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Stressors and Coping Patterns of Mothers Having Children with Epilepsy

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Abstract

Background: Mothers of children with epilepsy have significant worries and stress around the epilepsy diagnosis, comorbidities, treatments and management of disease that maintain over time. ***The aim of this study:*** To assessthe stressors and coping patterns of mothers having children with epilepsy. A descriptive Design was conducted at the outpatient clinic in the Neurological pediatric outpatient clinic affiliated to Ain Shams University Hospitals. **Subjects:** A purposive sample(100) of children suffering from epilepsy and their mothers. **Tools** of the study involved, structured questionnaire sheet to assess the children and their mothers'characteristics as well theirknowledge about epilepsy. ParentingStress Index to assess parents, stress. Also, Coping patterns scale to assess the mothers' coping patterns toward their children suffering from epilepsy. ***Results:*** The present study revealed that, the mean age of the children was 5.78±3.9 years and more than two fifth of them were ranked as the third child and more in their families. More than half of the children were male. The mean age of the mothers was 32.2±6 years and less than one third of them had secondary education. As regards the mothers' occupation, the majority of them were housewives. More than one third of the mothers had a moderate level of psychological stressors,while, more than half of them had a moderate level of social stressors and less than two thirds of them have high levels of physical stressors. Additionally, more than half of the mothers had a moderate coping patterns regarding their children with epilepsy. ***Conclusion:*** The results of this study concluded that, themothers of children with epilepsy are facing with many stressors resulting from their children with epilepsy; these stressors included physical, psychological and social stressors and moderate coping patterns regarding their children with epilepsy. ***Recommendation:*** Emphasize the importance of availability and distribution of pamphlets and booklet containing the basic knowledge for mothers about the disease of their children.

Key words: Epilepsy, stressors, coping patterns, Children, Mothers.

Introduction

Epilepsy is a neurological condition characterized by recurrent paroxysmal attacks of unconscious-ness or impaired consciousness that may be followed by contractionand relaxation resulting in alternating tonic and clonic movements of the muscles or abnormal behavior ***(Epilepsy Action, 2013).***

Every year, approximately 50, 000 new cases of epilepsy are diagnosed in children and adolescents under the age of

18years***(Global Campaign against Epilepsy, 2011).*** In Egypt, the prevalence of epilepsy is about 9/1000 children per year however, male are slightly more likely to develop epilepsy 10.5/1000 than female children (7.4/1000) ***(Farghaly et al., 2012).***

Epilepsy affects every child differently depending on age, types of seizures, response to treatment &whether or not the child has other health issues. In some children, the seizures are easily controlled with medicine and eventually outgrown. While, in other children, epilepsy can create difficult challenges throughout their lives ***(Herzer, Denson & Baldassano, 2011).***

The stress of a new epilepsy diagnosis may play a significant role in the daily activities of families with children with epilepsy. Most parents are extremely upset when their child is diagnosed with epilepsy, mainly because of the stigma associated with the condition ***(Ziegler et al., 2011 and Quittner, 2012).***The typical parental responses are shock, devastation, anger, frustration, sorrow and depression. In addition, they often fear divulging their child's epilepsy to their friends and relatives because experience a sense of shame, self-blame and rejection. This leads to withdraw from relatives and social circle***(Ellis, Upton & Thompson, 2012).***Meanwhile, the child grows older, parental stress is likely to increase due to management difficulties, financial demands and increased concern about the child's future. Parents may become physically and psychologically exhausted, having to provide almost constant care ***(Hoare & Kerley, 2012).***

Parents play the most significant role in helping the child with epilepsy adapt to his/her condition. In practical terms, their functions include seeking treatment, ensuring the child's compliance with treatment, facilitating the child's functioning in and outside the home, and recognizes the impact of epilepsy on child attitudes ***(Hoare &Kerley, 2012).***

The care of a child who has epilepsy is best achieved by epilepsy specialist nurse. While, the nurses play a pivotal role in providing a close link between the epileptic children and their families. They are also, in an ideal position to establish a link between the physicians and the affected families and offering valuable advice and support***(El-Radhi, 2015).***

Nurses must be familiar with the different types of seizure to ensure pediatric patients are given the appropriate care and medication. The nurse should have an understanding of seizures as well, the interventions, and monitoring strategies used to control seizures and to minimize the negative impact on the quality of life of children. Additionally, providing education and support to children and their families to cope with the challenges of living with chronic seizure disorder ***(Hay et al., 2013)***

Significance of the study:

Pediatric epilepsy is the most common chronic neurological illness in childhood and adolescence. In Egypt, one hundred patients had a confirmed diagnosis of epilepsy, with a lifetime prevalence of 12.46/1000, while, the age-specific prevalence rate of epilepsy was much higher in infancy and early childhood (62.5 and 37.04/1000, respectively ***(Fawi et al., 2015)***.The prevalence of epilepsy among children in at Neurological Out-Patient Clinic in Pediatric Department of Children's Hospital, Ain Shams University in the last two years(2012 and 2013) were about 300 children **(Statistical Office of Neurological Out-Patient Clinic of Children's Hospitals at Ain Shams University).**Children with epilepsy are considered to affect thewhole family, requiring new modes of organization and structure for the family. The failure of the family members to adapt adequately to the unique demands of illness could be considered a risk factor for development of psychological stresses and behavioral disturbances that occur in children and their

families. So, this study was conducted to assess stressors and coping patterns of mothers having children with epilepsy.

Aim of the Study

The aim of this study is to assess stressors and coping patterns of mothers having children with epilepsy.

Research Questions

1- What are the stressors facing mothers having children with epilepsy?

2- What are the coping patterns of mothers regarding their children with epilepsy?

3- Is there a relation between the knowledge of the mothers about epilepsy with their stressors and coping patterns?

4- Are there relations between mothers' characteristics with their stressors and coping patterns of their children with epilepsy?

Subjects and Methods:

Research design

A descriptive design was used in conducting the study.

Research Setting

The study was conducted at the Outpatient Clinic in the Neurological Pediatric Outpatient Clinic of Children's Hospital affiliated to Ain Shams University Hospitals.

Subjects

A purposive sample included all available children having epilepsy that constituted of 100 children and their accompanying mothers, who fulfilled thestudy criteria (confirmed diagnosis ofepilepsy, whatever the types of epilepsy and who were attended to the previously mentioned setting for management and follow up).

D-Tools of data collection:

Data were collected through using the following tools:

I-Structured questionnairesheet:

It was developed by the researcher after reviewing the relevant and current literature; it was designed in simple Arabic language to suit level of understanding of the mothers and to collect data regarding the following:

-First part:

A- Characteristics of the mothers having children with epilepsy which included mothers' age, educational level, occupation, residence and family income.

B- Characteristics of children with epilepsy which included the child's age, gender, child's order and educational level.Also, data about duration and number of attack.

-Second part:

It was concerned with knowledge of the mothers regarding epilepsy as:

- Meaning and types of epileptic attack.
- Risk factors of epileptic seizures and factors that mothers can follow to avoid these factors.
- Types of treatment and its side effects.
- The role of the mothers in care of their child during seizure and actions taken if a seizure not stopped.
- The role of the mothers in case of the child vomits medication.

- Compliance of follow up and drug regimen.

- Safety measures that mothers follow with their child inside and outside the home.

The types of questions were varied from multiple choice questions, short answer and essay questions and its number was 37 questions.

Scoring system:

The score of each question was determined according to its importance. The total score for the mothers' knowledge was determined as following:

-Satisfactory level of knowledge ≥60%

-Unsatisfactory level of knowledge 60%

II-Parenting Stress Index (PSI) (Abidin, 1995):

Parenting Stress Index was developed by **Abidin, (1995).**It is likert type scale used to assess parents, stress, it includes36 items related to parents, functioning, the behavioral and temperamental qualities of the child and the parent-child relationship.

This index was modified by the researcher in the form of omission for some statements not related to its relevance of the study. Accordingly, 29 statements were selected from this index for data collection. The scale divided into 3 kinds of stressors (physical, social

and psychological). The researchers translated the index into simple Arabic language to suit nature of the study.

Scoring of the parenting stress index (PSI):

The Parenting Stress Index is a five point scale, according to the degree of the mothers stressors, the numerical values allotted to each response as following:

Scores were used (5) points for strongly agree, (4) points for agree, (3) points for not sure, (2) points for disagree and (1) points for strongly disagree.

Regarding the total degree of stressors:

- Score from≤50% referred to low stressors.

- Score from50<75% referred to moderate stressors.

- Score from≥75% referred to high stressors.

III-Coping Patterns Scale (*Jalowiec and Powers, 1991*):

This scale was developed by **Jalowiec and Powers, (1991)**and used to assess the mothers coping patterns toward their children suffering from epilepsy. It was modified by the researchers and translated into simple Arabic language to suit the nature of the study. The modification of this scale in the form of omission of some statements not related to relevance of the study. Accordingly, 35 statements were selected in this scale for data collection from 60 statements.

Scoring of the Coping Patterns Scale:

The coping patterns scale is a three point scale according to the degree of coping, the numerical values allotted to each response was always, sometimes and never.

Measuring the scores of coping patterns of mothers rated on a 1to 3point likert scale to indicate the degree of use (never, sometimes and always).Whereby (3)

points for always, (2) points for sometimes, (1) points for never.

According to the given responses the study subjects coping patterns were categorized into either:

- Score ≤35% referred to low ability to cope.
- Score 35<70% referred to moderate ability to cope.
- Score ≥70% referred to high ability to cope.

II. Operational design:

A- Preparatory phase:

These phase include reviewing of the past and current related literature. It covers various aspects of the research problems using available articles, periodicals, magazine and books, and also to develop the study tools for data collection. Validly of the study tools, was ascertained by a group of experts in pediatric nursing. Their opinions will be elicited regarding the format, layout,consistency, accuracy and relevancy of the tools.

B- Pilot study:

A pilot study was carried out on 10% of the total studysample in March 2015 to test the study tools in terms of its clarity, arrangement, applicability of its items and the time required to fill in, involving a group of children and their accompanying mothers at outpatient clinics of Pediatric Hospital. The results of the data obtained from the pilot study were helped in modifications of the study tools, where certain items were corrected, such as safety measures followed by mothers when their child has attacked and certain items were omitted in coping scale and parenting stress index.Also, certain items were added as needed such as mother`s response after first seizure for their child and the mothers source of information about their child with epilepsy. The pilot study sample was not included in the study sample.

Ethical consideration:

Oral consent was obtained from each mother prior to fill the interviewing questionnaire after clarification of the study aim and assuring them that, the gathered information will be used for scientific research purpose only and will be strictly confidential. Study subjects were free to withdraw from the study any time they want.

Fieldwork:

Data collection was carried out from April, 2015 to November, 2015; the researcher introduced herself to the mothers. The aim of the study and its expected outcomes was explained for the mothers . The researcher attended the study settings 2days /week from 9am to 12pm in the previously mention setting. For data collection, each mother was interviewed individually in the waiting area. The study tools were filled within 30-45 minutes.

Statistical design:

Data entry and manipulated through statistical package for social science and revised, coded, tabulated and presented using statistics in the form of frequencies and percentages. Mean and standard deviations were used for quantitative variables. The qualitative data were also analyzed by applying appropriate statistical method qui square (x^2) to determine whether there was a statistical significant difference or not. The statistical significant difference was considered as follows:

- Non-significant(NS)p >0.05
- Significant(S)p ≤0.05
- Highly significant(HS)p ≤0.01

Administrative design:

An official written letters were issued from the Dean of Faculty of Nursing, Ain Shams University, to the director of the pediatric hospital of Ain Shams University to seek their approval for carrying out the study.

Results

Table (1): As regards the children's characteristics, this table shows that, the mean age of the children is 5.78±3.95 years and more than two fifth (41%) of them is ranking as third child and more in their families.

Table (2): As regards the characteristics of the mothers, this table shows that, the mean age of mothers is 32.2±6.0years and less than one third (30%) of them had diploma education. As regards their occupation, the majorities (90%) of the mothers are house wives and three quarters (75%) of them are living in urban areas.

Figure (1):Concerning the family history of epilepsy, this figure shows that, more than half (54%) ofthe children has family history of epilepsy.

Figure(2): Shows that**,** more than half (53%) of the mothers have satisfactory knowledge about epilepsy.

Table (3): Clarifies that, 60% of themothers have high levels of physical stressors, while, 52% of them have moderate level of social stressors. Additionally, 36% of the mothers have moderate level of psychological stressors.

Figure (3): Demonstrates that**,** more than half (56%) of the mothers had a moderate coping pattern related to their children with epilepsy. While, 17% of them have low coping pattern related to their children with epilepsy.

Table (4):As noticed in this table, there is a statistical significant relation between the total level of stress of mothers and their total level of knowledge (X^2 = 9.112P < 0.011).Where, 72.7% of the mothers who had an unsatisfactory level of knowledge had low levels of stress. Meanwhile, 65.5% of the mothers who had satisfactory level of knowledge and high level of stress.

Table (5):As noticed in this table, there is a statistical significant relation between coping patterns of mothers and their total level of knowledge (X^2 = 14.211, P< 0.001). Where, 17.6% of the mothers who had an unsatisfactory level of knowledge who had low levels of coping patterns. Meanwhile, 82.4% of the mothers had a satisfactory level of knowledge had low levels of coping patterns.

Table (6): Illustrates that, there is a statistical significant relation between the total level of stress of the mothers and their coping patterns (X^2 = 15.871, P < 0.003).Where, 5.2% of the mothers have low coping patterns have high levels of stress. Meanwhile, 65.5.0% of the mothers have moderate coping patterns have high level of stress.

Table (1): Number and percentage distribution ofthe children according to their characteristics (N=100).

Characteristics	Total	
	N	%
Child's age (years)		
-<5 years	42	42.0
5-<10years	20	20.0
10-≤15years	38	38.0
Mean±SD	5.78±3.95	
Ranking		
First	32	32.0
Second	27	27.0
Third and more	41	41.0

Table (2): Number and percentage distribution of the mothers according to their socio demographic characteristics (N=100).

Characteristics	Total	
	N	%
Age (years)		
25-<30	33	33.0
30<35	28	28.0
35<40	22	22.0
40-≤45	17	17.0
Mean±SD	32.2±6.0	
Educational level		
Illiterate	20	20.0
Read & write	25	25.0
Diploma	30	30.0
Highly educated	25	25.0
Occupation		
Housewife	90	90.0
Working	10	10.0
Residence		
Rural	25	25.0
Urban	75	75.0

Figure (1): Percentage distribution ofthe children according to their family history of epilepsy (N=100).

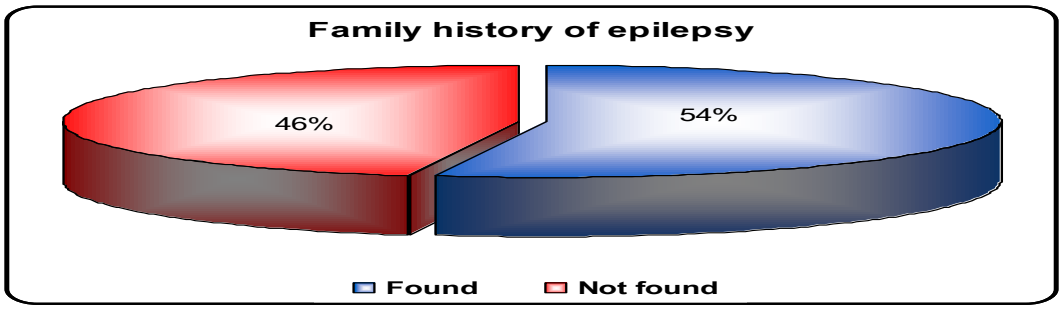

Figure (2):Percentage distribution of the mothers according to their total knowledge about epilepsy (N=100).

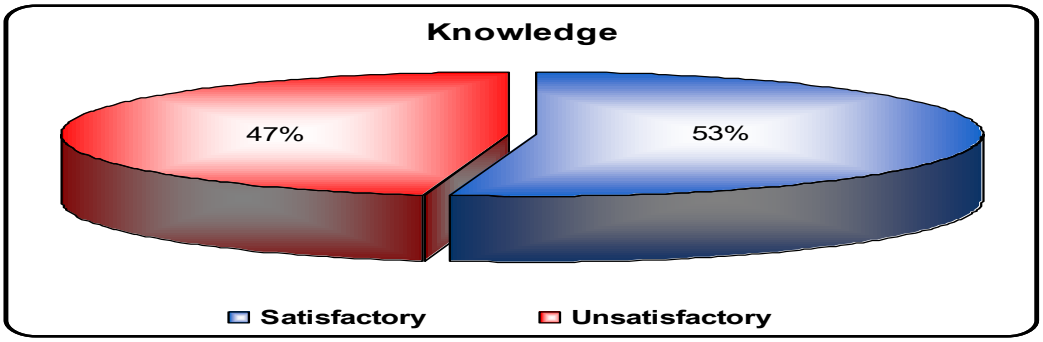

Table (3):Number and percentage distribution of the mothers according to their total stress with their children suffering from epilepsy (N=100).

Mothers' stress	Low		Moderate		High	
	N	%	N	%	N	%
Physical stressors	24	24.0	16	16.0	60	60.0
Social stressors	17	17.0	52	52.0	31	31.0
Psychological stressors	34	34.0	36	36.0	30	30.0
Total	11	11.0	31	31.0	58	58.0

Figure (3):Percentage distribution of the mothers according to their total coping patterns with their children suffering from epilepsy (N=100).

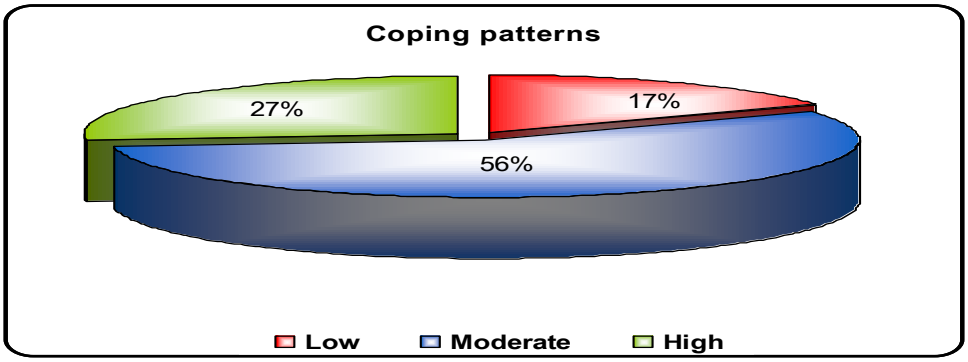

Table (4): Relation between total level of stress among the mothers and their total level of knowledge (N=100).

Level of stress		Total level of knowledge					
		Satisfactory		Unsatisfactory		Total	
		N	%	N	%	N	%
Low		3	27.3	8	72.7	11	100
Moderate		12	38.7	19	61.3	31	100
High		38	65.5	20	34.5	58	100
Total		53	53.0	47	47.0	100	100.0
X^2 & P-value	X^2	9.112					
	P-value	0.011*					

Table (5): Relation between total coping patterns of the mothers and their total level of knowledge (N=100).

Coping patterns		Total level of knowledge					
		Satisfactory		Unsatisfactory		Total	
		N	%	N	%	N	%
Low		14	82.4	3	17.6	17	100
Moderate		32	57.1	24	42.9	56	100
High		7	25.9	20	74.0	27	100
Total		53	53.0	47	47.0	100	100.0
X^2& P-value	X^2	14.211					
	P-value	<0.001*					

Table (6): Relation between the mothers totallevel of stress and their coping patterns (N=100)

Total level of stress		Coping patterns							
		Low		Moderate		High		Total	
		N	%	N	%	N	%	N	%
Low		5	45.5	3	27.3	3	27.3	11	100
Moderate		9	29.0	15	48.4	7	22.6	31	100
High		3	5.2	38	65.5	17	29.3	58	100
Total		17	79.7	56	56.0	27	79.2	100	100.0
X^2& P-value	X^2	15.871							
	P-value	0.003*							

Discussion:

Epilepsy is a sudden, involuntary, time-limited alteration in behavior, motor activity, autonomic function, consciousness, or sensation, accompanied by an abnormal electro-graphic pattern. It is the most widely seen chronic neurological disease in the terms of childhood and affects both the child himself and the family because of its psychological and social results ***(Hocaoglu&Koroglu, 2011).***

Parents of children with epilepsy, like parents of children with many other chronic conditions, are faced with a constant feeling of uncertainty about their child`s condition and the possibility of

another seizure. This uncertainty can lead to a decreased ability to cope as evidenced by increased stress levels, negative mood states, and impaired family functioning ***(Reilly, Atkinson & Das, 2014).***

Altered coping in the parent may have a profound negative impact on the child`s psychosocial adjustment to living with a chronic condition, so it is important to identify ways to facilitate positive coping skills of the parents and use various coping strategies to meet such situations***(Duffy, 2011).*** Coping well with epilepsy means not only managing seizures, but managing its impact on the entire family***(Crawford & Marshall, 2013).***

Regarding to the characteristics of the children suffering from epilepsy, the present study showed that, more than half of the children were males. This finding is in accordance with the finding of ***Banerjee et al., (2009),*** who carried out a study entitled ″The descriptive epidemiology of epilepsy- a review″and found that male prevalence recorded cases of epilepsy to be significantly higher than female because female cases may have been concealed where women are considered 'unmarriageable' if they had epilepsy. Also, this finding is supported by ***Russ, Larson & Halfon (2012),*** who carried out the study entitled″A national profile of childhood epilepsy and seizure disorder″ and found that, epilepsy was more common among male than female due to hyperactivity nature of male than female. As well as, ***Saleem et al., (2015),*** who carried out a study, entitled ″Prevalence and pattern of active epilepsy in school going children's in Kashmir valley″ and illustrated that, males had higher prevalence of epilepsy (3.81/1000) than females (2.77/1000).

Also, the finding of the current study revealed that, the mean age of the children was 5.78±3.95 years. This finding is in accordance with the finding of **Åndell et al., (2015),** who carried out a study entitled″The incidence of unprovoked seizures and occurrence of neuro-developmental comorbidities in children at the time of their first epileptic seizure and during the subsequent six months″ and reported that ‹the highest incidence of epilepsy is among the youngest children in the first year of life. Moreover, ***Camfield & Camfield (2015),***who carried out a study entitled ″Incidence, prevalence and etiology of seizures and epilepsy in children″ and found that, generalized seizure and epilepsy/syndrome types were more prevalent in children aged 0–6 years of age.

Regarding to characteristics of the mothers of children with epilepsy, the finding of the present study showed that, less than one third of the mothers had secondary education. This is similar to study conducted by ***El Malky, Atia & Alam (2016),*** who carried out a study entitled ″The effectiveness of social skill training on depressive symptoms, self-esteem and interpersonal difficulties among epileptic children″ and found that, 30% of mothers having completed secondary education.

In relation to the residence of the mothers, the present study demonstrated that three quarters of them were living in urban areas. This finding is supported by ***Guerinni & Parmeggiani (2010),*** who carried out a study entitled ″Practitioner review: use of antiepileptic drugs in children." and found that, the incidence of epilepsy is high in developed countries especially in urban areas. Meanwhile, ***Emran et al., (2011),***who carried out a study entitled ″A survey of public familiarity, knowledge and attitude towards epilepsy in Lahore, in Pakistan″ and found that, more than half of children with epilepsy were living in urban areas.

As regards the family history of epilepsy the result of the current study revealed that, more than half of the

children have a history of epilepsy. This finding is in accordance to ***Abou-Khalil & Krei (2010),*** who carried out a study entitled ″Familial genetic predisposition, epilepsy localization and antecedent febrile seizures″and illustrated that, family history was strongly implicated in generalized epilepsy and found a number of genetically determined partial epilepsies. As well as, ***Conway, Devinsky & Glick (2015),***who carried out a study entitled ″Epilepsy in children: what every parent need to know″ and illustrated that, child's family history of epilepsy increases the risk of developing epilepsy and genetic abnormalities are emerging as a common cause of epilepsy, the children of parents with epilepsy have an increased risk of developing epilepsy.

Regarding to the mothers total knowledge about epilepsy, the present study showed that, more than half of the mothers have a satisfactory level of knowledge about epilepsy. This finding is supported by the study of ***Manju, Joshi & Gulati (2015),***who carried out a study entitled "A study to assess the knowledge and attitude of parents of children with epilepsy" and found that, knowledge and understanding of epilepsy among parents was fairly good and the attitude of parents toward epilepsy treatment was positive. Also, this result is in incongruent with the finding of ***Behrouzian & Neamatpour (2010),***who carried out the study about parental knowledge and mental health of parents of children with epilepsy and illustrated that, the majority of mothers of children with epilepsy had a low or medium level of knowledge about epilepsy.

At the researchers' point of view, that some of the mothers, especially illiterate mothers have the concept that the cause of epilepsy are directly related to the evil eye. So this can lead the mothers late to go to the physician and the child`s condition may be deteriorated.

As regards the mother`s total level of stress, the finding of the current study illustrated that, nearly two thirds of the mothers have a high stress level. This finding is in accordance with ***Shatla (2011),***who carried a study entitled ″Correlates of parental stress and psychopathology in pediatric epilepsy″ and reported that, epilepsy has a greater negative impact on the family and child, and the presence of intractable seizures was associated with greater general parenting stress. In addition, ***Speechley et al., (2012),*** carried a study entitled ″Quality of life in children with new-onset epilepsy: A 2-year prospective cohort study and illustrated that, families of children with epilepsy are face a variety of medical, developmental, social, emotional, and environmental issues that create demands on the care and rearing of the children and require comprehensive, long-term health care that lead to experience high levels of stress by parents and families because of the specific care demands.

Coping strategies are subconscious mechanism that individuals use to cope with stress and broken down into basic strategies depending on the nature of the stressor, each of these can be used to reduce or eliminate the impact of the problem that is making the individual feel controlled. There are broad types of coping strategies such as, problem-focused strategies and emotion-focused coping.***Pascoe & Richman (2009),***who clarified that, problem focused coping incorporates active problem solving, seeking information, and seeking social support, acceptance of the problem and interpersonal efforts to alter the situation problem-focused coping is best, as it removes the stressor, so deals with the root cause of the problem, providing a long term solution. Problem-focused strategies are successful in dealing with stressors. Also, ***Penley, Tomaka & Weibe (2012),***who clarified that, emotion focused coping includes detaching from the situation and involves trying to reduce

the negative emotional responses associated with stress such as embarrassment, fear, anxiety, depression and frustration. This may be the only realistic option when the source of stress is outside the person's control. Noteworthy, more than half of the mothers have a moderate coping pattern with their children with epilepsy.

As regards the relation between mothers' total stress level of and their total level of knowledge, the result of the current study illustrated that, there was a statistical significant relation between levels of stress of the mothers and their total level of knowledge. The researcher` point of view that, the mothers of children with epilepsy have a satisfactory level of knowledge that can obtained from many sources as a medical health team during follow up in out- patient clinic or from other mothers that their children have the same diagnosis.

In the same point of view, ***Sell-Salazar (2012),***who carried out a study about psychological aspects of childhood epilepsy, clarified that, parents' knowledge of epilepsy is associated with lowered parental anxiety. Furthermore, knowledge of epilepsy also leads to less stigmatization, social isolation and depressive symptoms. Overall parents` attitudes toward their children with epilepsy were significantly influenced by the depth of their knowledge of the disease.

Moreover, ***Reilly, Atkinson & Das (2015),***who carried out a study entitled, a population-based study of Neuro behavioral comorbidities in children with active epilepsy who found that, there was an inverse correlation between the total score of knowledge and the attainment scores on the anxiety scale of mothers of children with epilepsy. However, parents' knowledge of epilepsy is associated with lowered parental anxiety.

The results of the present study clarified that, there was statistical significant relation between total coping patterns of the mothers and their total level of knowledge toward epilepsy. This finding is in accordance with the result of ***Beresford &Sloper (2011),*** who carried out a study about, the information needs of chronically ill or physically disabled children and adolescents and arguing that, knowledge is an important coping resources, and conclude that, using information obtained about the disease, the mothers are able to understand the situation better, increasing the feeling of control and motivating their children to cooperate with treatment. Information seeking is one of the most frequently used coping strategies. Seeking information may be used to identify possible solution and may be followed by other coping strategies.

Conclusion:

The findings of this study can concluded that them others of children with epilepsy have a satisfactory level of knowledge about epilepsy and facing many stressors resulting from the disease of their children and its long lasting consequences and prolonged continuous treatment. These stressors included all aspects of life as physical, psychological and social stressors

As regards the relation between the mothers' total level of stress and their coping patterns, the results of the current study clarified that, there was a statistical significant between the total level of stress and coping patterns of the studied mothers. This result is consistent with results of ***Tuncay & Musabak (2015),*** who carried out a study entitled; problem-focused coping strategies predict posttraumatic growth in veterans with lower-limb amputations, and stated that, there was a significant positive correlation between coping strategies and

stress as well as depression of mothers of children with epilepsy.

Recommendations:

In the light of the study findings, the following recommendations are suggested:

- Emphasize on the importance of avaliability and distribution of pamphlets and booklet containing the basic knowledge for mothers about the disease of their children.
- Continuous educational programs should be conducted for mothers of children with epilepsy to raise their awareness regarding dealing with their children with epilepsy.
- Health teaching of the mothers having children with epilepsy is a mandatory through nurses working at NPOC.
- Establish a protocol in hospitals aiming to alleviate the stressors of mothers of children with epilepsy with empowering their coping patterns.
- Further researches should be conducted to determine the barriers/ challenges that affect negatively coping patterns of the mothers having children with epilepsy.

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