Vol. 7, Issue 2, pp: (239-242) Month: October 2019 - March 2020, Available at: www.researchpublish.com

# IMPACT OF PEDIATRIC EPILEPSY IN PARENTAL PSYCHOSOCIAL STATUS

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Abstract: Epilepsy is considered able to affect the whole family because it requires different ways of adaption for each member of the family. Failure of family members to adapt to their children's chronic disease can be considered as a risk factor for the development of psychopathology which refers to psychological distress and behavioral disorders that occur in children. The purpose of this study is to determine the impact of epilepsy in children on the psychosocial condition of parents. This research uses descriptive method by collecting cross sectional data. Data were collected using a parental stress scale questionnaire through interviews with parents with children diagnosed with epilepsy. Research data were processed using SPSS software ver. 24. The number of research samples obtained was 40 respondents. Based on gender, the largest proportion is female which 23 respondents (57.5%). Based on the final results of the PSS score, the greatest proportion is parents with psychosocial undisturbed which is 31 respondents (77.5%). The proportion of respondents who experienced the most psychosocial disorders is 7 female respondents (30.4%). Further research needs to be done to find out what factors can influence or cannot influence the psychosocial parents.

Keywords: parents, children, epilepsy, impact, psychosocial.

# I. INTRODUCTION

Many diseases are actually medical disorders but are considered as supernatural events by ordinary people, especially disorders of the nervous system. In humans, the nervous system has an important role, to learn, to remember, self-awareness, intelligence, and to shape personality. Abnormalities in the nervous system can be caused by various factors, such as heredity, developmental disorders, comorbidities, and traumatic injuries<sup>[1]</sup>. One example of nervous system damage that is still associated with supernatural events by the community is epilepsy.

Epilepsy is a neurological condition that affects about one in every 103 people. This is caused by repeated disruption to ordinary brain activity. Epilepsy is most often diagnosed in childhood and at the age of 60 years, but can still affect anyone<sup>[2]</sup>. Epilepsy is also said to occur when a person experiences a seizure attack and their brain exhibits pathological traits and the tendency of the seizure can recur<sup>[3]</sup>. People with epilepsy experience impaired brain function which is characterized by a predisposition to make epileptic seizures accompanied by risk factors that are neurobiological, psychological, and social<sup>[4]</sup>. Epilepsy usually begins in childhood and will affect the child's brain and ability to do things. That is because the child's developing brain is very vulnerable to changes that occur inside and outside the child's body. Epilepsy disorders in children are affected by which parts of the brain are affected and the age of the child when exposed to epilepsy.

Around 50 million people currently live with epilepsy throughout the world<sup>[5]</sup>. Globally, an estimated 2.4 million people are diagnosed with epilepsy every year. In high-income countries, there are 30 to 50 per 100,000 people in the general population. In low and middle income countries, this figure can be up to twice as high. The true incidence of epilepsy is

# International Journal of Healthcare Sciences ISSN 2348-5728 (Online)

Vol. 7, Issue 2, pp: (239-242) Month: October 2019 - March 2020, Available at: www.researchpublish.com

highest in developing countries. This is because the risk of developing conditions or diseases that lead to brain injury is higher in developing countries compared to developed countries<sup>[6]</sup>.

In Indonesia there are at least 700,000-1,400,000 cases of epilepsy with an increase of 70,000 new cases each year and an estimated 40% -50% occur in children 7. The quality that can worsen people with epilepsy is the social and psychological impact it receives. Epilepsy disorders are not only seizures and are overcome through treatment or surgery, but also involve social, economic, social, personal, and so on. Personality disorders, such as low self-esteem, are more difficult to overcome than the symptoms of convulsions. Self-confidence becomes important for patients in carrying out their daily lives<sup>[8]</sup>.

Epilepsy is considered able to affect the whole family because it requires different ways of adaptation for each family. The failure of family members to adapt to chronic diseases in childhood can be considered a risk factor for the development of psychopathology which refers to psychological distress and behavioral disorders that occur in children. Family factors, especially those related to the quality of parent-child relationships (such as parental rejection), have a negative effect on children's development<sup>[9]</sup>.

### II. METHODOLOGY

This study is a descriptive cross-sectional study. The collected data is primary data was obtained by giving a parental stress scale questionnaire to parents with children diagnosed with epilepsy. This study was performed in the pediatric outpatient care of Sanglah General Hospital in March to September 2019. Parents who couldn't read and write were excluded, parents who also have been diagnosed by other mental disorder were excluded. Then the data processes by SPSS version 24.

# III. RESULT AND DISCUSSION

### A. Result

Based on table 1 obtained 17 male respondents (42.5%) and 23 female respondents (57.5%). The mean PSS final score was 34.23 with a standard deviation (SD) of 6.495. Based on the average obtained, the respondents generally included in the category of not disturbed psychosocial.

**Table 1: Characteristics of Research Respondents** 

	<i>n</i> (%) / Mean ± SD
Sex	
Male	17 (42,5%)
Female	23 (57,5%)
PSS Final Score	$34,23 \pm 6,495$

In table 2 divided by sex, the majority of female respondents were 23 respondents (57.5%) while male respondents were 17 respondents (42.5%).

**Table 2: Gender Frequency Distribution** 

	n (%)
Sex	
Male	17 (42,5%)
Female	23 (57,5%)

Based on table 3 from the final PSS score, it was found that most respondents did not experience psychosocial disorders with a total of 31 respondents (77.5%) and the remaining 9 respondents (22.5%) had psychosocial disorders.

**Table 3: PSS Final Score Frequency Distribution** 

	n (%)
PSS Final Score	
Not Disturbed	31 (77,5%)
Disturbed	9 (22,5%)

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Table 4 showed 2 male respondents (11.8%) experienced psychosocial disorders while 7 female respondents (30.4%) had psychosocial disorders. Based on these results, it can be said that the group with the most psychosocial disorder was female respondents.

Table 4: Cross Tabulation of PSS Final Score and Gender

	Final Score PSS	
	Disturbed	Not Disturbed
Sex		
Male	2 (11,8%)	15 (88,2%)
Female	7 (30,4%)	16 (69,6%)

#### B. Discussion

Table 2 showed the distribution of research respondents by sex, where the proportion of female respondents has a greater number, namely as many as 23 people (57.5%) and male as many as 17 people (42.5%). This is consistent with research conducted by Reilly regarding stress in parents with children diagnosed with epilepsy with 47 female respondents (54.6%) and 39 male respondents (45.4%)<sup>[10]</sup> and Puka regarding the difficulties of parents discussing epilepsy to others and their own children, they used 27 female respondents (79.4%) and 7 male respondents (20.5%)<sup>[11]</sup>. The result of this study are also supported by Kroner study in 2018, where there were more female respondents than male respondents (56 respondents compared to 2 respondents)<sup>[12]</sup>.

Table 3 showed the most respondents did not experience psychosocial disorders with a total of 31 respondents (77.5%) and the remaining 9 respondents (22.5%) experienced psychosocial disorders. The result of this study are supported by research conducted by Reilly, it is said that the respondents mostly did not experience depression disorder<sup>[13]</sup>. Kroner's research in 2018 regarding the parents' perspective on epilepsy also supports the result of this study, which found only 1 respondent (3.8%) who experienced anxiety<sup>[12]</sup>. However, the result of this study differ from Puka's study which states that there is a relationship between the quality of life in children diagnosed with epilepsy and the quality of life in parents<sup>[11]</sup>.

Table 4 showed the respondents who experienced the most psychosocial disorders were 7 female respondents (30.4%). This study has the same result with Reilly's study which states that female experience anxiety disorders more often than male<sup>[13]</sup>. The result of this study also supported by the result of the 2018 Reilly study which states that more female experience anxiety (47% compared to 26%), depression (55% compared to 33%), and stress (55% compared to 31%) than male<sup>[10]</sup>.

#### IV. CONCLUSION

In this study, most respondents were female, 23 respondents (57.5%) compared to 17 respondents (42.5%) men. In parents with children diagnosed with epilepsy, psychosocial disorders were more frequent in women by 7 respondents (30.4%) than men by 2 respondents (11.8%). From the overall final score of the parental stress scale questionnaire, it was found that more respondents were psychosocially uninterrupted as many as 31 respondents (77.5%) than those who experienced psychosocial disorders as many as 9 people (22.5%). The mean final score of the parental stress scale questionnaire was 34.23 with a standard deviation (SD) of 6.495. Further research needs to be done with different questionnaires to determine the types of disorders experienced by parents and to find out what factors that could affect the psychosocial disturbances.

## ACKNOWLEDGEMENT

We would like to thank Faculty of medicine Udayana University, all the faculties, doctors and students who helped us carry out this study.

#### **REFERENCES**

- [1] Crossman AR, Neary D. Neuroanatomy E-Book. Elsevier Health Sciences. 2014.
- [2] Kumar S, Singh G. Pathophysiology of epilepsy: An update review. International Journal of Medical and Health Research. 2016;2(10):32-6.

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- [3] Fisher RS, Acevedo C, Arzimanoglou A, Bogacz A, Cross JH, Elger CE, Engel Jr J, Forsgren L, French JA, Glynn M, Hesdorffer DC. ILAE official report: a practical clinical definition of epilepsy. Epilepsia. 2014 Apr;55(4):475-82.
- [4] Lukas A, Harsono H, Astuti A. Gangguan kognitif pada epilepsi. Berkala Ilmiah Kedokteran Duta Wacana. 2016 Mar 23;1(2):144-52.
- [5] Epilepsy [Internet]. Who.int. 2018 [cited 1 September 2018]. Available from: http://www.who.int/news-room/fact-sheets/detail/epilepsy
- [6] Megiddo I, Colson A, Chisholm D, Dua T, Nandi A, Laxminarayan R. Health and economic benefits of public financing of epilepsy treatment in India: An agent-based simulation model. Epilepsia. 2016 Mar;57(3):464-74.
- [7] Suwarba IG. Insidens dan karakteristik klinis epilepsi pada anak. Sari Pediatri. 2016 Nov 17;13(2):123-8.
- [8] Primardi A, Hadjam MN. Optimisme, harapan, dukungan sosial keluarga, dan kualitas hidup orang dengan epilepsi. Jurnal Ilmiah Psikologi. 2011 Feb 26;3(2).
- [9] Shatla R, El said Sayyah H, Azzam H, Elsayed RM. Correlates of parental stress and psychopathology in pediatric epilepsy. Annals of Indian Academy of Neurology. 2011 Oct;14(4):252.
- [10] Reilly C, Atkinson P, Memon A, Jones C, Dabydeen L, Das KB, Gillberg C, Neville BG, Scott RC. Symptoms of depression, anxiety, and stress in parents of young children with epilepsy: a case controlled population-based study. Epilepsy & Behavior. 2018 Mar 1;80:177-83.
- [11] Puka K, Tavares TP, Anderson KK, Ferro MA, Speechley KN. A systematic review of quality of life in parents of children with epilepsy. Epilepsy & Behavior. 2018 May 1;82:38-45.
- [12] Kroner BL, Ardini MA, Bumbut A, Gaillard WD. Parental perspectives of the impact of epilepsy and seizures on siblings of children with epilepsy. Journal of Pediatric Health Care. 2018 Jul 1;32(4):348-55.
- [13] Reilly C, Taft C, Nelander M, Malmgren K, Olsson I. Health-related quality of life and emotional well-being in parents of children with epilepsy referred for presurgical evaluation in Sweden. Epilepsy & Behavior. 2015 Dec 1;53:10-4.