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Evaluation Of Community Knowledge About Awareness And Risk Factors For Stroke Disease In Benghazi, Libya

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ABSTRACT

Stroke is an important cause of disability among adults and is one of the leading causes of death worldwide. Stroke is a term used to describe an abrupt-onset focal neurologic deficit that lasts at least 24 hours and is of presumed vascular origin[1]. Stroke can be either ischemic or hemorrhagic (88% and 12% respectively, of all strokes in the 2003 American Heart Association report[2], Risk factors for stroke can be subdivided into non-modifiable and modifiable[3]. Aim: this study aims to investigate community knowledge about stroke and its risk factors. Method and Procedures: A cross-sectional observational study was conducted in polyclinics located in Benghazi between November to January 2017-2018. Once before the interview, participants were asked to verbal consent to participate in the study. Participants were interviewed using pre-piloted questionnaire and their history of their morbidity and their lifestyle. Results During the study period, a total of 229 people, the response rate was (93%). The majority was in the younger age group between (18-29-year-old) found 84 (37%), female 153 (67%) and high education people 138(60%). In current study the information source most of friends 90 (40%), less percentage internet 23 (10%) and work shop 23 (10%). Conclusion: The current study shows that the most of participants can define the disease but their knowledge about its risk factors and dangerous signs were not enough. Almost of participants depend on their friends as source of information.

تقييم معرفة المجتمع حول عامل الوعي والمخاطر لمرض السكتة الدماغية في بنغازي، ليبيا

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الكلمات المفتاحية:
وعي
بنغازي
معرفة المجتمع
ليبيا
عوامل الخطر
السكتة الدماغية

الملخص

السكتة الدماغية هي سبب مهم للإعاقة بين البالغين وهي من الأسباب الرئيسية للوفاة في جميع أنحاء العالم. السكتة الدماغية هي مصطلح يستخدم لوصف عجز عصبي بؤري مفاجئ يستمر لمدة 24 ساعة على الأقل ومن المفترض أنه من أصل وعائي [1]. يمكن أن تكون السكتة الدماغية إما إقفاريه أو نزفية (88٪ و12٪ على التوالي، من جميع السكتات الدماغية الواردة في تقرير جمعية القلب الأمريكية لعام 2003 [2]، يمكن تقسيم عوامل خطر الإصابة بالسكتة الدماغية إلى عوامل غير قابلة للتعديل وقابلة للتعديل [3]. الهدف: هذه الدراسة تهدف إلى التحقق من معرفة المجتمع حول السكتة الدماغية وعوامل الخطر الخاصة بها. الطريقة والإجراءات: أجريت دراسة رصدية مقطعية في العيادات الشاملة الموجودة في بنغازي بين نوفمبر ويناير 2017-2018. مرة واحدة قبل المقابلة، طُلب من المشاركين الموافقة اللفظية على المشاركة في الدراسة تمت مقابلة المشاركين باستخدام استبيان مسبق التجربة حيث تم استفسار عن تاريخ مرضهم ونمط حياتهم. النتائج خلال فترة الدراسة، كانت

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تشمل 229 شخصًا، كان معدل الاستجابة (93٪)، وكانت الغالبية في سن أصغر. وجدت المجموعة بين (18-29 سنة) 84 (37٪)، إناث 153 (67٪) ومتخصصين في التعليم العالي 138 (60٪). في الدراسة الحالية، مصدر المعلومات معظم الأصدقاء 90 (40٪)، أقل. نسبة الإنترنت 23 (10٪) وورشة عمل 23 (10٪). الخلاصة: تظهر الدراسة الحالية أن معظم المشاركين يمكنهم تحديد المرض لكن معرفتهم بعوامل الخطر والعلامات الخطيرة لم تكن كافية. يعتمد معظم المشاركين على أصدقائهم كمصدر للمعلومات.

Introduction

According to the World Health Organization WHO, stroke consider as clinical syndrome of rapidly developing signs of focal disturbance of cerebral function, which lasts > 24 hours or may even lead to death, without possible cause other than the vascular origin. [4] Stroke could be prevented by controlling its risk factors such as diabetes, hypertension, smoking, alcohol use, and drug abuse. [5] [6] Recent evidence suggesting that the initiation of early thrombolysis in patients with stroke has added the benchmark in its management strategies. [7] Despite the advanced progression in the therapeutic management of stroke, the burden of the disease has been rising day by day as stroke patients fail to seek instant medical attention which results in the poor therapeutic outcomes. [8] Numerous studies have been reported that stroke patients get delayed in hospitalization due to the lack of awareness regarding the early recognition of signs and symptoms of the stroke. [9] [10] [11] [12] As various studies stated that the patients who receive early thrombolysis would be better therapeutic outcome; however, it depended on the time duration of the arrival of a patient to the hospital to seek medical care from the time of the onset of the symptoms. [13] Since the window period to be eligible for thrombolysis was less, patients must be report within 4.5 hours from the onset of the symptoms to get eligible for thrombolysis. [14] However, 90% of the patients failed to be eligible for thrombolysis due to inadequate knowledge regarding the stroke symptoms and early treatment options available. [15] Approximately, two thirds of deaths occur in low and middle income countries. Globally, 70% of strokes and 87% of both stroke-related deaths and disability-adjusted life years occur in low and middle income countries. Over the last four decades, stroke incidence in low and middle income countries has increased more than double[16]. Non communicable diseases such as stroke were becoming more common in Africa. [17] Stroke services are less developed in most African countries [18], and are in their infancy in Sudan. According to the latest World Health Organization (WHO) data published in 2017, stroke deaths in Sudan reached 27,222 or 10.17% of total deaths. The age adjusted death rate is 136.47 per 100,000 of the population which ranks Sudan in the 27th position in the world regarding deaths from stroke [19]. A study done among patients with acute stroke in Khartoum teaching hospital represented that mortality from stroke in Sudan is higher than in other countries [20]. There were multiple causes of stroke including: embolization, arterial thrombosis, and hemorrhage [21]. Less common causes were venous infarction, carotid or vertebral artery dissection, polycythemia and hyper-viscosity syndromes, fat and air embolism. Common risk factors of stroke were: hypertension, smoking, lifestyle, increased hematocrit, raised cholesterol, atrial fibrillation, obesity, diabetes, and severe carotid stenosis. Rapid identification, quick transfer to medical care and immediate and appropriate medical care are key factors in improving outcome of stroke [21]. Awareness about stroke amongst patients, caretakers and medical staff had been studied in some African countries [18] [22] [23], most of which revealed a generally poor level of awareness. Locally, levels of stroke awareness amongst medical staff, patients and caretakers in Sudan are unknown. Studies assessing awareness regarding other chronic diseases like hypertension showed low awareness and lack of adherence to medications [24]. Risk factors for stroke were becoming more prevalent among the Sudanese community according to the STEP wise approach to surveillance survey of 2005 (STEPS) [25]. In addition, a low level of knowledge in patients would resulted in sub-optimal adherence to risk modifications [26].

Aim: This study aims to investigate community knowledge about stroke and its risk factors.

METHOD AND PROCEDURES

1.Description of the Research Setting:

A cross-sectional observational study was conducted in polyclinics located in Benghazi between November to January 2017-2018. Once before the interview, participants were asked to verbal consent to participate in the study. Participants were interviewed using pre-piloted questionnaire and their history of their morbidity and their lifestyle.

2.Study Design:

A quantitative type of research was conducted, adopting the structured interview survey methodology. A 240 questionnaires were recorded using face to face interview technique. The advantage of using such technique is being Can provide explanations if required, Better response rate, can explore issue in-depth, gain trust and Opportunity to probe.

3.The Research Instrument:

The research used some questions were added after different literature reviews were conducted. The questionnaire was piloted on a convenience sample of 5% (n= 15) of the target sample, after piloting, further necessary modifications to the questionnaire were made. The resulting data from the pilot test were excluded from the final analysis. The questionnaire was anonymous. It consisted of 13 close-ended questions and open-ended question. The questionnaire consisted of four parts; Part A: demographic data (e.g. age, gender, and occupation and education level); Part B: information regarding personal knowledge.

4.Ethical Consideration:

The researcher got verbal permission from administration of the polyclinics to apply the questionnaire.

5.Statistical Analysis:

Responses to each question will be coded and analysed using the Statistical Package for Social Sciences (SPSS) version 18 for windows (SPSS Inc., Chicago, Illinois).

RESULTS

During the study period, a total of 244 people were contacted. Four interviews were excluded because a customer refused to participate due to lack of time and has no interest to participate, eleven questionnaires removed due to incomplete information, so the number of completed interviews was 229 people, The response rate (93%).

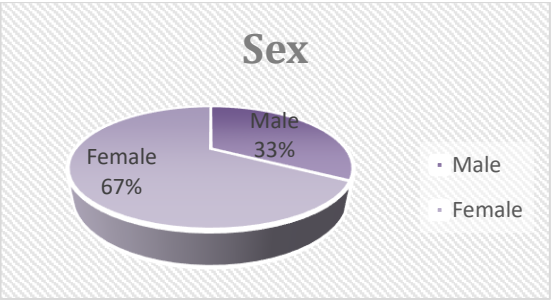

Figure 1. percentage of both gender

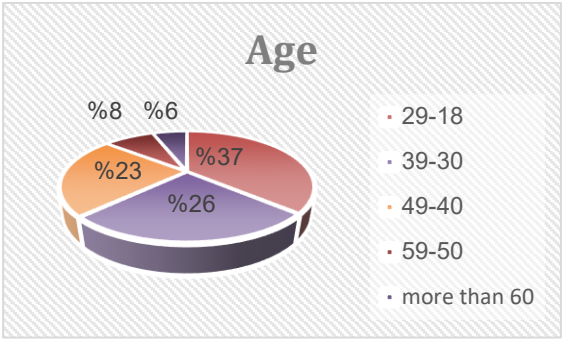

Figure 2. distribution of Age group.

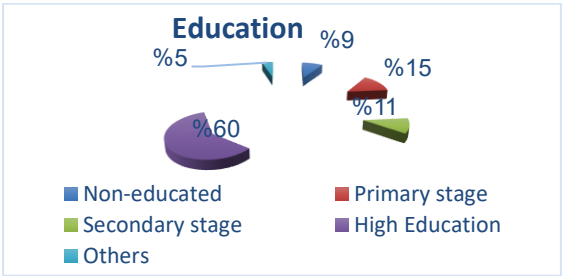

Figure 3. level of education

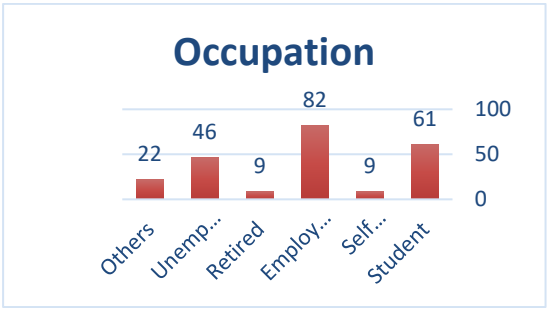

Figure 4. Distribution of occupation

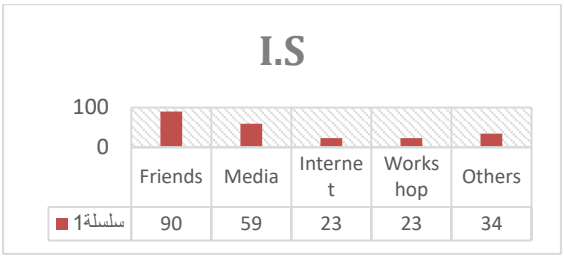

Figure 5. sources of information

The second Part: making comparison between the important variables to investigate is there any relationship between the variables or not (independent). The chi-square distribution can be used to test the null hypothesis that two criterions of classification (variables) are independent or not

Table 2. Summary of relation between education and disease knowledge

PROPERTY	VALUE
Non-educated	21%
Primary	11%
Secondary	26%
Non-educated	33%
High Education	138%
Others	11%

At the level of significance 0.05 (p-value =0.001, less than 0.05) so, we can reject H0this is means, there is relationship between the Education and Knowledge for brain stroke (D.K.S) (The result is significant).

Table 3. Summary of relation between gender and disease knowledge

sex		Knowledge test for brain stroke		
		Know	Don't	Total
Male	Expected	32	44	76
	Count	37.5	38.5	76.0
Female	Count	81	72	153
	Expected	75.5	77.5	153.0

At the level of significance 0.05 (p-value is more than 0.05) so, we accept$H0$, and say the two phenomena under study are independence There is no relationship between the Sex and Knowledge test for brain stroke (D.K.S).

Discussion of results:

The sample population collected from the whole Benghazi city regions, this study demonstrates that different Libyan population criteria, since the majority was in the younger age group between (18-29-year-old) found 84 (37%) more than other, may refer to the young age group is characterized by being more eager to share and exchange its ideas. Moreover, female 153(67%) and male 76 (33%) Because in the current society, the percentage of females is more than males, as a result of internal wars and political revolutions, females are also considered more interesting to share and provide information. In this study, having 82 percent (36%) higher employees than respondents can be explained by most Libyans who are considered government employees with limited salaries, as our society has more government opportunities than self-employment opportunity. The study shows that the source of the participants' information about the disease was mainly through their friends 90% (40%), and this may indicate that there is a good social link in our society and the transmission of information and opinions from those close to them as their friends, and the study also shows that a small percentage of information sources via the Internet 23 (10%) The reason may be due to weak internet networks as well as not being available to everyone at that time, and the study shows the low percentage of workshop sources 23 (10%) due to limited attendance at lectures and the low spread of illustrative means in hospitals and public places such as schools. Finally, according to the chi-square distribution, there is no difference between gender and education level regarding knowledge of the disease. The results of this study demonstrated a poor awareness of stroke in the general population, which is quite similar to the results of a study in three states in northern India. Hence the need to organize health awareness camps on stroke risk factors and their management. Educating the public about the signs and symptoms of stroke will make patients receive early medical care by reaching the thromboplastin period and save the patient's life.

CONCLUSION

The current study shows that the awareness level was relatively low. Almost of participants depend on their friends as source of information there is no difference between gender and education level about the knowledge of disease that need to initiate stroke awareness camps to make the community aware which can eventually prevent disability and increase the chances of recovery among stroke patients, also we recommend the development of an effective educational program for the whole community.

The findings in this study need to be interpreted within the context of the following potential limitations:

.1-The quality of non-responders was not evaluated

2-Recent statistical information about the Benghazi city was not available.

.3-A sound comparison of our data with other reports was difficult, because of the different age groups, different methodologies, different classification of drugs and different health systems.

.4-Since this study was conducted in one city and on a relatively small sample size, it would be difficult to generalize the data to the whole Libyan public.

5-Poor internet access, with short time during the research.

6-Moreover, subjects for this study were randomly approached which inferred some lack of rigor on method of recruitment.

Abbreviations and Acronyms

Knowledge test for brain stroke (D.k.S)

Information source (I.S)

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