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Quality of Life of Epileptic Children Using Pediatric "Quality of Life Inventory" TM (PedsQLTM) Assessment at RSUD Dr. Zainoel Abidin Banda Aceh

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Abstract: *Epilepsy is a chronic disease that causes social function barriers that affect quality of life. Clinical factors, demographics, psychosocial, and anti-epileptic drugs are reported to affect the quality of life of people with epilepsy. This study aims to assess the quality of life of children with epilepsy who seek treatment at the IKA section of RSUDZA. This research is an observational analytic study with a cross-sectional design at the neurology polyclinic and inpatient Dr. RSUD. Zainal Abidin Banda Aceh for the period April-May 2021. The research subjects are 2-18 years old. Quality of life assessment using generic PedsQLTM 4.0. Multivariate analysis was tested using logistic regression test. It was found that 60 epilepsy patients participated in the study and obtained a quality-of-life disorder based on parent reports of 28.3%, and children's reports of 34.1%. There was no statistically significant relationship between demographic factors and children's quality of life based on parental reports ($p< 0.05$). In the children's report, it was found that demographic factors in the form of unexpected parenting were risk factors for impaired quality of life ($p <0.05$). Abnormal EEG picture is a clinically significant factor for impaired quality of life in children with epilepsy ($p<0.05$). This study concludes that patients with risk factors namely unexpected parenting, abnormal EEG affect quality of life.*

Keywords: *epilepsy; quality of life; PedsQLTM; parenting*

I. Introduction

Epilepsy as a chronic disease has an impact on the quality of life of patients. Quality of life is one of the important parameters in assessing the effectiveness of medical interventions (Forsgren, 2005; Sabaz, 2003; Christensen, 2007; Verhey, 2009; Suwarba, 2016). The incidence of epilepsy in children is reported from various countries with wide variations, around 4-8 per 1000 children, depending on the study design and age group of the population. Kidney disease has been experienced by humans since ancient times (Razi, 2021). There are at least 700,000 new cases in Indonesia each year and it is estimated that 40%-50% occur in children (Suwarba, 2016).

Clinical manifestations of epilepsy are acute and transient conditions such as decreased consciousness, motor, sensory, autonomic or psychic disturbances that are felt by the patient and can be witnessed by others. The main goal of the management of epilepsy in children is to make the family and patient experience minimal medical and psychosocial complications due to the disease. Wall et al (1987) reported that 77% of patients with epilepsy had difficulties in daily social functioning that affected their quality of life. Clinical factors, demographics, psychosocial, and anti-epileptic drugs (OAE) were reported to have a significant influence on the quality of life of people with epilepsy.

Quality of life is a subjective perception of a person's welfare on his life which includes

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physical, psychological, and social domains (Matza, 2004). Chronic diseases that appear in childhood will affect the quality of growth and development, social function, emotion, physical, school ability lower than healthy children and affect the quality of life. Children's potential in the future (Eiser, 2009). Chronic disease according to WHO is a degenerative disease that develops or persists in a very long period of time, which is more than 6 months and requires medical treatment in dealing with health problems that limit what can be done. This condition also occurs in children with epilepsy whose main symptoms are seizures. Seizures in epilepsy greatly affect the quality of life of the sufferer, both in terms of education, development, as well as social or social interaction. Even if the patient experiences continuous seizures and is not treated, there can be damage or death of neuron cells in the brain which will later affect the level of intelligence and mental condition of the patient (Eiser, 2001; Major, 2007; Wishwadewa, 2008). If this has happened, of course, the quality of life of the patient will decrease and several studies have shown behavioral disorders such as depression, hyperactivity, and impaired school performance. Another factor that affects the quality of life is parenting. Parenting patterns are important in the survival of children because they are related to family, environment, and child care patterns (Ismail, 2011). A survey reported that 6-12% of children have chronic diseases. In this group some of them can adapt well, but the rest are not able to adapt and experience social, psychological, and social disturbances.

The type of parenting is divided into expected parenting, namely parenting from parents who are full of consideration and unexpected parenting, namely parenting that demands a lot and is dominant, parenting style from parents that gives complete freedom and only minimal parental intervention, and inconsistent parenting patterns (Ismail, 2011). The Child Parenting Questionnaire (KPAA) is a measuring tool to assess the parenting pattern obtained by parents, namely father and mother/guardian who live with the child. This questionnaire has a good Cronbach alpha that is 0.8347 with a correlation value showing a coefficient value between 0.0013-0.3979 which means that the correlation between units is quite item and good (Ismail, 2011).

Quality of Life in childhood epilepsy questionnaire parent form (QOLCE) was used as an instrument to assess the quality of life of children with epilepsy. This instrument was first developed by Sabaz et al in Australia which consists of 5 parameters to assess the quality of life, namely physical function, cognitive, emotional well-being, social function, and behavior. Other components include health stigma and general quality of life (Sabaz, 2000). Research on the quality of life of children with epilepsy using the QOLCE instrument has been conducted at RSCM Jakarta. In this study, it was found that the factors that affect the quality of life of children suffering from epilepsy are the number of seizures, the age of the child and the number of children in the family, while the number of epilepsy drugs consumed has no effect (Wishwadewa, 2008). The drawback of this instrument is that only parents/caregivers who have children suffering from epilepsy aged 4-18 years are included. Children are not included in this instrument. In QOLCE, because there are too many questions and it takes a long time, it is feared that respondents will give inappropriate answers, causing bias.

World Health Organization (WHO)set standards for measuring quality of life that include physical, mental, and social aspects. The pediatric quality inventoryTM (PedsQLTM) instrument is an instrument for measuring quality of life that meets these standards. This instrument consists of a generic module and a disease-specific module (Varni, 2020).

The PedsQL 3.0 generic module instrument has been used on 25,000 children and their parents and has been translated into 60 languages. The PedsQLTM instrument has good reliability with a range of Cronbach values 0.73-0.94, a wide age range of 2-18 years, and there is an age grouping based on age subgroups. This questionnaire was asked for feelings felt during the last 30 days (Varni, 2020).

Based on the exposure to the data above, the researcher is interested in using PedsQLTM to determine the presence of disturbances or quality of life problems. This instrument in addition to having a subgroup of age groups, also has a wider age range, namely reports of parents 2-18 years old and children 5-18 years old. This reason is the basis for conducting this research so that interventions can be carried out as early as possible to achieve optimal quality of life.

II. Research Methods

This research is an observational analytic study with a cross sectional design. The population of this study were all children with epilepsy who were undergoing treatment at the Regional General Hospital, dr. Zainoel Abidin Banda Aceh. The sample size in this study is calculated based on a single sample calculation to estimate the proportion of a population and obtained a minimum sample of 60 respondents. The research sample was determined by consecutive sampling with the application of exclusion criteria, namely Children have other chronic diseases that require special therapy, have psychiatric disorders, mental retardation, cerebral palsy, and severe disabilities, are not in optimal condition when data collection (currently experiencing acute illness, drowsiness) the patient's parents were not willing to participate in this study.

Parents were given an explanation that a research was being conducted on the quality of life of children with epilepsy based on the PedsQL^{TM} measurement, as well as the purpose and benefits of the study. It was explained that there were two PedsQL^{TM} questionnaires, namely child reports and parent reports. Reports for children aged 5-18 years and parents reports for children aged 2-18 years. The child's report will be asked to the child and filled in by the researcher, the parent's report will be filled in by the parent. It is explained that there is a KPAA questionnaire to assess parenting patterns. Questionnaires were filled out by parents. Parents were also asked to fill in demographic data in the research form.

The dependent variable (dependent) is the quality of life of Epileptic children as measured by PedsQL^{TM}. The independent (independent) variables assessed are demographic factors (age, gender, parental education, children's education, parental occupation, family income level, and parenting). Clinical factors (type of epilepsy, EEG picture, duration of therapy), type of therapy (poly pharmacy, monopharmacy).

The data is processed using a statistical program. Univariate analysis describes descriptive results of various variables. Bivariant analysis using independent sample t test and Mann-Whitney U test was conducted to prove significant differences between parental reports and child reports. Meanwhile, multivariate analysis using logistic regression was carried out to obtain various factors related to quality of life.

III. Results and Discussion

3.1 Results

a. The Basic Characteristics of the Research Sample

Table 1. The Basic Characteristics of the Research Sample

Variable	N(%)
Gender	
Man	50 (83.3)
Woman	10 (16.7)
AgeChild	
2-4 years	19 (31.7)
5-7 years	12(20,0)
8-12 years old	13 (21.7)
13-18 years old	16 (26.7)
Children's Education	
Not school yet	8 (13.3)
Preschool	16 (26.7)
Low	26 (43.3)
Intermediate	10 (16.7)
Child Order	
First	23 (38.3)
Not first	37 (61.7)
Number of children	
2 kids	37 (61.7)
>2 kids	23 (38.3)
Parenting	
Expected	39 (65.0)
Not expected	21 (35.0)
Father's education	
Base	16 (26.7)
Intermediate	37 (61.7)
Tall	7 (11.7)
Mother's education	
Base	13 (21.7)
Intermediate	33 (55.0)
Tall	14 (23.3)
dad's job	
Work	58 (96.7)
Does not work	2 (3,3)
Mother's job	
Work	14 (23.3)
Does not work	46 (76.7)
Total family income	
Under UMR	45 (75.0)
Above UMR	15 (25,0)
Types of Epilepsy	
General	38 (63.3)
Focal	22 (36.7)
EEG overview	
Normal	42 (70.0)
Abnormal	18 (30,0)
Duration of therapy	
2 yrs	23 (38.3)
>2yrs	37 (61.7)

Based on Table 1, it is known that the majority of the subjects were male (83.3%) with the most age group being 2-4 years old (31.7%), followed by 13-18 years old 26.7%. Most of the children's education is of low education (43.3%) with the father's education being secondary (61.7%) and the mother being secondary (55%). More than half of the children with epilepsy studied in this study were not the first child and more than 60% of their families had only one or two children. Most of the fathers work (96.7%) and only 23.3% of mothers who work. Most of the patients' socioeconomic status (75%) came from the lower middle class, indicated by the total family income below the minimum wage. 65% of the subjects received the expected parenting style. The longest duration of therapy was found to be >2 years (61.7%). Treatment with polypharmacy found 12% and monopharmacy 48%. Most children had normal EEG findings (70%), 30% with abnormal features. Epileptic children studied in this study 63.3% had generalized epilepsy, 36.7% had focal epilepsy.

b. The Description of the Average Value of the Components of the Quality Of Life of Children with Epilepsy According to the Questionnaire Assessment PedsQL^{TM}

Table 2. A Comparison of the Value of Each Function of the Quality of Life of Children with Epilepsy between the Sources of Parental Reports and Child Reports

Variable	**Report Source**		***p-value***
	Parent (Average ± SD)	**Child (Average ± SD)**	
Physical Function	77.09±5.12	78.23 ± 4.16	0.201b
Emotional Function	74.08 ± 6.39	74.40 ± 5.74	0.791a
Social Function	75.07 ± 6.20	74.24 ± 5.68	0.769b
School Function	61.56 ± 28.55	75.26 ± 6.59	0.023b
Psychosocial Function	74.91 ± 4.60	74.70 ± 3.93	0.810a

Table 2 presents a comparison of the value of each function of the quality of life of children with epilepsy between the sources of parental reports and child reports. Based on Table 2, it is known that 2 of the 5 components of the quality of life of children with epilepsy have a higher average value based on parental reports when compared to children's reports. The two components are social function and psychosocial function. Meanwhile, the average score of the components of physical, emotional and school functions based on children's reports looks higher than according to parents' reports. However, further testing with Independent sample t test and Mann-Whitney U test proved that only school function in epilepsy children was significantly different between parent reports and child reports. This is indicated by the p-value of the test which is smaller than 0.05 in the comparison of school function scores between the two report sources (parents and children). Meanwhile, the other four components of children's quality of life (physical, emotional, social and psychosocial functions) were not significantly different between parent reports and children's reports.

Based on Table 3 shows that in general the number of children with epilepsy who have a quality of life in the impaired category is less than the number of children who are not affected by their quality of life based on parental assessment reports. Their parents were analyzed by logistic regression model. There was no significant relationship between demographic factors and children's quality of life based on parental reports using PedsQL^{TM} ($p>0.05$).

Table 3. The Relationship between Demographic Factors and Quality of Life of Children with Epilepsy Based on Parental Reports

Variable	**Children's quality of life based on parental reports**		***p-value***	***Odds Ratio* (95% CI)**
	Not distrubed (N)	**Disturbed (N)**		
Gender				
Man	35	15	-	1
Woman	8	2	0.525	0.583 (0.111-3.078)
AgeChild				
2-4 years	16	3	-	1
5-7 years	7	5	0.120	3,810 (0.707-20,533)
8-12 years old	10	3	0.606	1,600 (0.269-9.533)
13-18 years old	10	6	0.153	3,200 (0.649-15.75)
Children's Education				
Not school yet	6	2	-	1
Preschool	12	4	1,000	1,000 (0.141-7.099)
Low	19	7	0.914	1.105 (0.179-6.821)
Intermediate	6	4	0.505	2,000 (0.260-15.381)
Child Order				
First	15	8	-	1
Not first	28	9	0.384	0.603 (0.193-1.885)
Number of children				
2 kids	25	12	-	1
>2 kids	18	5	0.374	0.579 (0.173-1.934)
Parenting				
Expected	18	3	-	1
Not expected	25	14	0.087	3,360 (0.840-13,441)
Father's education				
Base	13	3	0.999	NA
Intermediate	23	14	0.999	NA
Tall	7	0	-	1
Mother's education				
Base	8	5	0.077	8.125 (0.798-82.731)
Intermediate	22	11	0.089	6,500 (0.750-56,300)
Tall	13	1	-	1
dad's job				
Work	42	16	-	1
Does not work	1	1	0.504	2.625 (0.155-44.526)
Mother's job				
Work	10	4	0.982	1.015 (0.270-3.821)
Does not work	33	13	-	1
Total family income				
Under UMR	30	15	0.152	3,250 (0.648-16,301)
Above UMR	13	2	-	1

c. The Relationship between Demographic Factors Andquality of Life of Children with Epilepsy Based on Reports of Children Using PedsQL$^{\text{TM}}$

Table 4. The Relationship between Demographic Factors Andquality of Life of Children with Epilepsy Based on Reports of Children Using PedsQL$^{\text{TM}}$

Variable	**Children's quality of life based on children's reports**	***p-value***	***Odds Ratio* (95% CI)**

	Not distrubed (N)	Disturbed (N)		
Gender				
Man	21	13	-	1
Woman	6	1	0.248	0.269 (0.029-2.497)
AgeChild				
5-7 years	7	5	-	1
8-12 years old	11	2	0.157	0.255 (0.038-1.692)
13-18 years old	9	7	0.912	1.089 (0.240-4.950)
Children's Education				
Preschool	3	2	-	-
Low	19	7	0.559	0.553 (0.076-4.035)
Intermediate	5	5	0.715	1,500 (0.170-13,225)
Child Order				
First	13	6	-	1
Not first	14	8	0.747	1.238 (0.337-4.543)
Number of children				
2 kids	18	9	-	1
>2 kids	9	5	0.879	1.111 (0.287-4.306)
Parenting				
Expected	12	1	-	1
Not expected	15	13	0.034	10,400 (1,186-91,176)
Father's education				
Base	7	7	0.999	NA
Intermediate	15	7	0.999	NA
Tall	5	0	-	1
Mother's education				
Base	2	3	0.999	NA
Intermediate	15	11	0.999	NA
Tall	10	0	-	1
dad's job				
Work	26	13	-	1
Does not work	1	1	0.634	2,000 (0.116-34.598)
Mother's job				
Work	9	3	0.430	0.545 (0.121-2.461)
Does not work	18	11	-	1
Total family income				
Under UMR	13	14	0.998	NA
Above UMR	14	0	-	1

The results of the logistic regression analysis in Table 4 show that only 1 of 11 independent variables has a significant effect on the quality of life of children with epilepsy. The independent variable that affects the quality of life of children with epilepsy is parenting with an Odds Ratio of 10,400 (95% confidence interval lies between1,186 to 91,176). This indicates that children with epilepsy with unexpected parenting are 10.4 times more likely to have a disturbed quality of life when compared to children with epilepsy who have expected parenting.

Table 5. The Relationship between Clinical and Quality of Life of Children with Epilepsy Based on Parental Reports Using PedsQL^{TM}

Variable	Children's quality of life based on parental reports	*p-value*	*Odds Ratio* (95% CI)

	Not distrubed (N)	**Disturbed (N)**		
Types of Epilepsy				
General	27	11	0.890	1.086 (0.337-3.505)
Focal	16	6	-	1
EEG overview				
Normal	34	8	-	1
Abnormal	9	9	0.018	4,250 (1,276-14,151)
Duration of therapy				
2 yrs	18	5	-	1
>2yrs	25	12	0.374	1,728 (0.517-5,774)

Based on Table 5, a significant relationship was found on the EEG picture with quality of life based on parental reports (p <0.05) with an Odds Ratio (OR) of 4.250. This indicates that children with epilepsy who have an abnormal EEG category tend to be 4.25 times more likely to have a disturbed quality of life when compared to children with epilepsy who have a normal EEG picture.

Table 6. The Relationship between Clinical and Quality of Life of Children with Epilepsy Based on Reports of Children Using PedsQL^{TM}

Variable	**Children's quality of life based on children's reports**		***p-value***	***Odds Ratio* (95% CI)**
	Not distrubed (N)	**Disturbed (N)**		
Types of Epilepsy				
General	16	8	0.896	0.917 (0.248-3.389)
Focal	11	6	-	1
EEG overview				
Normal	22	7	-	1
Abnormal	5	7	0.042	4,400 (1,055-18,358)
Duration of therapy				
2 yrs	7	4	-	1
>2yrs	20	10	0.856	0.875 (0.206-3.708)

Based on Table 6, a significant relationship was found on the EEG picture with the quality of life based on the child's report (p <0.05) with an OR of 4,400. This shows that children with abnormal EEG images tend to be 4.4 times more likely to have a disturbed quality of life when compared to children with epilepsy who have normal EEG features.

Table 7. Relationship between Therapies with Quality of Life of Children with Epilepsy Based on Parental Reports Using PedsQL^{TM}

Variable	**Children's quality of life based on parental reports**		***p-value***	***Odds Ratio* (95% CI)**
	Not distrubed (N)	**Disturbed (N)**		
Type of Therapy				
Polypharmacy	7	5	0.258	2,143 (0.572-8.026)
Monopharmaceutical	36	12	-	1

There was no significant relationship between the type of therapy while participating in the study and the quality of life based on parental reports (p>0.05)

Table 8. Relationship between Therapies with Quality of Life of Children with Epilepsy Based on Reports of Children Using Pedsql^{tm}

Variable	**Children's quality of life based on children's reports**		***p-value***	***Odds Ratio* (95% CI)**
	Not distrubed (N)	**Disturbed (N)**		
Type of Therapy				
Polypharmacy	6	6	0.175	2.625 (0.651-10.583)
Monopharmaceutical	21	8	-	1

Based on table 8 there was no significant relationship between the type of therapy while participating in the study and the quality of life based on children's reports (p>0.05).

3.2 Discussion

This study is the first study to assess the quality of life of children with epilepsy using the PedsQL^{TM} questionnaire in epilepsy children undergoing treatment at the Neurology polyclinic and inpatient section of the RSUDZA Banda Aceh. The PedsQL^{TM} questionnaire is a questionnaire that is easy to use, inexpensive, can be used by other medical personnel, meets the requirements for the feasibility of the instrument to be used to assess quality of life, such as having high validity and reliability and has been proven in several studies, available in generic and specific forms. , can be filled out by the child (self-report) or parent/guardian (proxy report), and is available for various age groups, and this questionnaire has been translated into several language versions with the aim of facilitating its implementation (Modi, 2017; Katherine, 2016; Aji, 2016).

The majority of male subjects were involved in this study.Based on gender, men had a higher risk of suffering from epilepsy, but no racial differences were found (Ali, 2007; Mohammed, 2005). The incidence was higher in men, similar to the study in Turkey found 59.3% of men, as a risk factor for epilepsy (odds ratio 1.38; 95% internal confidence 1.13-1.69) (Ali, 2007; Aydin, 2002).

In this study, from parental reports, it was found that family demographics were not a factor influencing the quality of life of children with epilepsy. There were previous studies that looked for factors that influenced children's quality of life with different results. In a study using the QOLCE instrument, although family demographics did not affect the overall quality of life of children, in the group of parents with good income, children tend to have better self-confidence and can affect emotional functioning. The higher the education history and family income, the treatment is routine. Thus, the patient's neurological function improvement can be achieved. The patient becomes more confident and anxiety in activities is reduced (Wishwadewa, 2018). There are also studies that report similar results with this study.

The effect of parental income on the quality of life of pediatric epilepsy patients in this study was not significant because it was caused by other confounding variables. In this case, the participation of the Social Security Administering Body (BPJS) is a factor that is considered to have an influence. BPJS health participation helps treat pediatric epilepsy patients so that it does not only depend on the socioeconomic conditions of the family. According to the research report of Saing (2010), financial problems are the reason that causes treatment irregularities in 20% of the tested samples. All subjects (100%) are BPJS participants, so the results of our study cannot provide an overview for the non-BPJS group.

Children's reports show a significant relationship between unexpected parenting patterns and impaired quality of life for children. In a previous study conducted at the RSCM using the QOLCE instrument aged 4-18 years, it showed that the average parent/caregiver anxiety was significantly correlated with the child's anxiety. Caregivers who are not good about epilepsy, resulting in a parenting pattern that tends to be overprotective to patients. Williams et al24 reported that in two different disease groups, namely epilepsy and diabetes, it was found that parenting patterns of parents were worried about having seizures at night, resulting in different parenting patterns that affected anxiety and quality of life in children with epilepsy.

Although epilepsy is a clinical diagnosis, electroencephalography (EEG) is a very important examination to confirm the diagnosis of epilepsy, determine the classification of epilepsy, see the epileptogenic focus, evaluate the results of therapy, and determine the prognosis (Mohammed, 2002; Doescher, 2006). EEG examination is also very necessary to rule out the possibility of epilepsy-like disorders such as syncope, breath holding speech, infantile masturbation, migraine and so on, which often make epilepsy misdiagnosed/overdiagnosed (Kurukawa, 2010; Doose, 1997; Noachtar, 2009). The first EEG recording in this study, abnormal images were obtained in 30% of cases and the majority of the remaining EEG images were within normal limits. Several other studies reported similar results, the first EEG was abnormal in 37-39% of cases (Doescher, 2006; Doose, 1997; Jaseja, 2009).

The results of EEG recordings are influenced by many factors and not always impaired brain function can be reflected in EEG recordings. Normal EEG findings can be found in children with epilepsy, whereas mild and atypical EEG abnormalities are present in 15% of the normal population.[29.32]Abnormal EEG images in this study were found to be fewer than normal EEGs, because only the first EEG recording was recorded when epilepsy was diagnosed, and the recording was performed when the patient was not having seizures (inter-ictal). In the literature it is stated that abnormal EEG images will be obtained more often if the EEG is repeated several times.[10.33]In addition, these results differ because to obtain a positive result requires several activation procedures, such as sleep, hyperventilation, and photic stimulation (Deroos, 2009; Shinnar, 1996).

Abnormal EEG images in this study had a significant relationship with impaired quality of life ($p < 0.05$), this was different from the previous study by Winny et al, and Vicra et al. lives of children with epilepsy.

In this study the relationship between therapeutic factors and children's quality of life, both parental reports and child reportsshowed that children who used monopharmaceutical treatment had a better effect on the patient's quality of life than polypharmacy treatment. Previously, various studies did report the effect of the type of OAE administration on the patient's quality of life, but the effect varied between studies. polypharmacy is considered to encourage the improvement of the patient's quality of life (Piperidou, 2008; Dash, 2015). It is also said that in patients with intractable epilepsy, polypharmacy treatment is able to reduce the frequency of seizures which can later affect the patient's quality of life (Dash, 2015). Others reported the same results as this study,where patients who received monopharmacy treatment had a better quality of life score compared to patients who received polypharmacy treatment. impaired quality of life when compared with children with epilepsy with monotherapy, as well as in children's reports showing that children treated with polypharmacy have an OR value of 2.625, meaning that they tend to be 2.62 times more likely to have impaired quality of life than children treated with monopharmaceuticals.1 time to have a disturbed quality of life when compared to children with epilepsy with monotherapy, as well as reports from children showing that children treated with polypharmacy had an OR value of 2.625, meaning that they tended to be 2.62 times to have a disturbed quality of life compared to children with monopharmaceutical therapy. 1 time to have a disturbed quality of life when compared to children with epilepsy with monotherapy, as well as reports from children showing that children treated with polypharmacy had an OR value of 2.625, meaning that they tended to be 2.62 times to have a disturbed quality of life compared to children with monopharmaceutical therapy.

Some types of OAE can cause side effects in patients, such as central nervous system-related disorders, decreased motor and psychomotor activity, low memory, and difficulty concentrating. Adequate treatment for patients, although seizure-free is an important goal in the treatment of epilepsy, the side effects of drugs and the effect on the patient's quality of life also need to be considered (Auriel, 2009; Elsharkawy, 2012; Dang, 2017).

IV. Conclusion

There is a difference in the value of each function of the quality of life of children with epilepsy between the source reports of parents and children's reports. Disturbed quality of life is obtained from parental reports of 28.3%, and children's reports of 34.1%.There is a significant relationship between demographic factors in the form of unexpected parenting with the occurrence of impaired quality of life in children with epilepsy based on children's reports, abnormal EEG is a clinical factor that has a significant relationship with impaired quality of life in children with epilepsy according to reports from parents and children using a questionnaire PedsQLTM.

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