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Knowledge, Attitude, and Practice of Caregivers among Epileptic Pediatric Patients in Jaafer Ibn Auf Hospital-Khartoum-Sudan

Mona Isameldin Osman[1], Elsharif A Bazie[2]*, Alamin Mohammed Almustafa Alamin[2], Muzdalifa Mahmoud Mohammed[2] and Romiusa Murtada Alsmani Saber[2]

[1]*Assiaatant professor -Sudan International University, Sudan.*

[2]*Associate Professor -Elimam Elmahdi University, Sudan.*

[3]*Medical Students-Sudan International University, Sudan.*

***Correspondence:**
Elsharif A Bazie, Associate Professor, Elimam Elmahdi University, Sudan.

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ABSTRACT

Introduction: *The most common neurological disorder that affects more than 50 million people worldwide is epilepsy, especially in childhood, adolescence, and the elderly. . It has a prevalence rate of 2.8–19.5/1000 of the general population and is more prevalent in the early years of life.*

Methodology: *Descriptive, cross-sectional hospital-based study design.*

Result: *most of respondents had average to poor knowledge about epilepsy (59%) and poor knowledge about management by (53.5%). caregivers who were not educated were 17(13.4% participants, primary school level in 34(26.8%) participants, secondary school level 43(33.9%) participants, and high graduation level in 33(26%) participants, and (6.3%) of the respondents think that epilepsy is a supernatural disease.*

Conclusion: *Our community still has some misconceptions regarding epilepsy, most of the misconceptions have been due to relating epilepsy to super-natural disease or causes.*

Keywords
Knowledge, Attitude, Practice, Epilepsy, Sudan.

Introduction

The most common neurological disorder that affects more than 50 million people worldwide is epilepsy, especially in childhood, adolescence, and the elderly [1,3]. It has a prevalence rate of 2.8–19.5/1000 of the general population and is more prevalent in the early years of life [1,2].

In developing countries, the epilepsy rate is high due to the higher risk of acute and chronic brain infections, pre-and post-natal obstetric complications leading to brain damage [4]. The difference in cultures of community affects the public awareness and attitudes towards epilepsy. It has been noted that traditional beliefs and lack of knowledge strongly influence attitudes towards epilepsy. Epilepsy in children directly affects social, emotional, and overall family functioning, particularly in families where younger children are involved and in those with single parents [5].

Well Knowledge about epilepsy is associated with less perceived stigmatization, social isolation, fewer depressive symptoms, and misconceptions [6]. Caregivers' and parents' degree of knowledge regarding epilepsy affects their attitudes towards epilepsy in children [7].

The common misconceptions in epilepsy include the overprotection of epileptic children from their families by preventing them from going to school and participating in sports or social activities [8].

The management of epilepsy is faced with many problems like lack of patient awareness of the need for early diagnosis, continued prolonged treatment, irregular drug supply, high cost of the drugs, and socio-cultural barriers. The education of patients

and good training of health care professionals about epilepsy and its management is essential [9].

Material and Method

Study design

Descriptive, cross-sectional hospital-based study design.

Study area

Jaafar Ibn Auf specialized hospital, outpatient neurology clinic. Gaafar Ibn auf hospital is in Khartoum, Sudan. It is the largest specialized hospital in Sudan incorporating many of the pediatric subspecialties including neurology.

Study population

The study population is the attendees in outpatient clinics for neurological patients, who presented within the study duration and had been diagnosed with epilepsy.

Inclusion criteria

• Patient aged from birth to 18 years old that diagnosed and received treatment of epilepsy.
• Family's members attending these clinics.

Exclusion criteria

Patient over 18 years old. • Co-patient who are not care giver. • Any family not attended at the clinic. • Patient who are not diagnosed with epilepsy. • Family refusal.

Study period

This study was conducted during the period from October – November 2019.

Sample size

One hundred twenty-seven children with diagnosis of epilepsy were involved in this study.

$n = z^2 p q / d^2$

Where n= sample size z = the normal standard deviate (z= 1.96) p = the frequency of occurrence of an even q = 1-p (the frequency on nonoccurrence of an event) d = degree of precision (0.04%).

Sampling type

Simple random sample.

Data collection

Professionally designed questionnaire has been used in the collection of the required data, via an interview done by the researcher. Information included in the dataset contains general-demographic characteristic (age, gender, and level of education) regarding patients and (age, level of education, relation, and occupation) regarding caregiver. The questionnaire consists of three domains which were eight items for knowledge (K), seven items for attitude (A) and two items for practice (P).

Data Analysis

Data collected was entered in computer, analyzed using the Statistical Packages of Social Sciences (SPSS). Descriptive and analytic statistics including Pearson's correlation among KAP domains with KAP scores. A probability of < 0.05 was significant.

Ethical considerations

Ethical approval was obtained from the Sudan international university faculty of medicine; name of participants was included in the questioner to ensure confidentiality of obtained data. Verbal consent was taken from caregivers.

Result

The total number of those conducted in the study were 127 participants (patients), males were 67(52.8%) n=127. Male: Female ration 0.5:0.4.

Table 1: The age distribution of patients showed less than one years old were 45 (35.4%) participants, 1-5 years 44(34.6%), 5-10 years old were 36(28.3%) participants and 1(0.8%) participant for those 10-15 years old and 15-18 years old.

Age of patients	Frequency	Percent
less than 1 y	45	35.4
1-5y	44	34.6
5-10y	36	28.3
10-15y	1	.8
15-18y	1	.8
Total	127	100.0

(n=127) Age distribution of patients.

Table 2: The caregiver's age distribution showed(n=127) : 19-28 years old were 22(17.3%) participants, 29-39 years old were 58 (45.7%) , 40-49 years old were 42(33.1%), and 50-59 years old were 5(3.9%) participants.

Age of caregiver	Frequency	Percent
19-28y	22	17.3
29-39y	58	45.7
40-49y	42	33.1
50-59y	5	3.9
Total	127	100.0

The distribution of the sample according to caregiver's age.

Table 3: showed caregivers who were not educated were 17(13.4% participants, primary school level in 34(26.8%) participants, secondary school level 43(33.9%) participants, and high graduation level in 33(26%) participants.

Level of education for caregiver	Frequency	Percent
not educated	17	13.4
primary school	34	26.8
secondary school	43	33.9
Graduated	33	26.0
Total	127	100.0

(n=127) The distribution of the sample according to participant "caregiver" level of education.

Table 4: With significant correlation, showed the association between level of education and knowledge of caregivers to epilepsy. Those who were not educated have poor knowledge scores (p. value: 0.00).

Level of education of caregiver	Knowledge score			Total	P. value
	Good knowledge	Average knowledge	Poor knowledge		
Not educated	1	5	11	17	0.000
Primary school	9	12	13	34	
Secondary school	21	19	3	43	
Graduated	21	9	3	33	
Total	52	45	30	127	

The association between caregivers' educational level and Knowledge score.

Table 5: Shows the associations between the source of information obtained by caregiver and Knowledge score; there is a strong association showing that caregivers who acquired their knowledge from families with the same condition have good to average knowledge score.

Source of information	Knowledge score			Total	P. value
	Good knowledge	Average knowledge	Poor knowledge		
Mass media	15	6	0	21	0.000
Family with same condition	22	28	11	61	
Other	7	10	18	35	
Mass media & family with same condition	7	1	0	8	
Family with same condition & other	0	0	1	1	
Mass media, family with same condition and other	1	0	0	1	
Total	52	45	30	127	

(n=127) The associations between the source of information obtained by caregiver and Knowledge score.

In our study, we found that (6.3%) of the respondents think that epilepsy is a supernatural disease,

Discussion

Knowledge and attitudes towards epilepsy play a significant role in determining the extent to which epileptic patients can be integrated into the community. In developing communities like our populations, there are many false beliefs and misconceptions regarding epilepsy in the general population and among families of epileptic patients [10].

Our study showed that education level had a significant association with knowledge about epilepsy as those who were illiterate (not educated) had poor knowledge. Similar to many studies like in Saudi Arabia [11] and in Malaysia [12], studies were done by Hanan et al. and Nini et al., respectively, showed those with high education levels had good knowledge about epilepsy. In Serbia high education level is associated with a good understanding of epilepsy [13].

Also, in Ethiopia, Helen et al. [14] showed an increased level of education of the parents/guardians had a positive influence on their knowledge, attitudes, and practices towards epilepsy.

The study showed that most caregivers get their knowledge from families with a similar condition, which gives them good knowledge about epilepsy, with 6.3% of them thought epilepsy is due to supernatural disease; this corresponding to studying done in Sudan by Inaam et al. [15]. Their study group's leading cause of epilepsy is the supernatural linked with an evil spirit and demonic attack. Still, it doesn't correspond with another study done in Saudi Arabia, which showed (44.7%) of families thought that epilepsy was related to Jinn [11].

Conclusion

Our community still has some misconceptions regarding epilepsy, most of the misconceptions have been due to relating epilepsy to super-natural disease. Knowledge and attitudes towards epilepsy must be corrected by programs and campaigns need to be conducted for mass society education.

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