NURSING STUDENTS' KNOWLEDGE REGARDING EMERGENCY MANAGEMENT OF PATIENTS WITH STROKE AT AL-BAYAN UNIVERSITY

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Abstract

This study aims to assess the nursing students' knowledge regarding emergency management of patients with stroke and to find out the relationship between nursing students' knowledge and their sociodemographic characteristics. A cross-sectional design study was carried out through the application of an online questionnaire. The study started on 13rd January 2021 to 8th August 2021. The present study was carried out in Al-Bayan university / College of nursing / third and fourth stages. The sample was (183) participants who were randomly selected. The level of knowledge was measured according to the degree of student answer (less than 50 degree= low, 50-59 = accepted, 60-69= moderate, 70-79= good, 80-89 =very good, there is no answer more than 89 degree). All the Items of the two domains were rated and scored as {correct, incorrect} (1, 2) respectively. The study demonstrates that the majority (62%) of the subject was males and (38%) was females. The fourth stage records the highest percentage in the college stages of the study subject, Distribution of the subject by their marital status demonstrates that single and married takes the highest percentage (75.4% and 19.7 %) respectively, The majority (63.9%) of the study sample record low level of knowledge toward emergency management of stroke. From the present study findings, the researchers have the following conclusions: Most students have a low score of knowledge about emergency management of stroke, so more emphasis is needed on the importance of emergency management of stroke. There is no relationship between students' knowledge and socio-demographic characteristics.

Keywords*:* stroke, emergency management, student's knowledge.

Introduction:

Taking into account, the incidence and complications of a stroke, it is important to think about nursing students and how undergraduates are developing knowledge and management for stroke care[1], Providing evidence-based care for patients with stroke by nurses and playing an integral part in patients' emergency management is crucial. It is important to conduct a periodical examination of graduate and undergraduate nursing knowledge about stroke care [2].

When a patient with a stroke has a crisis, nurses perform a significant role in emergency management. Hence, providing nursing students with experience and knowledge will be valuable in saving lives and providing first-line intervention [3].

The cerebrovascular accident is considered the main etiology of physical disability, which increased the need for qualified persistent nursing management. Physical, psychological, and social aspects should be the major concern of the nurses' post-stroke [4]. need to pay attention not only to the physical recovery after stroke, Therefore, the educational faculty members need to evaluate the knowledge level and practices to provide specialized training courses to nurses about the care of stroke patients. [5]

Objectives

The study aims to

1. Assess the nursing students' knowledge regarding initial assessment and emergency management of patients with stroke.
2. Find out the association between nursing students' knowledge and sociodemographic characteristics (gender, residence, marital status, and college stage).

Methods

A descriptive (cross-sectional) design was used for the period from the 13th, of January 2021 to the 8th, of August 2021. A simple random (probability) sample was used to select (183) participants. Electronic (google form) classrooms were used to share the link of an online questionnaire; a one-month period was allotted to gather the maximum number of participants. The study was carried out through an online questionnaire to the two educational levels (third and fourth) stages in Al- Bayan University- College of Nursing. The excluded participants were the students who refused to participate, a student at first and second educational levels. Data were analyzed by using the SPSS (Statistical Package for Social Sciences) version (24) application Statistical analysis system. The researcher used multiple tests to analyze the data: frequency, percentage, mean, Alpha Cronbach (α), t-test, and Spearman correlation coefficient. Based on an anticipated effect size of 0.15, a designed statistical power of 0.95, predictors, and a probability level of 0.05, the minimum required sample size would be 227. By considering an attrition rate of 20%, it would be 45. Therefore, the recommended sample size would be 272. The final sample size is 183.

Study instrument

The study instrument was developed through reviewing available literatures and it's composed of

three parts. All the questions rated and score as (correct answer= 1, incorrect answer = 0).

Part I: Socio-Demographic Information Sheet

It consists of (4) items that include gender, stage of college, residency, and marital status.

Part II: Knowledge about emergency management of stroke
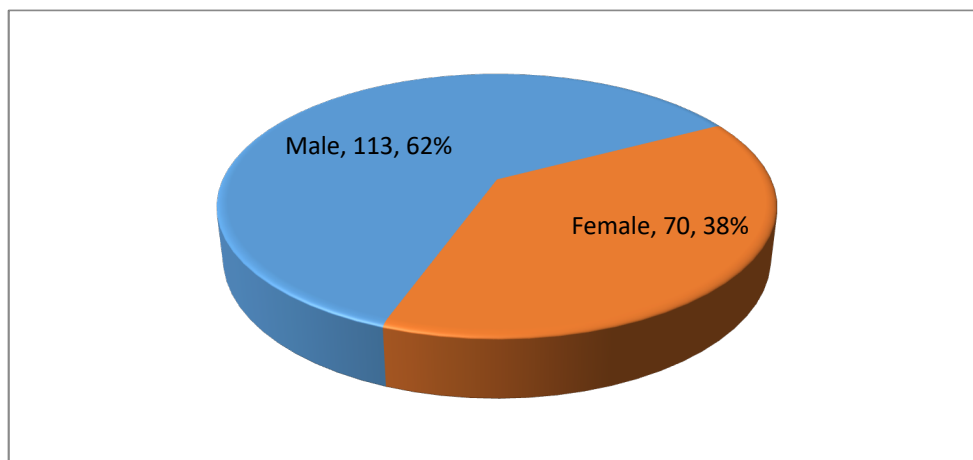
Consists of two domains as the following:

1- Initial assessment: consists of (10) items.

2- Emergency management: consists of (10) items.

The questionnaire was composed of MCQ with 4 choices in addition to true and false questions. All the Items of the two domains were rated and scored as {correct, incorrect} (1, 0) respectively. The scale has demonstrated excellent internal consistency and reliability (Cronbach's alpha=.91).

Ethical considerations:

The sample was collected online through communication within the official groups and electronic classes of students by an electronic questionnaire that is suitable to the study's needs and contains study instruments, participants were informed and given the choice to be included in the study or refuse to participate in the study.

Results

Figure (1): Distribution of subject according to their gender (N=183).

This figure demonstrates that the majority (62%) of the subjects were females and (38%) were males.
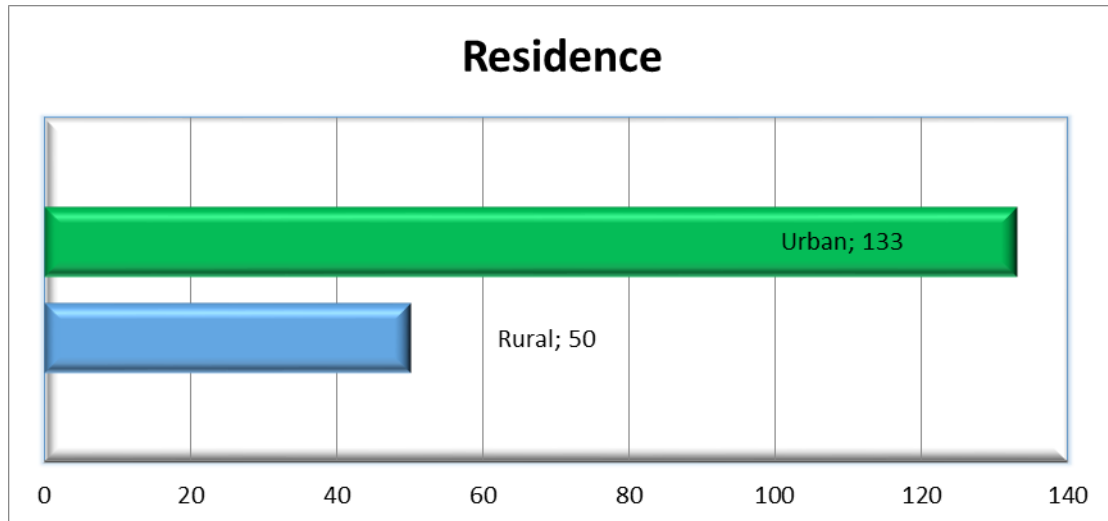
Figure (2): Distribution of subject according to their residence (N=183).

This figure shows that the urban records the highest percentage of residence in the study subject.
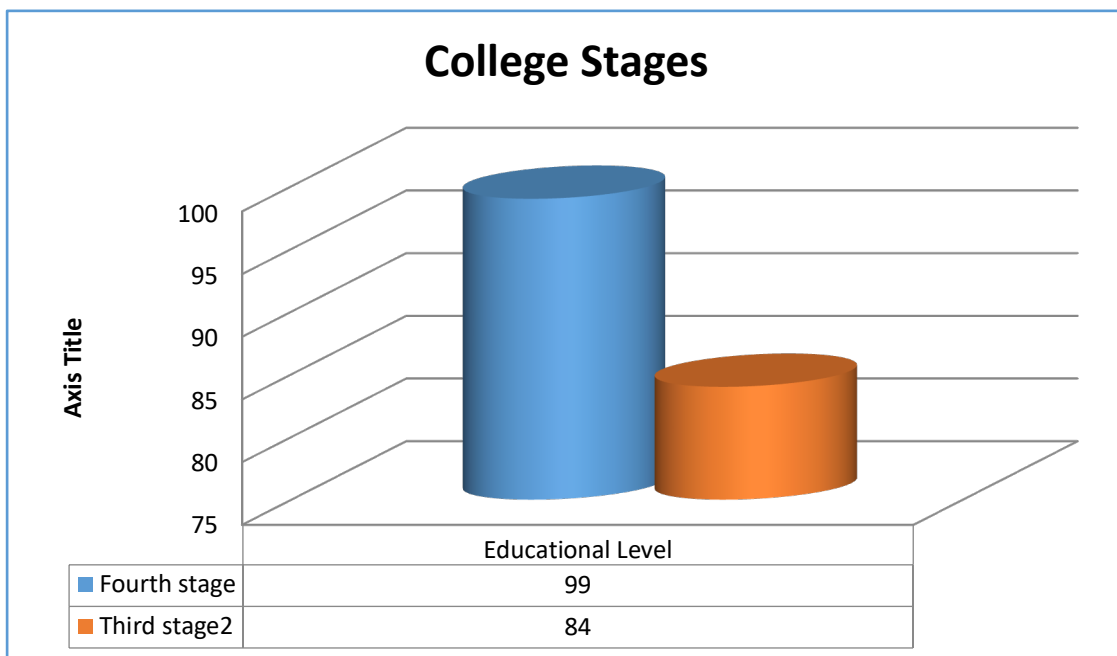

Figure (3): Distribution of subject according to their College Stages (N=183).

The fourth stage records the highest percentage in the college stages of the study subjects.

Table 1: Distribution of Student's Knowledge (N=183).

Student's Knowledge				
	Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Low	117	63.9	63.9	63.9
Accepted	49	26.8	26.8	90.7
Moderate	14	7.7	7.7	98.4
Good	1	.5	.5	98.9
Very good	2	1.1	1.1	100.0
Total	183	100.0	100.0	

The majority (63.9%) of the study sample record low level of knowledge toward emergency management of stroke.

Table 2: Comparison of knowledge differences by their gender.

Independent Samples Test						
Levene's Test for Equality of Variances			t-test for Equality of Means			
Students' knowledge	F	Sig.	t	df	**Sig. (2-tailed)**	Mean Difference
Equal variances assumed	0.340	.560	.415	181	.678	.153
Equal variances not assumed			.416	147.2	.678	.153

This table demonstrates that no statistically significant differences were found between males and females according to their knowledge about emergency management of stroke.

Table 3: Correlation between Marital Status and College stages with Students' Knowledge.

Correlations			College Stages	Marital Status	Student's Knowledge
Spearman's rho	College Stages	Correlation Coefficient	1.000	.000	-.029
		Sig. (2-tailed)	.	1.000	.700
		N	183	183	183
	Marital Status	Correlation Coefficient	.000	1.000	-.012
		Sig. (2-tailed)	1.000	.	.876
		N	183	183	183
	Student's Knowledge	Correlation Coefficient	-.029	-.012	1.000
		Sig. (2-tailed)	.700	.876	.
		N	183	183	183

This table shows that no statistical association between marital status and students' knowledge.

Table 4: Comparison of knowledge differences by their Residence.

Independent Samples Test						
Levene's Test for Equality of Variances			t-test for Equality of Means			
Students' knowledge	F	Sig.	t	df	**Sig. (2-tailed)**	Mean Difference
Equal variances assumed	1.641	.202	1.344	181	.181	.539
Equal variances not assumed			1.305	83.29	.196	.539

This table reveals that students' knowledge regarding emergency management of Stroke has no difference according to their residence, no statistical differences were recorded.

Discussion

The main findings of this study are as follows:

Part one: Discussion of the nursing student demographic characteristics:

Throughout the present study, it has been noticed that more than half (62%) of nursing students in the sample of the study were males. Concerning the residency, depicted that the highest percentage of nurses' students were from urban areas. Regarding marital status, the result indicated that single and married take the highest percentage (75.4% and 19.7 %) respectively. In the educational stage, most of the sample is from the fourth stage of nursing college, figure (1,2,3).

These results come along with a study done by (Kankaya & Yesilbalkan, 2021); the researchers stated that a descriptive, and cross-sectional study was carried out between (December 2017 and March 2018) with intern students at the faculty of nursing of a university. The sample consisted of 173 students. The data collection by using the "Student Information Form" and "Information Form about Stroke". Ethical and institutional permission was got to conduct the research. A total of 17studentsnt (150 women, 23 men) participated in this study; most of them (98%) were singles, and urban living areas 84% [6]

Part two: Discussion of students' knowledge regarding initial assessment and emergency management of patients with stroke:

This part includes (20) items presented to measure students' knowledge regarding emergency management of patients with stroke.

 The result in the table (1) indicated that (63.9%) of students had a low level of knowledge (poor knowledge), while only (26.8%) of them had accepted knowledge about emergency management of stroke. This result agreed with the study in the USA, the researcher mentioned that the level of students' knowledge in the study was poor about the risk factors and signs related to stroke. Although the study was limited, because data collection was from only one college, the findings demonstrate needing to educate stroke risk factors in middle, and high school students on symptoms, and emergency interventions, a total of 603/608 surveys were analysed.

 Only (8%) of respondents correctly prescribed stroke as the 5th leading cause of death in the American United States. (50.1%) conceded that a stroke occurred in the brain. 67 students (11.1%) correctly identified all stroke risk factors. 5.1% only, correctly selected all four correct stroke symptoms. (64.5%) Two-thirds recognized stroke as an immediate medical emergency, and more than half (55.9%) knew the acronym FAST (face, arms, speech, time) [7, 8].

Part three: Association between students' knowledge with their socio-demographic characteristics:

Results of data analysis illustrated that there was no significant relationship between students' knowledge and their gender, marital status, and residency (table 2,3,4). Unfortunately, there was no evidence to support these findings. Based on the researcher's point of view, the students (regardless of gender, residence, and marital status) had the same level of knowledge concerning emergency management of the patient with stroke [9].

Conclusion

From the present study findings, the researcher has got the following conclusions: Most students have a low score of knowledge about emergency management of stroke among nursing students at Al-Bayan University, so more emphasis is needed on the importance of emergency management of stroke. and There is no relationship between students' knowledge and their socio-demographic characteristics (Gender, residence, marital status, and college stage).

Acknowledgments

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