



Article

# Assessment of Nursing Students' Knowledge about Gastritis

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**Abstract:** Gastritis is a prevalent gastrointestinal condition with significant health implications, affecting individuals worldwide due to factors such as lifestyle habits, stress, dietary patterns, and infections like *Helicobacter pylori*. Nursing students, who often face academic pressures and irregular eating habits, may be particularly susceptible to this condition. This study aimed to assess nursing students' knowledge about gastritis and explore the relationship between their demographic characteristics and knowledge levels. A cross-sectional descriptive study was conducted at the College of Nursing, University of Kufa, Iraq, from October 2024 to February 2025. A convenience sample of 60 second-, third-, and fourth-year nursing students participated. Data were collected using a structured questionnaire covering demographic information and 20 items assessing knowledge of gastritis, including its etiology, symptoms, pathophysiology, classification, risk factors, and complications. Statistical analysis was performed using SPSS version 25, employing descriptive and inferential statistics (Chi-square test). The results revealed that the majority of participants were aged 18–24 years (96.7%), female (63.3%), and urban residents (61.7%). The overall knowledge score was moderate (mean = 1.43), with significant variations across academic years. Fourth-year students demonstrated higher knowledge levels compared to their peers. Key gaps were identified in areas such as diagnostic tests, complications, and nursing care plans. A significant association ( $p \leq 0.05$ ) was found between knowledge levels and demographic factors like academic year and residency. The study concludes that while nursing students possess foundational knowledge about gastritis, critical gaps remain. Recommendations include enhancing the nursing curriculum with detailed gastrointestinal content, conducting targeted workshops, and promoting healthy lifestyle practices. Further research with larger and more diverse samples is encouraged to validate these findings and develop effective educational interventions.

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**Keywords:** Gastritis, Knowledge, Nursing

## 1. Introduction

Millions of people worldwide are affected by the common gastrointestinal ailment known as gastritis, an inflammation of the stomach lining (Fating, *et al.*, 2019). It's a complex etiology that includes anything from lifestyle factors like diet and alcohol use to infectious agents like *Helicobacter pylori* (Firdous, *et al.*, 2016).

The prevalence of gastritis among college students seems to be high, and it may be impacted by certain stressors like pressure to perform well academically, erratic eating patterns, and the use of inappropriate coping strategies (Nakayama, *et al.*, 2017). Because they are at a transitional phase of life that frequently involves significant lifestyle changes and increased exposure to risk factors, university students are an important group for the research of gastritis (Alzahrani, *et al.*, 2020).

There are few thorough studies evaluating university students' knowledge and awareness of gastritis-related issues, despite the condition's apparent importance. To

create successful educational interventions and preventive measures, it is essential to comprehend students' understanding of gastritis (puspanjali, *et al.*, 2024).

Increased knowledge can result in earlier diagnosis, more effective symptom management, and a decline in the frequency of problems related to chronic gastritis. Additionally, it might encourage better coping strategies and lifestyle decisions that can lessen the risk factors connected to this illness (Mathur, *et al.*, 2024).

Gastritis is an inflammation or irritation of the lining of the stomach, can be a brief and sudden illness (acute gastritis), a long-lasting condition (chronic gastritis). Occasionally, a rare form of gastritis can be serious or even life-threatening due to ongoing symptoms or internal bleeding. This disease is also described as peptic ulcer or acid peptic disease. *H. pylori* are the causative agent in more than 90% of cases of chronic gastritis/peptic ulcer disease (Silwal, S., *et al.* 2021).

The stomach is situated in the left upper portion of the abdomen under the left lobe of the liver and the diaphragm, overlaying most of the pancreas. A hollow muscular organ with a capacity of approximately 1500 mL, the stomach stores food during eating, secretes digestive fluids, and propels the partially di-gested food, or chyme, into the small intestine. The gas-troesophageal junction is the inlet to the stomach (Hinkle and Cheever, 2014).

The stomach has four anatomic regions: the cardia (entrance), fundus, body, and pylorus (outlet). Circular smooth muscle in the wall of the pylorus forms the pyloric sphincter and controls the opening between the stomach and the small intestine (Hinkle and Cheever, 2014).

In general, gastritis was higher among men than women. However, a study conducted in Brazil showed 67.8% of women and 32.2% of men suffered from chronic gastritis (Feyisa, & Woldeamanuel, B. T. 2021).

*Helicobacter pylori* (*H. pylori*) formerly called *Campylobacter Pylori* is now a global public health problem, affecting about half of the World's population making it one of the most widespread infection in The world. Annually *H. pylori* infection is associated with over a third of A million deaths each year (Abongwa, L. E., *et al.* 2017).

The risk factors gastritis like smoking, alcohol Consumption, tobacco use, spicy food, drugs, stress, swallowed foreign Bodies and bacterial infection such as *Helicobacter pylori* will affect The normal lining of the stomach produce inflammation, irritation of Gastric mucosa and excessive gastric secretion leads to manifestations Like abdominal pain, indigestion, loss of appetite, nausea, vomiting and Burning pain in epigastric region (Fating, S. S., & Sharma, R. 2019).

Acute gastritis is temporary stomach lining inflammation caused by stress on the gastric mucosa, manifesting as either hemorrhagic or nonhemorrhagic symptoms. This condition can develop due to various factors, including uremia, ischemia, shock, medications, radiation, trauma, severe burns, sepsis, Certain infections, such as enteroviruses, can also cause a self-limited episode of gastritis. Acute gastritis may result from reduced gastric mucus secretion, mucosal barrier disruption, or decreased mucosal blood flow, depending on the underlying cause (Chia JK, and Chia AY, 2010).

Chronic gastritis is still one of the most common serious pandemi Infections with such severe killing sequelae as peptic ulcer or gastric cancer. Chronic gastritis is categorized into 2 forms— atrophic and nonatrophic. The primary cause of chronic gastritis is a *Helicobacter pylori* infection, which typically starts with a non-atrophic morphology. The nonatrophic form of chronic gastritis can progress to atrophic without treatment. The most common cause of atrophic chronic gastritis is autoimmune gastritis, though the etiology remains unclear (Sipponen & Maaros, 2015).

Reactive gastritis or gastropathy has numerous causative factors with acute gastritis. Reactive gastritis may be caused by specific medications, alcohol consumption, radiation exposure, and duodenal (bile) reflux. These causative agents lead to histological mucosal

lesions characterized by low-grade inflammation of the gastric mucosa. Although usually asymptomatic, they are revealed through endoscopy, often showing multiple erosions or ulcers without signs of atrophic changes. The use of immune checkpoint inhibitors to treat various malignancies has contributed to the incidence of reactive gastritis, although the condition remains considerably rare (ennelli, *et al.*, 2020).

The most common symptoms Are epigastric pain, nausea, vomiting, bloating, anorexia, and Heartburn. Others may have no symptoms. Complications Of gastritis may include bleeding, gastric ulcers, and gastric Tumors. When gastritis occurs due to autoimmune disorders, Red blood cells decrease due to deficiency of vitamin B12 could Occur and that leads to pernicious anemia (Varbanova, M., *et al.* 2014).

The gastric mucosa Is capable of repairing itself after an episode of acute gastritis. As A rule, the patient recovers in about 1 day, although the patient's appetite may be Diminished for an additional 2 or 3 days. Acute gastritis is also managed by Instructing the patient to refrain from alcohol and food until symptoms subside. When The patient can take nourishment by mouth, a nonirritating diet is recommended. If the Symptoms persist, intravenous (IV) fluids may need to be given. If bleeding is Present, management is similar to the procedures used to control upper GI tract Hemorrhage (Hinkle and Cheever, 2014 ).

### **Importance of the study**

The prevalence of gastritis is still elevated in nearly all countries and more than half of the population in the world had gastritis. It is the leading cause of atrophic gastritis, peptic ulcer, and adenocarcinoma of the stomach. (Shehap. *et al.*, 2021).

Gastric mucosal atrophy is recognized as the cancerization field in which more than 90% of gastric epithelial malignancies will eventually develop. This well-established evidence provides the rationale for assessing patients' "individual" gastric cancer risk from their histological atrophy score, which also takes its topography (corpus, antrum, or both) into account. Consistent with this approach, histological gastritis staging has proved a reliable predictor of gastric cancer risk. (Rugge. *et al.*, 2020).

Studies performed in individuals with and without symptoms undergoing elective esophago-gastroduodenoscopy (EGD) report varying rates of gastritis, from 37% to 57% (wolf, *et al.*, 2010).

Western populations, a declining incidence of infectious gastritis is thought to be caused by an increasing prevalence of autoimmune gastritis. Autoimmune gastritis is more prevalent in women and older individuals, with estimated rates ranging from 2% to 5%. However, the available data may have limited reliability (Coati, *et al.*, 2015).

Chronic H pylori-associated nonatrophic gastritis continues to be highly prevalent in developing countries. In Western populations, the prevalence of H pylori infection in children is approximately 10%, whereas the prevalence is 50% in developing countries (Mana, *et al.*, 2013).

The prevalence of gastritis among college students seems to be high, and it may be impacted by certain stressors like pressure to perform well academically, erratic eating patterns, and the use of inappropriate coping strategies. There are few thorough studies evaluating university students' knowledge and awareness of gastritis-related issues, despite the condition's apparent importance. (Mohapetro, *et al.*, 2021 ).

Regarding the incidence and prevalence of gastritis, In United State Of America, dyspeptic symptoms affect up to 25% of the Population; noncomplicated dyspepsia (including gastritis) contributes to the diagnosis in about 50% of patients referred for upper endoscopy. North European or Scandinavian Ancestry is a recognized risk factor for autoimmune gastritis (Mahmoud, *et al.* 2016).

The prevalence of Helicobacter pylori infection is higher in Developing countries and is impacted by a multitude of factors Including geography, age, strain virulence,

environmental Factors, and socioeconomic status. A study conducted in Saudi Arabia found that prevalence of endoscopic confirmed Gastritis among children <18 years of age was 13% (Mahmoud, *et al.* 2016).

### Statement of the problem

Assessment of nursing students' knowledge about gastritis.

### Objective of the study

- 1- To assess nursing students' knowledge about gastritis.
- 2- To determine the relationship between demographic data and knowledge about gastritis among nursing students.

### Definition of Terms

#### 1. Gastritis

- **Theoretical definition :** is inflammation in gastric mucus and can Acute or chronic (Janice *et.al*; 2022).
- **Operational definition:** is a medical condition that affects the stomach and causes symptoms such as pain, heartburn, nausea and vomiting, as a result of bacterial infections, eating incorrect foods, or stress and stress, resulting in inflammation and damage to the stomach tissues.

#### Knowledge

- **Theoretical definition:** It is pervasive, evaluative, agential, and objective. Pervasive and ubiquitous: 'know' is one of the most used verbs, appears in every language and is learned very early in infancy. Evaluative: 'know' is used to assess the life of cognitive agents; when we state that someone knows (Vega-Encabo, 2016).
- **Operational definition:** Includes information that students have learned during their studies that has guided their understanding about the gastritis.

#### Assessment

- **Theoretical definition :** The systematic collection of data through interview, observation, and examination to determine the patient's health status as well as any actual or potential health problems. (Janice, *et.al*; 2022).
- **Operational definition:** assessment of the knowledge of second, third and fourth year nursing students about the gastritis.

#### Student nurses

- **Theoretical definition:** are the future of the profession a Student nurses are the future of the profession and require high levels of commitment and skill from the registered nurses charged with mentoring and guiding them on the road to registration and require high levels of commitment and skill from the registered nurses charged with mentoring and guiding them on the road to registration (Chris, 2016).
- **Operational definition:** Is an individual enrolled in a professional nursing education program who is learning the skills necessary to work within the nursing field.

## 2. Materials and Methods

### 2.1. Study Design

A cross-sectional descriptive design was adopted in the current study To achieve the early stated objectives. The study ran from October 5, 2024 until.

### 2.2. Study preparation

The study was conducted In the holy city of Najaf, University of Kufa, College of Nursing.

### 2.3. Study Sample

A non-probability sample (convenience sample) consisting of (60)

Students was included in this study. Samples are collected from the Second, third, and fourth grades randomly.

#### Criteria for Includeing the Sample

The study includeincludeed a sample of morning students from the second stage, the third stage, and the fourth stage.

### 2.4. Study tool

An assessment tool was adopted and developed by the researcher to assessment of nursing students' knowledge about gastritis. The complete study instrument consists of two (2) Parts (Appendix B):

- **Part One: Demographic Data:** This part consists of (4) paragraphs that includeincludee age gender, residence,educational level.
- **Part Two: Students' knowledge of gastritis :** This part of the questionnaire consists of (20) items, which included questions about the mechanism of the disease, its symptoms, pathophysiology of the disease, its causes, signs and symptoms, its classification, risk factors, their types, its evaluation, complications, and general information about It.

### 2.5. Data collection

Data are collected using a semi-structured questionnaire and a self\_ report technique with the subject, and the researcher uses the English version of the questionnaire. Data collection began from January 3, 2025 to February 28, 2025.

### 2.6. Statistical Analysis

Data of studied sample were entered and analyzed using the statistical package for social sciences (SPSS) version 25. Analysis included the two types of statistics:

- **Descriptive statistics :** presented as mean, frequencies and percentages. All continuous variables were tested for statistical normal distribution using bar charts and normal distribution curve.
- **Inferential Statistics :** Statistical tests were applied according to the distribution and type of variables. Chi-square test was used to compare frequencies between nurses' knowledge and their demographic data. Level of significance of  $\leq 0.05$  was considered as significant difference or correlation.

## 3. Results

**Table 1.** Descriptive statistics (frequency and percentage) for the demographic data of nursing students.

Demographic data	Sub-groups	Frequency (N=100)	Percentage
Age / years	18-24	58	96.7
	25-30	2	3.3
Gender	Male	22	36.7
	Female	38	63.3
Residency	Rural	23	38.3
	Urban	37	61.7
Type of Study	Second Year	14	23.3
	Third Year	24	40.0



Fourth Year

22

36.7

The demographic data of the children are presented in table 1, this table shows that the majority of the nursing students subgroups are : those with ages ranging between (18-24) years (96.73%); females nursing students (66.3%), those live in urban areas (61.7 %), those who study in the third stage of studying (40 %).

**Table 2.** Assessment and mean of scores of nursing students' knowledge toward gastritis.

No.	Items	MS	SD	Assessment
1	What is the most accurate definition of gastritis according to nursing concepts?	1.80	0.40	Good
2	What is the most common type of chronic gastritis?	1.73	0.45	Good
3	Which of the following symptoms is considered a major indicator of acute gastritis?	1.63	0.49	Moderate
4	Which age group is most susceptible to developing complications of chronic gastritis?	1.33	0.48	Poor
5	Which of the following symptoms is associated with vitamin B12 deficiency resulting from chronic gastritis?	1.63	0.49	Moderate
6	What is the golden diagnostic test to determine H. pylori infection?	1.20	0.40	Poor
7	What laboratory sign is associated with anemia resulting from autoimmune gastritis?	1.30	0.46	Poor
8	Which of the nursing diagnoses is appropriate for a patient with chronic gastritis?	1.38	0.49	Moderate
9	Which of the following options is considered part of triple therapy for H. pylori infection?	1.38	0.49	Moderate
10	What is the first medical step in case of severe bleeding due to gastritis?	1.48	0.50	Moderate
11	What is the nursing priority in the care of a patient with acute gastritis?	1.45	0.50	Moderate
12	Which of the following nursing activities helps in preventing gastric ulceration resulting from inflammation?	1.27	0.45	Poor
13	What is the main goal of the nursing care plan for a patient with gastritis?	1.25	0.44	Poor
14	How can the development of a patient with gastritis be monitored?	1.38	0.49	Moderate
15	Which of the following measures is necessary to prevent gastritis?	1.47	0.50	Moderate
16	What nutrient helps improve the health of the gastric mucosa?	1.23	0.43	Poor
17	What is the primary function of proton pump inhibitors in the treatment of gastritis?	1.57	0.50	Moderate
18	How do prostaglandins affect gastric protection?	1.30	0.46	Poor
19	Which of the following treatments is recommended to reduce alcohol-induced gastritis?	1.38	0.49	Moderate
20	What is the recommended treatment to improve symptoms in autoimmune gastritis?	1.42	0.50	Moderate

<b>Overall Knowledge</b>	<b>1.43</b>	<b>0.47</b>	<b>Moderate</b>
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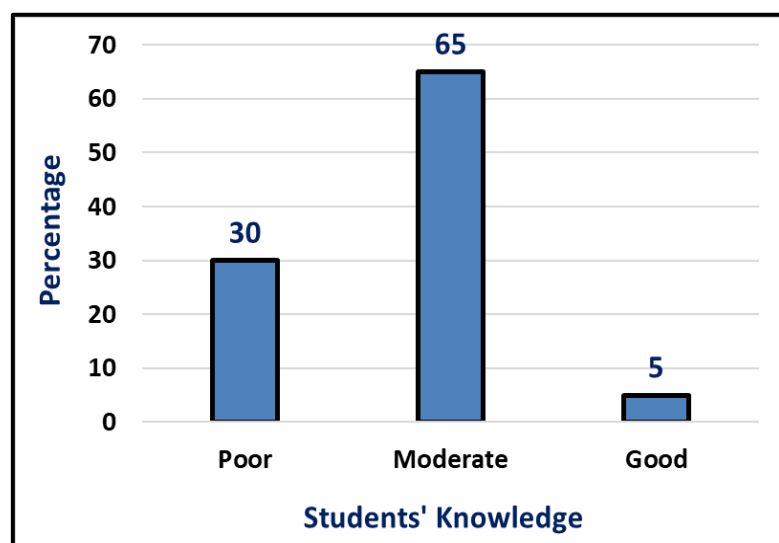
MS : Mean of Scores ; SD : Standard Deviation ; Poor : MS = 1-1.33 ; Moderate : MS =1.34-1.66 ; Good : MS≥1.67

Table 2 evaluates nursing students' knowledge about gastritis; therefore, it exposes their strengths and weaknesses in different areas regarding this condition. The average score attained was 1.43, which places them in the "Moderate" category. This implies that although students have basic information, their knowledge is incomplete. It is most striking that students were able to articulate a good definition of gastritis (MS = 1.80) and its most common type (MS = 1.73). However, critical areas of diagnostics and treatment knowledge received much lower scores, such as the golden diagnostic test for H. pylori infection (MS = 1.20) and key signs of autoimmune gastritis (MS = 1.30). Many vital aspects, like the nursing care plan (MS = 1.25) and nutrient support for gastric mucosa (MS = 1.23), were appraised as "Poor," indicating these should be topic areas in educational efforts. The moderate scores in nursing diagnoses (MS = 1.38) and triple therapy for H. pylori infection (MS = 1.38) nursing diagnoses further speak to the development needed in making clinical decisions. These findings support the argument that greater enrichment in the curriculum and practicum is needed to enhance students' skills in managing gastritis.

**Table 3.** Frequency and percentage of nursing students' subgroups according to their knowledge assessment toward gastritis.

	Knowledge Assessment		
	Poor	Moderate	Good
Frequency	18	39	3
Percentage	30	65	5

Table 3 is about percentage of nursing students' subgroups according to their overall knowledge assessment toward gastritis, it shows that about (30%) of the nursing students have poor knowledge, (65 %) of them have moderate knowledge, while (5 %) have good knowledge, also figure 1.



**Figure 1.** Percentage of nursing students' subgroups according to their knowledge assessment toward gastritis.

**Table 4.** Association between the overall assessment of nursing students' knowledge regarding toward gastritis and their demographic data.

Demographic data		Sub-groups	Knowledge Assessment			Chi Square (P value)
			Poor	Moderate	Good	
Age / years	20-27	18	39	1	39.3 (0.000)	
		31.0%	67.2%	1.7%		
	44-51	0	0	2	HS	
Gender	Male	0.0%	0.0%	100.0%	2.21 (0.33)	
		8	14	0		
	Female	36.4%	63.6%	0.0%	NS	
Residency	Yes	10	25	3	4.53 (0.10)	
		8	14	0		
	No	43.5%	56.5%	0.0%	NS	
Type Study of	Second Stage	8	26	3	11.48 (0.02)	
		57.1%	70.3%	8.1%		
	Third Stage	8	6	0	S	
	Fourth Stage	5	14	3		
		20.8%	63.6%	13.6%		

NS : Non-significant at P value >0.05 ; S : Significant at P value <0.05

Table 4 indicates the relationship between nursing students' knowledge of gastritis and their demographic characteristics, thereby showing the groups differing greatly in terms of levels of knowledge. Age was found to have a very significant relation ( $P = 0.000$ ), with students 44-51 years demonstrating better knowledge since 100% attained a "Good" rating, whereas students 20-27 years contributed a higher proportion to the "Poor" and "Moderate" categories. Gender did not show a significant relationship ( $P = 0.33$ ), as both male and female students performed similarly, with no male students scoring "Good." Residency showed a significant association ( $P = 0.10$ ), non-resident students having better knowledge since 8.1% scored "Good," whereas none of the resident students achieved this.

**Table 5.** ANOVA table for the difference in nursing students' knowledge according to type of study.

Demographic data	Sub-groups	Study Group		F Test	P value
		Mean	SD		
Type of Study	Second Year	1.31	0.11	6.11	0.004
	Third Year	1.44	0.14		
	Fourth Year	1.49	0.18		

HS : High Significant at P value <0.01

The above table is showing statements of results analyzed statistically of the difference between the knowledge of nursing students' different years of study. The trend



of the mean knowledge scores across different years of study increases progressively from the second year ( $1.31 \pm 0.11$ ) to the third year ( $1.44 \pm 0.14$ ) and further to the fourth year ( $1.49 \pm 0.18$ ). A low P-value ( $< 0.01$ ) high significant variation indicates that with years advancing, there is improvement in the knowledge levels of students. This finding shows that the raising nursing curriculum improves academic progression among students over time, see table 5.

#### 4. Discussion

##### Discussion of demographic data for nursing students In the study sample

Participants in the morning study are between 18-24 years The Percentage of individuals participating in the survey whose Ages ranged between 18-24 years (97.7%). These results are Largely consistent with the results of the search by ( Fating & Sharma, 2019 ) where the percentage was( 100%) for ages Between 18-24 years According to the fact that most of the Old.

According to the gender of the study subjects, the highest percentage Is the female (63.3%) and male (36.7%). So, the female participant was dominating. Also, the result of gender of the study done by (Lembong; et al, 2019) they found (65%) were female whereas (35%) were mal. Also (Tuffah & Al-Jubouri, 2021) show the same results we got. This is because the number of female students is greater than the number of male students in the morning study.

Regarding residence, the study found that urban residents made up the majority at 61.7%. These findings align with the research of (Ghalib ; et al ,2022) which reported that 56.6% of the population resided in urban areas.

In this study, most of the participants were in the third stage of their studies, at a rate of 40%, and this rate is similar to what the researcher (Mansi ; et al , 2022) mentioned about their results regarding education.

##### Discussion the result of Assessment and mean of scores of nursing students' knowledge toward gastritis

The results presented in Table 1. The average score of 1.43 places Their overall understanding in the "Moderate" range, indicating that while They have foundational knowledge, it remains incomplete. Notably, Students provided clear definitions of gastritis (MS = 1.80) and accurately Identified its most common type (MS = 1.73). However, their performance Dropped in critical areas such as diagnostics and treatment. For instance, The score for the gold standard diagnostic test for H. pylori infection was Only 1.20, and that for identifying key signs of autoimmune gastritis was 1.30. Furthermore, essential components like the nursing care plan (MS = 1.25) and nutrient support for the gastric mucosa (MS = 1.23) were rated As "Poor," suggesting that these topics should be prioritized in the Curriculum. The moderate scores in nursing diagnoses (MS = 1.38) and in Triple therapy for H. pylori infection further underscore the need for Enhanced clinical decision-making skills. Overall, these results support the Argument for a more enriched curriculum and practical training to boost Students' proficiency in managing gastritis.

The information shown in the table indicates that the students' Knowledge of gastritis is at an average level of( 65%). This is in agreement To some extent with the results of the the survey conducted by( Padmavathi ; et al , 2013) which indicated an average level of knowledge of gastritis at a rate of( 60%).

##### Frequency and percentage of nursing students according To their knowledge toward gastritis

Table 5 shows the relative distribution of nursing students' knowledge of gastritis. It shows that 30% of students had poor knowledge, 65% had average knowledge, and only 5% had good knowledge. These results are consistent with the findings of (Hemavathy ; et al , 2016), which indicated that 40% of students had poor knowledge, 56.6% had average

knowledge, and only 3.4% had good knowledge. They are also consistent with the findings of (Silwal ; *et al* , 2021), which indicated that 8% had poor knowledge, 68% had average knowledge, and 20% had good knowledge.

These findings underscore the importance of enhancing nursing students' knowledge, especially those with poor disease understanding. Students with intermediate knowledge can benefit from supportive teaching strategies to enhance their understanding more deeply. Therefore, it is essential to adopt modern teaching methods that integrate technology and multimedia to make the learning process more engaging and interactive. Furthermore, providing educational environments that emphasize experiential and inquiry-based learning may contribute to enhancing students' comprehension.

#### **Association between the overall assessment of nursing Students' knowledge toward gastritis**

Table 4 indicates the relationship between nursing students' knowledge of gastritis and their demographic characteristics, thereby showing the groups differing greatly in terms of levels of knowledge.

The age chi-square value of 39.3 with a p-value of (0.000), indicating a very significant relationship (HS). Younger students (20-27 years) performed better than older students (44-51 years). A higher percentage of younger students had moderate or good knowledge.

The gender chi-square value of 2.21 with a p-value of (0.33), indicating a non-significant relationship (NS). No significant difference in knowledge levels between male and female students.

The residency chi-square value of 4.53 with a p-value of (0.10), indicating a non-significant relationship (NS). No significant difference between students living in different locations.

The type of student chi-square value of 11.48 with a p-value of (0.02), indicating a significant relationship (S). Third-stage students had the highest percentage of moderate knowledge, while fourth-stage students performed better than second-stage students.

#### **Differences In the overall knowledge scores according To students' stage**

Table 5 presents the differences in overall knowledge scores based on students' stage of study. The analysis revealed significant variations among the stages (  $F = 6.11$ ,  $P > 0.004$  ). Specifically, students in the fourth stage demonstrated higher knowledge scores (Mean = 1.49 ,  $SD = 0.18$ ) compared to those in the second (Mean = 1.31,  $SD = 0.11$ ) and third stages (Mean = 1.44,  $SD = 0.14$ ). This indicates that as students progress in their education, their knowledge about gastritis, with fourthstage students exhibiting the highest level of understanding.

### **5. Conclusion**

According to the study finding and discussion, the study Concluded the following :

- a. The data indicates that the majority of nursing students are aged between 18 and 24 years (96.73%).
- b. Female nursing students represent the largest subgroup (66.3%)
- c. Most of the students reside in urban areas (61.7%).
- d. The majority of the contributors to this study are from the third stage of study amounting to about 40%.
- e. The average student knowledge of gastritis is 65%.

### **Recommendations**

Based on the study conclusion, the study recommends the following:

- a. Curriculum Enhancement: to place greater emphasis on the critical aspects of gastritis management, including diagnostics and treatment protocols. Prioritize teaching the

gold standard diagnostic tests for *H. pylori* infection and the identification of key signs of autoimmune gastritis, as these areas received notably lower scores.

- b. Adopt Supportive Teaching Strategies: Implement targeted teaching methods for students with intermediate knowledge to help them improve their comprehension.
- c. Integrate Technology and Multimedia: Utilize modern educational tools, such as digital platforms and multimedia resources, to make learning more engaging and interactive.
- d. Create Interactive Learning Environments: Foster educational settings that emphasize experiential and inquiry-based learning to stimulate critical thinking and problem-solving skills.
- e. Organize Workshops and Training Sessions: Conduct regular workshops and training courses to address knowledge gaps and reinforce key concepts related to gastritis.
- f. Implement Continuous Assessment: Establish regular evaluation mechanisms to monitor students' knowledge levels and adjust teaching strategies accordingly.

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