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Knowledge-Related Crohn's Disease among Nursing Students in the University of Baghdad, Iraq

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Abstract: This study aimed to assess the knowledge level regarding Crohn's disease among nursing students at the University of Baghdad, Iraq, as the research in this area is limited. The knowledge gap highlights the importance of understanding Crohn's disease to improve healthcare management in nursing. A cross-sectional survey was conducted among 100 fourth-year nursing students using a validated questionnaire with 15 knowledge-based questions. The findings revealed a poor knowledge level among students, with a mean score of 0.30 ± 0.443 , indicating a need for enhanced educational interventions. The results show a significant association between prior knowledge and overall awareness ($p < 0.05$). These findings imply the necessity for revised educational programs in nursing schools, potentially incorporating targeted training and collaboration with the Ministry of Higher Education for improved disease management competencies.

Keywords: Nursing Student, Knowledge, Crohn's disease, Iraq

1. Introduction

Crohn's disease is a type of inflammatory bowel disease defined as a chronic, relapsing, and remitting gastrointestinal inflammatory disorder that usually presents in early adulthood [1]. In 2017, the estimated prevalence of Crohn's disease in the United States was 76,600 cases. In the Middle East, Bahrain, for instance, recorded a significant increase in overall incidence from 5.5/100,000 person-years during the 1990s to 8.0/100,000 person-years, resulting in an overall incidence of 4.8/100,000 person-years [3]. The etiology of Crohn's disease remains unidentified; still, active smoking, genetic predisposition, environmental influences, and vitamin D insufficiency are contributing factors. The symptoms may vary and can include vomiting, diarrhea, weight loss, nausea, and infrequently fever or hypothermia. Patients with Crohn's disease have an increased likelihood of developing cancer, osteoporosis, anemia, depression, infections, and thrombotic events.

The primary impediment to the success of nursing interventions in improving the medical treatment of Crohn's disease is the knowledge deficiency among nurses [7]. Nursing institutions that teach their students about health-related issues may play a significant role in detecting and managing students with Crohn's disease. Nevertheless, the understanding of nursing students regarding Crohn's disease has not been assessed previously. Consequently, we sought to evaluate nursing students' understanding of Crohn's disease.

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2. Materials and Methods

The methodology for this study was designed as a cross-sectional survey to assess the knowledge of nursing students regarding Crohn's disease. The research was conducted at the College of Nursing, University of Baghdad, over a six-month period, from December 15, 2022, to June 18, 2023. A purposive, non-probability sample of 100 fourth-year nursing students, both male and female, was selected to participate in the study. The data collection tool was a structured questionnaire, which was developed and validated by a panel of experts in the nursing field to ensure its content validity. The questionnaire consisted of two sections: one to capture socio-demographic data, and the other to assess knowledge related to Crohn's disease, including 15 questions aimed at gauging the students' understanding of the disease. The survey was conducted in person, and participants were given adequate time to respond.

Data were analyzed using descriptive and inferential statistics, with the help of SPSS version 26 software. Frequencies and percentages were calculated to describe the socio-demographic characteristics of the participants, and chi-square tests were used to determine the association between students' knowledge and variables such as gender, age, and prior information about Crohn's disease. A p-value of less than 0.05 was considered statistically significant. The findings of the study provided a comprehensive understanding of the nursing students' knowledge of Crohn's disease and highlighted areas that need improvement in the educational curriculum to better prepare future healthcare professionals.

3. Results

Table 1 shows that 57% of the study samples were male, 53% at age (21-22) years old, 96% have secondary school Graduate, 51% have Barely sufficient, 83% have single martial statues and also these table shows 58% haven't any information about Crohn's disease.

Table 2 shows that the level of students' knowledge regarding Crohn's disease have poor knowledge at all student knowledge domains and, have good knowledge in item 6 only do you think that not treating stomach reflux.

Table 3 indicate that there is a significant association between previous information with their knowledge. The study finding also revealed no significant association between participants Gender, Age, Past Level of Education and Monthly income and their knowledge at p value < 0.05.

Table 1. Distribution of the study sample according to Socio-demographical characteristics

Variables	Classification	Frequency	Percent
Gender	Male	57	57.0
	Female	43	43.0
	Total	100	100.0
Age Groups (Years)	21 – 22	53	53.0
	23 – 24	43	43.0
	25& Above	4	4.0
	Total	100	100.0
Income Status	Sufficient	43	43.0

	Barely sufficient	51	51.0
	Not Sufficient	6	6.0
	Total	100	100.0
Marital Status	Single	83	83.0
	Married	16	16.0
	widowed	0	0.0
	Divorced	1	1.0
	Separated	0	0.0
	Total	100	100.0
Type of study	Morning	50	50.0
	Evening	50	50.0
	Total	100	100.0
Academic level	Nursing school	5	5.0
	Institute	6	6.0
	Secondary school	89	89.0
	Total	100	100.0
Do you have any information about Crohn's disease			
Yes	42	42.0	
No	58	58.0	
Total	100	100.0	
Sources of information about Crohn's disease:			
(If yes) Indicate the source of information about Crohn's disease:			
Previous information	Reading (Pamphlets, Books, Etc)	21	21.0
	School	0	0.0
	University	5	5.0
	Internet	1	1.0
	Relative s or friends	15	15.0
	Total	42	42.0

Table 2. Mean of Score of student knowledge domain concerning of Crohn's disease Patient

No	Item	True	False	M.S	Std.	A.D.
1.	What is Crohn's disease ?	31	69	.31	.465	poor
2.	Another name for Crohn's disease is?	26	74	.26	.441	poor
3.	The main cause of Crohn's disease is?	32	68	.32	.469	poor
4.	Which age group is most susceptible to Crohn's disease	38	62	.38	.488	poor
5.	All of the following are factors that increase the risk of Crohn's disease except	30	70	.30	.461	poor
6.	Do you think that not treating stomach reflux	63	37	.63	.485	good
7.	Which of the following areas is Crohn's disease affected	30	70	.30	.461	poor
8.	All of the following are the early symptoms of Crohn's disease except	23	77	.23	.423	poor
9.	What is the preliminary diagnosis used to confirm a person has Crohn's disease	39	61	.39	.490	poor
10.	avoid severe complications and allow treatment to start earl	38	62	.38	.488	poor
11.	Which of the following treatments is best for a person with Crohn's disease	32	68	.32	.469	poor
12.	As a patient undergoing treatment for Crohn's disease, what food should be avoided	16	84	.16	.368	poor
13.	If a person with Crohn's disease skips one of the meals, does he avoid repeatedly	15	85	.15	.359	poor
14.	What is the most uses and common treatment for Crohn's disease	32	68	.32	.469	poor
15.	All of the following are complications of Crohn's disease except	11	89	.11	.314	poor
Total		456	1044	.30	.443	poor

(A.D.): Assessment Degree, M. S=mean of score (Less than 0.49=poor, 0.50-1=good), SD.=stander deviations

Table 3. Association between (Gender, Age, Past Level of Education, Monthly Income and Previous information) and student knowledge domain

Nurses knowledge Gender	Poor	Good	Total	χ^2 -obs.	Sig.
Male	44	13	57	.050	No Sig.
Female	34	9	43		
Total	78	22	100		
χ^2 criti.= 3.841				df=1 p ≤ 0.05	
Nurses knowledge Age	Poor	Good	Total	χ^2 -obs.	Sig.

21-25	27	7	34	4.377	No Sig.
26-30	47	13	60		
31-35	1	2	3		
36-40	1	0	1		
41&Above	2	0	2		
Total	78	22	100		
$\chi=9.49$					df=4p ≤ 0.05
Nurses knowledge Past Level of Education	Poor	Good	Total	χ^2 -obs.	Sig.
nursing course	3	1	4	1.032	No Sig.
nursing institute	3	2	5		
sixth scientific	72	19	91		
Total	78	22	100		
Nurses knowledge Previous information	Poor	Good	Total	χ^2 -obs.	Sig.
Yes	34	8	42	8.926 ^a	S
No	57	1	58		
Total	91	9	100		
χ^2 criti.=3.841					df= 1 p ≤ 0.05
Nurses knowledge Monthly Income	Poor	Good	Total	χ^2 -obs.	Sig.
Sufficient	34	9	43	.483	No Sig.
Barely sufficient	40	11	51		
Not Sufficient	4	2	6		
Total	78	22	100		
χ^2 criti.=5.991					df=2 p ≤ 0.05

χ^2 -obs= Chi-square observation, df= degree of freedom, p= p value, ≤ 0.05=significant, ≤ 0.01=high significant, χ^2 criti= Chi-square critical

4. Discussion

During the data analysis phase of the current study, the results indicated that 57% of the total participants were male. The results indicated that 54% of the nurses in the sample study were male, as verified by reference [8]. The majority of the study participants (53%) were aged between 21 and 22 years. These findings concurred with the study conducted by Mahdi and Khairi (2022), which revealed that the majority of participants were aged

between 20 and 26 years [9]. A significant proportion of them were secondary school graduates (96%), with the majority (83%) being single. This result aligns with a prior study involving 300 female medical students in India, which assessed their awareness of nutritional anemia and found that all participants were unmarried [10].

Finally, the findings show the majority of the students (58%) haven't any information about Crohn's disease and, (51%) have barely sufficient income status. These result is also agreed with Saeed, (2019) a study conducted in Baghdad Teaching Hospitals that the participant's knowledge concerning hemodialysis information were poor [11].

Part II: Discussion of the Mean of Score for the Items (Student Knowledge domain Concerning of Crohn's diseases patient)

Fifteen enquiries evaluated individuals' general knowledge of Crohn's illness. Overall, 42% of the participants answered the knowledge questions correctly, whereas 58% provided incorrect responses. Comprehensive knowledge of general information about Crohn's disease.

Table 2 indicates that students possess inadequate knowledge across all domains about patients with Crohn's disease. With the exception of item 6, do you believe that neglecting the treatment of stomach reflux results in possessing adequate knowledge? The findings align with those of Ahmed's study (2023), which conducted research in Al-Basra Governorate and indicated that patients' understanding on diet and medication was inadequate [12].

Part III: Correlation between Gender, Age, Previous Educational Attainment, and Monthly Income with Student Knowledge Domain

The relationship between socio-demographic factors and students' knowledge scores was examined, revealing a significant difference with respect to previous information, but no significant differences were found concerning gender, age, past level of education, and monthly income, at a p-value of 0.05. These findings are corroborated by [13], which indicated that the quantity of information gain did not vary between genders and that gender was not a significant predictor of baseline information or knowledge acquisition. However, sex considerably influences the increase in knowledge from baseline to follow-up; females appeared to benefit markedly from psychoeducation in terms of improved pharmaceutical attitudes.

5. Conclusion

Final stage nursing students had poor level of knowledge about Crohn's disease. These crucial results might deem to the whole education plans and strategies considered the decision makers in the university. This required an increasing health awareness of nursing students for better understanding of disease and hence, their knowledge by implementation of training courses and lectures in coordination with Ministry of Higher Education and scientific research.

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