Knowledge, Attitude & Practices related to Epilepsy among Parents of Epileptic Children attending Tertiary Care Hospitals in Ahmedabad city, Gujarat

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Abstract:

Introduction: Epilepsy is one of the most common pediatric neurological disorders and is a brain condition that causes a child to have seizure. Misconceptions and poor understanding about the nature of epilepsy contribute to the burden of disease and lead to stigma. Misconceptions and negative attitudes cause people with epilepsy to feel shame, embarrassment, and disgrace. **Objective:** The purpose of this study was to assess the knowledge, attitude, and practices (KAP) related to Epilepsy amongst the parents of epileptic children. **Method:** A cross-sectional study was conducted 187 parents of epileptic child who attended outpatient department of selected hospitals of Ahmedabad. A structured interview of the parents of epileptic children was conducted using modified international questionnaires. Modified Bloom's cut-off points were used to determine KAP levels. Kruskal–Wallis test was applied on knowledge, attitude and practice levels. Chi square test was used to find out association. **Results:** The study showed that out of 187 respondents, around 61% were from age group 31 to 40 years and 54.5% were females. Among all participants, 53.5% had Good knowledge, 84.5% of parents had good attitude. Around 18.2% parents had good practices and about 9.1% had poor practices related to epilepsy. There were statistically significant associations between knowledge, attitude, and practice score with respect to gender, age, and occupation. **Conclusion:** Parents knowledge regarding epilepsy was good as more than half of parents were having good knowledge. Majority of the parents had good attitude towards epilepsy. There was significant positive correlation between knowledge and practices about epilepsy. Attitudes and practices related to epilepsy also showed positive correlation.

Key Words : Attitude, Caregiver, Epilepsy, Knowledge, Practice

Introduction:

Epilepsy is a Paroxysmal event due to hyper synchronous CNS discharges. It is one of the most common pediatric neurological disorders. It is a brain condition that causes a child to have seizures. Status epileptics is occurs either from the failure of the mechanisms responsible for seizure termination or from the initiation of mechanisms, which lead to abnormally, prolonged seizures (after time point t1). It is a condition, which can have long-term consequences (after time point t2), including neuronal death, neuronal injury, and alteration of neuronal networks, depending on the type and duration of seizures.[1] Epilepsy is one of the most common neurological diseases worldwide, affecting around 50 million people of all ages around the world.[2] It is estimated that there are more than 10 million persons with epilepsy (PWE) in India. Its prevalence is about 1% in our population.[3] The prevalence is higher in the rural (1.9%) compared to urban population (0.6%).[4,5] The risk of premature death in people with epilepsy is up to three times that

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of the general population.[2] The lives of people with epilepsy are often impacted by stigma, discrimination, and human rights violations.[2] Around 10.5 million children worldwide are estimated to have active epilepsy.[6] Parent's knowledge in relation to childhood seizures was not adequate as more than half of parents were having average and below average knowledge.[7] One study shows that Although most parents (70%) felt informed about epilepsy and recognized various treatment modalities, many believed that epilepsy is a mental disorder (48%), correlates with evil (44%), and affects the child's intelligence (38%).[8]

The word epilepsy word has originated from the Greek word epilambanein, meaning "to seize." This term came to embody the disease as early descriptions characterized seizures as events in which the faculties of the mind and body were "seized" from the individual. [9] Stigma can delay appropriate health care seeking, access to care, health financing and availability of treatment[2]. To reduce stigma, funds need to be directed toward epilepsy awareness and a multi-sectoral public health response needs to include interventions that improve the knowledge of individuals and their families.[2] A key element of managing these patients is adequate education and awareness of their parents. Overall, parent's attitude towards child with epilepsy is influenced by the degree of knowledge of the condition. Considering this background a study was conducted with an objective to assess the knowledge, attitude, and practices related to Epilepsy amongst the parents of epileptic children.

Method:

A cross-sectional study was conducted among Parents of paediatric age group outpatients suffering from Epilepsy at GCS Hospital and Royal Institute of Child Neuroscience (RICN) Clinic in Ahmedabad, from May 2019 to February 2020. All parents of epileptic children were included who visited clinics during study duration. Total 187 parents have participated in the study. Consent from all the parents whose children were below 18 years were taken before conducting the interview. Questionnaire consist of knowledge, attitude and practise about epilepsy among study population.

A study questionnaire used was modified from international questionnaires, which included questions regarding type of disease, nature of disease, first aid used in case of emergency, treatment of disease etc. [10] The data were entered manually in Microsoft Excel after taking face to face interview and converted to code format and transferred to Statistical Package for Social Sciences Version 28 software. Positive/ correct responses were scored as 1 to 3 as per the importance of question and the negative/incorrect responses was given the score of

Table 1: Demographic Characteristics of the Parents of epileptic children (n=187)

Variables	n (%)
Age (Years)	
22 - 30	47 (25.1%)
31 - 40	114 (61.0%)
41 - 56	26 (13.9%)
Gender	
Female	102 (54.5%)
Male	85 (45.5%)
Education level	
Graduate	47 (25.1%)
Higher secondary	43 (23.0%)
Primary and Secondary	94 (50.3%)
illiterate	3 (1.6%)
Occupation	
Homemaker	89 (47.6%)
Service	55 (29.4 %)
Business	16 (8.6%)
Farmer	16(8.6%)
Labourer	11(5.9%)

0. Modified Bloom's cut off points were used, where a score of 80-100% of correct responses meant good knowledge, a score of 50-79% was a level of medium level knowledge and a poor knowledge was for the respondents with a score less than 50% of the correct responses.[11,12] The scores included; (a) 0 –7 as "Poor" (low level) knowledge (b) 8–11 as "Moderate" (medium level) knowledge and (c) 12–15 as "Good" (high level) knowledge. Attitude scoring was done as (a) 0–9 as Poor attitude (b) 10–15 as Moderate attitude and (c)16–20 as Good attitude. The practice scoring was done as (a) 0–13 as Poor practice (b) 14–22 as Moderate practice and (c) 23– 28 as Good practice. The Kruskal–Wallis test was applied to find correlation between knowledge, attitude and practice levels. Chi-square ($\chi 2$) test was used to find out the association between parent's demographics (gender, age, highest completed education level and occupation) and different levels of KAP of parents towards epilepsy.

Results:

Majority (61.0%) of the parents were from 31 - 40 years. age group and lowest (13.9%) from 41 - 56 yrs. of age group. The Median age of the parents is 35 yrs. More than half of the parents, 54.5% were females and remaining were males. About half of the parents (50.3%, n=94) had primary and secondary school education and only 1.1% were illiterate. Among the occupations of parents, majority (47.6%) of parents were homemaker, followed by 25.7% had occupation in service field. (Table 1)

Majority of children were in the age group 0-5 yrs (33%), less than one tenth (8%) of children were belonged to age group of 16-18 yrs. More than 28 % of children had onset of epilepsy at the age of 2 to 6 years. More than half (53%) of children had uncontrolled seizure. Most of them (85%) had no family history of seizures. Almost three forth (74%) had a normal development. Most of them (84%) had a normal birth weight. (Table 2)

Table 2: Demographic and other Characteristics of Children having epilepsy (n=187)

Variables	n (%)
Age of Child (in years)	
0 - 5	62 (33%)
06-10	58 (31%)
11-15	52 (28%)
16 - 18	15 (8%)
Age of onset of epilepsy	
At birth- 5 days after birth	27 (14%)
>5 days- 6 months	30 (16%)
>6 months - 2 yrs.	38 (20%)
> 2-6 yrs.	52 (28%)
>6-16 yrs.	40 (21%)
Seizure Control	
Controlled	88 (47%)
Uncontrolled	99 (53%)
History of Seizure in Family	
None	158 (85%)
Seizure history present	29 (15%)
• First-degree relative	11 (38%)
• Second-degree relative	12 (41%)
• Third-degree relative	6 (21%)
Development of Child	
Normal	138 (74%)
Delayed	47 (25%)
history of Initial Delay	2 (1%)
Type of Delivery	
Normal delivery	127 (67.9%)
Caesarean section	57 (30.5%)
Forceps assisted delivery	2 (1.1%)
Vacuum-assisted delivery	1 (0.5%)
Birth Weight	
Normal	160 (85.5%)
Low Birth Weight	26 (14%)
Very Low Birth Weight	1(0.5%)

Table 3 : Categorical Distribution of Knowledge, Attitude and Practice among Parents (n=187)

Variables		n (%)	Mean Score	Standard Deviation
Knowledge	Good	100 (53.5)	12.63	0.747
	Moderate	83 (44.4)	10.04	1.029
	Poor	4 (2.1)	6.5	0.577
Attitude	Good	158 (84.5)	18.55	1.314
	Moderate	26 (13.9)	13.12	1.608
	Poor	3 (1.6)	7	1.732
Practice	Good	34 (18.2)	25.18	1.732
	Moderate	136 (72.7)	18.8	2.558
	Poor	17 (9.1)	11	1.061

Table 4: Comparison between the mean ranks of different variables

Variables		Mean Rank	Kruskal Wallis H Statistics (p value)
Knowledge	Good	137	146.60 (0.00)
	Moderate	45.5	
	Poor	2.5	
Attitude	Good	108	76.01 (0.00)
	Moderate	16.5	
	Poor	2	
Practice	Good	170	114.43 (0.00)
	Moderate	85	
	Poor	9	

More than half (53.5%) of parents had Good knowledge about epilepsy and most of them had (84.5%) good attitude, but when it came to assessing the practices only one fifth (18.2%) parents had good practices. (Table 3)

As shown in table 4, there is a significant difference between good, moderate, and poor Knowledge, attitude and practice of parents. There was statistically significant correlation between knowledge–practices (r=0.155, p=0.034) and attitudes–practices (r=0.165, p=0.024), whereas there was an insignificant p-value with no correlation between knowledge–attitudes (r=0.087, p=0.235). Associating parents' KAP scores on epilepsy to their demographics using the chi-square test, significant associations were found between knowledge score and gender, age as well as occupation.

Discussion:

Research studies addressing knowledge, attitude and practice amongst parents of children suffering from epilepsy are limited. The current study was planned with the intention to address the gap in knowledge on the current subject. Many of the studies conducted in India are on normal healthy individuals or school/medical college students.[18, 19] The results of present study are not strictly comparable because the population studied, and the questionnaires and methods used were different from other studies.[3]

In the present study, majority of parents' as participants were in age group of 31-40 years, female, had primary to secondary level of education and were homemaker by occupation. Median age of parents in present study was 35 years while a study performed in Ethiopia[13] had mean age of parents as 33 $\pm$ 11.3 years. Children affected due to epilepsy were more common in age group of 0-10 years. In more than half of the children affected by epilepsy, age of onset was 6 months and above. Almost more than half had uncontrolled seizure. In the present study, around a little more than half of the parents had Good knowledge and a majority of parents had good attitude but very few around 1/5th had good practices and around 1/10th of parents had poor practices. Poor knowledge may be the possible reason for poor practice in the participants of the current study. However with good attitude found amongst participants towards disease, educating them can help improve knowledge as well as practice amongst the participants. At the end of interview Health education regarding correct KAP related to epilepsy were given to the parents wherever needed.

In present study, 53.5% participants had good knowledge about epilepsy, while a study conducted in Ethiopia[13] had 73% participants with good knowledge which was higher compared to results of current study. In present study, good attitude towards the disease was found amongst 84.5%

participants, while in the study conducted at Ethiopia,[13] less favourable attitude (51.6% with unfavourable attitude) was found. Possible reasons for the difference in results of the compared studies may be the different study settings and study population.

In current study the results were relatively better than other studies, but improvements need to be done in the knowledge and practices of the parents regarding epilepsy. The education level of parents had a significant association with Attitude and practices whereas occupation had a significant association with knowledge, attitude, and practices.

Limitations:

The study was based in a hospital and so the findings may be influenced by characteristics of parents who are more likely to go to a tertiary care hospital for the treatment of the child's epilepsy.

Conclusion:

In current study, Parents knowledge regarding epilepsy was good as more than half of parents were having good knowledge. Majority of the Parents had good attitude towards epilepsy. There was significant positive correlation between knowledge and practices and attitudes and practices.

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