGE DISTRIBUTION OF LEVEL OF KNOWLEDGE AMONG ADULTS REGARDING THE CAUSES, RISK FACTORS, PREVENTION AND MANAGEMENT OF PEPTIC ULCER.

SECTION C:

Data on association between the level of knowledge regarding causes, risk factors, prevention and management of peptic ulcer among adults with their selected demographic variables.

There is no significant association between level of knowledge regarding the causes, risk factors, prevention and management of peptic ulcer with their selected demographic variables such as age, gender, religion, family type, residence area, dietary pattern, education, occupation, social habits, family history of peptic ulcer, health workers in the family. The association was calculated by chi-square. The null hypothesis is accepted and research hypothesis is rejected.

IV. DISCUSSION

The discussion is based on the objectives of the study, the first objective is to assess the level of knowledge regarding the causes, risk factors, prevention and management of peptic ulcer among adults at Nadathara Grama Panchayath, Thrissur. The current study revealed that among 60 adults, 8 (13%) had inadequate knowledge, 30(50%) has moderate knowledge and 22(37%) had adequate knowledge

regarding the causes, risk factors, prevention and management of peptic ulcer. The present study findings were supported by a case-control study conducted in Pune, India, among 190 peptic ulcer patients, 35 stomach cancer patients, and 125 healthy controls examined the association of environmental, dietary, and lifestyle factors with *Helicobacter pylori* infection and peptic ulcer disease. The study found that *H. pylori* infection was significantly associated with peptic ulcer disease. Lower socioeconomic status, meat consumption, smoking, consumption of restaurant food, and drinking non-filtered or non-boiled water were identified as risk factors for *H. pylori* infection.⁵

The second objective is to find out the association between level of regarding the causes, risk factors, prevention and management of peptic ulcer with their selected demographic variables. The present study findings revealed that there was no significant association between knowledge of adults with selected demographic variables such as age, gender, religion, family type, residence area, dietary pattern, education, occupation, social habits, family history of peptic ulcer, health workers in the family. The present study findings were supported by a cross-sectional study conducted among adults in Greater Noida, Uttar Pradesh, India, assessed awareness regarding risk factors and prevention of peptic ulcer disease among 138 adults. The study found that the majority of participants had good awareness of peptic ulcer disease and its preventive measures. Analysis of the association between knowledge levels and demographic characteristics revealed no statistically significant association between knowledge and demographic variables such as age, gender, area of residence, socioeconomic status, family history of peptic ulcer disease, diet pattern, smoking status, alcohol consumption, previous knowledge, and source of information, indicating that knowledge regarding peptic ulcer disease was independent of these demographic factors.⁶

Third objective is to prepare and provide information leaflet regarding the causes, risk factors, prevention and management of peptic ulcer. An information leaflet was prepared by investigator regarding the causes, risk factors, diet pattern, prevention and management of peptic ulcer. It was validated by the experts in the subjects. After assessing the knowledge,

an information leaflet was distributed to the sample in Malayalam language.

V. CONCLUSION

Peptic ulcer is a common but potentially serious condition that results from an imbalance between aggressive factors like gastric acid and protective mechanisms of the gastrointestinal lining, often associated with *helicobacter pylori* infection and prolonged use of non-steroidal anti-inflammatory drugs. The study concludes that most participants possess moderate knowledge regarding causes, risk factors, prevention and management of peptic ulcer, highlighting the need for improvement. Increasing awareness and promoting healthy habits play a crucial role in reducing its occurrence and improving patient outcomes.

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