






Knowledge of Peptic Ulcer prevention among Nurses in a Baghdad Teaching Hospitals

Massara Abdullah Najm^{*1} , Haider Mohammed Majeed² , Rajaa Ibrahim Abed³ 

^{*1}Instructor, PhD., Adult Nursing Department, College of Nursing, University of Baghdad, Baghdad, Iraq. ²Assistant Professor, PhD., Adult Nursing Department, College of Nursing, University of Baghdad, Baghdad, Iraq. ³Professor, PhD., Adult Nursing Department, College of Nursing, University of Baghdad, Baghdad, Iraq.

Abstract

Background: Perforation is a serious complication of Peptic Ulcer Disease (PUD) and cases with perforated peptic ulcer regularly carries high threat for morbidity and mortality. Acute perforated peptic ulcer is a leading source of generalized peritonitis and its management has continued to be a grueling task in moderate source setting environment. In this article, we have assessed nurses' knowledge-related prevention of peptic ulcer.


Materials and Methods: A cross-sectional design was carried out at Baghdad Teaching Hospitals for the period between 20th November 2022 to 20th April 2023. A non-probability sampling was used among 50 nurses. A study instrument was constructed to collect data of knowledge-related prevention of peptic ulcer, which consists of two parts. Data were analyzed using IBM SPSS 26.0 version. Descriptive and inductive statistics were utilized to summarize the results.

Results: In study, half of the study samples 52% were male, 66% were age range from 19 – 29 years, 58% were married martial, 40% were graduated from college of nursing, and 76% haven't any training course. The results also show 74% of nurses have a smoking history, the study indicated that nurses had moderate knowledge about prevention of peptic ulcer.

Conclusion: The study showed that the level of nurses' knowledge concerning peptic ulcer was moderate. Also, there were no significant relationships between nurse's knowledge concerning peptic ulcer and their sociodemographic characteristics.

Keywords: knowledge, peptic ulcer, nurses, cross-sectional study, Baghdad, Iraq

Article Summary: Submitted: 15-January-2024 Revised: 31-January-2024 Accepted: 24-February-2024 Published: 31-March-2024

<p>Quick Response Code:</p> 	<p>Web Site http://ijmsnr.com/</p> <p>DOI 10.55349/ijmsnr.2024411115</p>	<p>This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-Non-Commercial-ShareAlike 4.0 International License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.</p> <p>Corresponding Author: Dr. Massara Abdullah Najm, Instructor PhD, Department of Adult Nursing, College of Nursing, University of Baghdad, Bab Al-Moadham Campus, Baghdad, Iraq. Email ID: massara@conursing.uobaghdad.edu.iq</p>
--	---	---

Introduction

Peptic ulcer is a chronic illness affecting up to 10 of the world's population. The conformation of peptic ulcers depends on the occurrence of gastric juice pH and the drop-off in mucosal defenses. [1] Peptic ulcer is a public chronic complaint in current society, given the increased pressure individualities face from work and life. Once perforation or vascular irruption occurs and causes massive bleeding, peptic ulcers can be serious. In the face of the specific progress in recent times, the mortality percentage of acute peptic ulcer bleeding has remained at evenly 10. [2] Recently, a high prevalence rate of 20% has been reported on gastric ulcers, which are mainly observed in 30–60-year-old people, it can be seen that the complexity of this disease greatly affects the life quality of patients and also makes the development of effective and safe drugs very critical. [3] Gastric ulcer disease represents a serious medical problem. near 500,000 new cases are reported each year, with Five million people affected in the United States alone. In men, duodenal ulcers were more common than gastric ulcers; in women, the discourse was set up to be true. Thirty- five percent of cases diagnosed with gastric ulcers will suffer serious complications. Although mortality rates from gastric ulcer disease are low, the high frequency and the influencing pain, suffering, and cost are veritably expensive, ulcers can advance in the esophagus, stomach or duodenum, at the periphery of a gastroenterostomy, in the jejunum, in Zollinger Ellison pattern, and in link with a Meckel's diverticulum containing ectopic gastric mucosa. Gastric ulcer complaint is one of several diseases of the upper gastrointestinal tract that's caused, at least incompletely, by gastric acid. Cases with peptic ulcer disease may present with a range of symptoms, from mild abdominal discomfort to disastrous perforation and bleeding. [4] Gastric ulcer disease is characterized by termination in the inner lining of the gastrointestinal (GI) tract because of gastric acid secretion or pepsin. It extends into the muscularis propria layer of the gastric epithelium.

How to cite this article: Najm MA, Majeed HM, Abed RI. Knowledge of Peptic Ulcer prevention among Nurses in a Baghdad Teaching Hospitals. Int J Med Sci and Nurs Res 2024;4(1):11–15. DOI: 10.55349/ijmsnr.2024411115

It generally happens in the stomach and proximal duodenum. It may include the lower esophagus, distal duodenum, or jejunum. Epigastric pain generally occurs within 15 – 30 minutes following a meal in cases with a gastric ulcer; on the other hand, the pain with a duodenal ulcer tends to do 2- 3 hours after a meal. now, testing for Helicobacter pylori is recommended in all cases with peptic ulcer complaint. Endoscopy may be needed in some cases to confirm the opinion, especially in those cases with minatory symptoms. Moment, most cases can be managed with a proton pump inhibitor (PPI) grounded triadic-medicine therapeutic. [5] The rapidly declining prevalence of Helicobacter pylori infection and prevalent use of forceful anti-secretory medicines means peptic ulcer disease has developed significantly less established than it was two years ago. Management has, however, become more challenging than ever because of the threat of aggregate antimicrobial resistance worldwide and widespread use of complex anti-thrombotic therapy in the ageing population. Peptic ulcers not related with H pylori infection or the use of non-steroidal anti-inflammatory drugs are now also imposing substantial diagnostic and therapeutic challenges. [6] Treatment with prebiotics or probiotics efficiently reduces gastric injury, oxidative stress and proinflammatory cytokines. Comparing treatment groups showed that, Probiotics as a therapeutic group was the most potent demonstrated a a hopeful role against gastric ulcer. [7]

Materials and Methods

Study Design

A cross-sectional study design was conducted to assess nurses' knowledge-related prevention of peptic ulcer at Baghdad Teaching Hospitals for the period between 20th November 2022 to 20th April 2023.

Study Setting

This study conducted in Baghdad Teaching Hospitals (Baghdad Teaching Hospital, Specialized Surgery Hospital, Private nursing hospital).

Sampling Technique and Sample Size

A non-probability sampling of 50 nurses works in medical ward at Baghdad Teaching Hospital.

Discription of Questionnaire

Data collection took place in the for all nurses. The instrument comprising 23 questions in two parts: Six questions regarding nurses' sociodemographic data on their age, gender, level of education, marital Status, training course and smoking and the second part, which deals with nurses' knowledge, includes 17 questions.

Validity and reliability of study

The reliability of the questionnaire was confirmed through a pilot study by gathering data from 10 nurses and executing tests, and the validity of the questionnaire was determined through 10 experts.

Data Management and Statistical Analysis

Data were entered and compiled by using Microsoft Excel 2016 and

analysis was done by SPSS (Statistical Process for Social Sciences) 26.0 version. Categorical variables were expressed as frequency and proportions. Continuous variables were expressed as mean and standard deviation.

Ethical Considerations

Ethical approvals for this study were obtained from the College of Nursing. The researcher explained the study's overall purpose and how to complete the questionnaire to the study participants. The researcher instructed participants that the collected data have concealed and safe during and after their participations in the study. The researcher also informed study participants that their names were kept anonymous in the study's introduction, publishing, and/or subsequent publication.

Results

In this present study, we have recruited and incorporated totally 50 nurses works in medical ward at Baghdad Teaching Hospital. In that, more than half of the study samples 52% were male, 66% were age range from 19-29 years, 58% were married martial, 40% were graduated from college of nursing, and 76% haven't any training course. The results also show 74% of nurses have a smoking history as shown in **Table – 1**.

Table–1 Distribution of socio demographic characteristics among Nurses (N = 50)

Sl. No.	Variables	Frequency	Percentage
1.	Gender		
1.1	Male	26	52.0
1.2	Female	24	48.0
	Total	50	100.0
2.	Age – Groups (in years)		
2.1	19- 29	33	66.0
2.2	30- 39	10	20.0
2.3	40- 49	5	10.0
2.4	> 50	2	4.0
	Total	50	100.0
3.	Marital status		
3.1	Single	21	42.0
3.2	Married	29	58.0
	Total	50	100.0
4.	Level of Education		
4.1	Nursing high school graduate	10	20.0
4.2	Institute graduate	18	36.0
4.3	College of Nursing	20	40.0
4.4	Postgraduate	2	4.0
	Total	50	100.0

(Continue Table – 1)

5.	Training Course		
5.1	Yes	12	24.0
5.2	No	38	76.0
	Total	50	100.0
6	Smoking		
6.1	Yes	37	74.0
6.2	No	13	26.0

N=Number, f= Frequency, %= Percentage, SD= Standard deviation

The nurses' knowledge regarding peptic ulcer was fair in the most nurse's knowledge domains as shown in **Table – 2**.

The relationship between demographic and nurses' knowledge. The findings displayed no correlation between socio-demographic and nurses' knowledge with p-value > 0.05 as shown in **Table – 3**.

Discussion

The study findings revealed that half of the male of the total participants while female constituted 48%, This finding is supported by a study which was conducted in Iraq showed

Table – 2 Mean of Score of Nurses' knowledge domain concerning of peptic ulcer

Sl. No.	Items	I know	Don't know	SD	M.S	S
1.	A diet rich in fruits, vegetables and whole grains helps prevent infection with peptic ulcer.	40	10	0.404	1.80	Good
2.	Avoiding fast food is one of the ways to prevent peptic ulcer.	36	14	0.454	1.72	Good
3.	Cooking food in a healthy way, such as meat, contributes to preventing peptic ulcers.	18	32	0.485	1.36	Good
4.	Avoiding excessive intake of pickles, fats and spicy foods reduces infection with peptic ulcer.	12	38	0.431	1.24	Poor
5.	Dividing food into small meals and chewing it well contributes to controlling the disease.	18	32	0.485	1.36	Fair
6.	Eating citrus fruits on an empty stomach increases the risk of infection.	11	39	0.418	1.22	Poor
7.	Avoid eating very hot or very cold foods, as they increase the risk of ulcer infection.	10	40	0.404	1.20	Poor
8.	Eating large amounts of red meat and chicken increases the risk of infection.	12	38	0.431	1.24	Poor
9.	Cleaning food well with water reduces the incidence of peptic ulcers.	11	39	0.418	1.78	Good
10.	Drinking whole milk reduces the risk of developing the disease.	29	21	0.499	1.58	Fair
11.	Drinking of coffee increase peptic ulcers.	12	38	0.431	1.24	Poor
12.	Drinking plenty of water promotes healing of peptic ulcers.	36	14	0.454	1.72	Good
13.	Drinking alcohol increases the risk of disease.	14	36	0.454	1.28	Poor
14.	Excessive use of medications such as ibuprofen, aspirin and naproxen leads to aggravate of disease or risk of infection.	8	42	0.370	1.16	Poor
15.	Quitting cigarettes and other types of tobacco reduces the risk of infection.	38	12	0.431	1.76	Good
16.	Controlling on the stress reduce the risk of disease.	23	27	0.503	1.46	Fair
17.	Exercising regularly helps reduce the risk of disease.	13	37	0.443	1.26	Poor
	Total	341	509	0.442	1.43	Fair

M.S – Mean of Score (1-1.33 = Poor, 1.34-1.66 = Fair, 1.67-2 = Good), SD – Standard deviation

Table–3 Association between Gender, Age, Marital Status, Educational level, training course, smoking and Nurses' knowledge domain

Socio-demographic variables	Level of Knowledge		
	Contingency Coefficients	p-value	Significance
Gender	0.389	0.712	NS
Age groups	0.567	0.943	NS
Marital status	0.493	0.190	NS
Educational level	0.639	0.540	NS
Training course	0.357	0.836	NS
Smoking	0.525	0.088	NS

more the half of the study group's participants were male. [8] Most of the study participants were ages between 19 and 29 years old. These findings agreed with study conducted by Mahdi and Khairi. [9] who reported that majority of participants between 20-26 year of age. A high percentage of them were college of nursing graduate most of them were married, these results disagree with Lal and Vasan stated that the majority of nurses were unmarried. [10] Seventeen questions assessed general knowledge of nurses about peptic ulcer disease. Overall, nearly half of the participants answered (know) knowledge questions and 49.8% responded (Don't know) in all general question knowledge concerning of general information about peptic ulcer. The nurses' response regarding peptic ulcer was fair at all nurses' knowledge domains. Recent research revealed a similar result that the majority of the medical students have inadequate knowledge on anemia and were unable to constantly update their knowledge with $p < 0.001$. [11]

The association between socio-demographic and nurse's knowledge score was explored, that there is no significant difference between (Gender, Age, educational level, and training course and smoking) and no nurse knowledge domain at p value 0.05. It is supported by study done by Al-Saffar and; Mehdi et al. [12] who reported in their study that the socio-demographic characteristics variables age groups, gender, marital status, level education level of father, education level of mother, occupation of mother, residency, and socioeconomic status had no significant relationship with their overall (Knowledge) assessments according to "Under/Upper" Cut off point for the global mean of score values, since a non-significant correlation ships were obtained at $p > 0.05$ except with some variables, such as, field of study, and department, as well as, with occupation of father. The findings of this study agree with the study which done by Siziya et al. [13] on 22,997 women who participated in the survey reported that only 49.9% had heard of HIV/AIDS. Overall, more than half of the participants did not know that HIV can be transmitted through blood transfusion.

Meanwhile, most 98.5% of the respondents did not know that HIV can be transmitted from mother to child through breast milk. Only very less 0.7% of the respondents reported that HIV cannot be transmitted through mosquito bites. The proportion of the respondents who had adequate knowledge on HIV/AIDS was 9.8%. Adequate knowledge of HIV/AIDS was negatively associated with being married, poor, having low education, and residing in rural areas. These finding is supported by Reichhart et al. [14] who stated that the amount of information gain does not differ between genders and gender was not a major predictor of base line information or knowledge gain.

Conclusions

Based on the study results, the study summed up that the level of nurses' knowledge concerning peptic ulcer was fair. Also, there are no significant relationships between nurse's knowledge concerning peptic ulcer and their sociodemographic characteristic.

Recommendations: The study recommends to establish educational programs or awareness lectures about peptic ulcers for persons with this ulcer to learn how to deal with and prevent this problem, and to improve their adherence to treatment and a healthy diet, in cooperation with the Ministry of Health.

Source of funding: We didn't receive no specific grant from any funding agency in the public, commercial, or not-for-profit sectors for this study.

Conflict of Interest: The authors declared that they have no conflict of interest.

Authors Contributions: MAN, HMM, and RIA – Study design, study conducted and data collection; MAN, HMM – Data compilation and data analysis; MAN, HMM, and RIA – Manuscript has been red and approved by all the authors.

MAN – Massara Abdullah Najm; HMM – Haider Mohammed Majeed; and RIA – Rajaa Ibrahim Abed

References

1. Kuna L, Jakab J, Smolic R, Raguz-Lucic N, Vcev A, Smolic M. Peptic Ulcer Disease: A Brief Review of Conventional Therapy and Herbal Treatment Options. *J Clin Med* 2019;8(2):179. DOI: <https://doi.org/10.3390/jcm8020179> PMID
2. Lau JYW, Barkun A, Fan Dai-ming, Kuipers EJ, Yang Yun-sheng, Chan FKL. Challenges in the management of acute peptic ulcer bleeding. *Lancet* 2013;381(9882):2033–2043.

- DOI:** [https://doi.org/10.1016/S0140-6736\(13\)60596-6](https://doi.org/10.1016/S0140-6736(13)60596-6) **PMID**
3. Ahmad AA, Kasim KF, Ma'Radzi AH, Gopinath SCB. Peptic Ulcer: Current Prospects of Diagnostic and Nanobiotechnological Trends on Pathogenicity. *Process Biochem* 2019;85(5):51–59. **DOI:** <https://doi.org/10.1016/j.procbio.2019.06.024>
 4. Malmi H, Kautiainen H, Virta L, Färkkilä N, Koskenpato J and Färkkilä M. Incidence and complications of peptic ulcer disease requiring hospitalisation have markedly decreased in Finland. *Aliment Pharmacol Ther* 2014;39(5):496-506. **DOI:** <https://doi.org/10.1111/apt.12620> **PMID**
 5. Malik T, Gnanapandithan K and Singh K. Peptic Ulcer Disease, Treasure Island (FL): StatPearls Publishing, 2024 Jan 2023. **Bookshelf ID:** NBK534792
 6. Lanas A and Chan F. Peptic ulcer disease. *Lancet* 2017;390(10094):613-624. **DOI:** [https://doi.org/10.1016/S0140-6736\(16\)32404-7](https://doi.org/10.1016/S0140-6736(16)32404-7)
 7. Al-garni A, Khalifa K and Zeyadi M. Comparative Study of the Efficacy of Prebiotics and Probiotics as Dietary Supplements in Rats with Gastric Ulcer. *Journal of Pharmaceutical Research International* 2021;33(28A):137-145. **Article No:** JPRI.68085
 8. Raheem Z, Mohammed TR. Patients' Knowledge and Adherence to Clopidogrel Therapy Post Percutaneous Coronary Intervention. *Iraqi National Nursing Specialities* 2023;36 (1):117-124. **DOI:** <https://doi.org/10.58897/injns.v36i1.724>
 9. Mahdi SM and Khairi SH. Effectiveness of an Educational Program on Female Students' Practices toward Premenstrual Syndrome at Secondary Schools in Third Al- Rusafa Education Directorate. *Iraqi National Journal of Nursing Specialties* 2022;34(2):39-58. **DOI:** <https://doi.org/10.58897/injns.v34i2.574>
 10. Lal SS, Vasan RS, Sarma PS, Thankappan KR. Knowledge and attitude of college students in Kerala towards HIV/AIDS, sexually transmitted diseases and sexuality. *Nat Med J India* 2000;13(5):231–236. **PMID**
 11. Çakar E Gumustakim RS and Kus C. Evaluation of The Knowledge and Awareness of Anemia in Medical Faculty Students and Family Physicians. *Kahramanmaraş Sütçü İmam Üniversitesi Tıp Fakültesi Dergisi* 2022;17(2):140–148. **DOI:** <https://doi.org/10.17517/ksutfd.897826>
 12. Al-Saffar F and Mehdi S. Assessment Knowledge and Attitudes of Baghdad university students' toward Human immunodeficiency virus/acquired immunodeficiency syndrome. *Iraqi National Journal of Nursing Specialities* 2013;26(2):16–25. **DOI:** <https://doi.org/10.58897/injns.v26i2.167>
 13. Siziya S, Muula AS, & Rudatsikira E. HIV and AIDS-related knowledge among women in Iraq. *BMC research notes* 1, 123(2008). **DOI:** <https://doi.org/10.1186/1756-0500-1-123>
 14. Reichhart T, Pitschel-Walz G, Kissling W, Bauwl J, Schuster T, Rummel-Kluge C. Gender differences in patient and caregiver psychoeducation for schizophrenia. *Eur Psychiatry* 2010;25(1):39-46. **DOI:** <https://doi.org/10.1016/j.eurpsy.2009.08.001> **PMID**