

Knowledge and Attitudes of Parents toward their Adolescents Epilepsy at Middle Euphrates Neuroscience Center in AL-Najaf AL-Ashraf City.

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Abstract:

Epilepsy is a global health problem that causes serious problems in children and adolescents, leads to negative results on the physical and psychological level and the associated sense of stigma, and affects the future of adolescents infected with it. Therefore, knowledge of parents about epilepsy is necessary in order to provide the necessary care for their children, which helps in healing the patients.

A descriptive cross sectional study was applied at adolescents with epilepsy at the Middle Euphrates Neuroscience Center in AL-Najaf AL-Ashraf City, for the period from September 20th 2016 to September 6th 2017, in order to assess the knowledge and attitudes of parents towards epilepsy, as well as to find any significant relationship between the social and demographic characteristics of parents with their knowledge and attitudes regarding epilepsy.

A sample of (150) of the parents who had of adolescents with epilepsy was selected and the sample was selected purposively according to certain criteria. A questionnaire consisting of three parts was used, including demographic information, parents' knowledge about epilepsy, and finally parents' attitudes about the disease. The results showed that more than half the sample had an average level of knowledge about epilepsy.

The study concluded that parents with a degree of knowledge and positive readiness reflect the emotional bonding which leads them to learn more about epilepsy to save their adolescents life from serious seizures; Also, health staff can invest such knowledge and attitude by preparing caregivers with a level of awareness and proximity to the patient.

Key words:the Middle Euphrates center for Neuroscience in Al-Najaf province

1.INTRODUCTION

Epilepsy is a widespread social health problem or is a set of precise health problems. It is a tendency to frequent seizures. The epilepsy word was taken from the Latin Greek words. (WHO, 2005; Beghi *et al.*, 2010; Kerr and Prasher, 2016)

This means that epilepsy is an old disorder; actually, in all civilizations. This could be attributed to the fact that a medical record exists. Epilepsy is a health problem that can occur in all mammals types, and more often as the brain becomes highly complex. Epilepsy is also unnaturally distributed throughout the world. There are no ethnic, social or geographical boundaries (Magiorkinis, Sidiropoulou and Diamantis, 2010). Epilepsy can occur in both genders, at all ages, especially in adolescences and childhood, and is increasing in the elderly population(5).

Being highest among young children and the elderly,about 400 000 people with epilepsy live in Poland, and the incidence is 40-70 / 100 000 each year. Children suffering from epilepsy were shown to have severe

difficulties in daily life, such as hobbies, interaction with other children, and in finding apprenticeship (6).In addition, according to literature, children with epilepsy have poorer social abilities than children without epilepsy. Therefore, it seems necessary to pay special attention to children and adolescents suffering from epilepsy. Several studies have investigated the knowledge and perspectives of healthcare professionals and parents (7). However, the perspectives of children and adolescents remain widely unknown. In order to learn about children's thoughts and feelings, it is necessary to interview them (8).Public knowledge about epilepsy is usually weak; epilepsy is still met with bias and associated with stigma. Apart from experiences of direct enacted discrimination and stigmatizing of public attitudes, the internalized stigma,(i.e. the person's own feeling of shame and thoughts of other people rejecting) of persons with epilepsy is common (Chung *et al.*, 2012; Melikyan *et al.*, 2012; Riasi *et al.*, 2014).

Epilepsy is the severe commonest nervous case, and a occurrence of 0.5-1 percentage. It could happen with

any age, nevertheless is mostly develops in the early age and old person. About 50 percentage of persons had a return in two years of a first seizures. Usually the seizure is controlled by medication, and a less than 50 percentage of persons who stay seizure-with out and after years the persons can be to able withdraw drug without return attack (12). In Iraq, about (10%) of adolescents are suffering from epilepsy (13). Adolescence is a turbulent period of developments marked by self-definition and identity formation (14) 2004, a period when individuals pay particularly attention to peer norms and beliefs (15,16). Adolescents engage in social activities and begin to prepare for employments, relationship, and driving (17). These are all important aspects in the move toward achieving independence (18,19). Moreover, SUDEP occur about 0.9-2.3 / 1000 individual each year, increasing about to 1.1-5.9 / 1000 persons each year in people with chronic stubborn epilepsy, and 6.3-9.3 / 1000 individual each year in contenders for epileptic surgical intervention (20). The importance of this study to the specialization of community health nursing is that it reflects the level of knowledge and attitudes among parents with epileptic adolescents. The accuracy of parents observation to the seizure, which does not occur to the child in front of the doctor, but occur at home, this accuracy in the observation may mean a lot to the doctor in determining the type of case and appropriate treatment. In addition this knowledge enables parents to save the lives of their children as primary caregivers. The theoretical and practical importance of this study establishes a strategy to enable these parents to cope with the reaction of society and to deal with the behavioral changes that the child undergoes. Treatment and follow-up with the doctor, dealing with the school that epilepsy has an impact on learning and how to protect him during swimming and other activities that pose a danger to him.

Objectives of the study:

- 1-To assess the level of knowledge and attitude of parents toward epilepsy.
- 2- To identify the relationship between parents knowledge and attitudes with certain variable (level educational, occupation, gender of adolescents, duration of epileptic attack).

2. Materials and Methods:

A descriptive cross-sectional study design was

carried out, so as to attain the stated objectives, during the period from September 20th 2016 to September 6th 2017.

Study setting:

Information was obtained from the Middle Euphrates center for Neuroscience in Al-Najaf province, Iraq that A total of the (150) parents who had adolescent with epilepsy were selected in the current study by using a non-random sample (purposive) based on some criteria (of parents with epileptic adolescent including, for not less than 1 year diagnosis, free from other mental disease, able to speak Arabic, agree to participate the study and choice of participant with in adolescent age (11-21) years) according to (AAP, 2015).

The instrument of the study:

By reviewing the related literature and studies the questionnaire was prepared depending on previous studies (22,23) and modified by experts. It was divided into three main parts, (part one contained socio-demographic information, part two included 27 questions on the knowledge of parents about epilepsy and finally, 13 questions to determine the attitude of parents about epilepsy). The Scoring of Knowledge and Attitude of Questionnaire Items was:

1. Knowledge Scores Each item of the knowledge questions had three responses, (yes, no, and don't know). Therefore, according to the ideal answers for each questions, the responses of participants are categorized, (correct, incorrect and uncertain for the response of don't know). The scores were three points for (accurate answer), two points for (uncertain) and one point for (incorrect answer). This scoring is widely used in the analysis of the knowledge questionnaires that use 3 points Likert's scales. Then, the mean score for each question was calculated which is equal to the mean score of all participants for the question. The evaluation of the knowledge then categorized into three categories: high, moderate or low according to the value of the mean score.

Low Knowledge: mean score = 1 – 1.6

Moderate Knowledge: mean score = 1.7 – 2.3 and

High Knowledge: mean score > 2.4

2. Attitude Scores

The attitude questionnaire used the 5 points in the Likert's scale

model. However, the scoring system is not much different than the 3 point scales but the higher scores are given to the more positive attitude and the lower score are given to the least negative attitude, with a score ranged 1 – 5. Then the responses of the participants were assessed according to these scores and given a suitable score. However, (uncertain) or (undecided) response is considered the midpoint of this scoring system and is given a score of 3 which is equal to the mean of scores (1, 2, 3, 4, 5), (15/3). As in this scale two responses below 3.75 refer to (negative attitude) and two responses above 3.75 refer to (positive attitude). Therefore, the cutoff point of 3.75 is used to differentiate between the positive and negative attitudes of participants. According to the mean score for each item or

domain or the overall attitude score, participants are categorized:

Positive Attitude: mean score ≥ 3.75

Negative Attitude: mean score < 3.75

All scores of the variable are tested for anormal distribution and statistically analyzed using the standard statistical tests for parametric variables and managed as scale variables. The categories of the scores are managed as nominal or ordinal variables, accordingly.

The Results:

TABLE (4.1): STATISTICAL DISTRIBUTION OF THE STUDIED SAMPLE ACCORDING TO THEIR SOCIO-DEMOGRAPHIC DATA.
SAMPLE (N=150)

Demographic data		Frequency	Percent
Age(parents)	≤ 40	54	36.0
	41 - 50	61	40.7
	51 Up	35	23.3
	Mean \pm SD	44.53 \pm 16.00	
Gender(parents)	Male	93	62.0
	Female	57	38.0
Level of education	Unable to read and write	11	7.3
	Reading and writing	23	15.3
	primary graduate	34	22.7
	Middle school graduated	34	22.7
	High school graduate	26	17.3
	Graduate Institute	14	9.3
	College graduate	8	5.3
	Postgraduate	0	0.0
Employee	government	36	85.7

	Private	6	14.3
Unemployed	Retired	4	3.7
	Unemployed	10	9.3
	Housewife	43	40.2
	Free business	50	46.7
Age of their Adolescents	<= 13	30	20.0
	14 - 15	45	30.0
	16 - 17	27	18.0
	18 Up	48	32.0
	Mean \pm SD	8.19 \pm 2.64	
Gender of their Adolescents	Male	87	58.0
	Female	63	42.0
Did you receive any information about epileps	Yes	95	63.3
	No	55	36.7
source of information	Doctor	65	68.4
	Nurse	0	0.0
	Health workers	5	5.3
	Family (spouse, mother, grandmother, grandfather) and other relatives.	6	6.3
	Friends	5	5.3
	Mass media (magazine, book)	0	0.0
	TV, radio and internet	14	14.7
N=150		150	100

TABLE (4.2): STATISTICAL DISTRIBUTION OF THE OVERALL KNOWLEDGE OF STUDY SUBJECTS' RESPONSES ITEMS

Knowledge of parents about epilepsy (overall Items)		Frequency	Percent	M.S	Assessment
Knowledge of parents about epilepsy	Low	8	5.3	2.3	Moderate
	Moderate	82	54.7		
	High	60	40.0		

Table (4.3): Statistical distribution of the overall attitudes of study subjects' responses Items

Attitude among parents about epilepsy (overall Items)		Frequency	Percent	M.S	Assessment
Attitude among parents about epilepsy	Negative	45	30	3.94	Positive
	Positive	105	70		

Table (4.4): Correlation between the parents knowledge and attitudes

		Knowledge of parents about epilepsy	Attitude among parents about epilepsy
Knowledge of parents about epilepsy	Pearson Correlation		0.272**
	Sig. (2-tailed)		0.001
	N		150
Attitude among parents about epilepsy	Pearson Correlation	0.272**	
	Sig. (2-tailed)	0.001	
	N	150	
**. Correlation is significant at the 0.01 level (2-tailed).			

Table 1 shows that a total of 150 participants are from parents of adolescents with epilepsy. The mean of age (44.53 ± 16.00), the high percentage is the age group (41-50) , (40.7 %). Furthermore, males were the dominant, represented 62.0% of the studied group compared to 38.0

% female parent . The participants were primary graduate and secondary school graduates (22.7 %) for each one of them. The percentage for unable to read and write, read and write, high school graduate, institute graduate, college graduate and postgraduate were (7.3%),

(15.3%), (17.3%), (9.3%), (5.3%) and (0.0%), respectively. In addition, 107 of participant were unemployed while others were employed parents (43). For employed participants, (36) of them were governmental employees and only (6) of them were private employee. Concerning the unemployed parents, only (4) of them were retired, (10) were jobless, and the housewives were (43) and (50) participants worked in free businesses. The high percentage age of their adolescents is 30.0% for the age group (15-16) years. Their gender was males(58.0%) with the majority for subjects of study sample are not suffering from other physical disease (71.1%). No psychiatric disease no drugs abuse was shown by data of study.

Table 3reveals that there are positive attitudes among parents about epilepsy toward their adolescent patients, with a mean of score (3.94 >3.75). 70 % of parents have a high level of attitude.

1. Discussion:

5.1. Discussion of the Socio-Demographic Characteristic of Parents and Adolescents The present study included a group of 150 Iraqi parents with epileptic adolescents with a mean of age (44.53±16.00. Most of them were aged ranging from 41-50 years old. This finding is inconsistent with the Turkish research done in (2009) by Hirfanoglu *et al.*, which found that the mean age of parents included in the study was 38.5±6.8 (range 31-40) years (24).

This might be due to differences in the sampling technique because the samples were taken purposively during the current study which sometimes can be biased.

Regarding the gender of participants, males were the dominant gender among parents, about two-third of them. This disagrees with a study done (2011) by Frank-Briggs and Alikor(Frank *et al.*, 2011), who found that the majority of accompaniers of epileptic children and adolescent were mothers. According to the current study, the points of view this finding attributed to the nature of Iraqi society where mostly fathers escort their older children to the health care institutions.

With respect to the level of education of the included parents, less than 8% of them were unable to write and read, and more than half of respondents were (primary and secondary) school graduate, while for higher studies (university and higher) they constitute less than 15% of parents. The results of the Thai researchers Saengpattrachai *et al.*, in their (2010) agree with the current finding where the majority of parents had primary and secondary school level of education (26).

(42.0%) females. Also, the table shows that 63.3 of parents received previous information about epilepsy. The major source for this information is the doctor instructions (68.4 %).

Table 2 shows that the overall level of the Knowledge of parents about epilepsy is moderate level 54.7 % with a mean of score (2.3), while (5.3%) of parents had low level of knowledge and (40%) possessed a high level of knowledge about epilepsy.

Table 4This table shows the correlation between the knowledge and attitude of parents about epilepsy. By using the Pearson correlation, it appears that there are significant relationships between knowledge and attitudes (0.272> 0.01).

This might be related to the fact that both the present study and the Thai study were done in developing world countries, where the level of education of people varies from a middle to low level of education.

Furthermore, according to the results of a Serbian study done by Gazibara and others the age of adolescent who were escorting by their parents were above fourteen years of age, this disagrees with findings of Gazibara *et al.*, where the majority of adolescents were aged below 14 years (27).

Concerning the parents' employment, only 28% of them were employed, while unemployed parents were the majority of the study sample. This can be explained by the rareness of availability of jobs due to hard financial crisis in our present time.

Moreover, the percentage of male adolescent who accompanied the parents during the present study was nearly (60%). A Saudi study done in (2013) by Zainyet *et al.*, revealed similar findings where boys were the majority of adolescents(28). In contrast, the Iranian researchers Kolahi and othersin (2017) found that the boys and girls adolescent were convergent (29).

From the point of view of the current study, the existence of male patients with epilepsy more than females is not a surprise, because there are previous studies such as McHugh &Delanty in (2008)That have reached the conclusion that epilepsy may be more common in males than in females and it also may vary depending on which type of epilepsy affects the patient. This requires doing further studies on this matter in the future (30).

5.2. Discussion of Participants' Previous Information Regarding Epilepsy and Source of such Information

The present finding showed that from total of (150) mothers and fathers who participated in the study about 64% responded by having previous information about epilepsy, while the minority of them had no previous information concerning epilepsy.

Also, regarding the source of previous knowledge about epilepsy, the majority of parents stated that they acquired such information from doctors they review (attend) to treat their epileptic adolescents, followed by internet, TV and Radio with approximately (15%). Additionally, other sources resorted to by parents like health professionals, family and friends were (5.3%), (6.3%) and (5.3%), respectively. As for the percentage of sources of information from reading (magazine & books) and nurses, they were quite nil.

This evidence can be supported by the results of an Iraqi study applied in (2016) by Al-Tameemi in Al-Najaf City which found that social media and internet do not forms an essential part for getting health information, particularly in the Iraqi society and that generally in Arab societies. (31).

But this does not prevent the fact that some non-Arab studies were of similar results to our study, such as the Indian study by Manju and others in (2015) which found that the majority of parents gained their previous information from doctors, while the television and internet made small percentage as a source of prior information, this excessively agrees with the current findings (Manju *et al.*, 2015).

Consequently, from present study perspective these findings can be considered very usual; parents obviously will ask their therapist physician about the condition of their patient and the ways to take care of him/her; Also the doctor will provide them with necessary information regarding epilepsy and its treatment even if they may not ask.

5.3. Discussion of Parents' Level of Knowledge Regarding Epilepsy

With regard to the parents' overall knowledge toward epilepsy, the results revealed that forty percent of the participants had overall high knowledge, while more than half of parents had an overall moderate knowledge (around 55%). However, only less than 6% of the parents possessed low information about epilepsy. These results

are different from the findings of a Saudi study done in (2016) by (Neyazet *al.*), which found that the majority of participants retained poor knowledge and perception about epilepsy (33).

Moreover, the results of an Indian research conducted in (2015) by Kankane and others revealed highly poor knowledge about epilepsy among clients attending tertiary care hospital in the city of Jhansi, India(34).

Our results can interpreted the reason behind parents possessing some knowledge ranging from moderate to high is that they got such information from reliable sources, such as health workers (nurses) or doctors, as well as through the means of social media on internet (e.g. Facebook, YouTube, Twitter and LinkedIn, and the TV and Radio) where almost 15% of those who had previous information about epilepsy answered that they got such knowledge from television or the internet.

5.4. Discussion of Parents' Attitudes toward Epilepsy in their Adolescents

With regard to the parents' attitudes toward epilepsy, the current study found that the overall assessment of the participants' attitude was positive with a mean of score (3.94). The parents responses ranged from moderate to very high. This findings is comparable and similar to a Turkish study done by Kartal&Akyıldız in (2016) which found high positive attitudes among participants(35).

This finding is inconsistent with a Jordanian study done by Daoud and others who found that the majority of participants had negative attitudes which might be related to a low level of knowledge toward epilepsy and to the nature of participants who were public Jordanian and not only parents like the current study(36).

Furthermore, a Brazilian study conducted by Falavigna *et al.*, in Caxias do Sul in Brazil confirmed that the increasing knowledge level is helping in declining any negative attitudes (37). Also supporting this claim is the result of a study performed in Kuwait by Awad&Sarkhoo who revealed that negative attitudes toward epilepsy were prevailing among Kuwaiti public and were conjugating with a lower level of knowledge (38).

Likewise, an African study in (2015) by Esegbe, *et al.*, found similar findings to the Kuwaiti study by Awad&Sarkhoo(39).

Consequently, from the current study opinion, having the overall positive attitudes toward epilepsy by parents

may be seen as self-evident indicating the parents' desire to learn more about their child's illness, treatment, and care.

5.5. Discussion of Correlation between Parents' Attitudes and Knowledge toward Epilepsy of their Adolescents

According to the present findings, there was a significant correlation between the participants' knowledge and their attitudes toward epilepsy. That is, both the knowledge and attitudes having a mutual effect on each other.

This can be interpreted and clarified by the fact that a parents having some information on a specific health condition such as epilepsy will not fear to deal with it and will have a positive attitude toward it. Similarly, the parents' affection and the sense of parenthood drives them toward learning about epilepsy. Therefore, having a low level of knowledge by parents will affect their attitudes toward epilepsy and the opposite is true.

This outcome can be supported by other studies such as Bielen and others in (2012) and Lim *et al.*, in (2013) which found a significant progress in the attitudes of the participants in conjunction with improving their knowledge toward epilepsy.(23,40).

5.6. Discussion of Relationship between Participants' Socio-Demographic Characteristic and their Knowledge

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Regarding Epilepsy

The outcome of the present study revealed that the socio-demographic characteristic of the parents had no significant relation with their knowledge concerning epilepsy.

Asiri and others in (2015) found that only younger age had a significant relation to the participants' knowledge while the rest of socio-demographic characteristics had no significant relationship to their level of knowledge regarding epilepsy (41). This may be due to the fact that young people are more able and willing to learn, but this result has not been proven during the current study.

5.7. Discussion of Relationship between Parents' Attitudes toward Epilepsy and their Socio-Demographic Characteristic

With regard to the relationship between respondents' socio-demographic characteristic and their attitudes toward epilepsy, the current results exposed that there was no significant relationship but with female gender (p-value 0.035).

Furthermore, the study done in (2014) by Muthaffar& Jan found that the socio-demographic characteristic of respondents had no significant relationship but with female gender (p-value 0.001) which agree with current study finding(42).

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