Awareness and knowledge of epilepsy among women at Al Kindy Teaching Hospital

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Abstract:

Background: One of the biggest worldwide health risks is epilepsy. Epilepsy is the most common neurological illness in the world, affecting 50 million individuals, according to WHO estimates.

Aim of the Study: The aim of the study is to assess the level of knowledge of women about epilepsy in Baghdad city.

Subjects and methods: A cross-sectional was conducted on 384 women attending to AL-Kindy teaching hospital in Baghdad governorate. The women were selected as a non-probability sampling (convenience sample method). A Chi-square test (X2-test) was utilized to identify the significance of qualitative data percentage differences. The study is conducted throughout the period of 1st of March , 2024 to 1st of November , 2024.

Results: The results reveal that the highest percentage (69.0%) of the women has an acceptable knowledge score, and 31.0% of the women have a poor knowledge score. While 0.0% of the women have a good knowledge score. The results report a significant statistically association between total knowledge score and demographic characteristics of women (P. value <0.05), except for marital status in which p. value>0.05.

Conclusions: The study concludes that most participants have an acceptable assessment level of knowledge towards epilepsy. There were low levels of mother's knowledge regarding causes, and manifestations, treatment of epilepsy. The study recommends improve health personal knowledge specifically technique to take their rolling teaching and gave advice and instructions through prenatal care and postnatal care.

Key-words: Epilepsy, knowledge, awareness, neurological.

Introduction:

One of the most significant risks to human life is epilepsy, a neurological disorder that is considered a worldwide concern. Epilepsy is the most well-known neurological illness in theworld, affecting around 50 million individuals globally, according to data from the World Health Organization (WHO). [1]

People's views of epilepsy as being dangerous, horrifying, and unanticipated remained out of control despite the ongoing improvements in media education because the media cannot educate people about the variety of the disease disorder, which perpetuates the stigma.[2]

Optimizing seizure control requires knowledge and awareness of epilepsy. Patients who are more aware may engage in therapy more readily, which lowers anxiety associated with the illness and improves dealing with stigma.[3] Furthermore, it is critical to look at how the community views and feels about epilepsy in order to demystify personal and family ideas about the condition and lessen the emotional toll that having a seizure in public takes.[4]

Epilepsy awareness and attitudes vary by culture, and sudden convulsive episodes in public may lead to prejudice.[5] Traditional beliefs and lack of understanding greatly influence epilepsy attitudes.[6] Over the last few years, awareness has grown concerning the effects of having a kid with epilepsy on parents and the reciprocal influence of parental knowledge and attitudes on the child.[7]

Furthermore, parental perspectives on epilepsy were just as closely linked to the fate of the child as seizure duration and history.[8] Taking care of a kid with epilepsy produces increased stress, which is connected to heightened worries and protective responses toward their children, which results in poor behavioural outcomes for the child.[8] This is also associated to their
psychological problem.[9]

Aim of the study:

The aim of the study is to assess the level of knowledge of women about epilepsy and it s associated with the demographic characteristics of the women.

Subjects and Methods:

This is a cross-sectional design was conducted in Baghdad governorate, which encompassed hospital (AL-Kindy teaching hospital). This hospital was situated within the governorate's geographical territory. The study is conducted throughout the period of 1st March, 2024
to 1st November , 2024.

The formula for calculating sample size was used to calculate the sample size. [10] the minimum sample size for women is 384, as shown below:

$$n = \frac{Z^2 P(1-P)}{d^2}$$

Calculating sample size according to formula
d (Precision) 0.05 d2 0.0025
Z (Z-score corresponding to the level of confidence) 1.96 Z^2 =3.8416

P (Prevalence) 50% = 0.50

1-Prevalence 1-0.50 = 0.5
P (1-P) 0.50 (1-0.50) = 0.25
n (sample size) =3.8416*0.25/0.0025 = 384

Sampling Technique

In this study, atotal of 384 women were selected as a non-probability (convenience) sample from the visitors of Al-Kindi Teaching Hospital. The study included all women aged 15 years or older residing in Baghdad, while excluding mothers who refused to participate and those suffering from psychological disorders. Regarding the data collection technique, data were gathered through person interviews with each participant after the questionnaire was translated into Arabic, the local language. The questionnaire included closed-ended questions. The researcher conducted the interviews using a standardized questionnaire, with the questions being simple and clear in Arabic. The duration of each interview ranged from 15 to 20 minutes.

Rating scoring:

Variables and measurement:

➢ Dependent variable: The overall knowledge score.

➢ Independent variables: sociodemographic characteristics such as age, marital status, occupation, education level, monthly family income, and number of children.

The questions regarding assessment of knowledge" The rating and scoring of items are two points Likert scale applied for rating awareness. The two-point type Likert scales scored as (2) forcorrect answer, and (1) for incorrect answer. The questions in awareness "With 26 questions onawareness, the minimum score was 26, the maximum score was 52, and the median score was 39. A score between 50 and 74% was deemed acceptable/moderate (39-45), less than 50% was deemed poor (<39), while a score of more than 75% was regarded good (≥46).[11]

The information for each item on the questionnaire was copied to code sheets, the data was input into a personal computer, and the statistical package from SPSS-27 was used to evaluate the data. Simple statistics like frequency, percents, average, standard deviation, and range displayed the data. A Chi-square test (X2 -test) was utilized to identify the significance of qualitative datapercentage differences. When the P-value was equal to or less than 0.05, it was deemed statistically significant. [12]

Results:

The results of this study indicate that the highest percentage (39.1%) of women belonging to ages (25-34 years), followed by 31.0% (15-24 years). While the lowest percentage (7.8%) of the participants belonging to ages (≥45 years). Regarding marital status, the present study found that most the participants were married (65.9%). While a few number of them were single (13.0%). Concerning occupation status, the results found that most the women (60.7%) were housewives, 20.8% employed, 11.5% students, 4.9% self-employed, and 2.1% retired. Regarding educational level, the results report that 39.1% of the women have secondary level, followed by college and higher (25.8%), primary school level (18.0%), and illiterate (17.2%). The results reveal that 50.5% of the women have a moderate-income level, followed by 40.6% of the participants have a low-income level. The study found that 44.5% of the participants have 1-2 children. While only 8.1% of the women have ≥ 5 children. As shown in Table 1.

The current results found that most of the women were not aware about causes, and manifestations, treatment of epilepsy. In contrast, the highest percentage (62.0%) of participants were knew about medical treatment and follow up as the main type of epilepsy treatment. While 52.6%, 54.2%, and 59.1% of the women were aware about "epilepsy is a neurological disorder", "a woman with epilepsy can breast feed her child", and "epilepsy is treatable" respectively. The highest percentages (64.6%, 66.9%, and 76.3%) of the participants were with incorrect answers about "epileptic drug can cause infertility in a woman", "Most seizures are controlled after regular drug therapy", and "Epilepsy is a contagious disease" respectively. As shown in Table 2.

Table (1): The distribution of women according to demographic characteristics

		Frequency	%
Age per years	15-24	119	31.0
	25-34	150	39.1
	35-44	85	22.1
	≥45	30	7.8
Marital status	Single	50	13.0
	Married	253	65.9
	Divorced	81	21.1
Occupation	Housewife	233	60.7
	Employed	80	20.8
	Self-employed	19	4.9
	Student	44	11.5
	Retired	8	2.1
Education level	Illiterate	66	17.2
	Primary	69	18.0
	Secondary	150	39.1
	College and higher	99	25.8
Monthly family income	Low	156	40.6
	Medium	194	50.5
	High	34	8.9
Number of children	1-2	171	44.5
	3-4	113	29.4
	≥ 5	31	8.1
	Non	69	18.0

Table (2): The distribution of women responses according to their knowledge about epilepsy

	Yes		No	
	No.	%	No.	%
1-What do you think is the cause of epilepsy?				
Possession by demons or an evils spirit	61	15.9	323	84.1
Envious eye	65	16.9	319	83.1
Emotional stress	25	6.5	359	93.5
Psychiatric disease	140	36.5	244	63.5
Hereditary disease	78	20.3	306	79.7
Infection	7	1.8	377	98.2
I don't know	124	32.3	260	67.7
2- What do you think is the manifestation of epilepsy?				
Foaming from the mouth	67	17.4	317	82.6
Brief loss of consciousness	50	13.0	334	87.0
Screaming	11	2.9	373	97.1
Changes of behaviour	4	1.0	380	99.0
Convulsions	163	42.4	221	57.6
I don't know	89	23.2	295	76.8
3- What do you think is the best treatment of epilepsy?				
Medical treatment and follow up	238	62.0	146	38.0
Therapeutic Quran	75	19.5	309	80.5
Herbal remedies	69	18.0	315	82.0
Surgery	65	16.9	319	83.1
No need for treatment	79	20.6	305	79.4
I don't know	85	22.1	299	77.9
4- Do you know that epilepsy is a neurological disorder?	202	52.6	182	47.4
5- Most seizures are controlled after regular drug therapy?	127	33.1	257	66.9
6- Do you know that epilepsy is treatable?	227	59.1	157	40.9
7- Epilepsy is a contagious disease	293	76.3	91	23.7
8- Do you know that a woman with epilepsy can breastfeed her child?	208	54.2	176	45.8
9- Do you know that epileptic drug can cause infertility in a woman?	136	35.4	248	64.6
10- Are there different types of epilepsy?	178	46.4	206	53.6

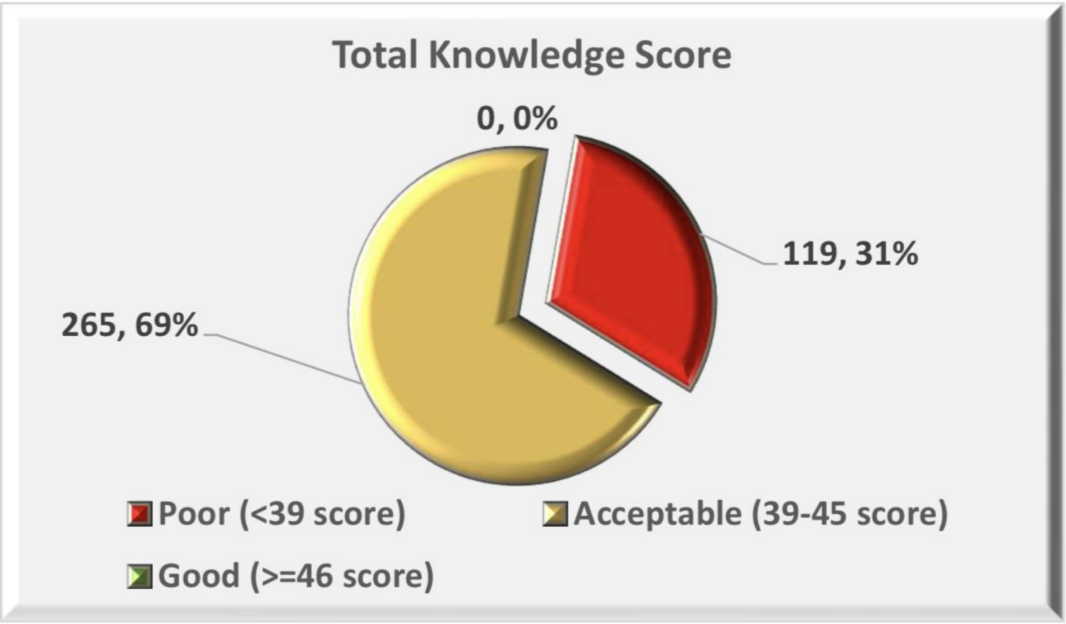
This study demonstrates the relationship between the overall knowledge level and demographic variables of women. The results report a significant statistically association between total knowledge score and demographic characteristics of women (P. value <0.05), except formarital status in which p. value >0.05. This explains that women who are ages (25-34 years), employed, have high education level, high family income, have a few children tending to have high scores in the knowledge. As shown in table 3.

Table (3): The relationship between total knowledge score and demographic characteristics of women

		Total knowledge score				P. value
		Poor (<39 score)		Acceptable (39-45 score)		
		No.	%	No.	%	
Age	15-24 years	24	20.2	95	79.8	<0.001
	25-34 years	34	22.7	116	77.3	
	35-44 years	48	56.5	37	43.5	
	>=45 years	13	43.3	17	56.7	
Marital status	Single	21	42.0	29	58.0	0.055
	Married	80	31.6	173	68.4	
	Divorced	18	22.2	63	77.8	
Occupation	Housewife	100	42.9	133	57.1	<0.001
	Employed	8	10.0	72	90.0	
	Self-employed	3	15.8	16	84.2	
	Student	6	13.6	38	86.4	
	Retired	2	25.0	6	75.0	
Education level	Illiterate	52	78.8	14	21.2	<0.001
	Primary school	34	49.3	35	50.7	
	Secondary school	21	14.0	129	86.0	
	College and higher	12	12.1	87	87.9	
Monthly family income	Low	71	45.5	85	54.5	<0.001
	Medium	43	22.2	151	77.8	
	High	5	14.7	29	85.3	
Number of children	1-2 Children	50	29.2	121	70.8	<0.001
	3-4 children	19	16.8	94	83.2	
	>= 5 children	20	64.5	11	35.5	
	Non	30	43.5	39	56.5	

Figure (1): Pie chart illustrates the total knowledge score of the participants The results reveal that the highest percentage (69.0%) of the women have an acceptable knowledge score, and 31.0% of the women have a poor knowledge score. While 0.0% of the women have a good knowledge score.

Figure (1): Pie chart illustrates the total knowledge score of the participants.



Discussion:

The current results found that most the women were not aware about causes of epilepsy. This result is compatible with the study findings done by Alhazzani *et al* in 2016 [13], which found that knowledge about the aetiology and nature of epilepsy was lacking. Also, these results agreed with the study findings conducted in Egypt. [14]

In this study, 42.4% of women knew that seizures were a manifestation of epilepsy. This result is consistent with the results of the study conducted by Kapel et al. (2020) [15], who found that 48.1% of participants reported that epilepsy usually manifested as convulsions. These results are also consistent with the results of the study conducted by Al-Dosari *et al*. (2018). [16]

Furthermore, the highest percentages (62.0%) of participants were known about medical treatment and follow up as the main type of epilepsy treatment. These results are consistent with the study findings done by Kabel *et al.* (2020) [15] which found that 77.7% of the participants reported medical treatment and follow up as the main type of epilepsy treatment. While more than half (52.6%) of the women were knowing about “epilepsy is a neurological disorder”. These results are consistent with the study findings done in the Qassim region, Saudi Arabia [17]which found that 61.9% of the participants reported that epilepsy is neurological disorders.

The study found that 59.1% of the participants knew about epilepsy is treatable. This result is higher than the study findings done in Japan by Kuramochi *et al*. (2022) [18] which found that 49.77% of the participants reported that in most situations, physicians can control seizures with medications. While 66.9% of the women were not aware about most seizures are controlled after regular drug therapy. This result is in agreement with the study findings done in Japan by Kuramochi *et al*. (2022) [18] which found that the same results.

In this study, 76.3% of the women reported that epilepsy is a contagious disease. This result disagreed with the study findings done by Alhazzani *et al*. (2016) [13] which found that only 21.2% believed epilepsy was contagious. This variation may be due to differences in the sample type between the two studies. While 54.2% of the participants reported that a woman with epilepsy can breastfeed her child. This result is higher than the study findings done by Long *et al*. (2005) [19] which found that fewer than half (47%) of participants knew that women taking antiepileptic drugs (AEDs) could breast-feed safely. About 35.4% of participants said that taking an epileptic medication may make a woman infertile. This outcome is consistent with research from India [20], which found that fewer physicians were aware that women with epilepsy may have infertility (26.8%) or greater sexual dysfunction (29.9%). Women with epilepsy (WWE) deal with a lot of challenges relating to gender. This is due to the impact that epilepsy and AEDs have effect on foetuses, pregnancy, breastfeeding, contraception, and fertility.[21]

The results reveal that the highest percentage (69.0%) of the women has an acceptable knowledge score, and 31.0% of the participants have a poor knowledge score. These results agreed with the study findings done in the Qassim region, Saudi Arabia [17] who reported that knowledge regarding this medical condition is still inadequate. [22]

The findings indicate a statistically significant association between women's demographic characteristics and their overall knowledge score (P. value <0.05), with the exception of marital status, where the p-value is more than 0.05. This explains the tendency for women in the 25–34 age range who are working, have a high level of education, earn a high family income, and have afew children to score well on knowledge tests regarding epilepsy. The findings of the study by Al-Dossari *et al*. (2018) [16] were in agreement with these results. They found that there was no significant statistical association between the participants' marital status (P. value>0.05) and their total knowledge score, but there was a significant statistical association between the participants' high education (<0.05) and total knowledge score. The overall knowledge score and educational level were also shown to be statistically significantly correlated in both studies.[13, 23] Those with epilepsy spent more on care, according to a research by Lai et al. (2019). [24]

In addition, this results is compatible to many study conducted by Neyaz et al., (2017) [25] showed the same result, the level of knowledge was significantly poor when the level of education of parents were low. This study illustrated that there is significant relationship between the occupational statuses of women and their knowledge score, the result show that the most housewives have poor score while the most employment mothers have good score, this result may be due to that most of housewives not have educational attainment and that effected on their understanding of some epilepsy aspects such as causes, types and treatment of epilepsy.

We discuss that, individuals aged 25-34 years, who are employed, have a high level of education, a high family income, and few children, are more likely to score higher in knowledge about epilepsy due to several interconnected factors. At this age, people often have the resources, stability, and motivation to pursue higher education and career advancement, which enhance their ability to access and comprehend health-related information. A higher income can also provide access to better healthcare, educational materials, and awareness campaigns about epilepsy. Moreover, those with fewer children may have more time and energy to focus on personal education and health awareness, while their established careers might involve exposure to medical information or workplace training programs. Together, these factors create an environment conducive to gaining a deeper understanding of epilepsy and other health issues.

CONCLUSIONS AND RECOMMENDATIONS:

The study concludes that most participants have an acceptable assessment level of knowledge towards epilepsy. There were low levels of mother's knowledge regarding causes, and manifestations, treatment of epilepsy. In addition, women who are ages (25-34 years), employed, have high education level, high family income, have a few children tending to have high scores inthe knowledge. The study recommends improve health personal knowledge specifically technique to take their rolling teaching and gave advice and instructions through prenatal care and postnatal care.

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