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Assessment of nurse's knowledge concerning nursing management for patient with cerebro vascular accident at Ibn-Sina teaching hospital in Mosul city

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Abstract

Context: Stroke has been recognized in recent years as a national clinical research and policy priority. Nursing contributions involve risk factor management, service co-ordination, secondary prevention, client follow-up, rehabilitation, and supporting of either patients or their families. However, areas for further development include integrating and realigning services to a patient focus and ensuring equitable access, and supporting development of the nursing research evidence base and providing career and educational frameworks for nurses in stroke care.

Aim: Assessment of nurses' knowledge concerning nursing management for patient with cerebrovascular accident at Ibn-Sina teaching hospital in Mosul city.

Setting and Design: Cross-sectional survey methods were used. (50) Participants were nurses who working in Iraq/Nineveh governorate/Mosul City/ Ibn-Sina teaching hospital.

Methods and Materials: A self-completed questionnaire were used to collect the data, with descriptive statistics summarizing the results.

Result: It was evident from the study that majority of the respondents hadn't adequate knowledge regarding cerebra vascular accident, and respondents hadn't adequate knowledge regarding of the medical procedures used for patients of stroke.

Conclusions: Nurses needs to improve access to continuing professional development with regard to treatment and prevention of stroke. And they require easy access to information resources which support Evidence-based practice.

Keywords Assessment, knowledge, nursing management, cerebrovascular accident

Introduction

Stroke defined by the World Health Organization (WHO) "a clinical syndrome consisting of rapidly developing clinical signs of focal (at times global) disturbance of cerebral function, lasting more than 24 hours or leading to death with no apparent cause other than that of vascular origin" (World Health Organization) [1]

Brain cells damage due to a disturbance in the blood supply to the brain which occurs when a blood clot blocks the brain blood circulation which led to interrupting blood flow to an area of the brain and when these things happens, brain cells begin to die [2]. When brain cells die during a stroke, abilities controlled by that area of the brain are lost. These include functions such as movement, speech, and memory. The specific abilities can be lost or affected depend on the location of the damage and on its severity (i.e., the extent of brain cell death) [3.4].

Transient Ischemic Attack (TIA) on the other hand can be defined as stroke symptoms and signs that resolve within twenty-four hours only [5].

A TIA is a transient episode of neurologic dysfunction caused by ischemic condition without acute infarction (tissue death) [6].

TIAs have the same underlying cause as strokes such as a disruption of cerebral blood flow (CBF), and are frequently referred to as mini-strokes, because it causes the same symptoms associated with stroke, such as contralateral paralysis (opposite side of body from affected brain hemisphere) or sudden weakness or numbness [7.8]. A TIA may cause sudden dimming or loss of vision, aphasia, slurred speech (dysarthria) and mental confusion. But unlike a stroke, the symptoms of a TIA can resolve within a few minutes or 24 hours' injury may still occur in a TIA lasting only a few minutes [8]. Having a TIA is a risk factor for eventually having a stroke or a silent stroke [9].

Stroke is one of the leading causes of long-term disability and mortality, in United States, a stroke occurs approximately every 40 seconds; that translates into 2160 strokes per day. About 780,000 Americans have a new or recurrent stroke each year [10]. A major cardiovascular risk factor associated with stroke is systemic hypertension followed closely by obesity [11].

Methodology of the study

A descriptive study was carried out at Ibn-Sina Teaching Hospital in Mosul City from period of 20th December / 2020 till 1st April / 2021.

A questionnaire was constructed and provided for nurses which consist of two parts. The first part concerns the demographic data while the second part related to the nurses' knowledge toward nursing management for patient with Cerebro Vascular Accident(CVA) and the samples selected by probability sampling for nurses who works at the hospital to be included in the study, the researcher select (50) nurses from different parts in the hospital. The researchers using SPSS (Version 26) in statically analysis.

Results and Findings

Table 1: Self-Administered Questionnaire Sheet Related to Demographic Characteristics of staff. Nurses: No. = 50

Variables	Groups	Study			C.S. P-value
		Freq.	%	Cum%	
Age	20-30	39	78.0	78.0	54.64 (0.000)
	30-40	8	16.0	94.0	
	> 40	3	6.0	100.0	
Gender	Male	32	64.0	64.0	3.92 (0.048)
	Female	18	36.0	100.0	
Education level	Nursing college	31	62.0	62.0	38.16 (0.000)
	Nursing institute	10	20.0	82.0	
	Nursing school	5	10.0	92.0	
	Higher education	4	8.0	100.0	
Training course	Yeas	13	26.0	26.0	11.52 (0.001)
	No	37	74.0	100.0	
Department	Emergency unit	12	24.0	24.0	36.24 (0.000)
	Medical ward	30	60.0	84.0	
	Surgical ward	5	10.0	94.0	
	Surgical room	3	6.0	100.0	
Experience	> 5 year	26	52.0	52.0	10.48 (0.004) H.S.
	5-10 year	17	34.0	86.0	
	10 < year	7	14.0	100.0	

Freq. = Frequencies,% = Percentages, C.S.: Comparison Significant with χ^2-test, P = P-value, H.S.: Highly Significant at $P<0.01$.

Table 2: Descriptive association between questions that related to General Nurses' knowledge about Cerebrovascular Accident (CVA) at Ibn-Sina Teaching hospital. Nurses: No. = 50

Overall Main Domains	Questions	Freq.						Chi-Square value
		True	%	False	%	Cum.%	C.S.	
General knowledge about CVA	CVA occurs when:	21	40	29	60	100%	N.S	1.28
	The most susceptible weights of cerebral stroke is	10	20	40	80	100%	H.S	18.00
	The age category most exposed to have cerebral stroke	22	44	28	56	100%	N.S.	0.72
	The percentage of children with cerebral stroke:	15	30	35	70	100%	H.S	8.00
	The sex that is most exposed to cerebral stroke is	10	20	40	80	100%	H.S	18.00
	Symptoms of cerebral stroke is	49	98	(1)	2	100%	H.S	46.08
	Complications of cerebral stroke include:	34	68	16	32	100%	H.S	6.48
	Risk Factors of brain stroke related to lifestyle	40	80	10	20	100%	H.S	18.00
	one of the risk factors for the brain stroke related to medical problems:	28	56	22	44	100%	H.S	0.72
	The mortality rate for patients with cerebral palsy in hospitals is usually.	20	40	30	60	100%	N.S	2.00
	Total	249	49.80	251	50.20	100%	N.S.	0.008

Freq. =Frequencies,%=Percentages, Cum. = Cumulative Percent, C.S.: Comparison Significant, N.S.: Non-Significant at $P>0.05$, S.: Significant at $p<0.05$, H.S.: Highly Significant at $p<0.01$.

Table 3: Descriptive association related Nurse Scale for evaluating patients with cerebral stroke at Ibn-Sina Teaching hospital. Nurses: No. = 50.

Overall Main Domains	Questions	Freq.						Chi-Square value
		True	%	False	%	Cum.%	C.S.	
Nurse scale for evaluating patients with cerebral stroke	speech the patient with the cerebral stroke is	44	88	6	12	100%	H.S	28.88
	the facial movement of a patient with cerebral stroke is	17	34	33	66	100%	S	5.12
	the patient's ability to keep the arm up in front of it	9	18	41	82	100%	H.S.	20.48
	The patient's ability to move the leg while he's in bed	23	46	27	54	100%	N.S.	0.32
	the ability of a patient with cerebral stroke to walk is	19	38	31	62	100%	N.S	2.88
	The ability of a patient with cerebral stroke to comprehensions is	16	32	34	68	100%	H.S.	6.48
	Patient's vision with a cerebral stroke is usually	16	32	34	68	100%	H.S	6.48
	The ability of a patient with cerebral stroke to eat is	13	26	37	74	100%	H.S	11.52
	The feeling of comfort in the person with the cerebral stroke is usually in the hospital is	18	36	32	64	100%	S.	3.92
	Psychiatric disorders in a patient with cerebral stroke	19	38	31	62	100%	N.S	2.88
	Total	194	38.80	306	61.20	100%	H.S.	25.08

Freq. =Frequencies,%=Percentages, Cum. = Cumulative Percent, C.S.: Comparison Significant, N.S.: Non-Significant at $P>0.05$, S.: Significant at $p<0.05$, H.S.: Highly Significant at $p<0$.

Table 4: Descriptive association between Questions about nurses' knowledge of the medical procedures used for a patient of stroke in Ibn-Sina Teaching hospital. Nurses: No. = 50

Overall Main Domains	Questions	Freq.						Chi-Square value
		True	%	False	%	Cum. %	C.S.	
The nurses' knowledge of the medical procedures used for a patient stroke	The first recommendations you make to the patient with cerebral stroke to prevent the recurrence it:	14	28	36	72	100%	H.S	9.68
	The first nursing supervision of a patient with a cerebral stroke is	30	60	20	40	100%	N.S.	2.00
	Tests for a patient with cerebral stroke	33	66	17	34	100%	S.	5.12
	The most commonly used and fastest effective drugs that are used for the patient with the cerebral stroke	9	18	41	82	100%	H.S.	20.00
	What is a healthy diet you suggest for a patient with cerebral stroke?	36	72	14	28	100%	H.S	9.68
	What do you do if a patient with a cerebral stroke is anorexic?	17	34	33	66	100%	S.	5.12
	What do you do if a patient refuse to take medication?	22	44	28	56	100%	N.S	0.72
	Teaching the patient and his or her family to maintain health while in the hospital includes:	35	70	15	30	100%	H.S	8.00
	The instructions given to a patient the moment they out from hospital d is	13	26	37	74	100%	H.S.	11.52
	The most dangerous cause of the stroke that the patient is advised to control is	31	62	19	38	100%	N.S	2.88
	Total	240	48.00	260	52.00	100%	N.S.	0. 80

Freq. =Frequencies,%=Percentages, Cum. = Cumulative Percent, C.S.: Comparison Significant, N.S.: Non-Significant at $P>0.05$, S.: Significant at $p<0.05$, H.S.: Highly Significant at $p<0$.

Discussion
A stroke occurs when the blood supply to part of rain is interrupted or reduced, preventing brain tissue from getting oxygen and nutrients. Brain cells begin to die in minutes. A stroke is a medical emergency, and prompt treatment is crucial [11].

Table 1 presented the demographic characteristics of the nurses which indicates that (39) nurses represent (78.0%) at age (25-30) years and (8) at age between 30-40. In concerning of gender (64.0%) of nurses are male and (36.0) of nurses are female. According to level of education, the secondary nursing school was (5) nurses- represent (10.0%) from study group, nursing institute was (10) nurses - represent (20.0%) from study group, nursing collage was (31) nurses - represent (62.0%)from study group and higher education was (4) nurses- represent (8.0%) from study group. According to training courses there are just 13 nurses- represent (26.0%) from study group has training courses about CVA while who don't have training courses was (37) nurses- represent (74.0%) from study group. According to years of experience >5 years was 26 nurses represented (52.0%) while who between 5-10 years was 17 nurses represented (34.0%) and who has more than 10 years been 7 nurses represented (14.0%).

Table 2 the respondents hadn't adequate knowledge regarding Cerebrovascular Accident (CVA) the study findings shows that total of answers correct was weak represented 49.80%.

Table 3 the respondents hadn't adequate scale for evaluating patient with Cerebrovascular Accident (CVA) the study findings shows that total of answers correct was weak represented 38.80%.

Table 4 the respondents hadn't adequate knowledge of the medical procedures used for a patient of the Cerebrovascular Accident (CVA) The study findings shows that total of answers correct was weak represented 48.0%.

Conclusion
It was evident from the study that majority of the respondents hadn't adequate knowledge regarding Cerebrovascular Accident (CVA) correct answers was low - total represent 49.80% and nurses scale for evaluating patient with stroke was weak, correct answers was low- total represent 38.80 and majority of the respondents hadn't adequate knowledge regarding of the medical procedures used for patients of stroke, correct answers was total represent 48.00%.

Acknowledgement

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