

**ADDIS ABABA UNIVERSITY
COLLEGE OF HEALTH SCIENCES
SCHOOL OF NURSING AND MIDWIFERY
DEPARTMENT OF NURSING
POSTGRADUATE STUDIES**

**ASSESSMENT OF HEALTH RELATED QUALITY OF LIFE
AND ASSOCIATED FACTORS AMONG ADULT PATIENTS
WITH EPILEPSY IN GAMO ZONE, SOUTHERN ETHIOPIA,
2023.**

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Addis Ababa, Ethiopia

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I, the undersigned MSc student, declare that I have submitted my original work on a title Assessment of Health Related Quality of Life and Associated Factors among Adult Patients with Epilepsy in Gamo Zone, Southern Ethiopia, 2023, for the examination.

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APPROVAL BY THE BOARD OF EXAMINATION

This thesis by the title Assessment of Health Related Quality of Life and Associated Factors among Adult Patients with Epilepsy in Gamo Zone, Southern Ethiopia, 2023 is accepted in its present form by the board of examiners as satisfying thesis requirement for the degree of masters in Adult Health Nursing.

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ABBREVIATION AND ACRONYMS

AWE – Adults With Epilepsy

AMGH – Arba Minch General Hospital

ASMs- Anti- Seizure Medications

AE- Active Epilepsy

CDH – Chench District Hospital

GDH – Geresse District Hospital

HRQoL- Health Related Quality of Life

ILAE- International League Against Epilepsy

KDH – Kamba District Hospital

PWE- People with Epilepsy

QoL- Quality of life

QOLIE-31- Quality of Life in Epilepsy Inventory 31

SSA- Sub-Saharan Africa

WHOQOL- World Health Organization Quality of Life

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ABSTRACT

Background: Epilepsy has significant negative effects on a person's physical, psychological, and social well-being (Health Related Quality of Life). Education level, seizure type, seizure frequency, stigma, living situation, monthly income, medication adherence, side effects of antiepileptic drugs, and co-morbidity of mental disorders all significantly affect the quality of life of epilepsy patients, according to different studies.

Objective: To assess Health Related Quality Of Life and associated factors among adult patients with Epilepsy in Gamo Zone, Southern, Ethiopia, 2023.

Method: Institution based quantitative cross sectional study conducted on 252 participants from Feb 27 to Mar 27, 2023, at selected public hospitals. A simple random sampling technique was employed to select the required number of epileptic patients attending public hospitals in the Gamo Zone. Logistic regression model was used to identify the predictor's health-related quality of life. The significant cut point was set to p-value < 0.05 at 95% CI.

Result: From 259, a total of 252 epileptic patients participated in this study with the response rate of 97.2%. The mean total score of QOLIE-31 was 59.56 (SD=16.70). The highest mean (SD) score was the Cognitive function, 70.32 (SD=20.49) and the lowest was Seizure worry subscale, 42.2 (SD=23.95). 114 (45.2%) of the respondents scored below the mean in overall HRQOL. Factors associated with poor quality of life includes taking medications once per day [AOR=0.04; 95%CI (0.00-0.91)], having comorbid mental disorders [AOR: 4.53; 95% C.I (1.89-10.86)] and encountering side effect of medications [AOR: 3.63; 95% C.I (1.74-7.55)].

Conclusion and Recommendation: HRQOL mean score of people living with epilepsy in Gamo Zone is low. Taking medications once per day, having comorbid mental disorders and experiencing adverse effect of medications associated with quality of life. This study recommends for health professionals, to improve the quality of life for epileptic patients, early detection of co-morbid mental disorders like depression and anxiety in those with epilepsy should be of utmost importance.

Keywords: Health Related Quality of Life, Epilepsy, Seizure, Adult

CHAPTER ONE: INTRODUCTION

1.1 Background

The Greek root of the word "epilepsy" implies to be taken, seized, or attacked (1). Epilepsy is a chronic, noncommunicable brain illness that affects around 50 million individuals globally, according to the WHO (2). Its defining features include, recurrent seizures which are short bursts of uncontrollable movement that may affect just a portion of the body (partial) or the entire body (generalized), they may be followed by loss of awareness and control over bowel or bladder function on occasion (2,3). Certain clinical feature patterns, such as seizure type, family history, and age of onset, are used to categorize epileptic syndromes. Epilepsy can be idiopathic (primary) or secondary (if the source of the epilepsy is known and it is a sign of another underlying ailment, like a brain tumor) (4). There was also a recent definition for epilepsy which emphasized that epilepsy should not only be thought of in terms of seizures because behavioral, psychological, and social effects are frequently experienced by epilepsy sufferers (5).

Epilepsy has significant negative effects on a person's physical, psychological, and social well-being (Health Related Quality Of Life) (6). The use of quality of life (QoL) measures and understanding of disease outcomes is necessary to Provide holistic and, patient-centered treatment (5). According to WHO, quality of life is "individuals' perceptions of their status in life in relation to their expectations, goals, standards, and concerns, and within the context of the culture and value systems in which they live." It is a broad notion that intricately considers a person's physical well-being, mental well-being, religious views, social connections, level of independence, and interactions with important environmental elements (7,8). The "quality of life" (QoL) construct was developed to assess and evaluate more comprehensively the repercussions (chronic) sickness and medical interventions (9).

A patient-reported outcome metric called HRQOL includes a number of dimensions, encompassing social, physical, emotional, and school or work related aspects (6,10). Comprehensive epilepsy programs may use HRQOL measurement for at least three reasons: (1) to identify those patients who would benefit most from multidisciplinary care; (2) to share information among the different providers about the progress patients are making; and (3) to measure whether the program's objectives are being met (11). Measures of health-related quality

of life (HRQOL) unique to epilepsy are more salient to some characteristics of epilepsy and its therapies, making them a particularly sensitive and responsive patient-reported outcome for people with epilepsy (6,12). Numerous studies show that people with epilepsy have a lower HRQOL than healthy people, and people with other chronic diseases (11–13).

The quality of life (QOL) of epilepsy clients is influenced by different of circumstances, which has significant effects on their physical, psychological, social, and cognitive health (13). Many people believe that epilepsy is a contagious illness that can be spread by touching the patient or their excrement (1). It is vital to alter how society's perspective on those who have epilepsy in order to increase their opportunity to engage completely among society and, as a result, to continue or enhance their regular activities and place among society (9).

1.2 Statement of the Problem

Epilepsy affects around 50,000,000 individuals globally, and nearly 80% of them reside in low- and middle-income nations. Each year, over five million new instances are diagnosed, and this number is anticipated to increase (14). At some point in their lives, about 100 million people will experience at least one epileptic episode. According to the local distribution of risk and etiologic factors, the number of seizures upon diagnosis, and whether or not cases in remission were taken into account when calculating lifetime prevalence, there were considerable differences between nations in the prevalence of epilepsy (15). It is estimated that 10 million people live with epilepsy in Africa (16). In Ethiopia, the prevalence of Epilepsy was 5.2 per 1000 people and the Incidence was 64 per 100,000 inhabitants (16,17). The high prevalence of epilepsy in developing nations have an adverse effect on the populations productivity due to patients with epilepsy have negative impact on their daily lives, it could be in the form of social, psychological, and physical impacts (18).

HRQoL of PWE can be affected by several factors. The sudden, often unpredictable occurrence of seizures is a major factor (19). Inappropriate drug therapy and non-adherence were the two main factors contributing to ineffective seizure control (20). Uncontrolled seizures leads to impairment of quality of life, physical injuries such as fractures and burns, excessive bodily injury, neuropsychological impairment, social stigma, reduced marriage rates, poor education, reduced employment levels, and finally shortened lifespan (21–23).

Apart from the disease burden, psychosocial problems impair the quality of life in PWE (24). Due to myths and unfavorable views surrounding epilepsy, including the idea that epilepsy is the result of being possessed by evil spirits, people with epilepsy and their families are frequently the targets of stigmatization and prejudice, this in turn impair participation in social activities and affects work opportunities (14,19). Three types of stigmatization connected with epilepsy, when another person is the cause of discrimination, enacted stigma occurs. Feeling stigmatized stems from apprehension of discrimination, When someone near a PWE feels stigmatized, this is known as "courtesy stigma." (25). Stigma, in any form has a substantial influence on the quality of life of epileptic patients and their families, restricts a person with epilepsy's personal, educational, and social opportunities (26). Other negative effects include limitations on daily activities that lead to low self-esteem and social rejection (19).

Education level, seizure type, seizure frequency, stigma, living situation, monthly income, medication adherence, side effects of antiepileptic drugs, and co-morbidity all significantly influence the quality of life of patients with epilepsy, according to different studies (18,27). Recent reports from the International League Against Epilepsy (ILAE) Psychology Task Force (28) and the National Institute of Neurological Disorders and Stroke/American Epilepsy Society (NINDS/AES) Committee (29) have emphasized the need for a better understanding of mental disorder comorbidities in order to improve the treatment of epilepsy and the quality of life for clients (30). Even the societal consequences differ from nation to nation, stigma and discrimination associated with epilepsy are frequently more difficult to overcome than actual seizures (2).

Numerous research' findings indicate that epileptic patients' quality of life (QOL) is lower than that of the general population (31,32). A review article from Asia reported that, Epilepsy sufferers frequently face stigmatization or prejudice in Asia, which can limit their possibilities for employment, higher education, and marriage (33). The result of different studies done in Africa also shows that HRQoL of epileptic patients was poor (34–37). The same is true in Ethiopia; Some studies done in different parts of Ethiopia reported that around half of epileptic patients HRQoL was poor (7,27,38,39).

Even if there are several researches evaluating the HRQOL in epileptic patients; there isn't much research in Ethiopia that focus on epileptic patients' quality of life. Some of those studies used the WHOQOL instrument, a quality-of-life measurement tool for people with epilepsy that is not disease-specific. Although there are studies used the frequently used epilepsy-specific QOLIE 31 assessment tool, they failed to evaluate several crucial aspects including stigma and pharmaceutical side effects that are linked to HRQOL. Therefore, this study will fill these gaps by assessing HRQOL of epileptic patients in Gamo Zone, using validated measurement tools.

1.3 Significance of the Study

The burden of epilepsy on the HRQoL of epileptic patients was significant. Even though epileptic patients face different challenges in their daily lives globally, but the impact is much worse in developing countries, including Africa. Despite this reality, there has been little research on the health-related quality of life of epileptic patients in Ethiopia. More importantly, there was no evidence of research about factors affecting HRQoL of patients with Epilepsy in the study area. Therefore the aim of this study was to assess Health related Quality of life and associated factors among Adult patients with Epilepsy in Gamo Zone, Southern Ethiopia, 2023.

The findings of this research will contribute to policymakers in medical practice for designing and implementing strategies to improve the quality of life of Epileptic patients. Knowing the aspects and extent of the impact gives perspective to physicians and nurses caring for epileptic patients. Other researchers also can use this research as baseline information for related topics.

CHAPTER TWO: LITERATURE REVIEW

This chapter discusses about different factors affecting quality of life of patients with epilepsy and conceptual framework and other related issues that are reviewed from different studies so far conducted about health related quality of life of adult patients with epilepsy.

2.1 Health Related Quality of life of Adults with Epilepsy

QOL refers to the overall satisfaction of people in various cultural value systems with their life goals, general well-being, standards, events of interest and their prospects; A comprehensive indicator of the impact of diseases and the state of health in populations affected by disease (46,47). Numerous studies demonstrate that epilepsy has a greater impact on people's quality of life than other chronic diseases because of the disorder's nature and its effects, such as difficulties with learning, working, getting married, experiencing discrimination, having comorbid anxiety and depression, and the outward manifestation of the symptoms (48,49).

Compared to both the general population and many other chronic conditions, people with epilepsy have a lower quality of life (50). The quality of life for patients in low- and middle-income nations is worse due to higher levels of absolute poverty, restricted access to healthcare and drugs, a lack of specialized healthcare personnel, greater perceptions of PWE, drug availability, and employment (51,52).

A study from Sydney, reported that the psychosocial effects of epilepsy are extensive and may include losing one's driving privilege, being denied access to or having one's employment or educational circumstances change, experiencing marital and social issues, needing to take regular medication, and coping with how others will react to the diagnosis, including sensing and experiencing stigma and discrimination (53).

Numerous studies have revealed that people with epilepsy have less social supports than people without the disorder, are less likely to marry and have fewer children, have lower employment rates, and engage in fewer fulfilling social interactions (54–56).

Continuing seizures have a significant impact on cognitive functions and quality of life (57). A study done in Kenya, reported that executive function, working memory, IQ, depression, and quality of life associated with poor scores in adults with epilepsy (58). The cognitive abilities in PWE may be completely or partially compromised in specific domains, such as mild aprosexia

(persistent attention deficit disorder), memory loss, executive function impairment, reduced psychomotor speed, poor naming ability, and diminished visual-spatial abilities (59).

Even though there was no evidence to support the study that generalized the quality of life of epileptic patients' in Ethiopia, some studies carried out in various regions of the nation show that the quality of life of patients with epilepsy was poor (7,27,50).

2.2 Factors Affecting Health Related Quality of Life among Adults with Epilepsy

The findings of several research indicate that a variety of factors influence HRQOL, including co-morbidity, medication adherence, use of two or more AEDs, degree of education, seizure type, and seizure frequency (18,60).

2.2.1 Socio-demographic factors

A cross sectional study from San Antonio, found that older persons (65 years and older) appeared to have less compromised QOL than young adults (18–40 years) and middle-aged adults (41–64 years) in a cross-sectional investigation focuses on age in epileptic adults (61). According to a study conducted in Iran with epilepsy patients, the patients were split into two age groups: those under 35 (n = 66) and those over 35 (n = 34). The group under 35 had a significantly higher score on the energy/fatigue subscale. ($p = 0.018$) (62).

A study conducted in Ethiopia at University of Gondar referral hospital, indicates poor QoL was seen among people who had no formal education (60). A cross sectional study done in Turkey revealed, the general and subscale quality of life scores did not differ significantly depending on the participants' marital status, however married people scored better on the quality of life subscales for seizure fear, overall life quality, emotional well-being, and cognitive function than single people did (63).

A cross-sectional comparative study done in Kenya shows, Low socioeconomic status, and more specifically low annual income, among the PLWE, were substantially linked to lower QOL; A substantial linearity in this association was also noticed, i.e., as their income climbed, their mean QOL improved (34).

2.2.2 Clinical Factors

A cross sectional study done in Ethiopia shows, increase in frequency of seizure decreases total quality of life score (60,64). A study done in India , suggest, high seizure frequency, by limiting usual daily activities, leads to impairment of physical, social, and emotional functioning, and finally to general deterioration of one's QoL (65).

When compared to PWE taking monotherapy, lower QOLIE total and subscale scores were seen with polytherapy (67). Patients receiving polytherapy had considerably greater adverse medication responses than those receiving monotherapy ($P < 0.0001$) (68).

2.2.3 Psychosocial Factors

Quality of life in epileptic adults is predominantly affected by psychosocial factors more than epilepsy-related ones (69). A review article from Selected Regions of Asia and Sub-Saharan Africa revealed that, Stigma appears to be a significant element affecting PWE's quality of life in both industrialized and developing regions of the nation. There are differences in the level of stigma experienced by epileptic persons among rural and urban populations in the majority of the developing nation, the stigma associated with epilepsy is significantly lessened in a nation with acceptance of medical models of epilepsy causes and management and higher levels of education (26).

A facility-based, community ascertained cross-sectional survey carried out in Ethiopia reported that, Independent of seizure control level, comorbid mental disorders were linked to a lower quality of life and disability (24,70). The most common psychological comorbidity in epilepsy is depression (71). Comorbid anxiety disorders or anxiety symptoms have a significant effect on a person's quality of life, particularly when anxiety and depression are also present (72).

Numerous studies have discovered a substantial connection between a patient's quality of life and their frequency of seizures, gender, education level, marital status, occupation, and stigma. Besides, the results of other studies were in contrast with this, therefore, more research on the variables that may impact epilepsy sufferers' quality of life is required.

2.5 Conceptual Framework

The conceptual framework was developed using findings from several bodies of literature. It demonstrates the effect of independent variables (socio-demographic factors clinical factors, and Psychosocial factors) on the dependent variable health related quality of life(18,24,26,60–64,66,70,73).

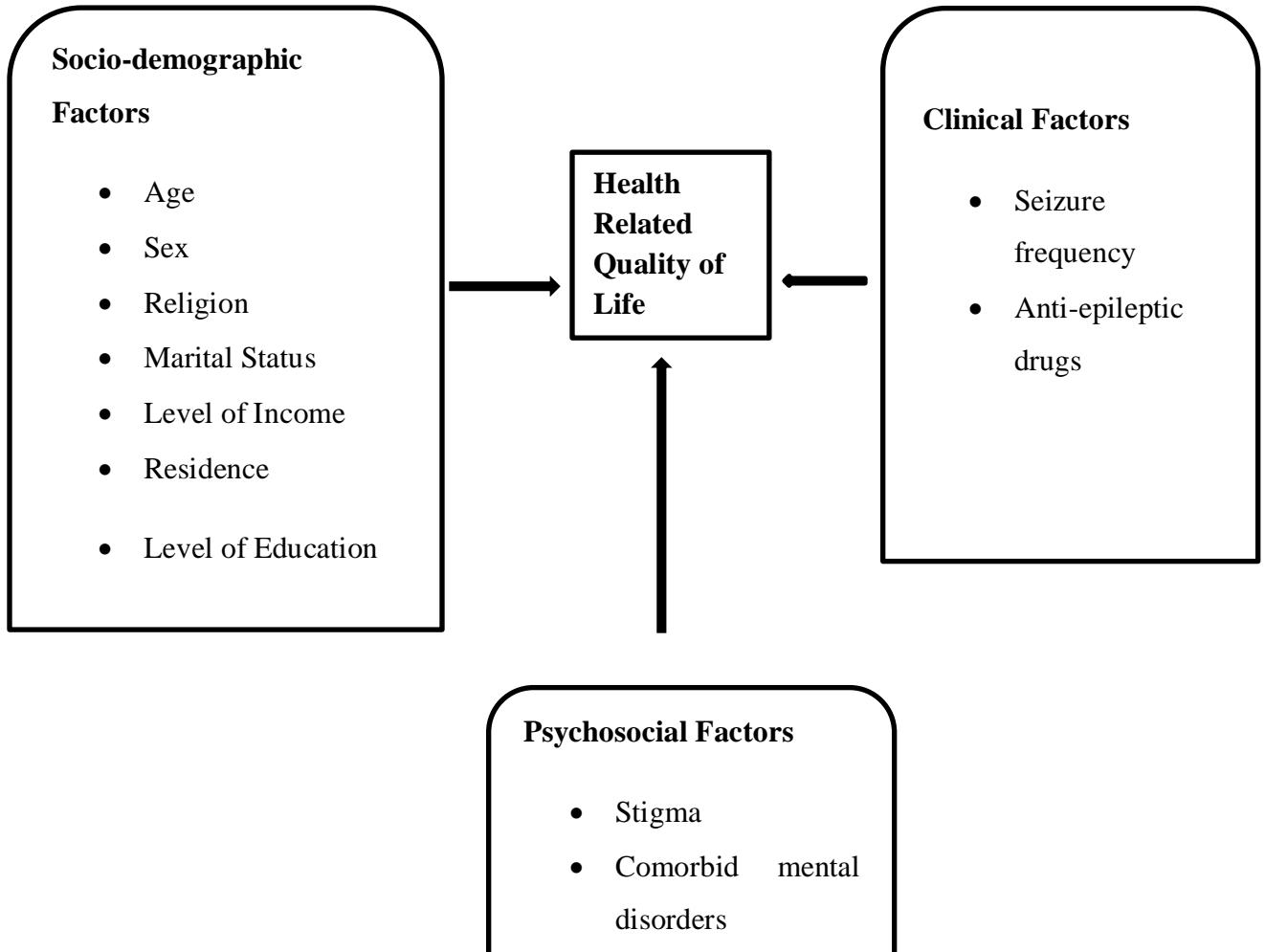


Figure 1: Conceptual Frame work on HRQoL among adults with epilepsy developed from reviewed literatures

CHAPTER THREE: OBJECTIVES OF THE STUDY

3.1 General Objective

- ❖ To assess Health Related Quality of Life and Associated Factors among Adult Patients with Epilepsy in Gamo Zone, Southern Ethiopia, 2023

3.2 Specific Objectives

- ✓ To assess health related quality of life of adult patients with epilepsy
- ✓ To identify associated factors with health related quality of life among adults with epilepsy

CHAPTER FOUR: MATERIALS AND METHODS

4.1 Study area

This study was conducted at selected public hospitals in Gamo Zone, Southern Ethiopia. Gamo Zone is a zone in the Southern Nations, Nationalities, and Peoples' Region of Ethiopia. The administrative center of Gamo is Arba Minch (74). According to preliminary data used to divide the former Gamo Gofa zone into the Gamo zone and the Gofa zone in 2019, the population of the Gamo zone is anticipated to be 1,852, 000. In the Gamo zone, there are 14 districts and 6 town administrations (75). Gamo zone has one general hospital and five district hospitals. This study was conducted at four public hospitals.

Arba Minch general hospital: Is located in Arba Minch town, this settlement is in southern Ethiopia, 500 kilometers from Addis Abeba. It has five government health institutions; one general hospital, one district Hospital and two health centers. AMGH serves 1.5 million people in Gamo and other nearby zones (76,77).

Kamba district hospital: located in Kamba town, it is 615 kilometers away from Addis Abeba and 110 kilometers from Arba Minch. Regarding health facility coverage, Kamba district has one district hospital, 7 health centers, 2 Satellite clinics, and 39 Health Posts.

Geresse district hospital: Is located in Geresse town; the district is located at 54 km west of the Arba Minch. In Geresse town there is one district hospital, and four health centers (78).

Chencha district hospital: Is located in Chencha Town; Southwest of Ethiopia at 505kms from the capital city of the Ethiopia (Addis Ababa). There was one district hospital and two clinics in the town. Over 28,503 outpatients visit the hospital each year (79).

4.2 Study period

The Study was conducted from February 27 to March 27, 2023.

4.3 Study Design

Institution based quantitative cross sectional study design.

4.4 Population

4.4.1 Source Population

All epileptic adults in Gamo Zone attending neurology clinics in public hospitals'.

4.4.2 Study Population

Adults in Gamo Zone attending neurology clinic at selected public hospitals.

4.5 Eligibility Criteria

4.5.1 Inclusion Criteria

Adults who have experienced epilepsy treatment for at least three months and are at least 18 years old.

4.5.2 Exclusion Criteria

- ✓ Patients with critical illness and
- ✓ Epileptic patients who had psychiatric problems

4.6 Sampling Methods

4.6.1 Sample size determination

Sample size is calculated using single population proportion formula. Considering the following assumptions: Confidence interval =95%, Critical value $Z_{\alpha/2}=1.96$, margin of error 5% (0.05). The estimated proportion was taken from a study conducted in North Wollo Zone (7) with p value 0.496, the following sample size calculation.

$$n = \frac{(Z_{\alpha/2})^2 \times p(1-p)}{d^2}$$

Where

n- Initial sample size

Z - Standard normal value at 95% CI which is 1.96

p - 49.6% of the population proportion has poor health related quality of life

d- Possible margin of error tolerated which is 5%

$$n = \frac{(1.96)^2 \times 0.5(1-0.496)}{(0.05)^2}$$

$$n = 387$$

The number of Adult patients with Epilepsy in Gamo zone public hospitals are less than 10, 000, so adjust by correction population formula:

$$nf = n / (1 + n/N)$$

Where

$$N = 599$$

$$n = 387$$

$$\begin{aligned} nf &= 387 / (1 + 387/599) \\ &= 235 \end{aligned}$$

The ultimate sample size will be 259 after adding 10% of the non-respondent rate

4.6.2 Sampling technique and procedure

In Gamo zone there were one general and five district hospitals, which includes Arba Minch general hospital, Kamba primary hospital, Geresse primary hospital, Dulfana primary hospital, Chenchu primary hospital, and Selamber primary hospital. To choose the requisite number of epileptic patients utilizing public hospitals in Gamo Zone, a simple random sampling procedure was used. Arbaminch general hospital, Kamba primary hospital, Chenchu, and Geresse primary hospital were among the first four representative hospitals chosen by simple random sample technique from a group of six institutions. Between October 20 and January 20, 2023, 599 adults who had been receiving epilepsy follow-up care for the previous three months were found in the targeted hospitals. After that, according to the number of epileptic patients in each of these chosen institutions, the number of study participants was distributed among them proportionally (see figure 2). Finally, by assuming that patient flow was random, study participants were recruited one after the other.

Proportional allocation for each selected hospital

$$\text{AMGH} = \frac{\text{AWE on follow up at AMGH} \times \text{total sample size}}$$

AWE on follow up in selected hospitals

$$\text{AMGH} = \frac{262 \times 259}{599} = 113$$

599

$$\text{KDH} = \frac{\text{AWE on follow up at KDH} \times \text{total sample size}}$$

AWE on follow up in selected hospitals

$$\text{KDH} = \frac{124 \times 259}{599} = 54$$

599

$$\text{CDH} = \frac{\text{AWE on follow up at CDH} \times \text{total sample size}}$$

AWE on follow up in selected hospitals

$$\text{CDH} = \frac{103 \times 259}{599} = 44$$

599

$$\text{GDH} = \frac{\text{AWE on follow up at GDH} \times \text{total sample size}}$$

AWE on follow up in selected hospitals

$$\text{GDH} = \frac{110 \times 259}{599} = 48$$

599

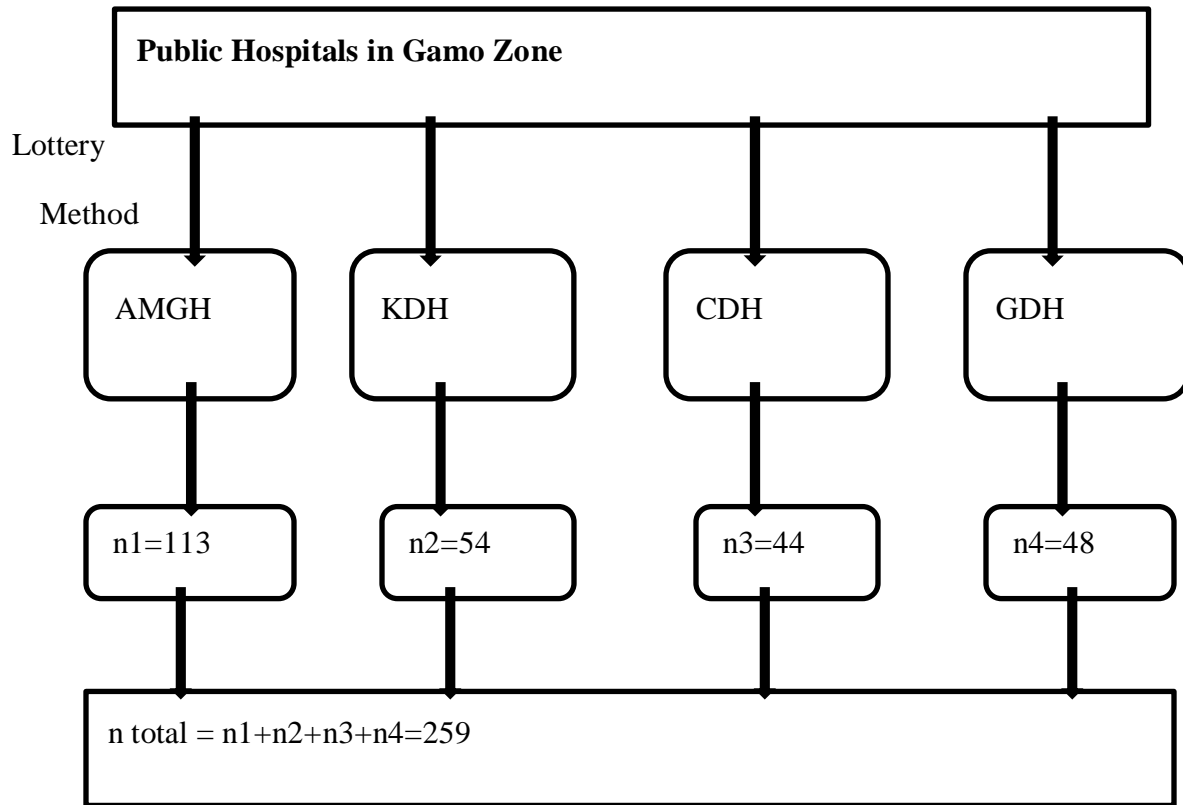


Figure 2 : Schematic presentation of sampling technique and sample size proportional allocation 2023.

4.7 Operational Definition

Health related quality of life: is deemed to be good if a person receives a mean score that is higher than the mean score of questions assessing quality of life, and poor if the participant receives a mean score that is lower than the mean score of those same questions.

Seizure Control When a patient hadn't had any seizures in the last one year, their seizure state was deemed controlled; conversely, if they had had one or more seizures in the last one year, their seizure status was not regarded managed.

Co-morbidity: Patients were deemed to have comorbidities if a doctor confirmed that they had a psychiatric or neurological disorder that was brought on by, connected to, or just coexists with epilepsy

Perceived stigma: Patients were deemed to have the issue if they scored one or above on the stigma of epilepsy scale.

Adult: Is commonly defined as subjects 18 years of age and above

4.8 Variables

4.8.1 Dependent Variable

Health related quality of life

4.8.2 Independent Variables

4.8.2.1 Socio- Demographic factors

- Age
- Sex
- Religion
- Marital Status
- Level of Income
- Residence
- Level of Education

4.8.2.2 Clinical Factors

- Seizure frequency

- Anti-epileptic drug

4.8.2.3 Psychosocial Factors

- Stigma
- Comorbid mental disorders

4.9 Data Collection

Data was collected with structured, interviewer-administered Amharic version questionnaire and by reviewing patient chart. The questionnaire was adopted from previous studies in Ethiopia (7,38). The questionnaire was first written in English, translated to the local language Amharic, the retranslated to the English language for matters of consistency. The questionnaire is divided into four components. The participants' socio-demographic makeup was covered in the first section. Second, patient medical records were examined in order to gather more details on clinical issues. The Quality Of Life in Epilepsy (QOLIE)-31questionner, a survey question about the health-related quality of life for people (18 years of age or older) with epilepsy, is included in the third part. The stigma of epilepsy scale, which assesses perceived stigma and the social consequences of epilepsy, is included in the fourth section.

A QOLIE-31questionner is made up of 31 items divided into seven areas that address the following health concepts: Medication Side Effects (3 things), Energy Fatigue (4 items), Seizure Worry (5 pieces), Emotional Well-Being (5 items), Cognitive Function (6 items), and Social Function (5 items) are the components that make up overall quality of life. Higher numbers imply better QOL, and the raw scores are rescaled from zero to 100. Each item is graded from 0 to 100, with a score of 0 denoting the lowest possible quality of life and a score of 100 denoting the highest possible quality of life. However, different questions have different score categories or response sets. Using an empirically derived coefficient to weight and total scores, the overall score was determined by multiplying the scores on each scale of the QOLIE-31 by their respective weights. To get the weights for the seven QOLIE-31 multi-item scales, the QOLIE-89 summary score was regressed. To determine the relative weight for each QOLIE-31 scale, the standardized beta coefficients from this regression analysis were added, and then each beta coefficient was divided by the sum. Across all domains, internal consistency ranges from 0.77 to 0.93 (80).

Epilepsy stigma on a scale, the stigma of epilepsy scale was used to measure perceived stigma and the social consequences of epilepsy. There are three things in it. Not stigmatized (score of 0), mild-moderate stigmatized (score of 1-6), and highly stigmatized (score of 7-9) are the categories based on the Likert type four-point scale: "not at all," "yes, maybe," "yes, probably," and "yes, definitely." With a Cronbach's alpha coefficient level of 0.78, the internal consistency is acceptable (81).

Data was collected by 6 nurses from selected hospitals. Data collectors were provided with pertinent training by the investigator to make them familiar with the data collection tool. Interviewers gathered data following the study participants' informed consent. Regular checks were made to ensure that the questions were complete, and after evaluation, the questionnaires were given back to the principal investigator.

4.10 Data Quality Control

To assure the data quality, data collection tool was prepared after intensive review of relevant literatures and similar studies. A pretest was conducted on 5% of the sample at another Hospital, Dalfana District Hospital and then the necessary corrections were made. The completeness of the data was checked by data collectors during data collection and also immediately after data collection by the principal investigator.

4.11 Data Management and Analysis

Data entry was done using Epi info version 3.51. The entered data cleaned and exported to SPSS version 26 statistical program for analysis of data. Proportion and frequency distribution was used to present data and appropriate measures of central tendency was computed. To look at the association between each independent variable and dependent variable bivariable logistic regression was used and multivariable logistic regression was used to control the confounders and identify independently associated factors. Variable found to be significant at $P < 0.05$ was entered to multivariable logistic regression. To assess the association among suspected factors and health related quality of life, the odds ratio (OR) and 95% confidence intervals (CIs) was used. P value < 0.05 was used as cut of point in determining the level of significance.

4.12 Ethical consideration

Ethical approval was obtained from the Ethical Review Committee (ERC) of the School of Nursing and Midwifery on behalf of the ethical review committee of Addis Ababa University. Prior to beginning data collecting, the college of health sciences school of nursing and midwifery requested authorization to conduct the research from the appropriate medical offices and research institutions in a letter. The objectives and aims of the study was explained in detail for the study participants in accordance with the Declaration of Helsinki and informed verbal and written consent was obtained from each participant before data collection. Participants were assured of the confidentiality of all information and were advised that their participation was completely voluntary. Various steps were made to ensure that the study subjects' responses were kept secret. No names or other forms of identification were used.

4.13 Dissemination of the Result

The result of this study will be presented to AAU, CHS, department of Nursing. Copy of the research will be sent to the advisors. The findings will be disseminated to Arba Minch General Hospital, Chenchu District Hospital, Geresse District Hospital, Kamba District Hospital, South Nation, Nationalities and Peoples Region Health Bureau and Federal Minister of health. Additionally, the study document will be created and submitted to the right journals for potential publication.

CHAPTER FIVE: RESULT

5.1 Socio-demographic characteristics

A total of 252 respondents were included in this study with a 97.2 % response rate, among this about 139 (55.2%) of them were males and about 113 (44.8%) of them were females. The mean age of the participants was 31.46 ± 10.63 SD years. From 252 participants 143 (56.7%) were rural dwellers, about 130 (51.6%) were unmarried, 129 (51.2%) were protestant by religion, 117 (46.4%) had a primary level of education and 129 (51.2%) respondents earned <1000 ETB per month.

Table 1: Socio demographic characteristics of adult patients with epilepsy at Gamo Zone N=252), 2023

Variable	Categories	Frequency	Percent
Sex	Male	139	55.2
	Female	113	44.8
Residence	Rural	143	56.7
	Urban	109	43.3
Marital Status	Unmarried	129	51.2
	Married	115	45.6
	Divorced	3	1.2
	Other	5	2.0
Religion	Orthodox	104	41.3
	Muslim	8	3.2
	Protestant	129	51.2
	Catholic	5	2.0
	Other	6	2.3
Education Status	No formal education	35	13.9
	Primary	117	46.4
	Secondary	68	27.0
	College and above	32	12.7
Level of Income per month	<1000	129	51.2
	1000-3000	69	27.4
	3001-5000	39	15.4
	>5000	15	6.0

Other* Widowed

5.2 Clinical characteristics of the respondents

The median duration of years since the onset of epilepsy was seven. The mean age of epilepsy at onset was 23.42 years (SD=10.028). The mean age of the respondents after beginning AED was 6.94(5.018) years. Out of 252 responders, 122 (48.5%) reported having at least one seizure in a year, 138(54.8%) take their medications once per day, 159(63.1%) take one type of medication, and 130(51.6%) reported experiencing side effect of AED.

Table 2: Clinical characteristics of adult patients with epilepsy at Gamo Zone, Ethiopia, 2023 (N=252)

Variable	Category	Frequency	Percent
Frequency of Seizures	Seizure free in a year	41	16.3
	1-3 in a year	122	48.4
	>1 per month	85	33.7
	Other	4	1.6
Medications per day	Once	138	54.8
	Twice	110	43.7
	More than two	4	1.5
Types of drug	One	159	63.1
	Two and above	93	36.9
Encountered side effect of drug	Yes	130	51.6
	No	122	48.4

5.3 Psychosocial characteristics of the respondents

From 252 respondents 59(23.4%) had comorbid mental disorders and, 210(83.3%) reported feeling mild to moderate stigma.

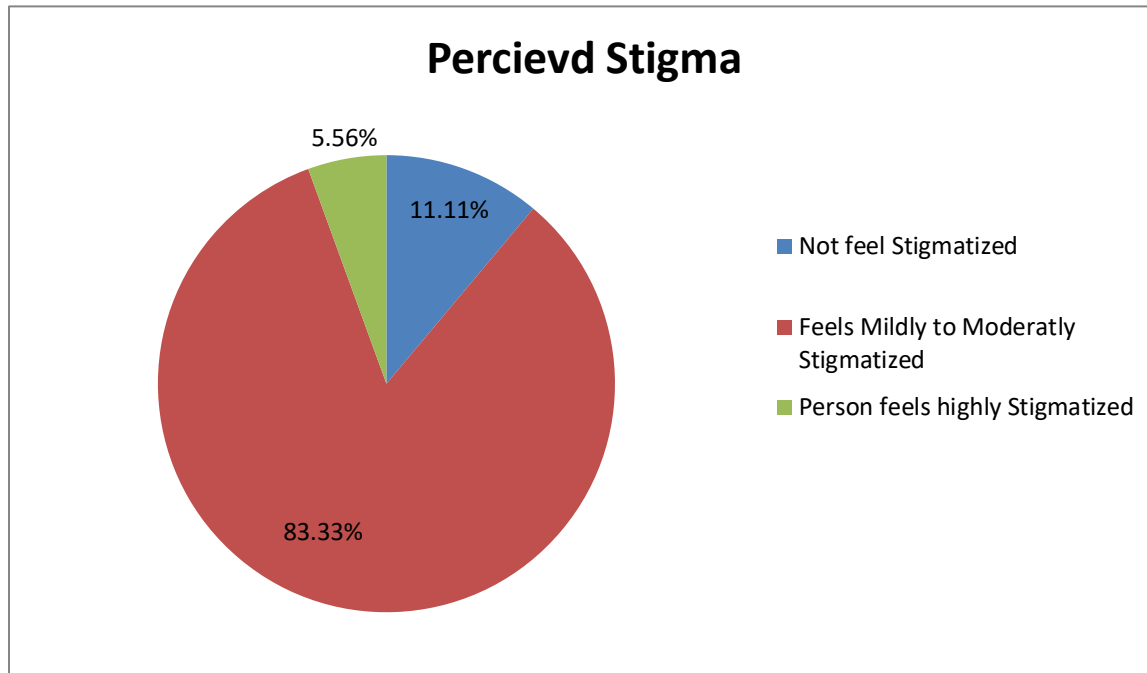


Figure 3: Level of perceived stigma among patients with epilepsy at Gamo Zone, N (252), 2023

5.4 Health related quality of life of people with epilepsy

QOLIE-31 mean total score was 59.56 (SD=16.70). Cognitive function was the highest mean (SD) score, 70.32 (SD=20.49) and Seizure worry subscale was the lowest score, 42.2 (SD=23.95). In terms of overall HRQOL, 114 (45.2%) of the respondents performed below the mean. Cronbach's alpha scores for the entire sample ranged from 0.81 to 0.92 for all domains.

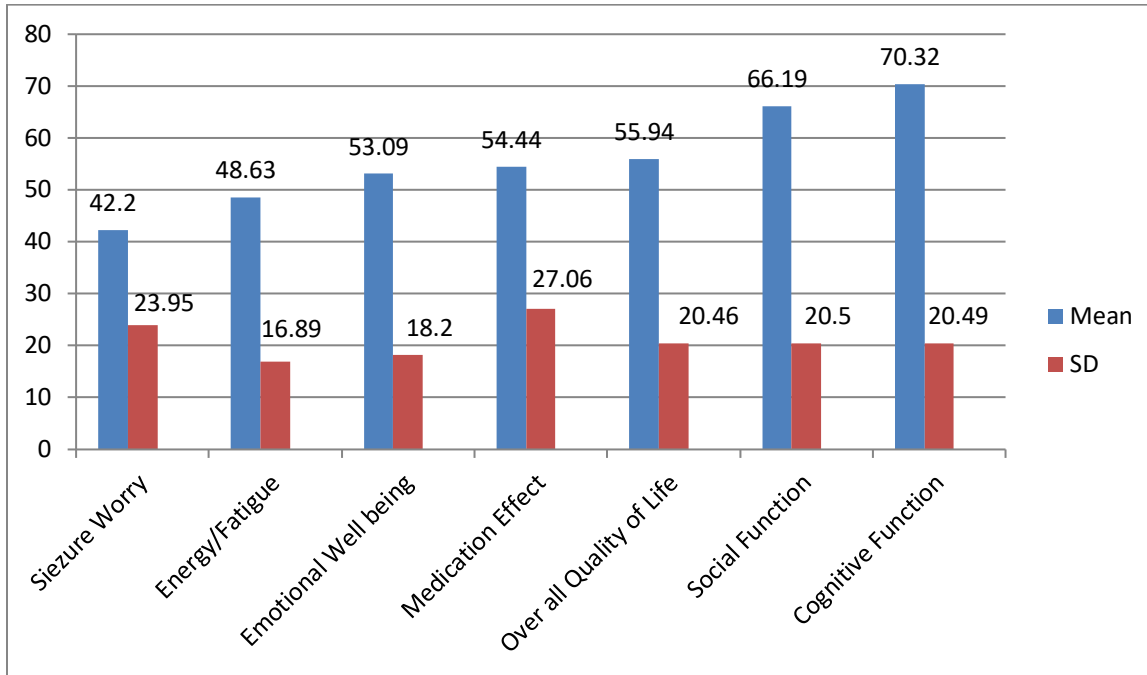


Figure 4: Domains of Health Related Quality of life for Patients with Epilepsy at Gamo Zone, N (252), 2023

5.5 Association between health related quality of life and Independent Variables

5.5.1 Bivariable and Multivariable Logistic regression analysis of health related quality of life with different variables

A binary and multivariable logistic regression analysis was computed to identify the factors that have an association with quality of life. With the bivariable analysis, factors (Education status, Level of Income per month, any comorbid mental disorder, Frequency of seizure, how often take AED, How many type of AED, and Have you ever encountered side effect of AED) with a p value of <0.25 with 95% C.I were selected for inclusion in the multivariable analysis. The variables that were taken into multivariable analysis; and then found to be significant with a p value of <0.05 were: comorbid mental disorders, how often take AED, and have you ever encountered side effect of AED.

The odds of having a low quality of life after correcting for potential confounders among epileptic patients, those clients with comorbid mental disorders were found to be five times more likely poor quality of life than those without comorbid mental disorders [AOR:5.34; 95% C.I (2.14-13.28)]. Clients whom take their medications once per day were found to be less likely poor quality of life than those whom take twice and above per day [AOR=0.04; 95%CI (0.00-0.91)]. Those clients encountered side effect of AED were found to be four times more likely poor quality of life than those without side effect of AED [AOR: 4.14; 95% C.I (1.89-9.10)].

Table 3: Factors associated with poor HRQOL at Gamo Zone, Ethiopia 2023, (N=252)

Variable (Quality of Life)	Category	Poor N (%)	Good N (%)	COR (95%CI)	AOR(95%CI)	P-Value
Comorbid Mental Disorder	Yes	41(69.5)	18(30.5)	3.74(2.00-7.00)	5.34(2.14-13.28)	0.00
	No	73(37.8)	120(62.2)	1		
How often take AED	Once	43(31.2)	95(68.8)	0.15(0.01-1.49)	0.04(0.00-0.91)	0.04
	Twice	68(61.8)	42(38.2)	0.54(0.05-5.35)	0.19(0.01-3.63)	0.27
	More than two	3(75.0)	1(25.0)	1		
Encountered side effect of AED	Yes	81(62.3)	49(37.7)	4.45(2.61-7.60)	4.14(1.89-9.10)	0.00
	No	33(27.0)	89(73.0)	1		

CHAPTER SIX: DISCUSSION

This study assessed Gamo Zone epilepsy patients' HRQOL and associated variables. According to this study, the overall score of HRQoL was 59.56 (\pm SD=16.70), the scale scores ranged from 42.2 (23.95) to 70.32 (20.49). This result was in line with 60.14 (\pm SD=11.61) mean score of (Addis Ababa) Ethiopian (39) and 58.00 (\pm SD=13.00) mean score of Ugandan (82) studies.

This study had a mean higher quality of life score inpatients with epilepsy, in comparison to a study done in Dessie Referral Hospital (51.98 \pm 10.08) (73), Northwest Ethiopia (53.47 \pm 18.42) (50) and Ambo general hospital (56.42 \pm 10.96) (83). Contributing factors to this variation might be clinical characteristics of the respondents, and sociocultural difference. In the Dessie study (64.30%) of the study participants were taking poly-therapy, while in this study (63.1%) of the respondents were on mono-therapy.

Despite, this result was below than the mean score of Mekelle City 77.97 (SD 20.78) (64). The possible reason for this difference might be in Mekelle study, (73%) of the study participants did not experience side effect or discomfort from AEDs, while in this study (51.6%) of participants reported they experienced side effect of AEDs.

About the QOLIE-31 score, the mean score of Seizure Worry subscale was the lowest (42.2, SD: 23.95). This finding was in line with Malaysian finding, where the seizure worry subscale of epileptic patients was mostly affected (84). In contrast, results from Nigeria revealed that the mean score for the Overall QOL subscale was the lowest (82). Contributing factors to the difference might be due to psychological, sociocultural belief, shortage of standardized health care and life style of the patients.

The study's second objective was to find elements associated to HRQOL. In this study, taking AED once per day was inversely associated with poor quality of life in patients with epilepsy.

According to this study, patients who used AEDs only once per day had higher quality of life than those who took twice or more each day. This result is supported by studies conducted at Jimma (85), and Ammanuel Mental Specialized Hospital (86). It might be due to those clients

whom are taking AEDs two and greater times per day will face more AEDs adverse reactions than those whom are taking only once.

However, the current research also showed that having comorbid mental disorders, and encountering adverse drug reactions (side effect of AED) were directly associated with poor quality of life in individuals with epilepsy. In this study, those clients with comorbid mental disorders were found to be five times more likely poor quality of life than those without comorbid mental disorders. This finding is supported by studies conducted in Northeast Ethiopia (7), in China (87), in Australia (88), in rural Ethiopia (70) and at India (89). It could be the result of medication overload and drug interactions brought on by concurrent therapies (90). It could be also due to epileptic patients with comorbid mental disorders are more prone to the community's attitudes, uncaring behaviors and influence by cultural ideas (84).

This study revealed that, those clients encountered side effect of AED were found to be four times more likely poor quality of life than those without side effect of AED. Studies carried out in support of this conclusion include studies conducted in Jimma (85), in Amanuel Mental Specialized Hospital (39), in Australia (88), in India (67), in Uganda (82) and a Tertiary Care Hospital-Based Study in India (91). The reason for this might be due to the negative effect of some AED which includes memory problems, hypersomnia, dyspepsia, fatigue, dizziness, and also others may bring a negative outcome on their quality of life.

CHAPTER SEVEN: STRENGTHS AND LIMITATIONS OF THE STUDY

7.1 STRENGTHS

QOLIE-31 one of most trusted HRQoL measuring instrument, which was specific for patients with epilepsy and well-validated in the context of Ethiopia. The data was analyzed using proper techniques. Every ethical factor was taken into account with the utmost care. The study was conducted in four selected hospitals significantly improved the data's representativeness.

7.2 LIMITATIONS

Since the research is cross-sectional in nature, causality cannot be confirmed.

CHAPTER EIGHT: CONCLUSION AND RECOMMENDATION

8.1 CONCLUSION

According to this study, HRQOL mean score of people living with epilepsy in Gamo Zone is low. Taking medications once per day associated inversely with poor quality of life while, comorbid mental disorders and experiencing adverse effect of medications associated directly with poor quality of life.

It is evident that the HRQOL of patients receiving AEDs is not improved by current epileptic treatment, which primarily focuses on seizure control. Besides seizure control, epilepsy treatment should take into consideration early diagnosis and treatment of co-morbid mental disorders; and give emphasis to the patients' complaints of adverse drug reactions.

8.2 RECOMENDATIONS

The following suggestions for the relevant bodies could be made in light of this study's findings:-

To Ministry of Health and policy makers: Capacity building of health professionals to detect early manifestation of comorbid mental disorders and adverse drug reactions to improve quality of life of patients with epilepsy.

Health professionals: They should take into account early diagnosis of co-morbid mental disorders and adverse drug reactions in people with epilepsy to improve the quality of life for epileptic patients.

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CHAPTER TEN: ANNEXES

Annex A: Information sheet

Hello. My name is _____ and I am data collector of the study conducted by Frehiywot Zewdu student at Addis Ababa university college of health sciences , conducting this research for partial fulfillment of masters of science degree in Adult Health Nursing. We would very much appreciate your participation in this study. The information you provide will help us to know health related quality of life and to improve quality of life of adults with epilepsy. The interview takes between 10-20 minutes to complete.

Name of advisor: - Mr. Wudma Alemu (Asst. professor,PHD fellow) and Sr. Addishiywet Fantahun (BSc,MSC)

Name of the organization: Addis Ababa University, College of Health Sciences, School of Nursing and Midwifery.

Name of the Sponsor: Addis Ababa University

Title of the Research Project: - Assessment of health related quality of life and associated factors among adults with epilepsy in Gamo Zone, Southern Ethiopia, 2023

Introduction: Information sheet, consent and assent form will be prepared. Who attends service in neurology/ clinic whom will be volunteer to participate in research project.

Purpose: The purpose of this study is to find out health related quality of life of adults with epilepsy. The information that you provide are very essential, not only for the successful accomplishment of the study but also for producing relevant information which will help in improving the provision of the service to adults with epilepsy. I will provide research results to concerned body for intervention.

Procedure: In order to achieve the above objective, information which is necessary for the study will be taken from adults with epilepsy. Your responses will not be linked to you and are completely anonymous and confidential. There is no right or wrong answers in this study.

Risk/ Discomfort: - By participating in this research project, you may feel that it has some discomfort especially on spending your time. You can stop but I am Sure there is no risk in participating in this research project.

Benefits: - There may not be direct benefit to you but your participation is likely to help us in assessing health related quality of life and associated factors in adults with epilepsy. So that it helps to improve health related quality of life and healthcare service delivery for patients with epilepsy. You will not be provided any incentive or payment to take part in this project.

Alternative Procedures: - You may choose not to participate in this study and it will not affect the health care that will be given to you.

Confidentiality: The information collected from this research project will be kept confidential and all records and other information obtained will be kept strictly confidential and your protected health information will not be used without permission. All data collection tools will be identified by number or otherwise coded to protect any information that could be used to identify you.

Number of Participants: 252 adults with epilepsy.

Voluntary Participation: It is up to you to decide whether you takes part in this study or not. Refusal to participate research has no penalty or loss of benefits to which you otherwise entitled. This will not affect your relationship with the investigators. If you are voluntary to give information for the study, you can show your willingness by saying “yes”.

1. If yes, proceed to the next page
2. If no, thank you, and skip to the next participant

Name of data collector _____Signature of interviewer: -----Date: -----/-----/-----

If you have questions, complaints or concerns about this study, you can contact the principal investigator Frehiywot Zewdu

Cell Phone; +251931356477

Email address: frezewd555@gmail.com

Annex B: Consent form

Consent form

I understand all conditions stated above. I have understood that Participation in this study is entirely voluntarily. I will tell that the answers to the questions will not be given to anyone else. If respondent does not agree to be interviewed, lets them thanks and go to the next respondent. You can stop at any time. If respondent say "YES" continues.

1. Name of interviewer_____ Signature_____ date_____/_____/_____

(Signature of interviewer certifying that respondent has given informed consent verbally)

Annex C: English version of questionnaire

Part I. Socio-Demographic and medical questioners

Title: Assessment of Health related quality of life and associated factors among adults with epilepsy in Gamo Zone, Southern Ethiopia, 2023.

Code # _____

Date of data collection _____

Name health facility _____

Part I: Socio-demographic questionnaires

	Questions	Response	Sk ip
101	Sex	1. Male 2. Female	
102	Age	-----years	
103	Residence	1. Rural 2. Urban	
104	Education status	1. No formal education 2. Primary 3. Secondary education 4. College and above	
105	Marital status	1. Single 2. Married 3. Divorced 4. Widowed	
106	Religion	1. Orthodox 2. Muslim 3. Protestant 4. Catholic 5. Other	
107	Level of Income per Month	1. <1000 ETB 2. 1000-3000 ETB 3. 3001-5000 ETB 4. >5000 ETB	

Part II: Clinical Factors Questionnaire

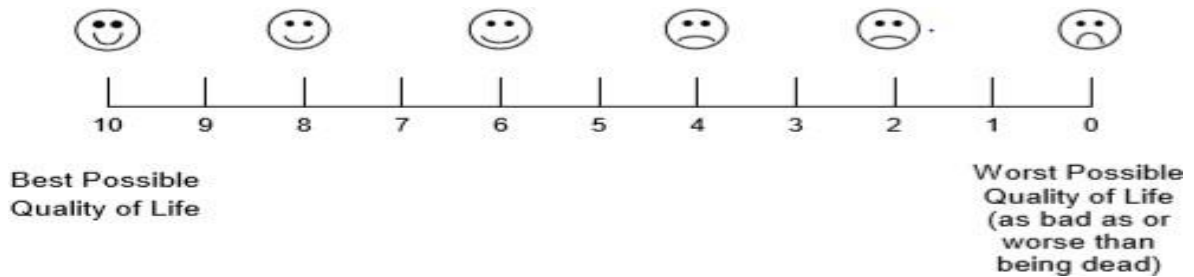
S.No	Questions	Response	Skip
201	How long you have lived with Epilepsy?	1.-----month 2.-----year	
202	How old are you when you get epilepsy?	1.-----month 2.-----year	
203	How long after you started taking AED	1.-----month 2.-----year	
204	Any comorbid mental disorder	1. Yes 2. No	If no skip to 207
205	If yes describe		
206	Frequency of seizure	1. Seizure-free in a year 2. 1—3 in a year 3. >1 times per month 4. Other	
207	How often do you take your medications per day?	1. Once 2. Twice 3. > twice	
208	How many types of drug you have taken?	1. One 2. Two & above	
219	Have you ever had encounter side effect of drug (AED)?	1. Yes 2. No	If No skip question 211
210	If yes describe		

Part III: QOLIE-31 questionnaire items

This questionnaire asks about your health and daily activities. **Answer every question by encircling the appropriate number** (1, 2, 3,). If you are unsure about how to answer the questions, please give the best answer you can and write a comment or explanation in the margin.

Please feel free to ask someone to assist you if you need help reading or marking the form.

301. Overall, how would you rate your quality of life? (Circle one number on the scale below)



The following questions are about how you **FEEL** and how things have been for you during the **past 4 weeks**. For each question, please indicate the one answer that comes closest to the way you have been feeling.

How much of the time during the past 4 weeks...?

(Circle one number on each line)

	All of the time	Most of the time	A good bit of the time	Some of the time	A little of the time	None of the time
302. Did you feel full of pep?	1	2	3	4	5	6
303. Have you been a very nervous person?	1	2	3	4	5	6
304. Have you felt so down in the dumps that nothing could cheer you up?	1	2	3	4	5	6
305. Have you felt calm and peaceful?	1	2	3	4	5	6
306. Did you have a lot of energy?	1	2	3	4	5	6

307. Have you felt downhearted and blue?	1	2	3	4	5	6
308. Did you feel worn out?	1	2	3	4	5	6
309. Have you been a happy person?	1	2	3	4	5	6
310. Did you feel tired?	1	2	3	4	5	6
311. Have you worried about having another seizure?	1	2	3	4	5	6
312. Did you have difficulty reasoning and solving problems (such as making plans, making decisions, learning new things)?						
313. Has your health limited your social activities (such as visiting with friends or close relatives)?	1	2	3	4	5	6
	Very well : could hardly be better	Pretty good	Good and bad parts about equal	Pretty bad	Very bad: could hardly be worse	
314. How has the QUALITY OF YOUR LIFE been during the past 4 weeks (that is, how have things been going for you)?	1	2	3	4	5	

The following question is about **MEMORY**.

(Circle one number)

	Yes, A greatdeal	Yes, Somewha t	Only alittle	No. notat all
315. In the past 4 weeks, have you had any troublewith your memory?	1	2	3	4

Circle one number for how often in the *past 4 weeks* you have **had trouble remembering or how often thismemory problem** has interfered with your normal work or living.

	All of the time	Most ofthe time	A good bitof the time	Some ofthe time	A little of the time	None of the time
316. Trouble remembering thingspeople tell you	1	2	3	4	5	6

The following questions are about **CONCENTRATION** problems you may have. Circle one number for **how often** in the **past 4 weeks** you had trouble concentrating or **how often** these problems interfered withyour normal work or living.

	All of the time	Most ofthe time	A good bit of thetime	Some ofthe time	A little of the time	Non e of the time
317. Trouble concentrating onreading	1	2	3	4	5	6
318. Trouble concentrating on doing one thing at a time	1	2	3	4	5	6

The following questions are about problems you may have with certain **ACTIVITIES**.

Circle one number for **how much** during the **past 4 weeks** your **epilepsy or antiepileptic medication** has caused trouble with...

	A great deal	A lot	Somewhat	Only a little	Not at all
319. Leisure time (such as hobbies, going out)	1	2	3	4	5
320. Driving (or transportation)	1	2	3	4	5

The following questions relate to the way you **FEEL** about your **seizures**.

(Circle one number on each line)

	Very fearful	Somewhat fearful	Not very fearful	Not fearful at all
321. How fearful are you of having a seizure during the next month?	1	2	3	4

	Worry a lot	Occasionally worry	Don't worry at all
322. Do you worry about hurting yourself during a seizure?	1	2	3

	Very worried	Somewhat worried	Not very worried	Not worried at all
323. How worried are you about embarrassment or other social problems resulting from having a seizure during the next month?	1	2	3	4
324. How worried are you those medications you are taking will be bad for you if taken for a long time?	1	2	3	4

For each of these **PROBLEMS**, circle one number for **how much they bother you** on a scale of 1 to 5 where 1 = Not at all bothersome, and 5 = extremely bothersome.

	Not at all bother some				Extrem ely bothers ome
325. Seizures	1	2	3	4	5
326. Memory difficulties	1	2	3	4	5
327. Work limitations	1	2	3	4	5
328. Social limitations	1	2	3	4	5
329. Physical effects of antiepileptic medication	1	2	3	4	5
330. Mental effects of antiepileptic medication	1	2	3	4	5

331. How good or bad do you think your **HEALTH** is? On the thermometer scale below, the best imaginable state of health is 100 and the worst imaginable state is 0. Please indicate how you feel about your health by circling one number on the scale. **Please consider your epilepsy as part of your health when you answer this question**

Worst Imaginabl eHealth State (as bad as or worse thanbeing dead)										Best Imaginabl eHealth Stat
0	10	20	30	40	50	60	70	80	90	100

Part IV Epilepsy stigma scale

Please tell me how much you agree or disagree with each of the following 3 statements.

	Because of epilepsy:	not at all	yes, maybe	yes, probably	yes, definitely
401	Other people are uncomfortable with me	0	1	2	3
402	Treat me as inferior	0	1	2	3
403	Prefer to avoid me	0	1	2	3
	category	Not stigmatized (score of 0), mild-moderate (score of 1–6) and highly stigmatized (score of 7–9)			

Thank you very much for your valuable time.

Annex D: Amharic version of questionnaire

አዲስ አበባ ዩኒቨርሲቲ

የጤና ሳይንስ ኮሌጅ የነርቲንግ እና የሚድዋይፈሪ ትምህርት ክፍል

የስምምነት ዉል

ዉድ ተሳታፊ _____ እባላለሁ። ይህ መጠየቅ የሚጥል በሽታ ካለባቸው ተመላላሽ ታካሚዎችን ከጤና ጋር በተያያዘ የህይወት ጥራት ደረጃቸውንና ተዛማጅ ምክንያቶችን ለማጥናት የተዘገጀ መጠየቅ ነዉ። የጥናቱ አለማም የሚጥል በሽታ ከጤና ጋር በተያያዘ የህይወት ጥራት ደረጃቸውን ለማሻሻልና ከዚህ በኋላ ለሚካሄዱ ተመሳሳይ ጥናቶች እንደመነሻ መረጃ በመሆን ያገለግላል። በመሆኑም የሚጥል በሽታ የህይወት ጥራት ደረጃን ና ተዛማጅ ምክንያቶችን በተመለከተ በቂ መረጃ እንዲሰጡን የተወሰኑ ጥያቄዎችን ለ 20 ደቂቃዎች ለ መጠየቅ እወዳለሁ። ማንኛዉም እርስዎ የሚሰጡት መረጃ ችግሩን ለማስወገድ ጠቀሜታዉ በእጅጉ የጎላ ነዉ። እባክዎን ካልወት ሰአት የተወሰነ ጊዜ በመዉሰድ ለመጠየቅ ጥያቄዎች ምላሽዎን ይስጡ። ከ እርስዎ ሚገኘው መረጃ ለጥናቱ ትክክለኛነት ከፍተኛ ሚና ስላለው መረጃዎ ትክክለኛ እንዲሆን ስል እጠይቀለሁ። ማንኛዉም እርስዎ የሚሰጡት መረጃ ምስጢራዊነቱ የተጠበቀ ነዉ። ከዚህ ጥናት ጋር በተያያዘ በማንኛዉም ቦታ ና ጊዜ ሰምዎ አይጠቀሱም። በጥናቱ የሚሳተፉት የእርስዎ ሙሉ ፈቃደኝነት ሲገኝ ብቻ ነዉ። በመጠይቁ ላለመሳተፍ ወይም በመጠይቁ ሂደት ሊመልሱት የማይፈልጓቸዉን ጥያቄዎች ያለመመለስ መብትዎ የተጠበቀ ነዉ። ለመሳተፍ ፈቃደኛ ባለመሆንዎ ምንም አይነት ተፅዕኖ አየደርስብዉትም። በመጠይቁ ለመሳተፍ ፈቃደኛ ነዎት?

- 1. አዎ ----- መጠይቁ ይቀጥላል
- 2. አይደለሁም ----- ወደ ሌላ ታካሚ ሒድ

የመረጃዉ ሰብሳቢ ስም _____ ፊርማ _____ ቀን.....

የሱፐርቫይዘሩ ስም _____ ፊርማ _____ ቀን.....

ክፍል I: የማህበረ-ሰነ-ህዝባዊ ነክ ባህሪያት መረጃ

ተ. ቁ	ጥያቄ	ምርጫ	ምር መረ
101	ፆታ	1=ወንድ 2=ሴት	
102	እድሜዓመት	
103	የመኖሪያ አካባቢ	1=ገጠር 2=ከተማ	
104	የጋብቻ ሁኔታ	1=ያላገባ 2=ያገባ 3=ተለያይተዉ የሚኖሩ 4=በሞትየተለየ 5=የተፋታ	
105	ሃይማኖት	1=አርቶዶክስ 2=ሙስሊም 3=ፕሮቴስታንት 4=ካቶሊክ 5=ሌሎች (ይጥቀሱ.....)	
106	የትምህርት ደረጃ	1=መደበኛ ትምህርት ያልተማረ 2=1-8 የተማረ 3=9-12 የተማረ 4=ኮሌጅ ና ከዚያ በላይ	
107	በወር የገቢ መጠን	1. <1000 የኢት ብር 2. 1000-3000 የኢት ብር 3. 3001-5000 የኢት ብር 4. >5000 የኢት ብር	

ክፍል II : የሚጥል በሽታ ላለባቸው ከጤና ጋር ተያያዥነት ያላቸው ጥያቄዎች

ተ. ቁ	ጥያቄዎች	ምላሽ	ምርመራ
201	የሚጥል በሽታ እንዳለብዎት ካወቁ ምን ያህል ጊዜዎች ነው?ወር/አመት	
202	በሽታው የጀመረው በስንት አመትዎ ነው?ወር/አመት	
203	መድሀኒት መውሰድ ከጀመሩ ስንት አመትዎ ነው?ወር/አመት	
204	ሌሎች የቆዩ በሀኪም የተረጋገጡ የአዕመሮ በሽታዎች አሉብዎት?	1=አዎ 2=የለም	የለም ካሉ ወደጥያቄ ቁጥር 206 ይለፉ
205	አዎ ከሆነ ይግለጹ		
206	መወደቅ በየስንት ጊዜው ይከሰትብዎታል?	1=በ1 አመት ውስጥ ምንም መጣል የለም 2=በ 1 አመት ውስጥ 1-3 ጊዜ 3= በ ወር ከ1 ጊዜ በላይ 4.ሌላ ካለ....	
207	መድሀኒት በቀን ስንት ጊዜ ይወስዳሉ?	1=አንድ ጊዜ 2=ሁለት ጊዜ 3= ከሁለት በላይ	
208	የሚወስዱት መድሀኒት ስንት አይነት ነው ?	1=አንድ አይነት 2=ከአንድ በላይ	
209	የመድሀኒቱ የጎንዮሽ ተፅእኖ	1)አለ 2)የለም	ካለ ይጥቀሱ

ክፍል III: ከጤና ጋር በተያያዘ የሚጥል በሽታ የህይወት ጥራት (ምቹት፣ ጤናና ደስታ) የሚያመለክቱ ጥያቄዎች

ስለ ጤንነትዎ እና የአለታዊ እንቅስቃሴዎች 31 ጥያቄዎች አሉ። እያንዳንዱን ጥያቄ አግባብ ባለው ቁጥር (1, 2, 3...) በመክብብ መልስ ይስጡ።

301 በአጠቃላይ, የህይወትዎ ጥራት (ምቹት፣ ደስታና ጤና) ደረጃ እንዴት ይገመታል?

10	9	8	7	6	5	4	3	2	1	0
ከሁሉ የተሻለ የሕይወት ጥራት										እጅግ የከፋ ህይወት ያለው

እነዚህ ጥያቄዎች ባለፉት አራት ሳምንታት ውስጥ እንዴት እንደ ሚሰማዎት እና እንዴት እንደ ነበሩ የሚያመለክቱ ናቸው። እርስዎ ከ ሚሰማውት ጋር የሚቀርበውን ባለፈው 4 ሳምንት ውስጥ ለምን ያክል ጊዜ ተሰምቶታል.. (ለእያንዳንዱ አንድ ቁጥር ያክብቡ)

		ሁሉም ጊዜ	አብዛኛውን ጊዜ	ከንዳንዴ ውጭ ጥሩ ይሰማኛል	አንዳንድ ጊዜ	ትንሽ ጊዜ ነው	መቼም የለም
302	ከፍተኛ ደስታ ተሰምቶታል ያወቃል?	1	2	3	4	5	6
303	በጣም ስሜታዊ ሰው ሆነዉ ያወቃል?	1	2	3	4	5	6
304	መከፋትና ምንም የሚያስደስት ነገር እንደማኖር ይሰማዎታል?	1	2	3	4	5	6
305	የተረጋጋ ና ሰላማዊ የሆነ ስሜት ተሰምቶታል?	1	2	3	4	5	6
306	ብዙ ኃይል አለዎት?	1	2	3	4	5	6
307	ተስፋ መቁረጥና ድብርት ይሰማዎታል?	1	2	3	4	5	6
308	የመሰልቸት ስሜት ይሰማዎታል	1	2	3	4	5	6
309	ደስተኛ ሰው ነዎት?	6	5	4	3	2	1
310	የድካም ስሜት ተሰምቶታል?	1	2	3	4	5	6
311	ሌላ ይጥለኛል / ያመኛል ብልጠ ይጨነቃል?	1	2	3	4	5	6
312	ለማቀድ፣ ለመወሰንና አዲስ ነገር ለመማር የመሳሰሉትን ችግሮች ለመፍታት ይቸገራሉ?	1	2	3	4	5	6
313	ጤንነትዎ ማህበራዊ እንቅስቃሴዎን (ለምሳሌ ከጋደኛ ወይም የቅርብ ዘመዶች ጋር መጎብኘት) ይቀንሰዎታል?	1	2	3	4	5	6

ባለፉት አራት ሳምንታት የህይወት ጥራት(ምችት ፣ደስታ ና የጤና ሁኔታ) እንዴት ነበር/ ነገሮች እንዴት አለፉ ያክብቡ

	1	2	3	4	5
314	በጣም ጥሩ: በተሻለ ሁኔታ ነበር	ጥሩ: ሁኔታነበር	ጥሩ እና መጥፎ የሆኑ ክፍሎች እኩል ናቸው	መጥፎ	በጣም መጥፎ

		አዎበደንብነው(1)	አዎ, የተወሰነ(2)	ጥቂት ብቻ(3)	በጭራሽ(4)
315	ባለፉት 4 ሳምንታት ውስጥ የማስታወስ ችግር አጋጥሞታል?	1	2	3	4

ባለፉት አራት ሳምንታት ውስጥ ምን ያህል ጊዜ ችግር እንደገጠመዎ ወይንም ምን ያህል የማስታወስ ችግርዎ በመደበኛ ሥራዎ ወይም በህይወትዎ ጣልቃ እንደገባ አንዱን ያክብቡ::

316	ሰዎች የሚነግሩዎትን ነገሮች ማስታወስ ያስቸግረዎታል?	ሁል ጊዜ	አብዛኛውን ጊዜ	ከትንሽ በስተቀር ነው	ጊዜ ጥሩ ጊዜ	ትንሽ ጊዜ	ምንም
		1	2	3	4	5	6

የሚከተሉት ጥያቄዎች እርስዎ ሊኖሩዎት ስለሚችሉ የትኩረት ችግሮች ናቸው በአለፉት 4 ሳምንታት ውስጥ ምን ያክል በተደጋጋሚ የማተኮር ችግር እንደገጠመዎት ወይንም ምን ያህል ጊዜ ችግርዎን በመደበኛ ስራዎ ወይም በመጠኑ ላይ ጣልቃ እንደገባ አንዱን ያክብቡ::

		ሁል ጊዜ	አብዛኛውን ጊዜ	ከትንሽ ውጭ ነው	ብዙውን ጊዜ ጥሩ	ትንሽ ጊዜ	ምንም
317	በሚያነቡት ነገር ላይ ለማተኮር ይቸገራሉ ?	1	2	3	4	5	6
318	አንድ ስራ በአንድ ጊዜ በትኩረት ለማከናወን ይቸገራሉ?	1	2	3	4	5	6

የሚከተሉት ጥያቄዎች በተወሰኑ ተግባሮች ውስጥ ሊኖሩ የሚችሉ ችግሮች. በአለፉት አራት ሳምንታት ውስጥ የሚጥል በሽታ ወይም መድሃኒቱ ምን ያክል ችግር እንዳደረሰበዎት አንዱን ቀጥሮ ያክብቡ::

		በጣም ብዙ	ብዙ	በመጠኑ	ትንሽ ብቻ	በጭራሽ
319	የመዝናኛ ጊዜ (እንደ የትርፍ ጊዜ ማሳለፊያዎች, መውጣት ይቸገራሉ)	1	2	3	4	5
320	ማሸከርከር (በ መኪና ሲሄዱ ይቸገራሉ)	1	2	3	4	5

		እጅግ በጣም አስፈሪ	በተወሰነ መጠን አስፈሪ	በጣም አስፈሪም አይደለም	በጭራሽ አያስፈራም
321	በሚቀጥለው ወር ሊጠለኝ ይችላል ብለው ምን ያህል ይፈራሉ?	1	2	3	4

		በጣም እጩነታለሁ	አልፎ አልፎ እጩነታለሁ	አልጩነቅም
322	በሚጠልዎ ጊዜ እንዳይጎዱ ይጩነታሉ?	1	2	3

የሚከተሉት ጥያቄዎች እርስዎ በሚያንቀጠቅጥዎት ጊዜ ከሚሰማዎት ስሜት ጋር ይዛመዳሉ

		በጣም እጩነታለሁ	በተወሰነ ደረጃ እጩነታለሁ	በጣም አልጩነቅም	በጭራሽ አልጩነቅም
323	በሚቀጥለው ወር ቢጥልውና በዚህ ምክንያት ስለሚከተለው የሀፍረት ስሜትና ማህበራዊ ችግር ምን ያህል ይጩነታሉ?	1	2	3	4
324	የሚወስዷቸው መድሃኒቶች ለረጅም ጊዜ ከተወሰዱ በእርስዎ ላይ ችግር ይፈጠራሉ ብለው ይጩነታሉ?	1	2	3	4

እነዚህ ችግሮች ለእያንዳንዳቸው ምን ያክል እንዳስጩነታቸውከ 1 እስከ 5 ከልኬቱ ላይ አንድ ቁጥር ያክብቡ

		ምንም የማያሰጩንቅ	የተወሰነ የማያሰጩንቅ	አስጩናቂ	የተወሰነ አስጩናቂ	በጣም አሰጩናቂ
325	መጣል	1	2	3	4	5
326	የማስታወስ ችግር አለበወት?	1	2	3	4	5
327	ስራ መስራት አለ መቻል?	1	2	3	4	5
328	የማህበረሰብ ገደቦች አሉብወት?	1	2	3	4	5
329	የሚጥል በሽታ መድሀኒት አካለዎ ተፅዕኖ አድርጎበወታል	1	2	3	4	5
330	የሚጥል በሽታ መድሀኒት የአዕመሮ ተፅዕኖ አሳድሮበወታል?	1	2	3	4	5

ጤናዎ ምን ያህል ጥሩ ነው ወይስ መጥፎ?
 አጠቃላይ ጤንነትዎ ምን ያህል ጥሩ ወይም መጥፎ ነው ብለው ያስባሉ? መልሱን ሲሰጡ ያለበዎትን የሚጥል በሽታከግምት ውስጥ ያስገቡ።

በመጥፎ ሊገመት የሚችል የጤና ሁኔታ (ከሞት የከፋ ወይም ከዛም በላይ የከፋ ነው)											ጥሩ ሊገመት የሚችል ድንቅ የጤና ሁኔታ
0	10	20	30	40	50	60	70	80	90	100	

ክፍል IV: በሚጥል በሽታ ምክንያት ስለሚኖር መገለል የሚያመለክቱ ጥያቄዎች

በሚከተሉት ሀሳቦች ውስጥ ምን ያህል እንደሚስማሙ ወይም እንደማይስማሙ ይንገሩን.

	በሚጥል በሽታ ምክንያት:	ኧረ በጭራሽ	ሊሆን ይችላል	ምናልባት	አዎ በእርግጠኝነት
401	ሌሎች ሰዎች ከእርስዎ ጋር መሆን ምችት አይሰጣቸውም/አይሰማቸውም	0	1	2	3
402	ሌሎች ሰዎች እርስዎን እንደ የበታች ይቆጥሩዎታል	0	1	2	3
403	ሌሎች ሰዎች እርስዎን ማስወገድ/ማግለል ይመርጣሉ	0	1	2	3

ለሰጡኝ ውድ ጊዜ በጣም አመሰግናለሁ::