



Original Research

Evaluation of Knowledge of patients with Chronic Diseases Regarding Stroke Risk Factors and Warning Signs

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Abstract:

The risk of stroke is dramatically rising in developing countries compared to developed ones. The study aimed to evaluate Knowledge of Chronic Diseases patients with regarding Stroke risk factors and its warning signs. A descriptive study was carried out from 17th February, 2023 to 30th of January, 2024. non-probability sample of 470 patients from AL- Nasiriyah Teaching hospital, Souq Al-Shuyukh General Hospital, and Al- Shatra General Hospital was selected.

A questionnaire constructed by the researcher to measure the variables. There were three sections on the questionnaire: demographic information, patient's health history assessment: as well as the knowledge of chronic diseases patients regarding Stroke risk factors as well as its warning signs. A content validity determined by panel of specialists. The data analysed by descriptive besides inferential statistics. the results indicated poor knowledge of participants regarding stroke risk factors and its warning symptoms.

The researchers concluded that the sample members in the study showed poor knowledge about stroke warning signs, and risk factors. Thus, A comprehensive and intensive evidence-based health education program is imperative to enhance stroke awareness. The Ministry of Health should utilize a health-oriented mass media strategy to enhance population knowledge and awareness of stroke.

Keywords: Knowledge, patients with Chronic Diseases , Stroke Risk Factors ,Warning Signs

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Introduction:

Over 12 million people worldwide experience a stroke each year, and within the past 20 years, the annual fatality rate has surpassed 5.5 million. [1, 2]. Statistics demonstrated that the stroke ranks as the second leading reason of death and disables about five million people for the rest of their lives. [1, 3].

Consequently, it causes families and societies to bear a disproportionately greater financial and social burden. [2]. Hypertension, diabetes mellitus, obesity, smoking, psychological problems, exercise, and diet are aggravating factors that influence the beginning and development of stroke.

If the right precautions and actions are followed, over 80% of stroke cases can be stopped. [2].

The risk of stroke is dramatically rising in developing countries compared to developed ones. [2, 4, 5] While stroke rates have increased by 100% in developing (poor to middle-income) countries over the past four decades, they have fallen by 42% in wealthier countries. [1]. New risk factors, including unhealthy lifestyles, unbalanced diets, socioeconomic disparity, and limited access to critical treatment, are the cause of this shift in stroke incidence from industrialised to developing countries. [1, 4]

Strokes and other non-communicable diseases are responsible for 55% of all fatalities. [6]. In clinical practice Stroke and coronary heart disease considered the most common conditions seen in Iraq. Additionally Stroke rates in Iraq in 2019 ranged from 196.2 to 218.3 per 100,000 people, according to the Global Burden of Disease report.[2]. Additionally, it is projected that 35.8% of Iraqis have high blood pressure, 14% have diabetes, 38% smoke, and over 30% are obese[6]. Furthermore, many Iraqi people have reported that they followed an unhealthy lifestyle, involving a lack of exercises besides poor diet with high-calorie meals [7, 8].

So, numerous risk factors, involving increased incidence of chronic diseases in addition to following an unhealthy lifestyle, have been related to the stroke prevalence among Iraqi people [9, 10]. It is commonly known from literature that identifying the risk factors for the stroke, such as smoking, elevated blood pressure, besides following unhealthy lifestyle, can help prevent and lower the incidence of the condition.[11–13] It is possible to start preventive steps and increase public awareness by recognising these elements. Additionally, understanding what to do if someone witnesses someone having a stroke might help reduce the problems from an acute stroke. [13, 14].

Consequently, to determine the appropriate preventative strategy and put community-oriented educational initiatives into place, a thorough evaluation of the general public's awareness of

stroke and its risk factors is desirable. To comprehend the differences in stroke knowledge among various sociodemographic groups, it is crucial to investigate characteristics like lifestyle, behaviour, level of education, smoking, and socioeconomic status.

Thus, the current study aimed to evaluate knowledge of Stroke factors as well as its warning signs among Thi-qar government population.

Material and Methods:

Study Design: Descriptive cross-sectional study started from 17th February, 2023 to 30th of January, 2024.

Administrative Arrangement: After the study was approved by the Council of College Nursing, the researchers submitted to the Thi-qar Health Directorate a detailed outline of the study for obtaining official permission and was presented to Al- Nasiriya Teaching Hospital, Souq Al- Shuyukh General Hospital, and Al-Shatra General Hospital.

Ethical consideration: An informed consent submitted to the patients. Complete secrecy and anonymity were ensured, and it was promised that the data gathered would only be utilised for study.

Study Setting: The study was carried out in three hospitals in Thi-qar, Iraq, that including Al-Nasiriya Teaching Hospital, Souq Al- Shuyukh General Hospital, and Al-Shatra General Hospital.,.

Study Sample: A non-probability sample consisted of 470 patients selected from AL-Nasiriyah Teaching hospital, Souq Al-Shuyukh General Hospital, and Al- Shatra General Hospital was selected to achieve the objectives of the study.

Inclusion Criteria of the Sample: Patients who have been diagnosed with one or more of the following chronic diseases by a medical professional: heart disease, diabetes mellitus, or hypertension. those people who have had a stroke in the past and have a medically verified diagnosis. individuals who visit public medical clinics and are at least eighteen years old. And finally, those clients who are mentally healthy

Exclusion Criteria of the Sample: Patient who refused to participate in study, and who refused to complete the questionnaire.

Instrument of the study:

Quantitative data was collected using questionnaire constructed by researchers. The study tool encompassed three parts:

Part I: Socio- Demographic Data: It consisted of six items. It is concerned with the collection of basic socio- demographic data gained from study participants, includes age, sex, marital status, educational level, occupation, and income level.

Part II: Questions related the patient's health history assessment: It was composed of four items including history of chronic diseases , medical treatment, family history of chronic diseases and finally sources of information about chronic diseases.

Part III: questions related the knowledge of patients regarding Stroock risk factors and its warning signs: It consists of (3) domains: Definition of stroke, Warning signs of a stroke, and risk factors for stroke. The items were know, not sure and do not know questions. These rated as (3) for know answer (2) for not sure answer and (1) for do not know.

Validity of the Instrument: Content validity for the study instruments were determined by the use of panel of specialists, with the purpose of investigating the clarity, relevancy, as well as adequacy of the questionnaire to measure concept of interest.

Reliability of the Instrument: The reliability of the study revealed that the tool to be acceptable with a Cronbach’s alpha of the 0.71.

The scale's overall Cronbach's alpha was 0.71, indicating that it passed the study's reliability test.

Data Collection:

The data were collected from 17th \ February \ 2024 to 30th \ June\ 2024

Statistical Data Analysis

The response rate was 100%. Data was processed and analyzed through SPSS software version IBM 25. Descriptive statistics including the calculation of arithmetic means and standard deviations

Results:

The study encompassed 470 patients. Results in table 1 presented that most of the patients aged from 48-59 years with percent 42.7. Regarding to the gender, the greater number of study sample were 251 males and account for (53 %). The majority of the participants were married (n= 301; 64%). About the level of education, the greater number of them were primary education (n= 119) with percent 25.33 %. The study results specified that the highest proportion of the study participants were unemployed and they were accounted for (n= 152; 32.34 %).

Table 2 presented Table (2) indicated that the participants identified diabetes mulitas (59.38%) and stress (53.46%) only as risk factors for stroke. On the other hand, most of them don’t identify other risk factors of strock.

Table (1): Distribution of the patients regarding to sociodemographic features

Basic Information	Groups	Frequency	Percent
Age groups	18-27	25	5.33
	28-37	69	14.7
	38-47	176	37.3
	48-59	200	42.7
	Total	470	100
Sex	Male	251	53

	Female	119	47
	Total	470	100
Marital status	Single	132	28
	Married	301	64
	Divorced	25	5.33
	Widow	12	2.67
	Total	470	100
Level of education	Not read/write	50	10.67
	Read/write	56	12
	Primary	119	25.33
	Secondary	88	18.67
	Pre Preparatory	94	20
	college/ institute	63	13.3
	Total	470	100
Occupation	Unemployed	152	32.34
	Free business	96	20.42
	Retired	37	7.87
	Gov. employee	69	14.68
	Student	9	1.91
	Housewife	107	22.67
	Total	470	100

Table 3 shows the mean score of knowledge regarding stroke warning symptoms was 1.38 that indicated poor knowledge. Also, The majority of

the participants didn't identify sudden unexplained dizziness (87%) followed by trouble in body coordination (85.1%), and confusion (75.59%).

Table (2): Distribution of the patients regarding to Risk factors for Stroke

Risk factor	Response	Frequency	Percentage	Mean
Hypertension	Yes	209	42.34	1.44
	No	261	57.66	
Diabetes mulitas	Yes	283	59.38	1.22
	No	187	40.72	
Hypercholesterolemia	Yes	148	29.78	1.31
	No	322	70.73	

Smoking	Yes	221	45.25	1.47
	No	249	54.75	
Alcohol consumption	Yes	179	35.94	1.38
	No	291	63.96	
Obesity	Yes	230	47.15	1.48
	No	240	52.05	
Lack of physical activity and exercise	Yes	69	14.7	1.14
	No	401	85.3	
heart attack	Yes	165	33.35	1.35
	No	305	66.65	
Irregular heartbeat	Yes	83	17.7	1.17
	No	387	82.3	
History of neck vein disease	Yes	123	32.22	1.26
	No	347	67.78	
Stress	Yes	258	53.46	1.54
	No	212	46.44	
Older age	Yes	203	42.24	1.43
	No	267	57.76	
Total mean	1.34			

Table (3): Distribution of the patients regarding to Warning signs of a stroke

Symptoms	Response	Frequency	Percent	Mean
Abrupt trouble speaking or understanding, or sudden confusion, even if Temporary	Yes	194	39.62	1.41
	No	276	60.38	
One side of the face is numb or weak.	Yes	224	46.02	1.47
	No	246	53.38	
Abrupt Weakness on one side of the body	Yes	247	50.85	1.52
	No	223	49.15	
Sudden difficulty walking	Yes	253	52.22	1.53
	No	217	47.78	
Loss of balance or coordination of movement	Yes	70	14.9	1.14
	No	400	85.1	

Fit attack	Yes	229	46.71	1.48
	No	241	53.29	
Confusion	Yes	124	24.41	1.26
	No	346	75.59	
Sudden unexplained dizziness	Yes	61	13	1.12
	No	409	87	
Sudden vision problems	Yes	190	38.65	1.4
	No	280	61.35	
Sudden severe headache	Yes	222	45.62	1.47
	No	248	54.38	
Total mean	1.38			

Discussion:

Results of the study that aimed at exploring the level of knowledge of people diagnosed with chronic diseases regarding Stroke risk factors as well as its warning signs revealed that people had a low level of knowledge regarding stroke. The data analysis revealed that the majority of the study sample, comprising 200 participants, fell between the age range of 48 to 59 years old. This age group represented for 42.7 %. The study conducted by Arisegi (2018) aimed to evaluate the knowledge besides practices related to prevention of stroke among patients with chronic disease at Sokoto, in Nigeria. The findings of the study support the results that the majority of patients aged 40- 59 years with percent 48.6%. [15]

In terms to gender, the study participants consisted of 53% males (251 individuals), with the remaining participants being female. This finding corroborated a study conducted by a study aimed to assess clinical presentations, risk factors as well as stroke predictors of among patients at stroke units of medical center in Jimma university by Fekadu, et al. (2019). That study revealed that the majority of participants were male with percent 62.9% .

The majority of participants in the study (64%) were married, as indicated by their marital status. In a study conducted by AL-Fayyadh and Mohammed (2010) in Baghdad governorate, to

assess knowledge of chronic diseases patients regarding stroke aggravating factors as well as warning signs. This study found that the majority of the patients were married, with percentage of 60.7%. [17]

Concerning the educational levels, 25.33% of the patients had completed primary education. This finding corroborated with the study conducted by Liang, et al. (2023) at Taizhou, China. The study revealed that a significant proportion (68.6%) of the participants had completed primary school education. [18]

In terms of occupation status, the findings showed that the large proportion of the patients consisted of unemployed with percentages of 32.34%. Al-Obaidi (2023) provided corroborating evidence for the current study finding, who indicating 391 of A total of 609 participants unemployed individuals. [19]

Regarding the patient’s knowledge according to risk factors for stroke most of the participants had poor knowledge with total mean score 1.34. The findings corroborated a study conducted by Agbetou Houessou et al. (2022) which assessed knowledge of stroke risk factors and warning signs in northern Benin. The study revealed that Knowledge of stroke risk factors and warning signs was low at northern Benin. [20]

Aldebasi, et al. (2017) conducted a cross-sectional study in Kingdom of Saudi Arabia to investigate the knowledge, attitude and practice of people regarding stroke risk factors and warning symptoms. The study found the majority of patients had insufficient knowledge concerning Stroke risk factors besides its warning symptoms.[21] The results contradict the findings of Barakat, et al. (2022) who discovered that Jordanian knowledge about risk factors of Stroke, warning symptoms were good. [22]

Conclusions:

1. The majority of the participants males aged 48-59 years, married had primary education and unemployed.
2. The sample members in the study showed poor knowledge about stroke warning signs, and risk factors

Recommendations:

1. A comprehensive and intensive evidence-based health education program is imperative to enhance stroke awareness, particularly among vulnerable populations such as individuals with chronic diseases, the elderly, and those with lower educational attainment.
2. The development of an educational initiative is recommended to enhance the knowledge of strokes among the Iraqi population.
3. The Ministry of Health should utilize a health-oriented mass media strategy to enhance population knowledge and awareness of stroke.
4. Enhancing community health nurses' roles at public medical clinics is recommended to augment the knowledge of chronic disease patients regarding stroke, including its risk factors and warning signs.

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