

Parent's Awareness Regarding their Epileptic Children in Minia University Maternal and Children Hospital

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Abstract

Background: Epilepsy is one of the most common neurological disorders affecting children, as a chronic disease, it affects not only the child but also the entire family. Approximately seventy five percent of epilepsy begins during childhood. Parents play the most significant role in caring for their children and helping them adapt to their conditions especially mothers. **Aim:** The study aimed to assess the parent's awareness regarding their epileptic children in Minia University Maternal and Children Hospital. **Study design:** A cross-sectional descriptive design was used to conduct this study. **Subject:** A convenience sample of 250 parents have epileptic children was selected. **Setting:** This study was carried out at the neuro- psychiatric outpatient clinic at Minia University Maternal and Children Hospital. **Tools:** Four tools were utilized in this study; **The First tool:** socio-demographic data questionnaire. **The Second tool:** assessment questionnaire of parents' knowledge about epilepsy. **The Third tool:** assessment scale of parents' attitude towards their epileptic children. **The Fourth tool:** assessment questionnaire of parents' practices towards their epileptic children. **Results:** The results showed that fifty-nine point two percent of parent had poor knowledge about epilepsy, ninety-three point two percent had positive attitude and seventy-two point eight percent of them had poor practices. **Conclusion:** This study has revealed deficiencies in the knowledge, practices and positive attitude among the parent of children with epilepsy. **Recommendations:** From our study we have some recommendations: Establishment of national guidelines for diagnosis and management of seizures either in hospital and in outpatient or home management. Health education for parents about seizure precautions and home management of seizures through clear and applicable guidelines.

Keywords: Awareness, Children, Epilepsy, Parents

Introduction

Epilepsy is a common chronic childhood neurologic condition with an annual prevalence of 0.5%-1.0%. Children with epilepsy are at increased risk of mental, developmental, and physical comorbidities and premature death compared with children who do not suffer from this disease (Sassonker-Joseph et al., 2021).

Epilepsy is a worldwide problem that affects approximately 70 million people of all ages. Nearly 90% of home are living in low- and middle income countries (LMIC), where it remains a major public health problem, not only because of its health implications but also for its social, cultural, psychological and economic correlations (Trinka et al., 2019).

Epileptic children are at more risk of psychological and psychiatric impairments. They often experience daunting limitations and social stigma, fear of next seizure, medication adverse effects, and poor academic achievement; therefore, epilepsy impairs children's physical and cognitive health and psychosocial compatibility as evidenced by emotional, behavioral, social, and academic difficulties (Braun., 2017).

Common causes of childhood seizures or epilepsy include fever (these are called febrile seizures), genetic causes, head injury, infections of the brain and its coverings, lack of oxygen to the brain, hydrocephalus (excess water in the brain cavities) and disorders of brain development (Jones et al., 2018).

WHO, (2020) mentioned that manifestations of epilepsy vary and depend on where in the brain the disturbance first starts, and how far it spreads. Temporary symptoms occur, such as loss of awareness or consciousness,

and disturbances of movement, sensation (including vision, hearing, and taste), mood, or other cognitive functions.

Once a diagnosis of epilepsy is confirmed, most patients are treated with antiepileptic drugs (AEDs). The choice of an AED depends on the patient's seizure type, age, sex, childbearing potential, comorbidities and concomitant medications, and the drug's adverse effect and interaction profiles. If the seizure type has not been established before starting AED treatment, a broad-spectrum AED (effective against the most common seizure types, such as valproate, lamotrigine, levetiracetam or topiramate) can be used (author consensus) (Boon et al., 2021).

Assessing the level of knowledge and attitude towards epilepsy is crucial to reducing the burden of the disease, raising the parents' awareness, encouraging the parents to seek treatment early, reducing stigma, myths, and all the misbeliefs about epilepsy. This, consequently, will improve the quality of life, not only for those who have epilepsy but also for their families (Neyaz et al., 2017).

Community health nurse plays a corner stone in the process of managing children with epilepsy. Nursing management of epilepsy focuses on preventing injury during seizures; administering appropriate medication and treatments to prevent or reduce seizures, and monitoring neurologic status closely. In addition, the nurse should provide education and support to the child and family to help them cope with the challenges of living with chronic epilepsy disorder (Riechmann et al., 2019).

Significance of the study: -

70 million peoples are living with epilepsy worldwide, with 80% of them residing in low- and middle-income countries (Sharma et al., 2020). Among the pediatric age group, the prevalence of epilepsy is 18.5 (0.8–49.0) per thousand and major cause in children is perinatal injuries (Taksande et al., 2020). Epilepsy affects 0.5%-1% of children, with incidence ranging from 41 to 187 per 100 000.2 The negative consequences of epilepsy including psychosocial comorbidity in children and increased mortality risk are well recognized (Widjaja et al., 2020).

Lifetime prevalence of childhood and adolescence epilepsy (children < 18 years) in Upper Egypt was 9.7/1000, with higher prevalence among children < 12 years (10.8/1000) than adolescents (7.2/1000). The age-specific prevalence was highest in early childhood (12.01/1000) and least at adolescence (7.2/1000). More than half of the patients (59.4%) had idiopathic epilepsy (Farghaly et al., 2018).

Most epileptic patients have their first epileptic seizure before the age of 20 years, in Egypt, the prevalence rate in Assiut Governorate in Upper Egypt was 12.9 per 1,000. revealed that the prevalence of epilepsy among Egyptian children in Al-Quseir city was 9/1000 children, with highest peak among neonates and during early infancy (0-2years), with annual incidence rate 82.7/100, 000 children and the prevalence of epilepsy was higher among males (10.5/1000) than female children (7.4/1000). (Alshahawy et al., 2018)

Research Questions:

1. What is the level of parent's knowledge regarding epilepsy?
2. What is the level of parent's attitudes towards children with epilepsy?
3. What is the level of parent's self-reported practices for children with epilepsy?
4. Is there a relation between the parent's socio-demographic characteristics and their level of knowledge, attitude, self-reported practice?

SUBJECT and METHOD

Study Design:

A descriptive cross-sectional study was used to achieve the aim of the present study and answer the research questions.

Study Setting:

The study was conducted at neuro- psychiatric outpatient clinic at Minia University Maternal and Children Hospital, it provides a wide range of health care services for urban and rural populations from near and far districts in Minia governorate such as diagnostic and therapeutic services and many cases are frequented by the clinic ,such as epilepsy ,cerebral palsy, hyperactivity and delayed speech .The clinic works one day per week (Thursday from 9Am to 2 Pm), the medical team in the clinic consists of an assistant professor of pediatrics, a lecture of pediatrics , assistant lecture of pediatrics and one nurse.

Study Population:

A convenience sampling technique was used. The participants were parents of epileptic children attending the neuro- psychiatric outpatient clinic with their care recipients, Data collection was conducted in three months from November, December,(2021) to January(2022).

Data Collection Tools:

A structured interviewing questionnaire was conducted, it was designed in the light of parameters assessed in similar studies (Vodougnon et al., 2019)(Elmohalem et al., 2020), however it was modified to suit the situation in Egypt. The questionnaire was divided into four tools covering the following topics:

First tool: Socio-demographic data Questionnaire:

Covered the data related to children as (age, gender, duration of the disease etc....)and data related to parent as (name, age, residence, education, occupation and family income etc...).

Second tool: Assessment Questionnaire of parent's knowledge about epilepsy :

Knowledge was assessed via twenty two questions that covered the following items :(definition of disease, causes, signs & symptoms, risk factors, treatment, and effect on learning abilities etc...).

The questions addressed the respondent's knowledge about epilepsy ,which is sometimes intertwined with certain beliefs. This revealed misconceptions or misunderstanding and gaps in knowledge that were present so the whole questions were open-end questions.(several answers were possible, so we listed it and did not give suggestions on answers; just ticked the answers given by the interviewee spontaneously)to facilitate data collection.

Scoring System:-

Each question was rated zero for a wrong answer and one point for the right answer . The knowledge score was calculated by summing the scores for all questions thus the overall score ranged from (0-24).The level of knowledge for each participant was classified as poor (< 30% =1-13points), fair (30- 70%=14-18) and good(> 70% =19- 24) (Vodougnon et al., 2019).

Third tool: Assessment Scale of parent's Attitude towards children with epilepsy:

Perceived attitudes and behavior towards children affected by epilepsy was assessed via twenty six statements that covered the following items: (Childhood seizure leads to financial problem for family, work and marriage etc.....).

Scoring System:-

A three-point Likert scale of parent's responses to twenty six statements. Scores for negative attitude statements ranged from two (for participants who agreed)to zero (for participants who disagreed).The opposite of this scoring system was used for positive attitude statements. The total score was calculated by summing the scores for all statements thus the overall score ranged from (0-52) .Levels of attitude were then classified as negative attitude(> 70% = >40points) ,neutral (30%-70=20-40% points),and positive attitude(<30%=<20 points). (Elmohalem et al., 2020).

Fourth tool: Assessment Questionnaire of Parent's self-reported Practices towards children with epilepsy:

Practices of parents were assessed via thirteen questions, supporting children during treatment .

Scoring System:

Possible responses to each question were measured by give a score one for each correct answer and a score of zero for incorrect answer and I don't know. The total score was then calculated by summation of the responses to all the 13 questions. The participants were classified into three categories to their total score as poor (< 30% =1- 4), fair (30%- 70% =5-9) and good (>70% =10- 13) (Vodougnon et al., 2019).

Content Validity:

The content validity for the tools was performed based on five experts review. The questionnaire was evaluated by one community health nursing experts, one pediatric nursing, two psychiatric and mental health nursing and one pediatric medicine experts for content coverage, the sequence items, clarification, relevance, applicability, wording, length, format, and overall appearance. Modifications were made based on expert's comments and recommendations, including rephrasing some sentences, rearrangement of some sentences and addition of a few questions.

Reliability:

Internal consistency was measured to identify the extent to which the items measure the same concept and the extent to which the items are correlated with each other. With an 84% reliability rate using Cronbach`s alpha test.

Pilot Study:

A pilot study was conducted before starting data collection; it was carried out on 10 %(25) of the total sample. The results of the pilot study were helped in the necessary modifications of the tools in which omission of unneeded or repeated questions was done. Those parents of the pilot study were included in the study.

Ethical consideration:

A written initial approval was obtained from the research ethical committee of the Faculty of Nursing, Minia University. Oral informed consent was obtained from parents of children after explaining the nature and benefits of the study. Each assessment sheet was coded and parents name will not appear on the sheets for the purpose of privacy and confidentiality. The Parents was assured that they could withdraw at any time from the current study without any effect on their children treatment and care. The investigator was interview with parents of epileptic children and collect data from them. Measures were taken to protect parents of epileptic children`s ethical rights.

Study procedure:

Permission to conduct the study was obtained from the Dean of Faculty of Nursing at Minia University. An official letter was obtained from the head of the pediatric department,

Faculty of Medicine, Minia University for data collection after approval of ethical committee at Faculty of Nursing, Minia University. This letter was including a brief explanation of the objectives of the study and permission was requested from the director to carry out the study. An official permission was granted from the head of the pediatric department, Faculty of Medicine, Minia University.

After an extensive review of relevant national and international literature, tools of data collections were designed in the light of parameters assessed in similar studies and were modified by the researcher in2020.Before data collection, tools for data collection translated from English to Arabic version language, study tools were revised by five experts : one experts in the field of community health nursing at Faculty of Nursing, one experts in the field of pediatric nursing, two experts in the field of psychiatric and mental health nursing and one experts in the field pediatric medicine Minia University, to test its content validity and feasibility ,the necessary modifications were done as rephrasing ,rearrangement of some sentences and addition of a few questions

A structured interview was conducted in examination room in the clinic ,the investigator met participants and they were interviewed at times that were convenient for them, while waiting for examination, after explaining the nature and intent of the study to the parents of children with epilepsy and they have rights to withdraw at any time, the investigator filled out the tools by asking them about the items in the tools. In the knowledge tool :the questions were open-end so several answers were possible , so we listed them and did not give suggestions on answers; just ticked the answers given by the interviewee spontaneously to facilitate data collection.

The investigator visited neuro- psychiatric outpatient clinic at Minia University Maternal and Children Hospital one day per week (Thursday from 9Am to 2 Pm) to recruit the study sample. the average time taken for each was around 15-20minutes depending on the response of parents, and numbers of cases 20 per day, Data collection was conducted in three months from November, December,(2021) to January(2022)., Brief health education about epilepsy disease was done by the researcher and was enhanced with brochure distribution to the parent of children with epilepsy.

Statistical Analysis:

All analyses were done using SPSS, version 22.Quantitative data were presented by mean standard deviation while qualitative data were presented by frequency distribution. Student t-test and ANOVA test were used to compare means. Pearson correlation was used to determine the association between two quantitative variables .Graphical presentation of the data was done using Microsoft Excel 2017. The probability of less than 0.05 was used as a cut off point for all significant tests and all statistical tests were 2 tailed

Results:

Table (1): Distribution of parents regarding their socio-demographic characteristics , neuro- psychiatric outpatient clinic (2021), n=250.

socio demographic data of parents	N	%
Age:		
-Less than 25 years.	68	27.2
-From 26 to 30 year.	85	34.0
-From 31 to 35 years.	67	26.8
-More than 35 years.	30	12.0
Gender:		
-Male.	30	12.0

socio demographic data of parents	N	%
-Female.	220	88.0
Place of Residence:		
- Urban.	40	16.0
- Rural.	210	84.0
Level of Education :		
- Illiterate/Illiteracy .	83	33.2
- Primary education.	32	12.8
- Secondary/Technical education	118	47.2
- Higher education.	17	6.8
Occupation :		
-Worker.	21	8.4
- Housewife .	220	88
- Employee.	9	3.6
Family income:		
-Sufficient.	60	24.0
-Insufficient.	190	76.0
Type of family:		
- Nuclear.	141	56.4
-Extended.	109	43.6

Table (1): shows that, 34.0 % of parent their age ranged from 26 to 30 year, while 88% of them were female ,In addition 84.0% are rural. Their educational level revealed that 6.8% had a higher education. Regarding occupation 88% of parents are housewife,76.0%of parent had insufficient income.

Table (2): Distribution of parents regarding their knowledge about epilepsy, neuro- psychiatric outpatient clinic (2021) ,n=250.

Knowledge about epilepsy	N	%
Epilepsy is:		
-A mental disorder.	55	22.0
-A disorder caused by abnormal electrical discharges in the brain.	140	56.0
- Both A & B are correct.	55	22.0
Epilepsy affects:		
-Females.	27	10.8
-Males.	48	19.2
-Both males and female.	156	62.4
-Don't know.	19	7.6
Epilepsy is related to family history:		
-Yes.	102	40.8
-No.	148	59.2
Epilepsy can be transmitted from one person to another:		
-Yes.	4	1.6
-No.	246	98.4

Table (2): illustrates that more than half of the parent reported that epilepsy is a disorder caused by abnormal electrical discharges in the brain,62.4% reported that epilepsy affect , both males and females. Also 40.8% said epilepsy was related to family history, the majority of parent believed that epilepsy cannot be transmitted from one person to another.

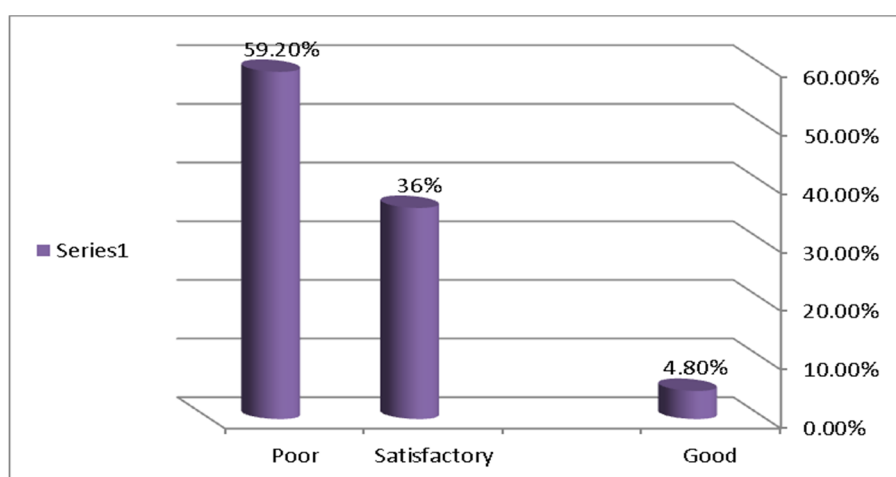


Figure (1): Distribution of parents regarding to their total knowledge Score, neuro- psychiatric outpatient clinic (2021),n=250. Clears that 59.2 % of parents have poor knowledge score, 36 % have satisfactory knowledge score but 4.8% of parents have good knowledge scores.

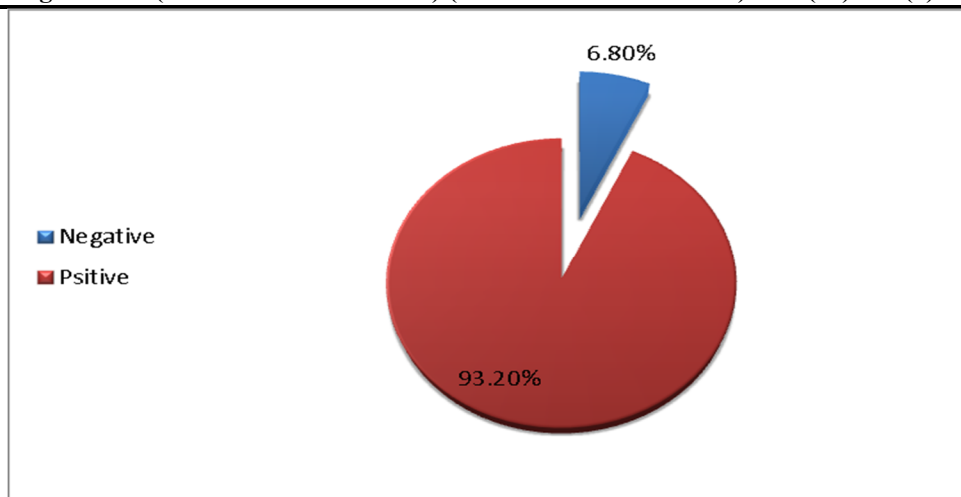


Figure (2): Distribution of parents regarding to their total attitudes Score , neuro- psychiatric outpatient clinic (2021) ,n=250. Mentions that 6.8 % of parents have negative attitudes while 93.2% have positive attitudes.

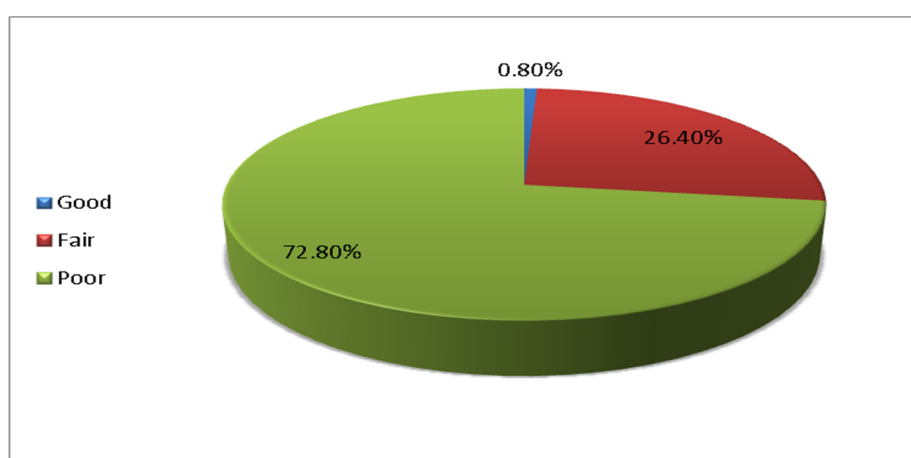


Figure (3): Distribution of parents regarding to their total practices Score, neuro- psychiatric outpatient clinic (2021),n=250. Explains that 72.8 % of parents have poor practices score, 26.4% have fair practices score but 0.8% of parents have good practices score

Table (3): Relation between total score of parent attitudes and their socio demographic characteristics, neuro- psychiatric outpatient clinic (2021) ,n=250.

Variables	Positive		Negative		Chi	P
	N	%	N	%		
Level of Education :					99.4	.001**
- Illiterate/Illiteracy .	81	32.4	2	0.8		
- Primary education.	29	44.8	3	1.2		
- Secondary/Technical education .	112	4.4	6	2.5		
- Higher education.	11		6	2.5		
Age					90.9	0.001
-From 20 to 25 years .	63	25.2	5	2.0		
-From 26 to 30 year .	75	30.0	10	4.0		
-From 31 to 35 years.	66	26.4	1	0.4		
-More than 35 years.	29	11.6	1	0.4		
Place of Residence:					33.3	0.01*
- Urban.	34	13.6	6	2.4		
- Rural.	199	79.6	11	4.4		

Significant at (p-value <0.01)

Table (3): Highly statistical significant difference relation between attitudes score and educational level, age and residence p value 0.001, 0.001, and 0.01 respectively.

Table (4): Total Score of Parent Practices and their Socio demographic characteristics, neuro- psychiatric outpatient clinic (2021), n=250.

Variables	Good		Fair		Poor		Chi	P
	N	%	N	%				
Level of Education :							33.8	0.4
- Illiterate/Illiteracy .	1	0.4	20	8.0	62	24.8		
- Primary education.	1	0.4	6	2.4	25	10.0		
- Secondary/ education	0	00.0	34	13.6	84	33.6		
- Higher education.	0	00.0	6	2.4	11	4.4		
Age							33.5	0.4

Variables	Good		Fair		Poor		Chi	P
	N	%	N	%				
-From 20 to 25 years .	1	0.4	18	7.2	49	19.6		
-From 26 to 30 year.	1	0.4	27	10.8	57	22.8		
-From 31 to 35 years.	0	00.0	14	5.6	53	21.2		
-More than 35 years.	0	00.0	7	2.8	23	9.2		
Place of Residence:							6.80	0.6
- Urban.	0	00.0	27	10.8	13	5.2		
- Rural.	2	0.8	53	21.1	155	62.0		

Table (4): No statistical significant difference relation between practices score and socio-demographic characteristics

Table (5): Total Knowledge score of Parent and their Socio demographic characteristics, neuro- psychiatric outpatient clinic (2021),n=250.

Variables	Good		Satisfactory		Poor		Chi	P
	N	%	N	%				
Level of Education :								
- Illiterate/Illiteracy .	8	3.2	36	14.4	39	15.6	79.8	0.005**
- Primary education.	0	00.0	10	4.0	22	8.8		
- Secondary/Technical education .	4	1.6	42	16.8	72	28.8		
- Higher education.	0	00.0	2	0.8	15	6.0		
Age								
-From 20 to 25 years .	2	0.8	32	12.8	34	13.6	51.7	0.4
-From 26 to 30 year.	3	1.2	29	11.6	53	21.2		
-From 31 to 35 years.	4	1.6	22	8.8	41	16.4		
-More than 35 years.	3	1.2	7	2.8	20	8.0		
Place of Residence:								
- Urban.	0	00.0	12	4.8	28	11.2	9.9	0.9
- Rural.	12	4.8	78	31.2	120	48.0		

Table (5): Statistically significant difference relation between total knowledge score and educational level, p value 0.005 and no statistically significant difference relation between total knowledge score, regarding age and residence.

Table (6): Correlations between parent's Knowledge, Attitudes and Practices towards their epileptic children ,neuro-psychiatric outpatient clinic (2021), n=250.

Variables	Knowledge	Attitudes	Practices
Knowledge			
- r.value	-	.803**	.001
- P.value	-	.001	.9
Attitudes			
- r.value	.803**	-	.051
- P.value	.001	-	.4
Practices			
- r.value	.001	.051	-
- P.value	.9	.4	-

Table (6): shows that there is statistically significant difference correlation between Parents' knowledge and attitudes p value=.001 and there is no statistically significant correlation between Parents' knowledge and practices and between Parents' attitudes and practices p value=.9 and 0.4 respectively

Discussion:

Concerning distribution of parents regarding their socio demographic characteristics of parents ,all parent aged between 20 – 40 years, the majority was female caregivers, one third of them was illiterate and most of them was housewives, these results in the same line with the study done in Saudi Arabia by **Alharshan et al.,(2020)** assessed the level of awareness and attitudes toward epilepsy in Al-Ahsa, Eastern Region, presented that majority of caregivers were female and aged between 20- 40 years.

Regarding income more than three quarters of them had insufficient income and more than half of them lived in a separated home, this agree with study done in tabuk city, kingdom of saudi Arabia by **Alharthi et al.,(2020)** showed that more than half of the studied sample had insufficient income.

Concerning occupation most of them was housewives this agree with study in the northeast of turkey ,**Kiyak et al.,(2021)** identified the attitudes toward epilepsy, health fatalism, and the factors affecting these in individuals living in Artvin, showed that more than half were female, more than one third were unemployed and one third low-income.

Regarding place of residence , more than two third of parents from rural area .This result disagree with **Zainy & Mohammed.,(2020)** who study the psychological burden among parents of children with epilepsy at the middle Euphrates center for neurosciences in al-najaf governorate and reported that more than two third of parents from urban area.

Regarding the educational level, near half of parents had secondary education. These results agree with those of **Pokharel et al.,(2021)**who study Quality of life among caregivers of children with epilepsy :A cross-sectional study at Eastern Nepal and reported that near half of parents had secondary education.

As regard to knowledge of the parent about epilepsy more than half of them reported epilepsy that it is a disorder caused by abnormal electrical discharges in the brain, and more than one fifth reported a mental disorder, nearly two thirds reported that epilepsy affect both male and female ,Contrary **Neyaz et al.,(2017)** who study knowledge and attitudes towards epilepsy in Saudi families and reported that near half of participants said that epilepsy is a mental disorder, This finding in the same line with the study done in local communities of Saudi Arabia by **Alshahrani et al.,(2019)** reported that more than two-thirds and nearly half of the

studied female and male known that epilepsy is organic disease respectively, more than one quarters and one fifth mentioned epilepsy is an psychiatric illness, and nearly half and more than one-quarters known epilepsy are genetic or hereditary in origin .

In South India, study done by **Rani et al.,(2019)** more than half of the studied parents had misconception knowledge about epilepsy which mentioned it's a mental illness and more than one-third mentioned it's an evil spirit, and nearly one quarter mentioned it's a genetic or hereditary disease, Also the study done in China **Wong-Kisiel .,(2021)**, who reviewed that epilepsy is affected both male and female children and **Babiker et al.,(2021)** assessed knowledge and attitude toward epilepsy among the educated community in Sudan, showed that more than two-third mentioned that epilepsy is caused by a problem in brain cells, and most of them know it's not contagious. In addition, **Masri et al.,(2017)** explored the knowledge, attitudes, and behaviors of parents whose children were diagnosed with epilepsy conducted at child neurology clinics at three university hospitals in Jordan mentioned that most of parents knew epilepsy was not a psychogenic or mental disorder, not related to evil force, or magic force.

Concerning epilepsy can be transmitted from one person to another the present study found that more than three-quarters mentioned epilepsy cannot be transmitted from one person to another, one point six percent said yes and one fifth of sample don't know, this result consistent with **Dessalegn et al.,(2021)** who study knowledge, attitude and practices of parents and guardians of children with epilepsy at pediatric neurology clinic of Tikur Anbessa specialized hospital addis ababa, ethiopia and reported that one point six percent of parents said yes and more than three-quarters said no.

Concerning distribution of parents regarding to their total knowledge Score , illustrated that more than half of parent have poor knowledge score, more than one third had satisfactory knowledge score but minority of parent have good knowledge scores , Similar to our findings , the study done in India **Manju et al.,(2015)** who study assessment of knowledge and attitude of parents of children with epilepsy and showed a poor knowledge score percentage of most of parents with children with epilepsy, fifteen percent had satisfactory knowledge and minority had good knowledge, Also **Rajab et al.,(2021)** assessed knowledge and attitudes toward epilepsy among Libyan people who live in Benghazi city, showed that more than half of participants did not feel satisfactory about their information about epilepsy, Furthermore, **Asnakew et al.,(2021)** assessed the knowledge and attitude of the community towards epilepsy in Northwest Ethiopia, showed that more than half of respondents had poor knowledge regarding epilepsy disease, Also the study done in Jeddah City by **Al Zubaidi et al.,(2017)** showed that inadequate knowledge level among three quarter of the studied parents and was good among twenty-one point eight percent of them.

According to investigator point of view, the current study revealed that majority of parents lived rural areas, and more than two-third of them had low income so there are lack of knowledge and awareness about disease. Additionally lack of media about disease.

Regarding distribution of parents regarding to their total attitudes level presented that minority of parent have negative attitudes while most have positive attitudes toward

epilepsy ,this finding contradicted to the study done in Egypt by **Elsakka et al.,(2021)** showed more than two-thirds of parents showed a negative attitude score percentage, This finding, in the same line with **Aljandeel et al.,(2021)**, evaluated knowledge and attitudes towards epilepsy among families with people with epilepsy in Baghdad city, presented that the overall assessment level of attitudes towards epilepsy was mainly positive in more than two third of families and the study done in Ethiopia by **Dessalegn et al.,(2021)** showed that the majority of the studied parents had a positive attitude.

Concerning distribution of parent regarding to their total practices level illustrated that nearly three-quarters of parents have poor practices score, more than one quarters have fair practices score but minority of parent have good practices score, This finding in the same line with the study done in Egypt by **Elmohalem et al.,(2020)** presented that the level of practice was inadequate among most parents as most of them did not know how to deal with epileptic children with seizures, and most of them would avoid dealing with epileptic children, This finding contradicted to **Hassan et al.,(2018)** who study assessment of knowledge and attitude and practice of parents towards epilepsy among children in abha city and found more than two third of study sample have good practices score and near one third of study sample have poor practices score.

From the investigator point of view, lack of training of parents, lack of knowledge about first aid, not attending course of training could contribute to affect their ability to provide care to their children. Also ,lack of media and health education.

As regarding relation between parent total knowledge scores and their socio demographic characteristics statistically significant relation between total knowledge score and educational level, p value 0.005 and no statistically significant relation between total knowledge score, regarding age and residence, this result consistent with the study done in king Abdulaziz university hospital in Jeddah Saudi Arabia by **Zainy et al.,(2013)** there is a statistically significant association between the level of education and the knowledge score percentage and the study done in United kingdom by **Akbas &Kartal.,(2022)** showed main positive predictors for studied sample knowledge was age of caregivers and their educational level. Also, the study done in king Abdulaziz university hospital in Jeddah Saudi Arabia by **Kinkar et al.,(2020)** mentioned that education had a statistically significant effect, parents with more than 12 years of schooling scored higher in knowledge than those who spent less than 12 years .

Regarding relation between parents total attitudes score and their socio demographic characteristic statistically significant relation between mothers attitudes level and their educational level, age and residence p value 0.001, 0.001, and 0.01 respectively , this result consistent with Several studies have agreed that parents with low education have negative attitudes toward epilepsy as the study done in northeastern Turkey by **Kiyak et al.,(2021)** mentioned that there is a statistically significant association between the level of education and the attitude score percentage . Also, in Nigeria, **Adewumi et al.,(2020)** assessed the community knowledge, awareness, and attitude towards people living with epilepsy (PLWE) in Lagos, showed that the factors associated with negative attitude towards PLWE include male gender, and lower educational status.

Concerning relation between parent total practices scores and their socio demographic characteristics no statistically significant relation between studied sample practices level and their socio- demographic characteristics. This finding contradicted to the previous study of **Fong et al.,(2019)** who study improving awareness, knowledge and attitude among Malaysian parents of children with epilepsy and showed main positive predictors for studied sample knowledge was age of caregivers and their educational level and the study done in Egypt by **Al Zubaidi et al.,(2017)** mentioned there were statistically significant education, occupation and family income.

As regarding correlations between parent's Knowledge, Attitudes and Practices towards their epileptic children showed that there is statistically significant correlation between Parents' knowledge and attitudes. This result in the same line with the study done in Egypt by **Elsakka et al.,(2021)**, showed that the better percentage of the level of knowledge was found to be a positive predictor to more positive parenteral attitude toward children with epilepsy .Also, in Iraq, **Aljandeel et al.,(2021)** showed a highly significant relationship between the knowledge and the attitudes among sample families towards epilepsy.

According to the investigator point of view, many parents have significant misconceptions, positive attitudes, and poor parenting practices. These correlated with their educational levels and had significant implications on the medical management. Therefore, there is a need to improve the degree of knowledge, which will help in improving them.

Concerning correlations between parent's knowledge, attitudes and practices towards their epileptic children there is no statistically significant correlation between Parents' knowledge and practices and between Parents' attitudes and practices. This result disagreed with **El Amin et al.,(2021)**who study knowledge, attitude and practice of caregivers of children with epilepsy in sudan and shown positive correlation and significant between parents' knowledge, attitude and practice about epilepsy.

Conclusion

This study revealed poor knowledge regarding epilepsy among parents in Minia Governorate. In addition, positive attitude of parents towards children with epilepsy and poor practices were founded.

There was statistically significant relation between total knowledge score and educational level, p value 0.005 and no statistically significant relation between total knowledge score, regarding age and residence. Statistically significant relation between attitudes score and educational level, age and residence p value 0.001, 0.001, and 0.01 respectively. no statistically significant relation between practices score and socio-demographic characteristics. There was statistically significant correlation between Parents' knowledge and attitudes p value=0.01 and there is no statistically significant correlation between parents' knowledge and practices and between Parents' attitudes and practices p value=0.9 and 0.4 respectively

Recommendations:

In light of the results of this study, the following recommendations are suggested:

- Establishment of national guidelines for diagnosis and management of seizures either in hospital, in outpatient or home management.

- Health education for parents about seizure precautions and home management of seizures through clear and applicable guidelines.
- Further studies should be done on more patient number, to detect the prevalence of seizures and its risk factors on development.
- National mass media survey to detect early cases and prevent risk factors using T.V, face book, social media...etc.
- Health professionals should provide medical information to parents at the time of diagnosis or during the treatment phase to raise awareness and parent support.
- Establishing a standard of care for children with epilepsy in hospitals and clinics is essential.
- Continuous counseling of mothers should be established at outpatient clinic at each visit.
- In service, a training program for parents to improve their performances about care provided to children during seizure

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