



Assessing Health-Related Quality of Life in Epilepsy Patients at a Public Hospital in Padang

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ABSTRACT: Epilepsy is a chronic condition requiring long-term treatment, with quality of life as a primary objective in patient management. This study aimed to evaluate the quality of life among epilepsy patients conducted Health-Related Quality of Life in Epilepsy Patients at the Public Hospital in Padang City. The study employed an analytical survey with a cross-sectional design. Inclusion criteria included epilepsy patients aged ≥ 18 years undergoing either monotherapy or combination therapy. Quality of life was assessed through structured interviews using the QOLIE-31 questionnaire, which evaluates seven domains: seizure worry, overall quality of life, emotional functioning, energy/fatigue, cognitive functioning, medication effects, and social functioning. Data were analyzed using the Independent Sample T-test and One-Way ANOVA. The quality of life score for patients with epilepsy was found to be 61.41 ± 11.38 , indicating that their overall quality of life is considered good (>50.00). No significant differences in quality of life ($p > 0.05$) were observed based on the sociodemographic characteristics and the type of antiepileptic therapy.

KEYWORDS: Epilepsy; HRQoL; QOLIE-31 questionnaire; Antiepileptic Therapies

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I. INTRODUCTION

Epilepsy is a neurological condition marked by abnormal electrical activity in the brain, stemming from various causes, including brain injuries, exposure to toxins, strokes, infections, and brain tumors [1]. This disorder affects individuals of all genders, ages, ethnic backgrounds, and socioeconomic levels. Approximately 50 million people worldwide live with epilepsy, making it one of the most widespread neurological conditions. Epilepsy is often associated with social stigma, which can diminish patients' self-esteem and increase their levels of anxiety and depression, leading to higher risks of unemployment and social isolation. Studies show that epilepsy has a profound effect on individuals' employment prospects, social relationships, and overall well-being [2]. Factors that impact the quality of life for those with epilepsy include demographic factors (such as age, gender, and socioeconomic background), clinical characteristics (such as seizure frequency and type, length of illness, age at onset, and medication type), psychiatric conditions (including anxiety and depression), and psychosocial elements (such as stigma and social support) [3].

Epilepsy patients may be treated with either monotherapy or combination antiepileptic therapy, typically administered over the long term and discontinued only if the patient remains seizure-free for at least two years. However, these therapies are associated with side effects, such as fatigue and headaches, which can adversely impact patients' quality of life [4]. Pharmacists, as providers of pharmaceutical care, play a key role in managing drug therapy responsibly to optimize quality of life for epilepsy patients [5].

Given the extensive impact of epilepsy on patients' daily lives, health-related quality of life (HRQoL) has become a central focus in both epilepsy care and research. HRQoL encompasses physical, emotional, social, and economic dimensions that collectively influence an individual's well-being. Assessing quality of life in epilepsy patients is essential for understanding the effects of the disease and its treatments and identifying unmet patient needs. The Quality of Life in Epilepsy (QOLIE-31) is one of the most commonly used tools for

evaluating quality of life in epilepsy patients. It assesses seven domains: seizure worry, overall quality of life, emotional functioning, physical fatigue, cognitive functioning, medication effects, and social functioning. Employing the QOLIE-31 provides valuable insights into how epilepsy and its treatment affect multiple facets of patients' lives [6] [7].

II. RESEARCH METHODS

This study utilized an analytical survey with a cross-sectional design. The sample consisted of epilepsy patients receiving treatment at the Public Hospital in Padang City from March to May 2016. Consecutive sampling was employed, wherein all eligible patients encountered during the study period who met the inclusion criteria were selected. Inclusion criteria encompassed epilepsy patients aged 18 years or older who were receiving either monotherapy or combination antiepileptic therapy, visited the clinic within the specified timeframe, and consented to participate by signing informed consent.

Data Collection

The data for this research comprised primary data collected through guided interviews using the Quality of Life in Epilepsy 31 (QOLIE-31) instrument, which has been translated into Indonesian while preserving its original meaning [8]. Additionally, secondary data were obtained from patient medical records. Printed questionnaires were distributed to the patients, who completed them with assistance from the researcher during the process.

Data Analysis

To assess the quality of life in epilepsy patients, the raw scores for each question were recoded to a scale ranging from 0 to 100, in accordance with the QOLIE-31 scoring system. These scores were then summed and averaged to derive the mean score for each domain. The total score across all seven domains was calculated by multiplying the mean scores by their respective weights, and the aggregate of these weighted scores provided the overall quality of life score. The data obtained from interviews and questionnaire responses were analyzed using SPSS for Windows software

III. RESULTS AND DISCUSSION

In this study, 45 patients met the inclusion criteria. The sociodemographic data of the respondents are presented in Table 1.

Table 1. Sociodemographic Characteristics and Their Relationship with Health-Related Quality of Life (HRQoL) (n=45)

Sociodemographic Characteristics	n	percentage	p-value
Gender			
Male	23	51.1	0.33
Female	22	48.9	
Ages (year)			
<40	33	73.3	0.88
≥ 40	12	26.7	
Employment Status			
Employed	15	33.3	0.08
Unemployed	30	66.7	
Duration of Epilepsy			
< 10 years	26	57.8	0.28
≥ 10 years	19	42.2	
Seizure Frequency			
In the past month	7	15.6	0.84
In the past year	13	28.9	
Almost no seizures	25	55.6	
Type of Antiepileptic Therapy			
Monotherapy	24	53.3	0.77
Polytherapy (≥ 2 drugs)	21	46.7	

The findings of this study reveal no significant differences in Health-Related Quality of Life (HRQoL) among epilepsy patients based on characteristics such as gender, age, employment status, duration of epilepsy, or seizure frequency (Table 1). This suggests that these demographic and clinical factors do not directly impact HRQoL, which encompasses patients' assessments of their quality of life across physical, psychological, and social health domains. For epilepsy patients, quality of life tends to be more influenced by social and environmental factors than by demographic or medical aspects alone. Their perceptions of quality of life are often shaped by the support they receive from others and their ability to adapt to their condition. For instance, patients with strong support from family, friends, or community generally report greater life satisfaction and improved mental health. Such support is crucial as it fosters a sense of acceptance, reduces loneliness, and encourages adherence to treatment plans [9] [10].

Additionally, this study indicates that the type of antiepileptic therapy does not significantly correlate with HRQoL in epilepsy patients. Whether patients are on monotherapy, combination therapy, or different antiepileptic medications, these factors do not directly and significantly affect HRQoL. While the main goal of antiepileptic therapy is to control or reduce seizure frequency and severity, patients' quality of life may also be influenced by factors such as treatment side effects, social support, and psychological well-being. Some patients may experience side effects from antiepileptic therapy, including fatigue, cognitive disturbances, or mood disorders, which can affect their quality of life perceptions irrespective of the therapy type employed [4] [11].

Table 2. Mean Scores of HRQoL in Each HRQoL Domain (n=45)

Domain	Mean ± SD
1. Seizure Worry	38.18 ± 22.71
2. Overall Quality of Life	66.33 ± 11.79
3. Emotional Function	64.62 ± 11.99
4. Physical Fatigue	59.56 ± 11.72
5. Cognitive Function	53.67 ± 20.64
6. Therapy Effects	68.21 ± 19.17
7. Social Function	73.20 ± 20.31
Total Quality of Life	61.41 ± 11.38

Table 2 shows that the overall mean quality of life score for epilepsy patients is 61.41 ± 11.38. This figure indicates that, despite facing various challenges due to their condition, there are certain aspects of their lives that still contribute to a good quality of life. The social functioning domain received the highest score of 73.20 ± 20.31, suggesting that epilepsy patients feel capable of engaging in social interactions. Good social functioning is typically associated with strong support from family and friends, as well as involvement in social activities. This support is crucial as it can reduce feelings of isolation and enhance life satisfaction. Additionally, social support helps patients adhere to their treatment and alleviate anxiety, thereby improving their overall quality of life [2] [12].

The score in the therapy effects domain was 68.21 ± 19.17, indicating that patients generally hold a positive view of the treatment they receive. This positive outlook may be associated with the success many patients experience in controlling their seizures. Effective therapy not only reduces the frequency of seizures but also enhances patients' perceptions of their quality of life. However, it is essential to consider the side effects of antiepileptic therapy, as these can significantly impact overall quality of life [4][13].

The emotional functioning score of 64.62 ± 11.99 suggests that patients are relatively successful in maintaining their emotional health despite the challenges posed by epilepsy. Good emotional health is crucial for overall quality of life, as positive emotions are linked to increased life satisfaction. Nevertheless, the risk of depression and anxiety, which often arises in patients with epilepsy, requires ongoing attention, underscoring the need for appropriate prevention strategies and interventions [7] [12].

The cognitive functioning score of 53.67 ± 20.64 indicates that patients frequently encounter cognitive difficulties, including issues with memory, attention, and information processing. A decline in cognitive abilities not only affects patients' quality of life but can also disrupt medication adherence and daily activities. Therefore, it is important to conduct routine cognitive evaluations and provide appropriate support, including cognitive rehabilitation therapy when necessary [5][14].

The seizure worry domain received the lowest score at 38.18 ± 22.71. This score reflects the high level of anxiety patients experience regarding the possibility of seizures, suggesting that despite improvements in

other areas, uncertainty in seizure control remains a significant concern. A more proactive approach to educating patients about seizure management and risk reduction could help alleviate this level of worry [12] [13].

IV. CONCLUSION

The quality of life score for patients with epilepsy was found to be 61.41 ± 11.38 , indicating that their overall quality of life is considered good (>50.00). No significant differences in quality of life ($p>0.05$) were observed based on the sociodemographic characteristics and the type of antiepileptic therapy.

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