

Parent's Knowledge about Epilepsy, Medication Adherence, and Quality of Life among Children with Epilepsy

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ABSTRACT

Quality of life (QOL), composed of four domains (cognitive, emotional, social, and physical), is a recent focus of management of chronic diseases. This study primarily aimed to determine the relationship between parent's knowledge about epilepsy, medication adherence, and quality of life among children with epilepsy. Although knowledge is high, misconceptions about the condition still exist. Adherence to the prescribed medication regimen was also poor. Cognitive, emotional, social, and overall QOL were high, but physical QOL was low. The overall QOL and social domain were influenced by both knowledge and adherence scores. With these findings, the QOL of CWEs must be given attention by healthcare practitioners and in academic institutions.

Keywords: *Quality of Life, Person with Epilepsy (PWE), Seizure Disorder, Compliance*

INTRODUCTION

Background and Rationale of the Study

Epilepsy is a disorder that comes without warning. It snatches the consciousness of a person, and the entire body begins to convulse as if demons are being shaken out. As soon as the convulsive fit is over, the person falls into the post-ictal state unaware of what came over him – an epileptic attack being described in a local publication (Paragua, 2011).

Epilepsy, a chronic neurological disorder, affects people of all ages. The World Health Organization (WHO)

estimated that around 50 million people worldwide are affected by this disease condition with incidence higher in developing countries than in developed ones (Joseph, Kumar, and Nelliyanil, 2013). In the local setting, the number of afflicted persons approaches nearly a million (Paragua, 2011).

The International League Against Epilepsy (ILAE) and Philippine League Against Epilepsy (PLAE) emphasized that improving the quality of life (QOL) of children with epilepsy (CWEs), rather than just reducing the frequency of

seizures, should be the priority in the management of epilepsy. QOL represents the evaluation of the impact of a health condition and its corresponding treatment. Its multidimensional nature, covering the physical, emotional, mental, social, and behavioral components of well-being has allowed researchers and clinicians to perceive how a CWE lives daily with consideration to their well-being and activities of daily living (Sieberer et al., 2006).

Pediatric epilepsy is a complex neurological condition characterized by the unexpected, episodic, and chronic nature of a variety of seizures (Ronen et al., 2003 and Kasper et al., 2015). Global studies showed a decline in quality of life of Children with Epilepsy (CWEs) within six months from diagnosis (Speechley et al., 2012). Cognitive, emotional, social, and physical functioning were eventually affected also (Jolfaei et al., 2015). Seizure attacks were also shown to have an unfavorable impact on the school performance of CWEs (Hirfanoglua et al., 2009). Despite the seizure control offered by medications, CWEs and their parents are still anxious about the possibility of having an attack in public (Heersink, 2015).

Neurologists and healthcare practitioners suggest that knowledge of the parents must be continuously assessed to determine their readiness to respond in acute situations. Surprisingly,

almost 2 in every 10 individuals believe that seizure is caused by the possession of evil spirits and almost half opted for spiritual healing for a cure (Kabir et al., 2005). In Cambodia, people labeled epilepsy as “mad pig disease” while in Nigeria, they believed that the “foam” from the child’s mouth during the seizure attack is the infectious causative agent (Tran et al., 2007 and Akpan et al., 2013).

Parallel to the above findings, adherence with prescribed medications among CWEs has been consistently poor, with reports of non-adherence ranging from 35 to 70 percent only (Carborne et al., 2014). Studies from 1992 to 2015 revealed that only about three-fourths of the patients are compliant with the therapy (Cramer, 1992; Asadi-Pooya, 2005; and Malik et al., 2015).

In the Philippines, QOL studies were focused more on chronic diseases such as cancer and end-stage renal disease. The literature on epilepsy statistics, management, and patients’ concerns was scarce. Non-adherence to medications, although undocumented on local journals and studies, was observed by health professionals in emergency and diagnostic departments.

The PLAE, a nonprofit organization of health professionals committed to the improvement of the quality of life of CWEs in the Philippines, in collaboration with DOH, celebrates the National Epilepsy Awareness Week and International Epilepsy Day every

February. Their campaign slogan emphasizes the importance of KKK ('*Kaalaman*' or Education as the Key, '*Kaligtasan*' or Staying Safe, and '*Kalusugan*' or Being Responsible). The organization also conducts lectures, symposia, and training among employers, administrators, parent organizations, urban doctors, and health professionals to increase their awareness about epilepsy.

Despite these efforts, Dr. Marilyn Ortiz (2015), PLAE president, acknowledged that misconceptions and non-adherence to medications remain prevalent because of the lack of knowledge about its significance. In the locality, there are still several instances of requisition of prescription pads in late hours because of consumed AEDs. Also, families from lower socioeconomic strata tend to stop their medications because the attack did not recur for several days.

The trend in treatment and management of epilepsy has greatly improved over the decades; however, quality of life among this population remains to be affected. Thus, this study was conducted to identify the factors associated with quality of life of children with epilepsy.

Objectives of the Study

This study primarily aimed to determine the relationship between parent's knowledge about epilepsy, medication adherence, and quality of life among children with epilepsy.

Specifically, it aimed to answer the questions:

1. What is the parent's level of knowledge about epilepsy?
2. What is the adherence to medication regimen?
3. What is level of Quality of Life among Children with Epilepsy (QOLCE)?
4. Is there a relationship between parents' knowledge about epilepsy and adherence to medication regimen?
5. Is there a relationship between parents' knowledge about epilepsy and QOLCE?
6. Is there a relationship between adherence to treatment and QOLCE?

Theoretical Framework

This study is anchored to the Quality of Life Model by Wilson and Cleary (1995). According to this model, quality of life of people with illness is composed of several dimensions including physical, mental, emotional, and social dimensions. The model explicates that individual characteristics, social environment characteristics, and symptoms are linked to general health knowledge and role participation. Along with the disease symptoms, is linked to the knowledge of the individual about the disease and their role participation which includes adherence to medications.

Conceptual Framework

In this study, the child as an individual faces epilepsy as a life-changing process. Their quality of life (QOL) may be affected in cognitive,

emotional, social, and physical aspects. The parent's knowledge about epilepsy and adherence to medication regimen

may intertwine to influence the quality of life of children with epilepsy (QOLCE).

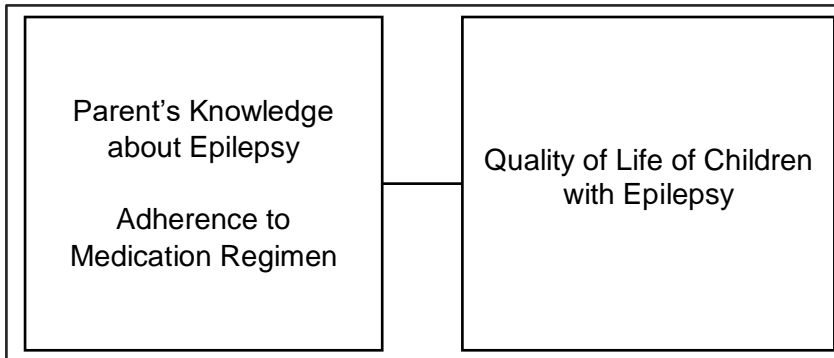


Figure 1. Conceptual Framework of the Study

Definition of Variables

Parent's Knowledge about Epilepsy refers to the parent's understanding of epilepsy (Modi et al., 2010). It was measured using a 10-item True or False researcher-made questionnaire. It was categorized as high knowledge and poor knowledge.

Adherence to Medication Regimen refers to the adherence to the prescribed treatment (Modi et al., 2010). It was measured by a 6-item questionnaire answerable in a Likert scale as follows: 0 – Never, 1 – Sometimes, 2 – Most of the Time, and 3 – Always. It was categorized as adherent or non-adherent.

Quality of Life of Children with Epilepsy (QOLCE) refers to a multidimensional construct that covers physical, emotional, mental and social domains as assessed by their patients (Ravens-Sieberer et al., 2006). In this

study, it refers to the Quality of Life of Children with Epilepsy (QOLCE) which includes the cognitive, emotional, social, and physical functioning of children diagnosed with epilepsy as perceived by their parents. It was measured using a validated questionnaire entitled Quality of Life in Childhood Epilepsy Questionnaire (QOLCE-55) Version 1.0 English by Goodwin et al. (2015).

Significance of the Study

Nurses. Through the findings of this study, the nurses will be able to identify the needs of a particular group of clients (patients with epilepsy). Care plans can be formulated to address factors associated with the adherence to medications and QOLCE. Furthermore, if the parent's knowledge of the disorder can be evaluated, there will be a basis for the formulation of EIC (Education,

Information, and Communication) campaign on seizure disorders.

Children with Epilepsy (CWEs) and their Parents. The CWEs and their parents, through the findings of this study, may identify the significant factors that could influence the quality of life of a child with epilepsy. They may also be able to identify what aspect of QOL is severely affected by the condition. Through this, they may be able to seek support from the community, discuss with other mothers and parents, and approach their neurologist for advice.

Barangay Health Workers and Organizations. The barangay health workers and health-related organizations such as Philippine League Against Epilepsy (PLAE) may also utilize this study as the basis for the formulation of programs for members of the population with epilepsy. Furthermore, programs for the community member, including the

parents, may also be planned to educate them on what to expect and what to do when a seizure attack is witnessed.

Future Researchers. They can use the findings of this study for the review of related literature and as the basis for the conduct of future studies related to seizure disorders. This study may be conducted in another institution with consideration for other variables.

Delimitations of the Study

This descriptive correlational study was conducted in outpatient neurologic clinics in Iloilo City, Philippines. The study subjects are pediatric clients aged 4 to 18 years old that are seeking consultation at the neurologist's clinic with a known history of two or more unprovoked seizures. The data were gathered from the child's parent who accompanied the child during the consultation.

RELATED LITERATURE AND STUDIES

This section discusses the related studies on knowledge, adherence, and quality of life among children with epilepsy. Due to the dearth of current literature (i.e., five years recent), literatures within the past decades were included.

Knowledge about Epilepsy

Knowledge about epilepsy varied among groups. For example, in Brazil,

first-year students were found to have inadequate answers about epilepsy and first aid measures for seizures (Caixeta et al., 2007). On the other hand, teachers in Nigeria even believed that the foam from the mouth of a convulsing child with epilepsy is the infectious agent (65 percent) (Akpan, Ikpeme, and Utuk, 2013). In India, about three-fourths of the parents knew that epilepsy is a brain disorder while less than a tenth was

aware of all treatment options. The scores on disease and treatment knowledge were found to be significantly low (Shaju, Vinayan, and Abraham, 2014).

Adherence to Medication Regimen

Medication compliance is expected among seizure clients as most of them have already experienced at least two seizures before the diagnosis is made. In 1992, when compliance records were reviewed, compliance was only three-fourths (Cramer, 1992). Over the years, partial compliance was noted among patients under 18 years of age diagnosed with a seizure disorder (Asadi-Pooya, 2005). In India, noncompliance on medications was observed in 18.1 percent of the cases and was more prominent among patients on polytherapy (Joseph et al., 2013). Among neurology outpatient clients, the was only suboptimal compliance (Babu et al., 2009 and Malik et al., 2015).

Quality of Life in Childhood Epilepsy

A study on health-related quality of life (HRQOL) of children 4-12 years old with new-onset epilepsy revealed that half of the respondents experienced clinically meaningful improvements in HRQOL; however, one-fifth declined after six months. Cognitive problems, poor family functioning, and high demands from the family members were the risk factors identified (Speechley et al.,

2012). Patients in the USA aged 2-18 found out that children and adolescents with epilepsy had a similar or even better HRQOL than others with chronic conditions (Ingerski et al., 2010). In India, high level of QOLCE were noted (Aggarwal, Datta, and Thakur, 2011).

Cognitive Functioning. In Morocco, it was found that more than one-third of the CWE had at least one personality disorder (Jolfaei, Esfahani, Jalali, and Tamannai, 2015). Mental slowness, memory impairment, and attention deficit were also frequent in earlier studies (Rijckevorsel, 2006).

Emotional Functioning. Emotional functioning was noted to be lower among CAWE (children and adolescents with epilepsy) (Haneef et al., 2010 and Wanigasinghe et al., 2010). Clients with more seizures were found to have more depressive and affective problems (Tavares, Puka, and Smith, 2015).

Social Functioning. The social stigma linked with epilepsy is continuously observed despite global campaigns. In the United States, it was found out that patients with epilepsy had lower social and school functioning scores compared to the norm (Haneef et al., 2010). In Vietnam, 56% of one thousand randomly selected people expressed that they would not allow their son or daughter to marry someone with epilepsy (Cuong, Thien, and Jallon, 2003). In Turkey, less knowledgeable caregivers or parents lead to poorer performance at school, minimal social

support, lower self-esteem, and more incidence of anxiety and depressive symptoms. Furthermore, family activities were less-restrictive if they were knowledgeable and these parents reported worrying less about their children (Hirfanoglu et al., 2009). Patients, whether the diagnosis is disclosed or undisclosed, were

distressed by having a seizure in public (Heersink, 2015).

Physical Functioning. Physical functioning of children and adolescents with epilepsy is lower compared to the normative data (Haneef et al., 2010) and their siblings without the disease (Baca et al., 2010).

METHODOLOGY

Research Design

This descriptive-relational study utilized the one-shot survey design. The descriptive type of study finds answers to the questions who, what, when, where, and how. This design allows description of a phenomenon for a specific period with consideration to the identified factors.

Study Population and Respondents

The study population included children with epilepsy who sought consult in a pediatric neurology clinic. Seventy-two (72) parents participated during the study period. The following inclusion criteria were used to identify the study subjects: (a) patient's age is 4 to 18 years old; (b) accompanied by a parent of legal age, (c) the child is diagnosed with epilepsy based on at least two episodes of unprovoked seizures per report of the parent/s, (d) absence of any neurodevelopmental disorder (mental retardation,

developmental delay, palsy, and behavioral disorders), any other comorbid diseases that requires daily medication intake (asthma, hypertension, chronic renal failure, chronic lung disease, blood dyscrasias, among others), and identified causes of seizures such as brain tumor or febrile episodes.

Research Instrument

Knowledge about Epilepsy was measured using a 10-item true or false questionnaire. The statements were based on the brochure published by the International League Against Epilepsy. The number of correct items was determined. The scores were categorized as follows: 'High Knowledge' if the score is 7 to 10, 'Poor Knowledge' if the score is 6 and below.

Adherence to Medication Regimen was measured using a 6-item researcher-prepared questionnaire on medication compliance. It is answerable

by a Likert Scale as follows: 1 – Never, 2 – Sometimes, 3 – Most of the Time, and 4 – Always. There are three positively and three negatively stated items. For positively stated items, a score of 1 is given to the response ‘Always’ and 0 to the rest. For negatively stated items, a score of 1 is given to the response ‘Never’ and 0 to the rest. The total score is then obtained and categorized as follows: ‘Adherent’ if the score is 6 and ‘Non-Adherent’ if the score is 5 and below.

The Quality of Life in Childhood Epilepsy Questionnaire (QOLCE-55) Version 1.0 by Goodwin, Lambrinos, Ferro, Sabaz, and Speechley (2015) was utilized. Permission to use and the copy of questionnaire were obtained from Dr. Kathy Nixon Speechley, Chair, Division of Children’s Health and Therapeutics, Children’s Health Research Institute. It is composed of 55 items with the following distribution by subscale: cognitive (22), emotional (17), social (7), and physical (9). It is answerable by a Likert Scale: 1 – Never, 2 – Almost Never, 3 – Sometimes, 4 – Fairly Often, and 5 – Very Often. The responses obtained from their parents were converted to a 0 – 100-point scale (0, 25, 50, 75, and 100). Higher converted scores reflect better quality of life. The mean value for each subscale was computed. The mean of the four subscales was obtained to determine the Quality of Life scores of the patients. The scores are categorized as follows: ‘High’ if the score is 76-100, ‘Average’ if the

score is 51-75, and ‘Low’ if the score is 50 and below.

The questionnaires were translated to Hiligaynon by a language expert and reviewed by a panel whose members are native speakers of Hiligaynon and adept in the English language. The questionnaire was administered in English. The Hiligaynon translation was maintained only by the researcher and used only when there were items that need to be clarified in the native language.

Validity and Reliability of the Questionnaire

The questionnaire was presented to a panel of experts in the field of research and nursing. All comments and recommendations of the panel were taken into consideration. The Quality of Life in Childhood Epilepsy Questionnaire (QOLCE – 55) Version 1.0 English demonstrated an excellent internal consistency ($\alpha = 0.96$) (Conway et al., 2017 and Goodwin et al., 2015).

The English and final translated version were pre-tested to ten (10) parents of children with epilepsy. The questionnaire on knowledge about epilepsy has a reliability score of 0.862 (using the Guttman Split-Half Coefficient) while the questionnaire on Adherence to Medication Regimen has a reliability score of 0.702 (Cronbach Alpha).

Ethical Considerations

The informed consent was attached to the questionnaire. The study has

passed the ethical review of St. Paul's Ethical Review Board (SPHI-StR-03-16).

Data Collection

The permission of the pediatric neurologist and respective clinic heads were obtained before the conduct of the study. Upon approval, parents of CWEs who fulfilled the inclusion criteria were approached for participation in the study. When informed consent was already secured, the questionnaires were

personally distributed to the respondents and retrieved within an hour. The researcher was available to cater any queries and clarifications from the respondents.

Data Processing and Statistical Analysis

The data were analyzed using the Statistical Package for Social Sciences (SPSS). Pearson's product moment correlation or Pearson's r and Gamma were used.

RESULTS AND DISCUSSION

Knowledge about Epilepsy

Table 1 shows that three-fourths (72.2 percent) of the parents have high knowledge about the disorder while almost one-fourth had scores below 7. The mean score is 7.15, indicating high knowledge.

Based on the specific items, majority believes that all people with epilepsy have similar symptoms; however, scientific evidence suggests otherwise according to the International League Against Epilepsy (ILAE). Epilepsy can manifest as an involuntary movement of an extremity to generalized shaking of the body. Common manifestations observed were upward rolling of eyeballs and drooling of saliva. Some parents thought that children with epilepsy could not take an active part in sports (41.7 percent). Recent guidelines

explicated that CWEs can play sports as long as their seizure had been controlled.

There was also at least one in every ten respondents who believed that epilepsy is an infectious and contagious disease (13.9 percent) and that it can be caused by a curse (13.9 percent). Almost all were knowledgeable that seizure attacks were caused by abnormal brain discharges (95.8 percent), start at any age (90.3 percent), and can be controlled with medications (95.8 percent). This is congruent with the findings in Nigeria where almost one-fifth of the population studied believe that seizure is caused by the possession of evil spirits (Kabir et al., 2005). In Africa, knowledge was also found to be low (Atadzhanov et al., 2006).

Table 1
Distribution of CWEs' Parents according to Level of Knowledge

Level of Knowledge	f	%
Low Knowledge (6 and below)	20	27.8
High Knowledge (7 and above)	52	72.2
Total	72	100.0

mean = 7.15 (High Knowledge)

Adherence to Medication Regimen

Adherence to medication regimen was measured by a 6-item questionnaire with statements indicating practices on medication intake. Two-thirds (66.7 percent) were found to be non-adherent, indicating poor practices. This finds support in studies on medication compliance indicating that there was at least 25 percent of the population who do not take the medications as prescribed (Asadi-Pooya, 2005; Faught et al., 2008; Babu et al., 2009; and Malik et al., 2015).

Based on the specific items, more than one-third (38.9 percent) forget to

give their child medications, and a little more than one-fourth (26.4 percent) stop the medication whenever they are feeling worse with it. Also, a significant portion of parents stop the medication whenever their child is feeling better or not having any seizure attack. Almost 1 in every 10 (12.5 percent) fails to acquire prescription on time and three (4.2 percent) of them reported doubling the dose of treatment to prevent a seizure attack. Even though these numbers are minimal, they still warrant further education to those who are caring for CWEs.

Table 2
Distribution of CWEs according to Adherence to Medication Regimen

Adherence to Medication Regimen	f	%
Non-Adherent	48	66.7
Adherent	24	33.3
Total	72	100.0

Quality of Life of Children with Epilepsy (QOLCE)

The QOLCE was assessed using the questionnaire by Sabaz and colleagues (2015). It is divided into four (4) categories: cognitive, emotional, social, and physical functioning. It was answerable in a 5-point Likert Scale with

higher scores indicating a higher quality of life. As shown in table, the cognitive, emotional, and social functioning of the CWEs were almost the same (indicated by mean scores of 63.5, 66.9, and 66.2), showing that the child's intellect, emotion, and socialization were above average. On the other hand, the lowest

was noted in physical functioning. This points out that the CWEs need more supervision, less often play freely inside and outside the home, rarely participate in sports; and more often need supervision when playing and dealing with others.

Furthermore, most of the CWEs have a high cognitive functioning (36.2 percent), average emotional functioning (65.3 percent), high social functioning

(37.5 percent), and low physical functioning scores (72.2 percent). Overall, the majority of QOLCE scores is average (58.4 percent). Global studies also revealed that physical functioning of children and adolescents with epilepsy was lower compared to the normative data (Haneef et al., 2010) and their siblings without the disease (Baca et al., 2010).

Table 3
Distribution of CWEs according to Quality of Life Scores

Quality of Life	f	%
Cognitive Functioning		
50 and below	23	31.9
51 - 75	23	31.9
76 - 100	26	36.2
Total	72	100.0
Mean = 63.46		
Emotional Functioning		
50 and below	6	8.3
51 - 75	47	65.3
76 - 100	19	26.4
Total	72	100.0
Mean = 66.89		
Social Functioning		
50 and below	21	29.2
51 - 75	24	33.3
76 - 100	27	37.5
Total	72	100.0
Mean = 66.19		
Physical Functioning		
50 and below	52	72.2
51 - 75	20	27.8
76 - 100	-	-
Total	72	100.0
Mean = 44.11		
Quality of Life (Overall)		
50 and below	15	20.8
51 - 75	42	58.4
76 - 100	15	20.8
Total	72	100.0
Mean = 60.15		

Relationship between Knowledge about Epilepsy and Adherence to Medication Regimen

As shown in table 4, there is a higher percentage of highly knowledgeable parents (69.2 percent) who are non-

adherent to the prescribed therapy than those who have low knowledge (60.0 percent). The Gamma value of -0.20 shows that there is an indifferent and negative correlation between knowledge and adherence. Hence, knowledge about the disease has only minimal bearing on the adherence to medication regimen. Therefore, it is possible that even if the

parents are not knowledgeable about the disease, they still ensure that the prescribed medication regimen is followed. In contrast, a study that involved eighty-eight adolescents with epilepsy concluded that higher knowledge about the disorder is related to better self-reported adherence (Carborne et al., 2013).

Table 4
Parent's Knowledge about Epilepsy and Adherence to Medication Regimen

Knowledge about Epilepsy	Adherence to Medication Regimen				Total	
	Non-Adherent		Adherent			
	f [~]	%	f [~]	%	f [~]	%
6 and below	12	60.0	8	40.0	20	100.0
7 - 10	36	69.2	16	30.8	52	100.0
Total	48	66.7	24	33.3	72	100.0

Gamma = -0.20

Relationship between Parent's Knowledge and Quality of Life

A big majority of CWEs whose parents have low knowledge about the disorder (70.0 percent) have average QOL scores. In contrast, there are more CWEs with low QOL despite having highly knowledgeable parents (25.0 percent) compared to those who have low knowledge (10.0 percent). Statistical

analysis using Pearson's r revealed a low and inverse correlation ($r = -0.21$) between knowledge and quality of life. This means that as CWE's parents become more knowledgeable, the quality of life of decreases. The QOL model posits that the knowledge of the individual is positively linked to the QOL, contrary to the findings of this study.

Table 5
Parent's Knowledge about Epilepsy and Quality of Life Scores

Level of Knowledge	Quality of Life Scores						Total	
	Low (0 - 50)		Average (51 - 75)		High (76 - 100)			
	f	%	f	%	f	%	f	%
6 and below	2	10.0	14	70.0	4	20.0	20	100.0
7 - 10	13	25.0	28	53.8	11	21.2	52	100.0
Total	15	20.8	42	58.3	15	20.8	72	100.0

Pearson's r = -0.21

Relationship between Adherence to Medications and Quality of Life

Adherence to Medications and Overall Quality of Life. Although there is the same proportion of adherent and non-adherent CWEs with high quality of life (20.8 percent), three-fourths (75.0 percent) of those who are adherent have average QOL. In contrast, only half (50.0 percent) of those who are not fully adherent to the therapy have the same range of QOL scores. However, there is the same proportion (20.8 percent) of adherents and non-adherents among those with high QOL.

The test for relationship using Gamma revealed a low correlation

between the two variables (Gamma = 0.35). This indicates that if the CWEs are adherent to the therapy, their overall quality of life also improves to a minimal degree. This gain support in the study of Ahmad et al. (2013). In this study, Morisky Adherence Scale and Quality of Life in Epilepsy Patient (QOLIE) was used. The same finding was elicited from the study of Lin (2016) who used the Medication Adherence Report Scale (MARS-5). This also affirms the premise of the QOL Model, indicating that adherence to medications could lead to better QOL outcomes.

Table 6
Adherence to Medication and Quality of Life Scores

Adherence to Medication Regimen	Quality of Life Scores						Total	
	Low (0 – 50)		Average (51 – 75)		High (76 – 100)			
	f	%	f	%	f	%	f	%
Non-Adherent	14	29.2	24	50.0	10	20.8	48	100.0
Adherent	1	4.2	18	75.0	5	20.8	24	100.0
Total	15	20.8	42	58.3	15	20.8	72	100.0

Gamma = 0.35

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Despite the high knowledge of the parents about their children’s condition is high, there are still misconceptions about the disease. Majority were non-adherent to their medication regimen. Knowledge about epilepsy has no

bearing on the adherence to medication regimen. Knowledge about epilepsy has a low influence on the overall QOL scores. It has no bearing on other domains. Adherence to medication also has some influence on the overall QOL

scores while it has none of the QOL domains.

Recommendations

Adherence among CWEs and their parents is still poor. Hence, to the Department of Health personnel, independent practitioners, and healthcare professionals, it is recommended that education, information, and communication (EIC) programs will be implemented among families of CWEs, specifically their parents and immediate relatives. This program may include the basic definition of epilepsy, its diagnostic features, and the importance of compliance with medications. Attention must also be separately given on the Do's, and the Don'ts of medication administration among members of this special population.

Physical functioning was noted to be below average among the CWEs. Hence, school administrators and teachers must formulate programs and activities that are suitable for age and condition to increase physical functioning and to maintain/ improve the remaining domains: cognitive, emotional, social, and overall QOLCE scores. Non-contact

sports can be offered as an option for CWEs who want to be engaged in these activities. Programs must see to it that despite the presence of a chronic condition or something that can last a lifetime, they can still participate in activities such as exercises and sports.

To future researchers, the use of the QOLCE – 55 is recommended to measure the quality of life of this group of population among the Filipinos. It has a high internal consistency both internationally and locally. A conduct of the qualitative study focusing on the experience of mothers taking care a CWE may also be done to identify the most common themes and problems that they encounter. The following variables can be included in future studies: type of seizure or epilepsy, classification of medication/s used and type of therapy (monotherapy or polytherapy). Patients who are seeking consult in public or government institutions are also recommended for inclusion in future studies. The data can be collected both from the parents and the child for comparative analysis also. The correlation of schooling status, bullying, and QOL can also be explored.

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