THE EFFECTS OF SOCIAL SUPPORT ON SELF-EFFICACY AND SELF-MANAGEMENT OF CHILDREN LIVING WITH EPILEPSY IN NAIROBI COUNTY

BY
RUTH KUKHU LUMBASI
C50/6467/2017

A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF PSYCHOLOGY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF A MASTERS DEGREE IN PSYCHOLOGY
(COMMUNITY PSYCHOLOGY)

2020

DECLARATION

This research project is my original work and has never been submitted for examination or award in any other university.

Signature……………………...   Date……………………………
RUTH KUKHU LUMBASI
C50/6467/2017

Supervisor's Approval

This research project has been submitted for examination with my approval as the university supervisor.

Signature…………………….   Date…………………………….
PROF. PRISCILLA W. KARIUKI
Department of Psychology
University of Nairobi.

DEDICATION

I heartily dedicate this project to my late brother Chris Lumbasi, who succumbed to his injuries inflicted during a seizure; to my sons; Paul and Abel, and to all the children living with epilepsy in Kenya.

ACKNOWLEDGEMENT

I give gratitude to God for having blessed me with the capacity and the resilience to finish this project despite the challenges faced during the COVID-19 pandemic.

My sincere and heartfelt obligation to Professor Priscilla W. Kariuki who assisted me in this undertaking, I would not have completed this project without her invaluable guidance.

I extend my gratitude to the Kenya Association for the Welfare of People with Epilepsy (KAWE) for permitting me to carry out research at their epilepsy clinics. I acknowledge and appreciate KAWE employees, specifically, Teddy and Lucy for their support and willingness to share information from their experiences of working with people with epilepsy. Special thanks go to all the children together with their parents/guardians for participating in this study and for their significant contribution.

Finally, I wish to thank my mother; Norah Lumbasi for always praying for me; my siblings; Maureen Khatete and Jeremiah Lumbasi; my husband; Antony Nyariro; and my friend Dr. Agnes Zani for the support, encouragement, and motivation during my entire study.

ABBREVIATIONS

AGI-K	The Adolescent Girls Initiative-Kenya
AWE	Adolescents Living with Epilepsy
AED	Antiepileptic drug
CDC	Centre for Disease Control
CF	Cystic Fibrosis
CWE	Children Living with Epilepsy
EEG	Electroencephalogram
ESMS	Epilepsy Self-Management Scale
FGD	Focused Group Discussion
IEC	Information, Education and Communication
KNH	Kenyatta National Hospital
PEMSQ	Paediatric Epilepsy Medication Self-Management Questionnaire
PWE	People Living with Epilepsy
SCT	Social Cognitive Theory
SSES-C	Self-Efficacy Scale for Children
WHO	World Health Organization

ABSTRACT

Different types of studies have been conducted to explain epilepsy as a medical condition. However very few of them have concentrated on the psychological and social effects on people living with epilepsy (PWE). The study aimed at exploring the impact of social help on self-efficacy and self-management of children living with epilepsy (CWE) in the County of Nairobi. This systematic study was driven by a co-relational design to understand the connection between variables and to estimate to what extent social support affects self-efficacy and self-management among children living with epilepsy. The research used standardized questionnaires and focused group conversations (FGD), involving both children with epilepsy (CWE) and children's parents/guardians living with epilepsy. A sample of 70 respondents was selected through purposive sampling. The level of social support was calculated using Child Study of Psychosocial Treatment Scale ((Austin, Dunn, Huster, & Rose, 1998), while the level of seizure control self-efficacy was calculated with the "Seizure Self-Efficacy Scale for Children (SSES-C)", by Caplin, D., Austin, J. K., Dunn, D. W., Shen, J., & Perkins, S. (2002). Study results suggest that social support has had a statistically beneficial impact on children living with epilepsy. This study demonstrates that the treatment of epilepsy should not only focus on the administration and adherence to anticonvulsant medication but better results can be achieved through a holistic approach. This means treating the '*whole person'* which includes addressing the economic, social, and psychological needs of the patient, would be an effective intervention.

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CHAPTER ONE

INTRODUCTION

In this chapter the following areas will be elaborated on; background information on social support, self-efficacy, epilepsy, and related issues, the background of the study, problem statement, study objectives, research question, hypothesis, justification and significance of the study, scope and limitations of the study, and operational definition of terms.

1.1 Background of the Study

Epilepsy is a typical clinical and social condition and or group of disorders with unique presentations. Epilepsy is found across the world, with no ethnic, geographical, or social class distinctions. It happens in all genders, at all ages, especially during childhood, in puberty, and progressively in the maturing populace (Dekker, 2002). Epilepsy majorly manifests itself in seizure which is seen as an electric discharge in the brain of predisposed people, partially because of putative hereditary causes, basic neurological conditions, and unexplained neurochemical systems.

A broad range of reasons for seizures and epilepsy disorder have been established and the type of epilepsy also determines how seizures occur. There are usually two main types of seizures. The first is the focal/partial seizures that occur in a specific part of the brain. They can induce both physical and emotional effects that result in a non-existent sensation, hearing, or seeing pictures. Generalized seizures affect all sides of the brain (left and right hemispheres). Generalized seizures also known as Absence seizures, which lead to increased blinking or a couple of moments of gazing into space, or Tonic-clonic seizures, which can make an individual shout out, lose control, fall to the ground, or have a muscle spasm. A patient might feel exhausted after a tonic-clonic seizure (CDC, 2018).

Patients are treated with drug therapy, occasionally with neurosurgical strategies, as well as with psycho-social support. Preux (2000), detailed a report on the pervasiveness of epilepsy/ seizure in African nations and established a variety of 5.2 per every 1,000 to 58 per every 1,000. In his review of literature, a pervasiveness of 10.2 per every 1,000 was recorded. In subsequent two years, Rwiza (2001), published a paper which reported a prevalence outcome of 35.8 per 1,000. Epilepsy is a common health problem in Kenya, and although there are clinics that address the management of seizure no attention has been given to the mental health of people with epilepsy (PWE). Overtime epilepsy has been downplayed to a point where one would think that the condition does not exist.

It is common that in some African settings, traditional treating methods are sought for first. The customary conviction frameworks in certain nations promote prejudice against people living with epilepsy (PWE), prompting their rejection from their community and constraints on their admittance to principal human and social rights. Nevertheless, traditional interventions ought not to be dismissed, in numerous occurrences, the individual with epilepsy gets a level of auxiliary support including; reassurance and emotional support. Traditional and Western intervention ought to be consolidated in a manner that incorporates different modes, comprehensive assistance, and treatment for PWE and inclusive of their families (Feksi et al., 1991). Such services will incorporate treatment, psychosocial support, transitional education, work advancement, rehabilitation, and community reintegration. The question would be how to address conflicting beliefs that drive the principle of conventional and modern scientific modes of treatment.

Epilepsy is notable in African social orders, as in numerous different social orders. People living with epilepsy (PWE), especially the individuals who have been diagnosed with tonic-clonic seizures, experience segregation in different situations in their lives, even among health practitioners. Epilepsy is frequently seen as a psychological sickness or an infectious ailment. Unexpected physical actions are related to certain seizures, for example, incontinence, which tends to bring out fear, stigma, and misunderstanding. In some African communities, the breath and, any body fluids (saliva, sperm, and genital discharges) of individuals with epilepsy are also perceived as infectious (Nubukpo, 2000). This prompts inadmissible responses, such as running away from an individual having a seizure without offering any assistance, due to the fear of contracting epilepsy from the body fluids. Death caused by suffocation, drowning burning and other serious injuries can result from such circumstances.

People living with epilepsy (PWE) experience frustration as they often experience discrimination when they attempt to participate in any activity in their communities. This form of discrimination that is influenced by the fact that one lives with epilepsy presents itself in all aspects of life, including in education programs, in seeking health care services or employment, and even their family and social lives are equally affected. In some African countries, traditional beliefs condone discrimination against people living with epilepsy (PWE) and therefore encourage exclusion from mainstream society and infringe on their fundamental human rights. For instance, in Burkina Faso, among the Nankar tribe, when an individual with epilepsy dies, they are not celebrated as per the traditional norms, instead, they are disposed of in the mountains.

Social support and social networks are concepts that identify the structures, processes, and functions of social relations (Barnes, 1954). Barnes further defines social networks as social relationships that an individual is surrounded by, it helps in coping with stressful events and it enhances one's psychological well-being including one's self-efficacy. The effect model, a theoretical model of psychosocial support postulates that social support promotes the health and well-being of human beings irrespective of their stress level.

Children living with epilepsy (CWE) regularly face victimisation and isolation both at school and within their communities. This has led to these children having little or no confidence, low self-efficacy, and under-accomplishment in school. A study led by Agbohoui (1994) in various schools across Africa uncovered a high proportion of CWE is socially withdrawn, and rarely participate fully in school activities. They feel embarrassed about their condition, they are afraid of getting a seizure attack while with other children, making them feel hopeless, frustrated, humiliated, and therefore develop dependency and demanding behaviour (Simister and Duncan, 2002). A series of studies and continuous follow-ups on CWE established a higher rate of dropping out of school with the majority only completing six years of school, higher chances of unemployment, financially dependent, low chances of getting married in comparison to those living without epilepsy (Guberman and Bruni, 1999).

Epilepsy affects an individual comprehensively, all aspects of their health are impacted upon, be it physical, mental, or social well-being. In contrast to other chronic ailments, it is hard to foresee when an epileptic seizure will happen, hence decreasing the child’s understanding of self-control (Fazlioglu, Sonmez and Hocaoglu, 2010). Clinical treatment, and in some cases the side effects of the medication given to a child to control the seizure may negatively influence the self-efficacy, connection between the child and the parental figure, and adherence to the medication (Chen, Tsai, Lin, Shih and Chen, 2010).

The self-efficacy proposition has been used broadly by various researchers to explain health behaviour. It has been perceived to be a significant stabilizer in patients with interminable illness (Amtmann, Bamer. Cook, Noonan, Brockway & Askew 2012). The notion of self-efficacy was first presented by Albert Bandura (1977), who was a well-respected psychologist, in the framework of "Cognitive Behavior Modification" (Stuart, 2005).

According to Bandura, self-efficacy greatly influences the behaviour change in an individual and this is the base of social learning theory. Perceived self-efficacy can be delineated as a person's belief in his or her capacity to plan, and complete an activity given specific situations (Adams & Bandura, 1997).

Self-efficacy among people living with epilepsy has progressively become significant over the past few years. Self- efficacy of a patient is considered to be vital as it impacts on the general management of seizure. Self-efficiency in seizure management is characterized by a persons’ belief and capacity to effectively contend with the condition, and carry on normally with their daily activities. Effective management of seizure in the main goal of administering the treatment of epilepsy (Tegkul, 2010). The literature uncovered only two studies conducted that focused on measuring self-efficacy in CWE conducted by, Wagner, Smith, Ferguson, Hrisko & Bakergem, 2010.

A study conducted by Gramstad, Iversen & Engelsen (2001), established that adults who were living with epilepsy and exhibited higher proportions of self-efficacy were observed to be healthier both mentally and, physically and were able to manage their seizures by adhering to medication.

For an epileptic child, an interdisciplinary approach is needed in the context of caring for the whole family. In particular, by implementing an integrated strategy, the perceived self-efficacy of the child should be established, increased, enhanced, and sustained, which will promote the management and allow normal participation in day to day activities despite living with epilepsy. In children living with epilepsy, strong self-efficacy beliefs promote better control of seizures, better performance at school, a healthier life, and improved social integration. People living with epilepsy (PWE), who present with strong self-efficacy are bound to follow treatment plans, which increases their livelihood and reduces the periodicity of seizures (Chen, Tsai, Lin, Shih & Chen, 2010). Moreover, strong self-efficacy among PWE is associated with a more positive outlook towards epilepsy, it contributes to reduced depressive symptoms, lessens anxiety about seizures, and decreases stigma.

1.2 Statement of the Problem

Children living with epilepsy have been neglected in our society, and the issue has remained silent giving a picture that it does not exist. Some parents of children and youth living with epilepsy have given up on their children rendering them dysfunctional. According to the WHO report (2019), In PWE, the chances of premature deaths are higher than in the general populace. The report also demonstrates that at least half of the people living with epilepsy have at least one other health disorder, with anxiety and depression being common. According to the study, 23% of people living with epilepsy are diagnosed with clinical depression and, 20% will experience anxiety. These kinds of psychological disorders can increase seizure attacks in a patient and impact negatively on the quality of life.

Austin, Dunn, Caffrey, Perkinsson, & Rose, (2002), demonstrated that students with epilepsy had relatively lower standards of living in the mental, social and, education spheres, unlike other diseases that commonly affect more of the physical domain. Psychosocial support is considered to be a crucial and protective factor for mental, emotional, and physical health. A positive support network, where one can freely express themselves is a great contributor to an individual's wellbeing and the community at large (Courtenay, 2008).

However, few communities in African countries have developed programs that focus on rehabilitation or re-socialization for people living with epilepsy. Additionally, studies done on epilepsy in Nairobi mostly discuss the causes, treatment, and, management (Nyakwana, Simbauni, & Jowi, 2014), Kariuki, (2012) & Karanja, 2017). Few studies discuss the impact of social support on the self-efficacy and self-management of CWE.

1.3 Purpose of the Study

This study aims at exploring effects of social support on the self-efficacy and self-management of children living with epilepsy (CWE) in the county of Nairobi.

1.4 Objectives of the Study

The objectives of the study were to:

i. Identify the effect of social support on the self-efficacy of children living with epilepsy in Nairobi County.
ii. Examine the effect of social support on the self-management of children living with epilepsy in Nairobi County.
iii. Determine the effect that social support, self-efficacy, and self-management have on children living with epilepsy in Nairobi County.

1.5 Research Questions

The research questions included:

i. What extent can social support affect the self-efficacy of CWE in Nairobi County?
ii. What is the effect of social support on the self-management of CWE y in Nairobi County?
iii. What effect can social support, self-efficacy and self-management have on CWE in Nairobi County?

1.6 Hypotheses

The study was conducted in order to test the following hypotheses.

Ho. Social support does not have any effect on the self-efficacy of CWE in Nairobi County.

Ho. Social support has no effect on the self-management of children with epilepsy in Nairobi County.

Ho. Social support, self-efficacy, and self-management have no effect on children with epilepsy in Nairobi County.

1.7 Justification of the study

Majority of studies carried out with regards to epilepsy have to a large extent focused on curative and seizure management of the disease. PWE encounters numerous challenges including psychosocial manifestations (such as poor self-efficacy, anxiety, and depression), social complications (such as driving restriction, unemployment), and stigma/social isolation. The studies on psychological manifestations have been carried out mostly in Western countries; limited studies have been done in Kenya and have focused on the causes, treatment, and management of individuals living with epilepsy. Only a few of the studies discuss the effects of social support on self-efficacy and self-management amongst children living with epilepsy.

1.8 Significance of the Study

Social support is crucial for an individual in recovery from any form of ailment. This study aimed at unravelling the extent to which social support affects self-efficacy and self-management of CWE in Nairobi County. The findings provide empirical evidence that helps in the understanding of how social support affects self-efficacy and self-management amongst CWE. The findings will benefit parents/guardians, friends and teachers of CWE in Nairobi County; in understanding the importance of offering CWE social support. The study can also help practitioners including Psychologists, caregivers, counsellors, and medical professionals to understand the importance of facilitating social support to CWE including their family and friends. Finally, the study can help the CWE to understand and be aware of how the social support they are giving to children is affecting them, in terms of self-efficacy and self-management.

1.9 Scope of the Study

The study was descriptive in nature and targeted CWE and parents/guardians of the CWE; the respondents were children of eighteen years and below. Using questionnaires, the investigation assessed the level of social support offered to the children living with epilepsy. The constructs of social support measured included; emotional support, instrumental support, informational support, and appraisals. The questionnaires also measured the self-efficacy constructs that included children's persuasion in their own ability to effectively contend with epileptic seizures, educational achievement, their standard of life, social integration, and treatment compliance.

1.10 Limitations of the Study

The study had one major limitation; the number of respondents attending the clinic per session was lower than anticipated (4-7 per session). In some cases, the parents came without their children to collect the required medication. The researcher increased the number of days for conducting the study to ensure that the targeted sample size of 70 children was acquired. As for the parent who came without their children, the researcher engaged them in Focused Group discussions. Additionally, the researcher acknowledged that some of the children gave false or incorrect information. Predictive and concurrent validity ensured using the pilot study were used to ensure that the children will be able to give the right information during the interviews.

1.11 Operational Definition of Terms

Epilepsy: Central nervous system (CNS) disorder in which brain activity/operation becomes atypical, causing seizure attacks or a series of unusual behaviour, sensation, and sometimes lead to unconsciousness (Gramstad, Iversen & Engelsen, 2001).

Seizures: Unanticipated and uncontrolled electric disturbance of the brain, that result to changes in behavior, physical body movements, or sentiments of a person and in a state of consciousness (Simister & Duncan, 2002).

Mental illness: Mental health condition that can adversely affect the way a person thinks, feels, and acts (Nubukpo, 2000).

Anxiety: The response to situations perceived as stressful or threatening, triggering increased alertness, anxiety, and physical signs, such as rapid heart rate (Dekker, 2002).

Depression: Is a psychological disorder that adversely affects the feelings of an individual, how their thought process, and their behaviour can lead to loss of interest in participating in activities they once took pleasure in (Agbohoui, 1994).

Emotional support: Close friends and family members showing empathy, love, trust and care with an aim to provide hope and a listening ear (Karen, Barbra & Viswanath, 2002).

Instrumental support: Tangible aid and service (Karen, Barbra & Viswanath, 2002) like child care, provision of transportation, medication, or food.

Educational support: Advice, suggestions, and information (Karen, Barbra & Viswanath, 2002) for example, doctors advising about how to prevent and manage seizures, parents giving information about how to interact with schoolmates.

Appraisals: Information that is useful for self-evaluation (Karen, Barbra & Viswanath, 2002). For example, a close friend reminding an individual of all the qualities that enable them to manage and prevent the seizures or achieve their set goals.

Capability: The capacity to do things and pursue a way of life in accordance with one's personal values (Courtenay, 2008).

Child: “An individual or person below the age of 18 years”, (Article 260, Kenyan Constitution).

Self-efficacy: One’s persuasion in his/ her capacity to actively participate in an activity and to persist in it despite obstacles or challenges (Sutton, 2001).

Self-management: Learning and adopting an extensive range of positive, healthy behaviour, that contributes to control their seizures and impact positively on the quality of life (Fleeman & Bradley, 2018). The various forms of self-management, as proposed by CDC (2018) include; treatment and seizure management.

Treatment management: This involves adhering to medication as prescribed, maintaining regular appointments, and establishing effective communication professionals.

Seizure management: Entails being able to predict and prevent seizure triggers and recording systematically the seizure attacks when they happen.

Lifestyle management: Involves sleeping adequately and avoiding stressful situations.

CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction

This chapter presents a critical review of existing information on epilepsy and how it is affected by social support. The literature review is guided by the objectives of the study and the sub-topics include; Social support and self-efficacy of children living with epilepsy (CWE), Social support and, self-management amongst CWE, and finally, Social support, self-efficacy, and, self-management amongst CWE. Additionally, the researcher did a literature review of the confounding variables which include; the age of children, education level of the parents and, the social-economic status of the parents.

2.1 Social Support and Self-Efficacy of CWE

Health psychology therapy aims to modify the attitudes of individuals in order to influence their response to a disease or illness (Austin, Dunn, Caffrey, Perkinsson, & Rose, 2002). Generally, awareness alone is not accepted to be adequate in improving health behaviour. Evidence suggests that self-management among patients with terminal illnesses is predisposed by the patient’s beliefs and attitudes towards health and self-efficacy CDC (2018). Self-efficacy is one’s presuppositions of his/her own capability or skill to effectively govern his/her actions to achieve positive health results. (Lorig & Holman, 2003).

For an epileptic child, a multidimensional approach is needed in the context of caring for their family as a whole. According to Guven & Isler (2015), contingencies that help reinforce coping strategies for epilepsy is the perceptions of social support (concerning social factors) and the perception of seizure controllability (related to disease). Social support is the force that supports the person and can add meaning to his or her life. Kalantary, (1994) emphasises the positive impact of parental approval especially on self-esteem and on psychosocial development in general. He states that social interactions and familiar connexions are a significant source of social support in epilepsy and can have a positive effect on the individual's ability to live positively with epilepsy.

The perceived self-efficacy of the child, in particular, encourages the management and coping with the disease. People living with epilepsy who exhibit high magnitudes of self-efficacy are most likely to adhere to medication, which improves their standards of life and reduces incidences of seizures (Rahimian, 2010). Moreover, elevated degrees of self-efficacy contribute to more optimistic behaviours, reduced symptoms of depression, diminished anxiety about experiencing a seizure, and declined extreme stigma ordeal (Marks, Allegrante, & Lori, 2005). These patients' views of infectious illness, attitudes, and self-care habits promote compliance with illness treatment and management.

In 2014, a research in Mashhad was carried out by Gholami, Reyhani, Toosi, & Vashani (2016) to explore the association between the Supportive Education Program and the self-efficacy of 50 mothers who had children living with epilepsy. These mothers were admitted to Mashhad city's Ghaem Hospital, put in two groups, and a controlled clinical trial was performed. Using Scale for Caregiving Self-Efficacy (SCSE) by Steffen, McKibbin, Zeiss, Gallagher-Thompson, & Bandura(2002), Maternal self-efficacy of the mothers was assessed, before and 6 weeks after intervention. In four interval days, 60-minute sessions of the Supportive Education intervention were introduced for the trial group totalling up to 5 sessions, during which the control group was under normal care. SPSS software was used to interpret the data and, the findings revealed that the average age of the mothers was 32.8±6.9 and 32.8±6.8 years, respectively, for both groups. Significant differences between the two control groups (47.4±15.06) and the experimental ones (66.5 ± 11.5) after the intervention ($p<0.001$) were revealed from the independent t-test outcomes. Substantial distinctiveness amid the scores of self-efficacy in both groups ($p<0.001$) before and after the intervention was also indicated on the paired t-test findings. The above study focused on the self-efficacy of mothers of CWE, while this particular research sought to focus on children's self-efficacy alone.

In Iran, Akbarbegloo & Valizadeh (2015), conducted a study to evaluate the interaction amidst self-efficacy and, psychosocial support among adolescents living with epilepsy (AWE). The transverse study was performed in 2013 on 74 AWE of ages 10 to 18 years, living with medically confirmed epilepsy and receiving treatment at Paediatric Neurology Clinics associated with Medical Sciences University of Tabriz. Data were collected through interviews using multisegmented methods that included demographic characteristics, scaling of self-efficacy in CWE, and monitoring resources for the psychosocial treatment of children. The study demonstrated a substantial correlation of self-efficacy with "received information" ($P < 0.02$) and "need for information or assistance" ($P < 0.01$), and lastly "concerns and fears" ($P < 0.01$). It was concluded that for adolescents with epilepsy, providing learning information about the illness is recommended as their self-efficacy of self-management increases. This study however only targeted adolescents, while the current study will be working with both children and adolescents.

In light of these, Kanemura & Aihara (2016), study was conducted to establish the interaction between seizure frequency and perceived stigma among children in Japan. The researchers concluded that epilepsy is a social mark, not just a psychiatric condition. Improved seizure control and frontal EEG asymmetry may influence the reduction of perceived victimisation and ameliorating the livelihood of CWE. In addition, misapprehension about and negative perceptions towards epilepsy among children and adolescents may be unusually high. Hence it is paramount to formulate intervention programs that target both children and adolescents living with or without epilepsy. However, the study of those studies did not indicate the methods of analysis used to achieve the results.

However, Akbarbegloo, Valizadeh, Zamanzadeh, & Jabarzadeh (2015) showed the interaction amidst self-efficacy and, psychosocial support among AWE. The transverse study was performed in 2013, among 74 AWE of ages 10-18 years, who experienced epileptic seizures and receiving treatment at Paediatric Neurology Clinics associated with Medical Sciences University of Tabriz. Data were obtained through interviews using multi-segment methods that included demographic features, self-efficacy in CWE, and child psychosocial care monitoring tools. The interpretation of the outcomes of the study showed a substantial interaction between self-efficacy and "information obtained" ($P < 0.02$) and also the "need for information or help" ($P < 0.01$) and "concerns and fears" ($P < 0.01$). Doctors' and nurses’ remarks were directly related to stronger levels of self-efficacy while patients' knowledge needs were on the other hand linked to strong self-efficacy. Researchers concluded that it is necessary for adolescents with epilepsy to be issued with information, education, and communication (IEC) materials on epilepsy, create special websites, and set up special meetings with and without parents separately. However, the age range of the participants in this study excluded children below the age of 10 years.

Samia, Hassell, Hudson, & Murithi, (2019) carried out a study in Kenya to establish the current status of epilepsy diagnosis and treatment in Kenya. A literature survey using the words "epilepsy" OR "seizure" as exploding titles AND "Kenya" was examined which found 35 publications made in the last 10 years containing the relevant details. Epidemiology data, aetiology, clinical characteristics, management, and findings were derived from these studies. Some of the publications reviewed included Research and Reports in Tropical Medicine, (2019) on “Epilepsy diagnosis and management of children in Kenya”, which indicated a median prevalence of life-long epilepsy among children to be 21–41 per 1,000, and the recurrence of severe seizures was 39–187 per 100,000 children annually. In the same report, the periodicity of acute seizure attacks was 312-879 per 100,000 children annually. The study also found that for most of these children, the level of social support given was ranging from moderate to low as their parents and guardians had little knowledge of how best to offer the support. The review did not however indicate the gender or age of the children taking part in the studies.

The reviewed literature shows that social support does affect self-efficacy of CWE. However, the studies were mostly done in Western and Eastern countries. The ones carried out in Kenya did not cover children only but generally looked at patients or people living with epilepsy and seizures. The current study will cover this gap by focusing only on children to identify whether children’s self-efficacy is affected in the same way by social support. The studies have also mostly covered educational support and empowerment on how best to support oneself. The researcher of the current study will be evaluating material and financial support, educational and emotional support.

2.2 Social Support and Self-Management amongst CWE

Adapting to living with epilepsy requires proper self-management and behavioural adjustments as it is with most chronic illnesses. Regarding the proper management of epilepsy, social-efficacy is defined as an individual’s capability to effectively endure the condition (seizure epilepsy). People living with epilepsy often feel that they cannot influence their epileptic condition in their lives. Such beliefs and strong feelings are caused by unforeseen seizure attacks, the inability to be in charge of one's own body, drug dependency, and dependency on others (Ettinger & Kanner, 2007). In epileptic children, help ensures better control of seizures, higher achievement, happier life and, better social integration (Ettinger & Kanner, 2007).

A study conducted by Downs, Roberts, Blackmore, Le Souëf, & Jenkins, (2006) in Australia to observe the efficacy of the 'Airways' self-management education programme targeting children aged 6-11 years with CF and also included parents/guardians in the investigation. Assessments were carried out shortly at the beginning and at the end of the intervention phase. Other assessments were done at six and twelve months respectively after the post-intervention evaluation. While at home, the child and the caregiver together completed the "pen and paper" education program. Similar basic characteristics were found among control groups during the intervention. As per the requirements, an additional “intention-to-treat” analysis was completed for variables that were modified substantially, including input from those who were not able to remain part of the study group until the end of the intervention period. The intervention group increased the number of prescription atomizers introduced ($P < 0.001$) and retaining it at the same level for 12 months under keen observation ($P < 0.001$). The participants improved their knowledge on ACT ($P < 0.001$) and this was upheld throughout the 12 months ($P < 0.001$) and they were more optimistic about their care regimen straight after the intervention ($P = 0.017$) though this was not the same during the 12-month follow-up. Over time, the variables did not indicate any major improvements among the control group. This shows that when social support is increased by the multidisciplinary treatment team, the patient’s self-management improves. However, this study focused on children with cystic fibrosis while the current study will be focusing on children with epilepsy.

Nonetheless, Aliasgharpour, Nayeri, Yadegary, & Haghani (2012) conducted a study to evaluate how an education programme impacts on self-management involving 60 PWE attending Neurology Clinic in Zanjan, Iran. Two control groups were formed, each containing 30 patients, randomly selected, and underwent four training sessions on epilepsy. The sessions were comprehensive and included self-management plans for the patients. All participants were successful in completing the Epilepsy Self-Management Scale (ESMS) before the commencement of the intervention and a month after the intervention. For comparison purposes among the two groups, various tests including; Fisher Test and Chi-square were utilised. No significant changes were noted on the demographic features and the self-management scores at the initial stage, though one month later the scores varied (P<0.001) among the groups. The researchers concluded that the educational support program not only had an impact on self-management but also influenced health behaviour in patients living with epilepsy. The study however involved participants above the age of 18 years whereas the researcher is focusing on respondents who are below the age of 18 years.

Additionally, Seethalakshmi, Shankar, & Samson, (2019) conducted a study in India to evaluate the efficacy of the epilepsy self-management education programme among epilepsy patients. Patients were put in groups through inclusion and exclusion criteria and randomised controlled trial approach was used in the study. On the commencement of the study, a Self-management pre-test was performed, and after 15 days, the study group received a program on Epilepsy Education and written information on Epilepsy in form of a booklet. Specific treatment and care were offered to the patients in an organized routine. After one and a half months (45 days), the first reinforcement was introduced and after three months (90 days), the post-test II was conducted. The second reinforcement was carried out in four and a half months, during which post-test II was repeated in the sixth month. The study started with 175 participants in each group, but at the end of the sixth month, the research group had 169 patients with epilepsy and 167 patients respectively. The findings showed that the average self-management scores of the research group improved from 2.97, 3.39 to 3.79 compared to the control group, which showed a small difference from 3.46 at the pre-test, 3.42 at the third month to 3.46 at the end of the sixth month. The form of epilepsy that the participants suffered from, also determined the effect on self-management. Nonetheless, this study focused on educational program support, while the researcher will be looking at social support received.

In light of this, Akbarbegloo, Valizadeh, Zamanzadeh, & Jabarzadeh (2015) examined the interaction amid self-efficacy and psychosocial support among 74 adolescents (ages 10 to 18 years) living with epilepsy (AWE). The observational research on association was performed in 2013 on AWE, who experienced epileptic seizures and receiving treatment at Paediatric

Neurology Clinics associated with Medical Sciences University of Tabriz. Through interviews, Multi-segment methods were utilised to collect information on the self-efficacy in CWE and a monitoring tool to measure psychosocial support. The findings demonstrated a substantial correlation of self-management with "information received" ($P < 0.02$) and also with "need for information ($P < 0.01$)” and "concerns and fears ($P < 0.01$)”. Researchers concluded that organising psychosocial therapy and obtaining more information on this illness for teenagers would be beneficial. However, unlike the target age group of the researcher, the study included participants aged 10 to 18 years. The researcher intends to involve respondents from the age of 6 years old. Additionally, the study was also carried out in western countries whereas the researcher conducted this study in Nairobi County, Kenya.

Muasya (2000), did a study in Nairobi to establish the disposition, attitudes, perceptions, and practices of parents/ guardians of CWE towards the illness. 116 parents /guardians of CWE being treated at KNH epileptic clinic, were cross-examined through a semi-structured questionnaire and, FGDs involving 42 parents/guardians was conducted.77% of the participants knew the type of illness they were suffering from, and two-thirds of them offered their children the recommended first aid. 40% of the children in the school-going age did not go to school due to problems that should are not directly related to schooling. From these findings, the level of self-management of the children of parents without the right knowledge was found to be low, especially for the children who did not go to school. This study targeted children aged 2 to 12 years, while the researcher of the current study intends to involve children of the ages 2 to 18 years old.

2.3 Social Support, Self-Efficacy and Self-management amongst CWE

Individuals identified to have a strong self-efficacy astutely matched to therapy, their standards of living are better and the periodicity of seizures is decreased. Self-efficacy theories are broadly used by scholars for predicting health behaviour, and is an effective equaliser in individuals with chronic diseases (Gyurcsik, Estabrooks, & Frahm-Templar, 2003). In addition, having strong self-efficacy is associated with a more optimistic outlook towards seizure attacks, reduced depressive symptoms, reduced anxiety about seizure attacks, and less stigmatization. As one copes with living with epilepsy, their understanding of epilepsy is vital to their decision-making process about their disease. The experience of epilepsy is influenced by the help they obtain from those around them, including the multidimensional care team.

Effective control of seizures is the key objective of treating epilepsy (Lorig & Holman, 2007). Edmundo,(2016) conducted a study in Florida to evaluate if the self-management adeptness of PWE using Epilepsy Self-Management Scale (ESMS), to establish if it differs within different domains. Using a combination of the Pairwise Comparison and ANOVA test, it was established that the safety management scores of the ESMS subscales, seizure, and the average score of the medication being administered, were notably higher than the quality of “life and knowledge management subscales ($P < 0.01$)”. Mean point score for the “Lifestyle Management Subscale” was notably more than the “information management subscale ($P < 0.01$)”. However, this study was done with people above the ages of 18, and the mean age of 42 years. Additionally, the study does not show the interaction between the three variables of the study; social support, self-efficacy, and self- management.

A qualitative survey was conducted in Kenya by Carter, Molyneux, Mbuba, Jenkins, Newton, & Hartley, (2012) to establish why there was a gap in epilepsy treatment and to seek appropriate intervention(s) in Kilifi, Kenya. Focus group discussions (FGDs) involving people with epilepsy (PWE) and their caregivers were held. Interviews with key informants, including conventional healers, community health workers (CHW), health practitioners, community leaders were held. The findings of the study showed a deficiency in information on what caused epilepsy, how it can be medically managed and an insufficient supply of antiepileptic medication. The findings also indicated that there was stigmatisation of people living with epilepsy due to the traditional myths that had been passed on through many generations; poor communication skills among health providers and health care providers faced a challenge in communication with the community were the key causes of the care disparity in Kilifi. The researcher suggested that: education and support for PWE and its caregivers; training in communication skills for health providers; and enhanced medication delivery be the best possible approaches to ensure proper treatment of PWE. This study shows the importance of multidimensional support for PWE to ensure effective treatment of the disease. However, it does not show the impact of social support on the self-efficacy and self-management of PWE.

Mansouriyeh, Poursharif, Taban Sadeghi, & Seirafi (2017) conducted a study to establish how self-efficacy as an arbitrator interacts with “social support and self-care” in clients suffering from myocardial infarction. The study being descriptive and, correlational in nature, the sample group included 149 patients with myocardial infarction, who were selected and examined based on the inclusion and exclusion method. A variety of tools were used to collect data; the self-care behaviour tool, the demographic information questionnaire, the general self-efficacy (GSE), and the social support scale. And to analyse the findings Pearson correlation coefficient and Sobel test were employed to comprehend the arbitrating purpose in the association amid perceived “social support and self-care were –5.43,(p<0.01)”. The interaction between “social support and self-care was-0.518, (p<0.01)”. The study demonstrated that “Self-efficacy”, as an arbitrator plays a role in explaining the association amidst social “support and self-care”. The findings further demonstrated that social support and self-care had a positive association. However, this study worked with patients with heart failure while the researcher is planning to work with CWE.

Nonetheless, Akbarbegloo, Valizadeh, Zamanzadeh, & Jabarzadeh (2015) explored the interaction amid self-efficacy and psychosocial support among AWE. The transverse study was performed in 2013 on 74 AWE (aged 10-18 years), who experienced epileptic seizures and receiving treatment at Paediatric Neurology Clinics associated with Medical Sciences University of Tabriz. Data were obtained through interviews using multi-segment methods that included demographic features, self-efficacy in children living with epilepsy, and child psychosocial care monitoring tools. The study identified a substantial relationship of Psychosocial care, self-efficacy, and self-management among adolescents. The researchers concluded that psychosocial support is important in helping adolescents to be able to manage themselves and their treatment better. The study was however done in Iran and targeted adolescents only. The different cultures of Iran and Kenya and the gap in the targeted age groups lead to differences in the findings of this research.

In Kenya, Samia, Hassell, Hudson, & Murithi (2019) conducted a study to establish the status of diagnosis of epilepsy and treatment in Kenya. A search on publications/ literature with the titles or sub-heading with terminologies “epilepsy" OR "seizure" AND "Kenya" was carried out and revealed 35 publications made in the last 10 years Including the necessary information.

Information on anatomy, epidemiology clinical manifestation, and, the management of epilepsy were derived from these studies. One of the publications reviewed was Research and Reports in Tropical Medicine (2019), on “Epilepsy diagnosis and management of children in Kenya”. The reported results indicated the median prevalence of “life-long epilepsy” in children was 21–41 per 1,000, on the other hand, the occurrence of extreme “convulsive epilepsy” was 39–187 cases per 100,000 annually, and the occurrence of “acute seizures” to be 312-879 per 100,000 children annually. They found that for most of these children, the level of social support received was ranging from moderate to low as their parents and guardians had little knowledge on how best to offer the support. The low or incorrect support given by the parents and guardians caused the children to have a low self-efficacy. In return, it was found that these children were not able to manage themselves well compared to the children who received proper social support. The review did not however indicate what the correct form of support that should be given is, leaving a gap in the knowledge field of epilepsy that this research intends to fill as part of the recommendations.

These studies have not evidently indicated the impact on / relationship between social support on self-efficacy and self-management among CWE. Those done have been carried out in Western countries, those carried out in Kenya have been done in other counties, while the researcher intends to do the current study in Nairobi county.

2.4 Age, Self-Efficacy and Self-Management amongst CWE

Leaffer, Hesdorffer, & Begley (2014) conducted a study to determine how the level of socio-economic status (SES) impacted on stress and stigma. The sample size included 238 adults (age 18 and older) with prevalent epilepsy. The study contrasted with low SES with high SES. The findings indicated that stigma levels were higher among adults with low SES as compared to those with a high SES ($p < 0.0001$) and, psychosocial characteristics which correlated with stigma, included distress severity ($p < 0.0001$), social support ($p < 0.0001$), epilepsy perception ($p = 0.006$), quality of life ($p < 0.0001$), and self-efficacy ($p = 0.0009$). The findings showed that stigma had a great influence on the livelihoods among adults in the low SES category, while depression and social support were statistically correlated with the high SES category.

According to the report on the findings, not only did Low SES statistically account for felt stigma but it also impacted on; standards of living, symptoms associated with depression, and social support among those individuals living with prevalent epilepsy. However, this study was done among participants who were 18 years and above.

Kobaua & DiIorio, (2003) conducted a study on a sample of 108 adults living with epilepsy, to explain self-efficacy persuasions and expectations in regards to seizure, substance, and lifestyle management outcomes. The participants filled in responses onto Epilepsy Self-Efficacy and Epilepsy Outcome Expectancy scale. Imminence factors associated with behaviour that can be modified were identified, they included; diligently following medication intake schedule, appropriate drug, proper planning for drug replenishment, dealing with adverse drug reactions, avoiding alcohol intake, having enough sleep, and receiving psychosocial support. The percentage of people who recorded strong self-efficacy for addiction treatment habits was higher than that for healthy lifestyle behaviour. The results of this study expand previous studies regarding chronic illnesses, which have scientifically shown that patients are more likely to adhere to drug intake as compared to adhering to healthy habits/behaviours which contribute significantly to the prevention and clinical management of diseases. Formulation of intervention programs that aim at empowering individuals with low self-esteem can help in enhancing their potentiality to adopt healthy lifestyles and beneficial self-management habits.

Modi, Monahan, Daniels, & Glauser (2010) conducted a study to explain the formation and justification of the “Pediatric Epilepsy Medication Self-Management Questionnaire (PEMSQ)” utilised interviewing parents/ guardians of CWE between 2 to 14 years. The expected outcome was that the PEMSQ tool would have high interval consistency factors. The sample population included parents/ guardians of 119 CWE. The gender of the children comprised 36%female and 72% male, with an average of 7.2 years. The subjects completed the PEMSQ, and their adherence to antiepileptic drugs (AED) was evaluated. The internal integrity and structural validity were analysed and evaluated. There were 27 entries on the final PEMSQ, arranged in for categories; views on drug efficacy, Epilepsy and Treatment Awareness goals, Adherence to AED and Hospital Appointments, and obstacles to treatment adherence which accounted for 88% variation. The range of Cronbach's alpha was 0.68 to 0.85. Major associations have been established between seizures, PEMSQ scales, and AED. PEMSQ was the first intervention tool to be approved for academic and clinical use and also to appraise the self-management of parents of CWE.

Wagner, Smith, Ferguson, Horton, & Wilson (2009) conducted a study to assess “cognitive diathesis-stress” and, meditational constituents of “theory of learned hopelessness” in 77 (35 female and 42 male) young people aged between 9 and 7 years who were living with epilepsy. The completed tools that measured; symptoms associated with depression, anxiety, self-efficacy in seizure control, and reaction to seizure. Information on diagnosis and treatment of epilepsy was gathered through a study of the medical records. The effects of the regression analysis showed that despair arbitrated the relationship between epilepsy and symptoms of depression. While the independent predictors of depression included self-efficacy and the attitude towards epilepsy, the correlation between depression and attitudes towards epilepsy was not amplified with low efficacy in the control of seizures. The unearthing of the study reinforces the therapy dimension of learned hopelessness theory in young people living with epilepsy; it supports approaches that motivate young people to recognize epilepsy-related functional aspects that can effectively manage negative thoughts about situations they have no control. Cognitive deficits, like despair, contradictory thoughts, and low self-efficacy among children, can manifest from the age of 8 years, (Abela & Taylor, 2003; Hankin, 2006). These above studies were all done outside Kenya, among the studies carried out in Kenya; none shows how the age of the children affects the scores on self-efficacy and the self-management of the children. This study attempts to bridge this gap by showing that children of different ages have different degrees of “self-efficacy” and, “self-management”.

2.5 Level of Education of Parents, Self-Efficacy, and Self-Management amongst Children Living with Epilepsy

Cross-sectional research was conducted by Sahini, Barut, and Ersanli (2013) to re-examine how the age, grade/class, and education status of the mother and father respectively influence the self-esteem of Turkish teenagers. This particular study involved a sample size of “2,213 adolescents (1085 male, 1128 female) and age of 12.76 mean age”. The adolescents in grades 6, 7, and 8 were recruited from 22 different schools in Amasya.

The demographic information tool and the Rosenberg Self-Esteem Scale (Rosenberg, 1965) were utilised for data collection and, for evaluation of the mathematical hypotheses, the ANOVA statistical test was used. Findings showed that contrary to the education status of the mother and the father of these adolescents, the age and the type of school did not have a significant influence/ impact on the self- esteem scores. These findings showed the education level had a positive impact on the self-esteem of Turkish adolescents. However, the researchers studied the effect of the parental level of education on the self-esteem of adolescents while the current study examines the self-efficacy of CWE

Gholami & Rehani, (2016) examined how "Supportive Educational Program on the self-efficacy" impacts on mothers with CWE through a clinical trial. The sample size had 50 participants (divided into two groups) who were being admitted to the Ghaem Hospital, Mashhad City in 2014. using Steffen's Revised Self-Efficacy Treatment Scale, the maternal self-efficacy was assessed was performed twice, before and 6 weeks after intervention.in intervals of 4 days, five sessions of the Supportive Instructional Program for the experimental group were introduced each lasting 60 minutes. Proper routine care was administered to the control group.

SPSS 11.5 software, was used to compute the data. The average age of the mothers in the first experimental group was 32.8±6.9 and, 32.8±6.8 years for the second group. The participants in the experimental group had different levels of education. In both "a simple (p=0.12) and a mutual manner (p=0.25)", covariance analysis (ANCOVA), indicated that there was no substantial correlation between the status of education and improved maternal self-efficacy. Hence, the level of "Maternal education" had no substantial impact on the dependent variable of the study.This study, however, studied the self-efficacy of the mothers, while the researcher examines the self-efficacy of the children. Additionally, the study was done in Mashhad which has a different culture from Kenya.

Abuya, Oketch, Mutisya, Ngware, & Ciera (2012), explored the significance of a mother's level of education on their child's arithmetic performance. A sample size of 1907 pupils was selected from 71 schools in 6 different sub-counties across Kenya. Using the multi-level random model based on the sample, the results indicated that there was a negative impact of the mother's level of education on a child’s performance in school; however, the direct relationship between mother’s and father’s academic level impacted on student achievement. Nevertheless, the focus of the research was on exploring the significance of mother-to-child education status on the achievement of children's academic self-management.

From information gathered by AGI-K in Kibera sub-county (Kenya), in 2015, Abuya, Mumah, Austria, Mutisya, & Kabiru (2018) examined the correction between mother’s status of education and the child’s performance, while taking into consideration the self-efficacy of the girls. The findings indicated an important association between the parent’s status of education, cognitive scores, and, numeracy. Additionally, the finding revealed that female students whose mothers had reached high school achieved higher scores in numeracy, while even higher scores were noted among the improved father's level of education. Noteworthy changes were detected in the standard deviation of the cognitive and numeracy scores and which was raised averagely by half for an increase in the self-efficacy unit.

As much as the studies carried out do show an effect on parental education status on the self-efficacy and self-management of children, studies mostly focus on academic self-efficacy and self-management. No published study has been done to assess the effect of parent’s level of education on self-efficacy and, self-management of CWE.

2.6 Socio-Economic Status (SES) of Parents, Self-Efficacy, and Self-Management amongst CWE

To examine the outcomes of SES on self-efficacy and self-management, Begley et al., (2010), compared self-management scores and related psychosocial measures of people living with epilepsy (PWE) in Houston, Texas, USA. The study was conducted concurrently in two separate clinics, to establish if there were significant systemic disparities related to SES. Higher scores on self-management and knowledge were recorded among patients with low SES, no variances in type of medication, seizure attacks, and quality of life. The two sets in the different clinics exhibited the trend in more or less the same scores.

The patients with high SES ($P < 0.01$) were observed to exhibit high levels of the different variables; stigma, self-efficacy, need for power, depressive symptoms, stigma, social support, and expected outcome. Information on how epilepsy is managed and treatment quality was low ($P < 0.01$). Once more, the sequence for high and low scores was the same. The correlation study amid psychosocial elements and self-management demonstrated that individuals with greater levels of self-efficacy and social support reported greater levels of self-management ($P < 0.01$) regardless of gender, seizure attack frequency and, SES ($P < 0.05$). The outcome also demonstrated insufficient evidence of the SES related inequalities in self-management and recommended that the focus on interventions to ameliorate self-management be equal across varied populations.

In addition, Begley, et al., (2011) conducted another study to assess the occurrence of differences in health care services and outcomes in socio-economically diverse communities of PWE. The study was conducted in four different clinics; one clinic in Houston, 2 in New York City that offered health care services mainly to black (Afro- American) patients, with no medical cover, and from a low-income community, and one clinic in Huston that offered health care services to a more diverse racial and ethnic backgrounds and comparably, with a higher SES.

Data was gathered through numerous patient interviews on health care services being accessed, frequency of seizures among patients, side effects of treatment administered, and general outcomes of the treatment. More data was collected and analysed on discrepancies between patients with low-SES clinics and those with high-SES clinics were analysed. Controlling of the confounding variables which included; gender, race, marital status, side effects of treatment type and, frequency of seizure attacks, it was evident that patients with low SES, seek more health care services, and they had a higher risk of spontaneous seizure attacks, experienced more effects caused by AEDs, stigmatization and low quality of life throughout the study period.

Begley, et al., (2009) established socio-demographic inequalities in the acquisition of health care services among people living with epilepsy, seeking treatment at various health centres in four different locations. The study also investigated the degree to which inequalities continued after adaptation to patient characteristics and the institution that provided the health care services. In three months, data on the acquisition of health care services was collected through baseline interviews from a sample size of approximately 560 patients.

The degree to which discrepancies continue even after controlling independent patient characteristics and place of treatment was determined using Logistic regression.
Unlike the whites, patients of Blacks and Hispanic origin, recorded higher scores of general visits "odds ratio (OR) = 5.3 and 4.9, $p<0.05$), ER (OR=3.1 and 2.9, $p<0.05$) and hospitalizations (OR=5.4 and 6.2, $p<0.05$)", and lower rates of specialist visits "(OR=0.3 and 0.4, $p<0.05$)". The same trend was established concerning the SES of the patient. The enormity and significance of the inequalities continued when human features were adjusted, on the other hand, decreased significantly when removed or when the care site was applied to the model. Socio-demographic variations in health care services for PWE are extensively explained by the disparities in the location of the health centre that PWE receives treatment. However, all these studies were not conducted in Kenya.

To establish whether similar findings were found in Kenya, the researcher examined a study by Kinyanjui, Kathuku, & Mburu (2013) which measured the wellbeing of people living with epilepsy, in order to establish if "intangible needs" allowed "evidence-based intervention" that would result to inclusive management and enhanced outcomes at the Kenyatta National Hospital (KNH) in Nairobi county. The research took 5 months at the neurology department, where 300 subjects were recruited. Using Descriptive statistics, the mean, standard deviations, and frequencies were computed. An independent sample test, Chi-square test coefficient (x^2), a forward regression analysis and, ANOVA were used to compute the significance of associations. $P < 0.05$ was significantly important in the outcome of the statistics. The study detected that the mean quality of life for PWE (49.90 percent) was substantially "lower ($p<0.01$)" in comparison to the normal controls (77.60 percent) associated with epilepsy. It was substantially affected unlike the predicted "mean of 75±2.5 percent". Features substantially "($p<0,05$)" associated with reduced quality of life among PWE were, low levels of education, increased seizure attacks, low wages, lack of employment, rural residence, and manual work. Researchers in the study concluded that the socio-economic status has a favourable connection with the quality of life of

PWE. Therefore, this research included participants of both high and low social-economic status to ensure proper generalization of the study.

Additionally, Muasya (2000), did a study in Nairobi to establish the knowledge, attitudes, and practices of caregivers of CWE regarding the illness. 116 parents and guardians of CWE seeking treatment at the neurology clinic at KNH were interviewed using a semi-structured questionnaire, focus groups were also carried out on 42 patients and guardians. 25% were professionals, 33% were small traders and 58% were farmers and housemakers. From the findings, a total of 22 parents who were professionals had the appropriate knowledge of the illness of their child while 19 had inappropriate knowledge. A total of 31 parents who were small traders had appropriate knowledge while 19 had inappropriate knowledge. A total of 46 parents who were farmers and housemakers had appropriate knowledge while 61 had inappropriate knowledge. Therefore, the researcher observed a correlation between the social-economic status and the level of self-management. The degree of self-management of CWE, whose parents were without the right knowledge was found to be low especially for the children who did not go to school.

In summary, previous studies done have shown that social support does have an effect on the self-efficacy and self-management of CWE. Although a higher percentage of the studies were done in Western countries, those done in Kenya also confirm that social support is important and it does affect the self-efficacy and self-management of children. However, those studies done in Kenya have mostly focused on the instrumental and emotional support given. This current study examines the effect of educational support as well as emotional and instrumental support. Therefore, the researcher examined the support given by the multi-dimensional support system of the children living with epilepsy in Nairobi County.

2.7 Theoretical Framework

This study used the Social Cognitive Theory (SCT). This is a learning theory that is based on the principle that people learn by watching what others do. The researcher relates the principle of the theory to the current study to formulate the framework of the study.

2.7.1 Social Cognitive Theory

Social Cognitive Theory by Bandura (1977) expounds the principles of SCT. It illustrates human behaviour in a three-way complimenting system in which personal aspects, environmental stimuli, and actions tend to interrelate. The researcher has synthesized the principles and mechanisms of the Social Cognitive Theory; cognitive, emotional behavioural, and cognitive patterns of behavioural change so that it can be pragmatic to the management of epilepsy. The basic principle of the theory is that behaviour is not only greatly influenced by an individual's experiences, and also reinforced by observing the actions of those around them, and the consequences of those actions (Glanz, 2001). Regarding intervention of epilepsy, the main tenets of SCT that are applicable include; observational learning, self-control, and self-efficacy, target setting, self-regulatory, behavioural contraction, positive and negative reinforcement (Glanz, 2001).

The behaviour of a person is inspired by his or her abilities, by both positive and negative experiences, their ability to self-regulate, the ability to set and see-through personal goals, the individual perception of values and belief associated with certain behaviour and its outcome, and self-efficacy. "Self-efficacy is a person's belief in their capacity to carry on with their daily activities to do so despite obstacles or difficulties" (Sutton, 2001). Therefore, an individual without the know-how of engaging in a particular behaviour, will consequently be unable to appreciate the value or the consequences of engaging in that behaviour. In addition, those who are not sure that they will be able to overcome obstacles are unlikely to engage in positive self-management (Glanz, 2001). This shows the importance of providing proper support to individuals living with epilepsy.

Health professionals and trained or empowered guardians or parents who make strategic attempts to improve children's self-efficacy use three different strategies: formalisation of small goals that can be achieved progressively, by using behavioural contracting to formulate targets and define rewards; and tracking and strengthening, including child self-regulating by keeping records (Austin, Dunn, Caffrey, Perkinsson, & Rose, 2002). Self-management epilepsy groups can easily incorporate practices such as adherence to medications, seizure control exercises, problemsolving conversations, and self-monitoring that are embedded in cognitive social theory (Sutton, 2001).

The main construct of social cognitive theory (SCT), reciprocal determinism, stipulates an individual can play both the role of a respondent of change and that of an agent of change. Therefore, to promote self-management among CWE, making changes in the environment, use role modelling/ mentoring, encouragement, and supports can be used (Nyakwanaa, Simbauni, & Jowi, 2014). SCT outlines four simple ways to improve self-efficacy: vicarious experience (like social modelling); mastering experiences; social persuasion; emotional state and physiology.

Vicarious experiences can be inspired by encouraging children and parents or guardians to attend support groups, and to interact with others in the support group (group education) (Glanz, 2001). It can also be supported by explaining the success stories of patients involved in safe behaviours. Social influence and emotional conditions may be discussed by offering information or resources such as pamphlets: describing the effects of medication; and discussing feelings of depression and/or anxiety which can affect the self-management skills of children.

In conclusion, the theory of Social Cognitive theory is based upon the variables observed in this research. Self-management among CWE is mainly determined by type of support they get from their environment. This includes their health care providers, parents or guardians and members of the support groups they get involved with. The support they receive helps to improve their self-efficacy through mastery and vicarious experiences. An improved self-efficacy increases the chances of the children engaging in self-managing behaviours taught despite the challenges and obstacles faced. The basic tenets of the Social Cognitive Theory help in the conceptualization of self-management as an output of the interaction between the support system of the children living with epilepsy and the children, therefore, giving the conceptual framework of this study.

2.8 Conceptual Framework

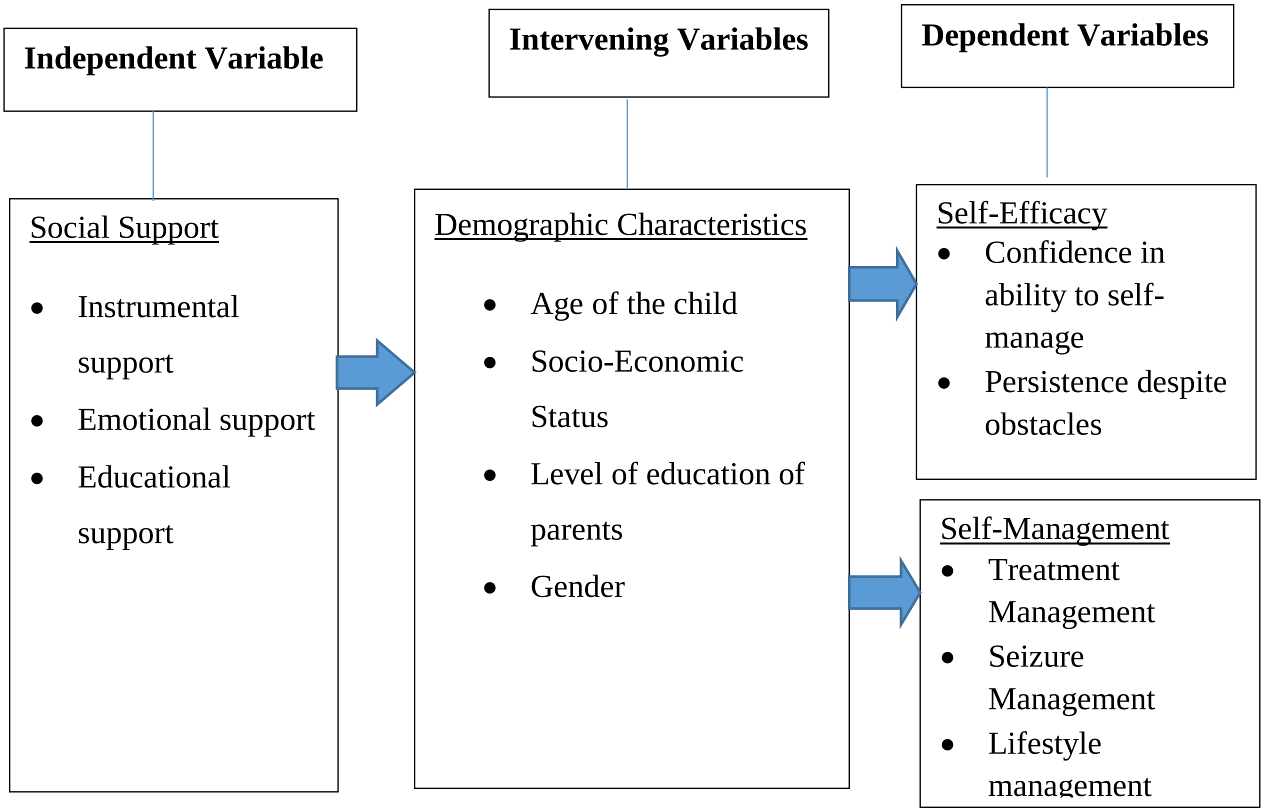

Figure 2.1. Conceptual Framework of the Study

Source: Researcher

It is apparent that the social support a child living with epilepsy gets from his or her support system affects his/her self-efficacy to self-manage and consequently self-management skills either directly or indirectly. Attention should be focused on social support as one of the aspects affecting the self-efficacy of CWE and subsequently, self-management skills. It is imperative for the health care providers and parents or guardians to understand how social support to CWE affects their self-efficacy to manage themselves. Therefore, this study sought to establish the effect of social support (Independent variable), on self-efficacy (Dependent variable) of CWE to self-manage (Dependent variable). In this case, the independent variable, that is social support has an effect on the dependent variables, which are self-efficacy and self-management. All three variables are intertwined by the confounding variables, which are; age of the children, SES of the family, and the level of education of the parents.

CHAPTER THREE
RESEARCH METHODOLOGY

3.0 Introduction

This section highlights data collection, processing, and analysis methods applied to assess the various constructs described earlier and demonstrate how they relate. The practical procedures applied in undertaking the research are further stated and detailed under the following sub-headings: research design, study population, location of the study, sampling techniques and sample size, research tools, data collection procedures, data analysis and interpretation, validity and reliability, and ethical considerations.

3.1 Research Design

This study was driven by a co-relational design in order to comprehend the association between the variables and to estimate the magnitude in which social support influences self-efficacy and self-management in CWE.

3.2 Location of the Study

This research was carried out in three different city council health centres within Nairobi. The health centres included Karen City Council Health Centre (Langata Sub-County, Riruta Health Centre (Dagoretti Sub-County), and Mathare health centre (Kasarani Sub-County). The Kenya Association for the Welfare of People with Epilepsy (KAWE) conduct an Epilepsy clinic once every week in each of these health centres. The epilepsy clinics have registered approximately 5,000 patients from Nairobi County and its environs, with 2000 being active participants (KAWE, 2018).

3.3 Target Population

The study targeted 70 Children living with epilepsy (CWE) and parents/guardians of children with a clinical diagnosis of epilepsy attending the epilepsy clinics run by KAWE at the City Council clinics within the three health centres in Nairobi County during the period of study.

3.4 Sampling Procedure

To identify parents and guardians of children receiving treatment at the KAWE epilepsy clinics, a purposive sampling technique was used. Parents/guardians were sampled based on the age of the child(ren) being accompanied. Those below the age of 18 were tested for convenience and asked for their consent after giving them a brief description of what the research was about.

3.5 Sample Size

The researcher targeted a sample size of 70 participants and conducted Focus Group Discussions (FDGs) with parents/guardians. The researcher used the population proportion formulae to compute the sample size.

n= $(z\alpha^2 P(1-P)) / d^2$

where;

n is the minimum sample size of parents and guardians

$z\alpha^2$ is equal to 1.96 which is the normal standard deviation corresponding to the 95% confidence level

P is the proportion of parents and guardians with the appropriate knowledge regarding self-efficacy and self-management. P is estimated to be 25% (.25)

d is the level of absolute precision of 10%

$n = (1.96^2 \times 0.25\ (1- 0.25)) / 0.01^2$

$n = (3.8416 \times 0.25 \times 0.75) / 0.01$

$n = 72.03$

3.6 Instruments of the Study

The study used standardized questionnaires for interviews with respondents. The questionnaire consisted of closed-ended items. Information gathered focused on; the demographic context, the adequacy of the support offered, the level of self-efficacy and self-management, and the interaction between social support, self-efficacy, and self-management. The social support level was assessed using the scale of the Child Psychosocial Care Study formulated by Austin, Dunn, Huster, & Rose, 1998. The tool comprises of three parts; the first part comprises of six items for children to obtain disease information. Children scored each item “on a 3-point scale of 1 (less than I wanted) to 3 (more than I wanted) and the overall outcome ranged from 6 to 18 with a higher score indicating an increase in knowledge obtained by the child".

The subsequent section includes 6 items in a "child's sentiments towards repetitiveness of epileptic seizures" based on "5-Likert scaling from 1 (never) to 5 (more often)". The overall outcome of this averment ranges from 6-30 with a higher outcome echoing on seizure attacks. The third part includes 8 items evaluating the needs of CWE responded by a "yes" or "no" with the outcome ranging from 0 to 8".

A 15- item, 5-point Likert "Seizure Self-Efficacy Scale for Children (SSES-C)" by Caplin et al. (2002) was used to consider the degree of self-efficacy of seizure management. All the elements in the tool are positive. The respondents (CWE) were required to value each item on a "5-point scale of 1–5, with 1 being "I'm very unsure I can do that" and 5 being "I'm very sure I can do that." The worth of each item varies from 1–5 points". The total outcome of all items was computed to attain the mean score. A high score reflects a high level of self-efficacy. (Kothari, 2009) emphasises that 5-point Likert scales are commonly preferred because they have been observed to be reliable and more informative. The questionnaires were developed from the components of the study obtained from the literature review. These are social support, self-efficacy, and self-management. Each component has 15 items, and the total items obtained is 45.

3.6.1 Validity of Research Instrument

The following validity types were ensured for the research instruments.

Content validity

The content was developed by pursuing literature on social support, self-efficacy, and, self-management. Social support contains seven components that include, emotional support, companionship, communication, encouragement, and help building coping skills. Self-efficacy has five components including; perceived capability to self-manage, asking doctors and parents or guardians questions regarding the condition, managing feelings caused by seizures, the persistence to avoid activities that trigger seizures and, the resilience to cope with stressors. Self -management contains components that include controlling seizures even when angry or sad, selecting appropriate activities, checking the status of my seizures, avoid engaging in activities that trigger epileptic attacks or make the seizures worse, engaging in activities that the doctor said can control epilepsy.

Construct validity

Secondly, the researcher read on different methods comparing them with the objectives set to ensure that the items therein responded to all the research questions and addressed the objectives. The questionnaires had 45 items, whereby 15 tested for social support, 15 tested for self-efficacy and another 15 tested for self-management. The questionnaires were piloted to ascertain the relevant and irrelevant items.

Predictive and concurrent validity

The researcher also ensured predictive and concurrent validity using the pilot study, which ensured that the results found in the pilot study were also found in the main research. Additionally, the items were from already existing instruments whose validity was already known.

3.6.2 Reliability of Research Instrument

The researcher calculated reliability as a characteristic of the instrument using the Cronbach alpha approach. This approach was suitable because it requires a single administration of the instrument and shows internal consistency (Kinyua, 2018). After piloting the instruments and adjusting some of the items from the 45 items produced for piloting, a coefficient of reliability was created. The reliability coefficient of.70 was the aim of the pilot analysis. Whereby the researcher rejected any items below .70 and retained those above it. This ensured that the instruments were solid and reliable.

3.7 Pilot Study

In collecting data for study purposes, the researcher performed a pilot test to assess reliability and validity of the instruments being used. Cooper and Schindler (2011) clarify that a pilot test is performed to identify vulnerabilities in architecture, instrumentation, and substitute data for likelihood sample collection. The methods utilised to test the study questionnaires beforehand were similarly used in the actual study. The pilot study was steered at the Karen Health Council Clinic, with a smaller number of parents/guardians and children attending the epilepsy clinic prior to the actual data collection. This was done to 10% of the estimated number of parents/ guardians and children attending the clinic in a day (50) as recommended by Cooper & Schindler, (2011). The questionnaires filled were coded and entered into SPSS version 20 for computing the Cronbach reliability test.

3.8 Data Collection Procedure

The researcher received a preliminary letter from University of Nairobi - Department of Psychology. Authorization to conduct the research was sought from the National Commission for Science, Technology, and Innovation (NACOSTI) and KAWE. The researcher clarified the goals of the study and answered questions that the respondents had before the interview. The clinics were attended specifically by People Living with Epilepsy and the community health worker assisted in sensitizing the patients about the research and also assisted the researcher to identify the children's parents and guardians that met the selection criteria. The researcher administered the interview while filling the questionnaires. Parents and guardians were interviewed on behalf of the children who were below the age of 7 years old through a focused group discussion.

3.9 Data Analysis

Raw data was checked to establish accuracy and completeness. Editing was done to check for errors and omissions. The collected data from the questionnaire and the focused group discussions (FGD) were keyed into the SPSS version 20 software for analysis.

This study combined inferential statistical analysis methods. The descriptive analysis allowed the researcher to explain substantively measurement distribution by using a few indices or statistics; means, modes, and standard deviations that computed relapse. Frequency distribution and cross-tabulation analysed gender of the children, social support, and self-efficacy.

For the Likert scale questions, two methods were used. The first analysis was the generation of frequency distribution and percentages to analyse each item of Likert scale questions. Then overall self-efficacy was generated and categorized into two, namely High (Nearly sure, Partially sure, Pretty sure) and Low (No answer, Not at all, Doubtfully).

For inferential statistics, analysis under each hypothesis was done as follows:

Hypothesis one: Social support does not have an effect on the self-efficacy of CWE in Nairobi County.

Under this hypothesis, the two key variables were social support and self-efficacy. To explore this effect of social supports on self-efficacy a Chi-square test and Cramer's V was used at 0.5 significant level.

Hypothesis two: Social support has no effect on the self-management on CWE in Nairobi County.

Under this hypothesis, to find out the effect of social support on self-management, a Pearson correlation of coefficient was generated.

Hypothesis three: Social support, self-efficacy, and self-management have no effect towards each other amongst children with epilepsy in Nairobi County.

Under this hypothesis, multiple regression analysis was used as an inferential statistic in establishing the cause and effect relationship between social support (categorical variable), self-efficacy (continuous variable), and self-management (continuous variable).

The following regression model was applied:
$Y=Bo + B1\ X1 + \varepsilon$
Where:
Y- Is the dependent variable (self-efficacy and self-management)
Bo – Is the constant
B1 – are the regression coefficients or change induced in Y by each X

X1 – are the independent variable (social support)
ε- Is the standard error
The data is presented in different forms of tables, graphs, and charts and interpreted afterwards. The interpretation is used by the researcher to discuss the findings and to generate the research project.

3.10 Ethical Considerations

Authorisation to conduct the research was issued by KAWE and NACOSTI. The letters were presented to the Nurse in-charge in all the sampled health centres. Respondents were notified and assured that the data they submitted would be treated as confidential. In carrying out this study, it was recognized it investigated issues affecting children living with epilepsy, hence the verbal consent of their parents or guardians to interview the children was requested. The selected respondents were made aware of the nature and the intent of the study before being engaged by the researcher. All data generated from the study can only be used for academic purposes.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND DISCUSSION

4.1 Introduction

In this chapter, a description of data analysis, presentation, and discussion of the findings from data gathered from three epilepsy clinics conducted by KAWE within Nairobi County, is detailed. The effects of social support on the self-efficacy and self-management of CWE in Nairobi County were examined. The chapter is divided according to the demographic information of respondents and the study objectives.

4.2 Demographic Information of the Respondents

In this section results of the study's demographic variables, which include age, gender, education level, socio-economic status, place of residence, and the respondents' income levels are presented.

4.2.1 Age of the Respondents

Distribution of the age of respondents is given in Figure 4.1.

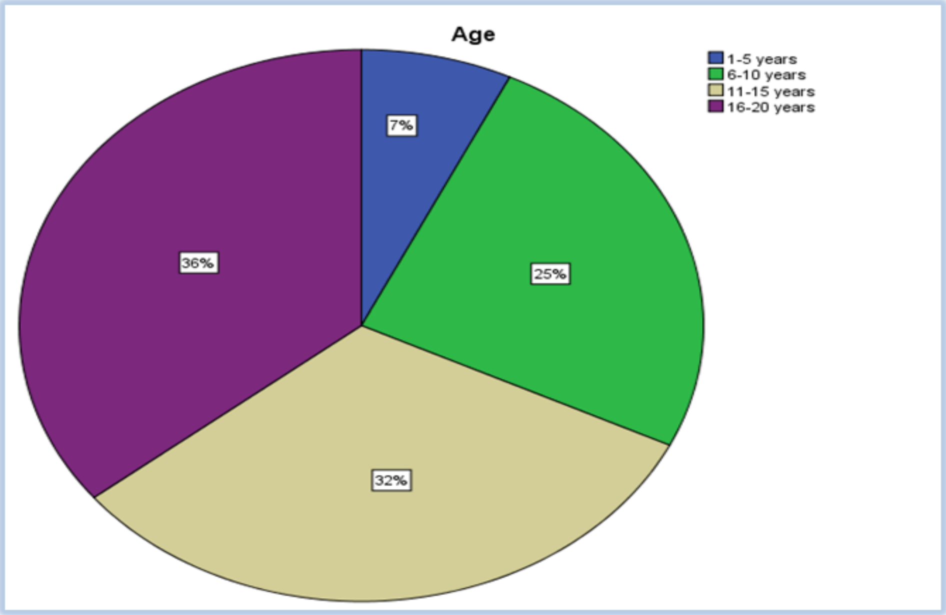

Figure 4.1: Age of Respondents

As indicated in figure 4.1, 36% of the respondents, were aged between 16-20 years, 32% were aged between 11-15 years, 25% between 6-10 years, while 7% were aged between 1-5 years. Therefore, the majority of the respondents suffering from epilepsy in Nairobi County are aged between 16-20 years.

4.2.2 Gender of the Respondents

The gender distribution is given in Figure 4.2.

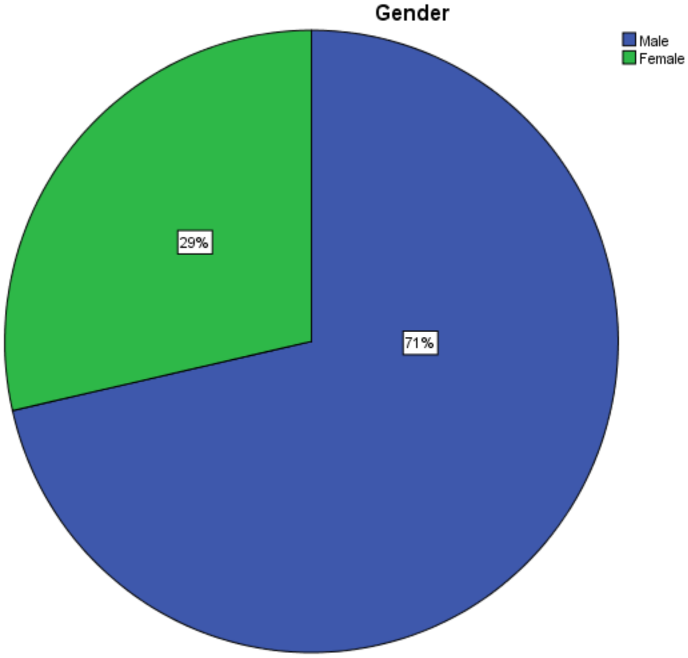

Figure 4.2: Gender of Respondents

From the findings in table 4.2, 71% of the respondents were males while 29% of them were females. From these findings therefore, majority of the children suffering from epilepsy in Nairobi County are males.

4.2.3 Education Level of the Respondents' Parents/Guardians

Distribution of the education level of the respondents' parents/guardians is given in Figure 4.3.

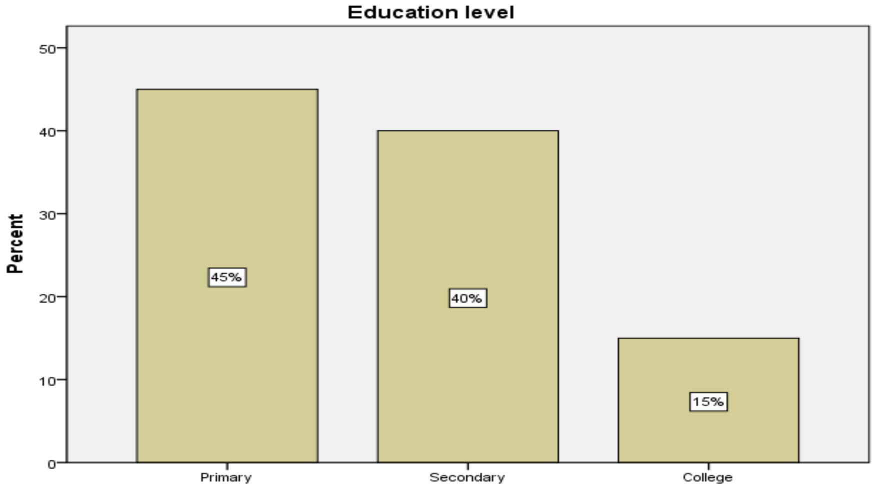

Figure 4.3: Education Level of the Respondent' Parents/Guardians

From the results in figure 4.3, 45% of the respondents' parents/guardians had primary school level of education, 40% of them had attained secondary school education, while 15% of them had attained a college education. From the results, therefore, the majority of the parents/guardians of children suffering from epilepsy in Nairobi County had attained primary school education.

4.2.4 Socio-economic Status (SES) of the Respondents' Parents/Guardians

Distribution of the SES of the respondents' parents/guardians is given in Figure 4.4.

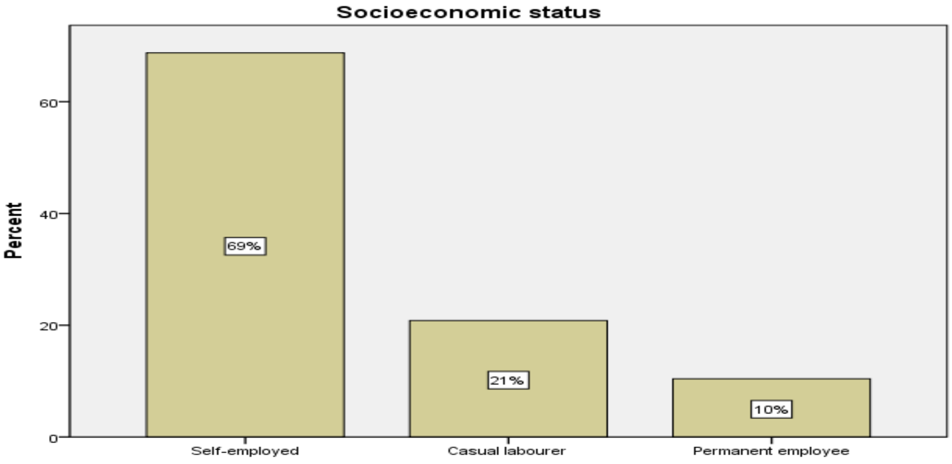

Figure 4.4: Socio-Economic Status of the Respondents' Parents/Guardians

From the results, 69% of the respondents' parents/guardians were self-employed, 21% of them were casual labourers while 10% of them were permanent employees. Therefore, majority of the parents/guardians of children suffering from epilepsy in Nairobi County are self-employed.

4.2.5 Respondents' Level of Income

A distribution of the respondents' level of income is given in Figure 4.5.

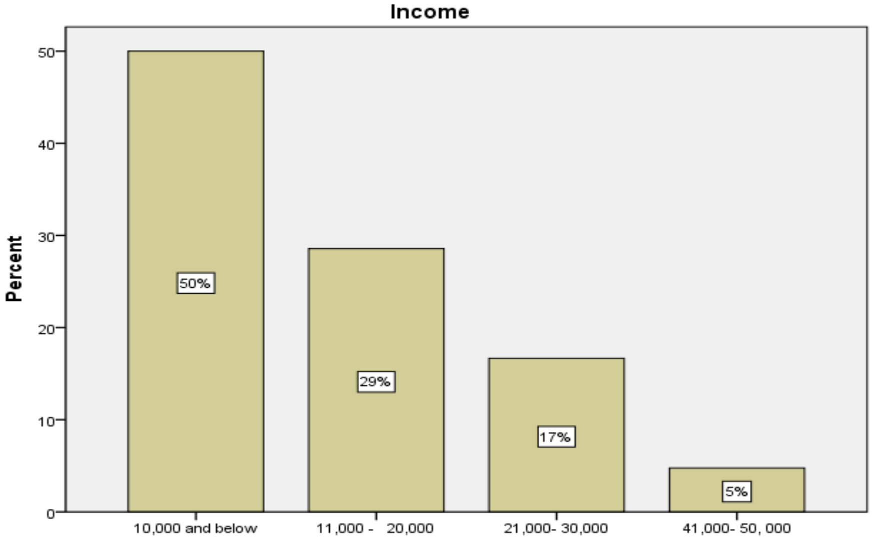

Figure 4.5: Income Level of the Respondents' Parents/Guardians

From the results in figure 4.5, 50% of the respondents' parents/guardians had an income less than 10,000 Kenyan shillings, 29% had an income between 11,000 and 20,000 shillings, 17% earned between 21,000 and 30,000 shillings, while 5% of them earned between 41,000 to 50,000 Kenya shillings per month. Therefore, the majority of the respondents' parents/guardians earned less than 10,000 Kenya shillings per month.

4.3 Self-Efficacy

Under this section, descriptive data analysis was conducted to present frequencies and percentages on each item of Likert scale questions measuring self-efficacy among the children living with epilepsy in Nairobi County. Responses were recorded in a Likert scale where 1 = No answer; 2 = Not at all; 3 = Doubtful; 4 = Nearly sure; 5 = Partially sure; 6 = Pretty sure. Findings are given in Table 4.1.

Table 4.1: Descriptive Statistics on Self-Efficacy

Self-efficacy	Frequency	Percent
No answer	2	3.8
Not at all	13	25.0
Doubtful	18	34.6
Nearly sure	15	28.8
Partially sure	1	1.9
Pretty sure	1	1.9
Total	52	100.0

From the outcome in Table 4.1, 18(34.6%) of the respondents were doubtful about their self-efficacy with regards to managing seizures, 15(28.8%) were nearly sure, 13 (25%) were not sure at all, 2(3.8%) had no answer, 1(1.9%) were partially sure, while 1(1.9%) were pretty sure. 2(3.8%) of the respondents did not provide responses on self-efficacy. Further analysis indicated that children living with epilepsy were generally doubtful on their self-efficacy with regards to managing seizures (Mean = 2.94, SD = 1.145).

Table 4.2: Self-Esteem Levels

Self-esteem levels	Frequency	Percentage
Low self-efficacy	30	66.7%
High self-efficacy	15	33.3%
Total	45	100.0%

From the outcome in Table 4.2, 30(66.7%) had low self-esteem, while 15(33.3%) of them had high self-esteem. Therefore, majority of the children living with epilepsy had a low self-esteem.

The results above were confirmed by responses from FGD responses. From the responses, the parents stated that: “I have to force my child to engage in social activities sometimes, especially after a seizure.”

4.4 Social Support

Under this section, descriptive data analysis was conducted to present frequencies and percentages on each item of Likert scale questions measuring social support for example “The doctors and nurses told me what to do if I felt an attack coming on" as expressed by children living with epilepsy in Nairobi County. Responses were recorded in a Likert scale where 1 = Less than one; 2 = Just as much as I wanted; 3 = More than I wanted. Results are as given in Table 4.3.

Table 4.3: Descriptive Statistics on Receiving Explanations from Doctors/Nurses

Explanations from doctors/nurses	Frequency	Percent
NA	5	9.6
Less than I wanted	20	38.5
Just as much as I wanted	26	50.0
More than I wanted	1	1.9
Total	52	100.0

From the outcome in Table 4.3, 26(50%) of the respondents stated that they received explanations regarding their conditions from doctors and nurses just as much as they wanted, 20(38.5%) stated that they received less explanations than they wanted, while 1(1.9%) indicated that they received explanations regarding epilepsy more than they wanted. 5(9.6% of the respondents did not respond to the questions on receiving explanations from doctors/nurses. Further analysis revealed that children living with epilepsy in Nairobi County believed that they received explanations regarding epilepsy less than they wanted (mean = 1.44, SD = .698).

Descriptive data analysis was also conducted to present frequencies and percentages on each item of Likert scale questions measuring social support (on feelings and concerns about seizures) as expressed by children living with epilepsy in Nairobi County. Responses were documented in a Likert scale where 1 = Never; 2 = Not often; 3 = Often. Results are as given in Table 4.4.

Table 4.4: Descriptive Statistics on Feelings and Concerns about Seizures

Feelings and concerns	Frequency	Percent
NA	6	11.5
Never	6	11.5
Not often	24	46.2
Often	16	30.8
Total	52	100.0

From the findings in Table 4.4, 24(46.2%) of the respondents stated that they don't often worry (get concerned) about their seizure conditions, 16(30.8%) indicated that they are often concerned, while 6(11.5%) indicated that they are never concerned. 6(11.5%) of them did not respond to the questions about concerns and feelings. Further analysis revealed that the children generally did not often get concerned about their seizure conditions (Mean = 1.96, SD = .949).

The results above were confirmed by responses from Focused Group Discussions with parents/ guardians of CWE. From the discussions, the parents stated that: "My child has difficulty in making friends because of fear of being laughed at."

4.5 Self-Management

Under this section, descriptive data analysis was conducted to present frequencies and percentages on each item of Likert scale questions measuring self-management as expressed by children living with epilepsy in Nairobi County. Responses were recorded in a Likert scale where 1 = Yes; 2 = No. Findings are given in Table 4.5.

Table 4.5: Descriptive Statistics on Self-Management

Self-management	Frequency	Percent
No	43	91.5
Yes	4	8.5
Total	47	100.0

From the outcome in Table 4.5, 43(91.5%) of the respondents indicated that they are not good in self-managing their seizure conditions and would need guidance, while only 4(8.5%) stated that they are good in self-managing their seizure conditions. Further analysis revealed that children living with epilepsy in Nairobi County are generally not good in self-managing their seizure conditions (Mean = 1.09, SD = .282).

The results above were confirmed by responses during the FGDs with the parents/guardians of CWE. From the discussions, the parents stated that: “No, I have to keep monitoring my child as he/she do not understand the gravity of the condition.”

4.6 Effect of Social Support on Self-Efficacy of Children with Epilepsy in Nairobi County

Under this section, data analysis was carried out to check the effect of social support on the self-efficacy of CWE in Nairobi County. The outcome is as given below.

Chi-square analysis was conducted to establish the effect of social support on self-efficacy of CWE. Findings s are given in Table 4.6.

Table 4.6: Social Support on Self-Efficacy

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	30.941[a]	8	.000
Likelihood Ratio	11.687	8	.166
Linear-by-Linear Association	3.146	1	.076
N of Valid Cases	28		

From the results in Table 4.6, there was a statistically significant relationship between social support and self-efficacy (χ = 30.941, $p < 0.000$). From these results, social support had an effect on the self-efficacy of children with epilepsy in Nairobi County.

To confirm the strength of the association between social support and self-efficacy, a Cramer’s V test was conducted. The results are as given below.

Table 4.7: Strength of Association between Social Support and Self-Efficacy

		Value	Approx. Sig.
Nominal by Nominal	Phi	1.051	.000
	Cramer's V	.743	.000
N of Valid Cases		28	

Cramer’s V test checks the strength of an interaction between variables with more than two categories. From the results in Table 4.7, there was a strong association between social support and self-efficacy ($\varphi_c = 0.743$, $p < 0.000$). The Cramer’s V value is close to 1, indicating a strong association.

The results above were confirmed by responses from FGDs responses. From the responses, the parents of children living with epilepsy stated that: “we discuss epilepsy with all my children, and my epileptic child is able to open up about it, though she is yet to comprehend fully what the condition is”; “No, my child does not talk about it. He will just listen. He is always withdrawn, and distant after an attack”; “As a parent, you have to keep asserting your child. Sometimes, they feel discouraged and become withdrawn from playing with other children”; “The community is afraid of people with epilepsy, and therefore my child has been laughed at by other children, making her shy and afraid of socializing. Subsequently, it has affected the way she thinks and feels about herself.”

4.6.1 Effect of Age, Gender, Education Level, Employment Status, And Income Level on Self-efficacy

A multinomial regression analysis was utilised to determine the effect of age, gender, education level, employment status, and income level on the self-efficacy of CWE in Nairobi County. The results are as given below.

Table 4.8: Effect of Confounding Variables on Self-Efficacy

	Model Fitting Criteria	Likelihood Ratio Tests		
Effect	-2 Log Likelihood of Reduced Model	Chi-Square	Df	Sig.
Intercept	7.167^a	.000	0	.
Age	22.743^b	15.576	12	.211
Gender	8.893^b	1.726	4	.786
Education level	15.136^b	7.969	8	.436
Socio-economic status	20.557^b	13.390	8	.099
Income	15.485^b	8.318	12	.760

From the results in Table 4.8, age (p = 0.211>0.05), gender (p = 0.786>0.05), education level (p = 0.436>0.05), socio-economic status (p = 0.099>0.05) and income (p = 0.760>0.05) did not have statistically significant effects on self-efficacy of the CWE in Nairobi County.

From the results, the hypothesis that stated: Social support does not have any effect on the self-efficacy of CWE in Nairobi County was rejected. It was therefore concluded that social support has a statistically substantial effect on the self-efficacy of CWE.

4.7 Effect of Social Support on Self-Management of Children with Epilepsy in Nairobi County

Under this section, data analysis examined the effect of social support on self-management of children living with epilepsy in Nairobi County. The results are as given below.

Chi-square analysis determined the effect of social support on self-management of children with epilepsy. The outcome is as given in Table 4.9.

Table 4.9: Social Support on Self-Management

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.124[a]	2	.940
Likelihood Ratio	.231	2	.891
Linear-by-Linear Association	.027	1	.870
N of Valid Cases	28		

From the outcomes in Table 4.9, statistically, no significant relationship amid social support and self-management (χ = .124, $p = 0.940 > 0.05$) was established. From these results, social support did not have any effect on the self-management of children living with epilepsy in Nairobi county.

To support the strength of the relationship between social support and self-management, a Cramer's V test was conducted. The results are as given below.

Table 4.10: Strength of Association between Social Support and Self-Management

		Value	Approx. Sig.
Nominal by	Phi	.067	.940
Nominal	Cramer's V	.067	.940
N of Valid Cases		28	

Cramer's V test checks the strength of the association/ interaction between variables with more than two categories. From the results in Table 4.10, there was a very weak association between social support and self-management ($\varphi_c = 0.067$, $p = 0.940$). The Cramer's V value is not close to 1, indicating a weak association.

The results are line with findings from the FGD, which revealed that children require social support for self-management. The parents stated: "No, My child cannot even remember when it's time to take their medication. I have to be the one to prompt him"; "I have to be strict with my child, to ensure they don't participate in activities like swimming like other children though sometimes it's difficult"; "I have to be strict with my child, to ensure they don't participate in activities like swimming like other children though sometimes it's difficult"; "My child manages things with a lot of support from the siblings, teachers and us as parents"; "My child worries too much about what the friends will say, the embarrassment after the attack affects my child emotionally. Especially if her friends have to carry her home, since she can be unconscious after an attack for an hour or two"; "Yes, my child one had the neighbours child say that we as a family is bewitched, and that has had him worry about what people think".

4.7.1 Effect of Age, Gender, Education Level, Employment Status, and Income Level on Self-management

A multinomial regression analysis was used to determine the effect of age, gender, education level, employment status, and income level on self-management of CWE in Nairobi County. The results are as given below.

Table 4.11: Effect of Confounding Variables on Self-management

	Model Fitting Criteria	Likelihood Ratio Tests		
Effect	-2 Log Likelihood of Reduced Model	Chi-Square	Df	Sig.
Intercept	1.386[a]	.000	0	.
Age	9.295	7.909	3	.048
Gender	1.386	.000	1	.998
Education level	1.386	.000	2	1.000
Socio-economic status	4.159	2.773	2	.250
Income	7.978	6.592	3	.086

From the results in Table 4.11, age (p = 0.048<0.05) had a statistically significant effect on, self-efficacy of the children living with epilepsy in Nairobi County. However, gender (p = 0.998>0.05), education level (p = 1.000>0.05), socio-economic status (p = 0.250>0.05) and income (p = 0.086>0.05) did not have statistically substantial effects on self-management of the CWE in Nairobi County.

From the findings, the hypothesis that stated: Social support does not have any effect on the self-management of children living with epilepsy in Nairobi County was rejected. It was therefore concluded that social support did not have any effect on the self-management of CWE.

The results above were confirmed by responses from FGDs with parents/guardians of CWE. From the feedback, the parents stated that: “As a parent, you have to keep asserting your child. Sometimes, they feel discouraged and become withdrawn from playing with other children.”

4.8 Relationship between Social Support, Self-Efficacy and Self-Management among Children with Epilepsy in Nairobi County

Under this section, a correlational analysis examined the effect of social support on self-efficacy of CWE in Nairobi County. Results are given below.

Table 4.12: Correlation between Social Support, Self-Efficacy and Self-Management

			Social support	Self-efficacy	Self-management
Spearman's rho	Social support	Correlation Coefficient	1.000	.245	.026
		Sig. (2-tailed)	.	.208	.897
		N	28	28	28
	Self-efficacy	Correlation Coefficient	.245	1.000	.308
		Sig. (2-tailed)	.208	.	.111
		N	28	28	28
	Self-management	Correlation Coefficient	.026	.308	1.000
		Sig. (2-tailed)	.026	.111	.
		N	28	28	28

From the results in Table 4.12, social support had a positive relationship with self-efficacy (r = 0.245). This implies that a unit increase in social support would lead to a 24.5% increase in self-efficacy among the children with epilepsy in Nairobi County. Further, social support had a positive association with self-management (r = 0.026). Therefore, a unit increase in social support would lead to a 2.6% increase in self-management among the children with epilepsy in Nairobi County. Lastly, there was a positive association between self-efficacy and self-management (r = 0.308). From these results, a unit increase in self-efficacy would lead to a 30.8% increase in self-management among the children living with epilepsy in Nairobi County.

4.8.1 Ranking the Effect of Social Support on Self-efficacy and Self-management

Following the results in the section above, this sub-section ranks the effect that social support has on self-efficacy and self-management, based on the Spearman correlation values.

Table 4.13: Rank of Variables

Rank	Variables	Correlation with Social Support (rho)
1	Self-efficacy	0.245
2	Self-management	0.026

From table 4.13, social support had more effect on self-efficacy than on self-management of children living with epilepsy (CWE) in Nairobi County.

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Summary of Findings

This chapter outlines a summary of the study's main findings as per the objectives of the study. From the reliability test, the data had a Cronbach alpha value of 0.923 (92.3%). This implies that the data was reliable for giving reliable results.

The study aimed at examining the effects of social support on the self-efficacy and self-management of CWE in Nairobi County. From the outcomes, the majority of the respondents suffering from epilepsy in Nairobi County were male, aged between 16-20 years. A higher number of the parents/guardians of children suffering from epilepsy in Nairobi County had attained primary school education, were self-employed, and earned less than 10,000 Kenyan shillings.

Further, the findings revealed that children living with epilepsy were generally doubtful about their self-efficacy with regards to managing seizures, and the majority of them had low self-esteem. Children living with epilepsy in Nairobi County believed that they received explanations regarding epilepsy less than they wanted, and they did not often get concerned about their seizure conditions. Additionally, children living with epilepsy in Nairobi County were generally not good in self-managing their seizure conditions.

5.1.1 Effect of Social Support on Self-Efficacy of Children with Epilepsy in Nairobi County

From the results of the study, social support had a statistically significant effect on the self-efficacy of CWE in Nairobi County. Further, it was found out that age, gender, education level, socio-economic status, and income levels did not have statistically significant effects on the self-efficacy of the CWE in Nairobi County.

5.1.2 Effect of Social Support on Self- Management among Children Living with Epilepsy in Nairobi County

From the results of the study, social support did not have a statistically significant effect on self-management among children living with epilepsy in Nairobi County. Further, it was found out that age had statistically significant effects on self-management. However, gender, education level, socio-economic status, and income levels did not have statistically significant effects on self-management among the children living with epilepsy in Nairobi County.

5.1.3 Relationship between Social Support, Self-Efficacy, and Self-Management among Children with Epilepsy in Nairobi County

From the study results, social support had a positive association with self-efficacy. Further, social support had a positive relationship with self-management. Lastly, there was a positive association amid self-efficacy and self-management among the CWE in Nairobi County.

5.2 Conclusion

From the findings of the study, it is concluded that social support has a statistically significant effect on the self-efficacy of children living with epilepsy. However, it is concluded that social support does not have a statistically significant effect on self-management among children living with epilepsy (CWE). In addition, it is concluded that social support has a positive relationship with self-efficacy and self-management among children living with epilepsy. Lastly, there is a positive relationship between self-efficacy and self-management among the CWE.

5.3 Recommendations

With regards to the above conclusions, the following recommendations are suggested;

1) Social organizations interested in children living with epilepsy should run campaigns to sensitize families and the public on the importance of supporting epileptic children in a bid to keep their self-efficacy high.
2) Administrators in schools with epileptic children should set up programs aimed at improving the self-efficacy of the children, in order to improve their self-management.

3) For further research, a similar study which includes a larger sample size of children living with epilepsy should be conducted in different counties in order to compare and generalize the results to the whole country.

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APPENDICES

APPENDIX I: QUESTIONNAIRE

Thank you for agreeing to take part in this study. The purpose of the questionnaire' is to examine the effects of social support on self-efficacy and self-management among children living with epilepsy in Nairobi county. The information given will solely be used for academic purposes and will be treated with confidentiality and anonymity. The questionnaire is supposed to take approximately five minutes give or take.

DEMOGRAPHIC INFORMATION

Age : 1-5 [ ] 6-10 [ ] 11-15 [ ] 16-18[ ]

Gender: Male [ ] Female [ ]

Education level of parent or guardian:

Primary [ ] Secondary [ ] College [ ]

Undergraduate [ ] Post graduate [ ]

Social Economic Status:

Unemployed [ ] Self-employed [ ]

Casual labourer [ ] Permanent employee [ ]

Area of Residence: ___________________________

Income: 10,000 and below [ ] 11,000 - 20,0000 [ ] 21,000- 30,0000 [ ]

31,000- 40,000 [ ] 41,000- 50, 0000 [ ] 51,000- 60, 000 [ ]

61, 000- 70,000 [ ] 71,000 – 80,000 [ ] 81,000- 90,000 [ ]

90,000- 100,000 [ ] 100,000 and above [ ]

SELF-EFFICACY

The Seizure Self-Efficacy Scale for Children (SSES-C) by Caplin, D., Austin, J. K., Dunn, D. W., Shen, J., & Perkins, S. (2002)

	No answer	Not at all	Doubtful	Nearly sure	Partially sure	Pretty Sure
I can manage my seizure condition by making good choices about which						

activities I perform						
I can manage my seizure condition so I do not have to miss school or other activities						
I can stay away from doing things that may make my seizure condition worse, even if I am pressurized by my friends						
I can manage my seizure condition when I am at school						
I can manage my seizure condition even if I am angry or sad						
I can manage my seizure condition even if there are things to worry about in my family						
I can keep from being afraid after a seizure to manage the situation						
I can manage my seizure condition even if I am at a friend's home, on a vacation, or on a school trip						
I can talk to the doctor or nurse if I have questions about my seizure condition						
I can talk to my parents if I have problems with my seizure condition						
I can manage my seizure condition by making sure I get enough rest						
I can manage my seizure condition by staying away from things that can make it worse						
I can manage my feelings about my seizure condition by reminding myself of my good qualities						
I can do the things my doctor told me to do to						

manage my seizure condition						
I can manage my seizure condition because I can handle any problems it can cause						

SOCIAL SUPPORT

Child report of psychosocial care subscales 1, 2, 3 (Austin, Dunn, Huster, & Rose, 1998).

Psychosocial care subscale 1 **(received explanation from doctor or nurse)**	Less than I wanted	Just as Much as I Wanted	More than I Wanted
The doctors and nurses told me what to do if I felt an attack coming on			
The doctors and nurses talked to me about my fears and worries about my seizure Condition			
The doctors and nurses told me about possible problems or side effects of the medicine.			
I have had a chance to ask questions about my seizure condition.			
The doctors and nurses explained my seizure condition to me.			
The doctors and nurses told me things I can and cannot do because of seizures.			
The doctors and nurses told me how the medicine worked.			
Psychosocial care subscale 2 (**feelings and concerns about seizures**).	Never	Not often	Often
How often do you worry about telling others about your seizure condition?			

How often do you avoid doing something with your friends because of fear about having a seizure attack?			
How often do you worry about having another seizure attack?			
How often are you worried about what others will say about your seizure condition?			
<u>**Psychosocial care subscale 3**</u> **(Self-Management Skills Assessment)**	Yes	No	
Do you need more information about your seizure condition?			
Do you need more information about keeping safe during a seizure?			
How often do you worry about being sick because of the seizure condition?			
Do you need more information about any activities or things you can or cannot do because of seizures?			
Do you need more information about how to handle future seizures?			
Do you need more information about possible causes of your seizure condition?			
Do you need more information about your medication?			
Do you need to talk to someone about how to handle seizures at school?			
Do you need to talk to someone about how your seizure condition might affect your future?			

APPENDIX II: FOCUSED GROUP DISCUSSION GUIDE

1. Do you think your child can manage his/her seizure conditions by making good choices about which activities to take part in?

2. With enough support, is your child able to comfortably manage his/her seizure condition at home, school, at a friend's home, on a vacation, or on a school trip.

3. Is your child able to talk or discuss about their condition to with you, his/her doctor or a nurse.

4. Is your child able to manage his/her seizure conditions by concentrating on his/her good qualities?

5. Doctors and nurses have keenly advised my child on what to do/or not do seizure attacks, as well as about the medications.

6. Is your child reserved when it comes on engaging in social activities due to his/her seizure conditions?

7. Does your child worry about what people say regarding his/her seizure conditions?

8. Does your Child worry about experiencing seizure attacks?

APPENDIX III: UON AUTHORIZATION LETTER

UNIVERSITY OF NAIROBI
FACULTY OF ARTS
DEPARTMENT OF PSYCHOLOGY

Telegrams: Varsity Nairobi
Telephone: 3318262 ext.28439
Telex: 22095

P.O. BOX 30197
NAIROBI
KENYA

June 28, 2019

The
National Commission for Science,
Technology and Innovation
P.o. Box 30623
Nairobi

RE: RUTH KUKHU LUMBASI – REG. NO. C50/6467/2017

The above named is a student in the Department of Psychology undertaking a Masters degree in Community Psychology at the University of Nairobi. She is doing a project on ***"The Effects of Social support on self-efficacy and self-management of children with Epilepsy in Nairobi County."*** The requirement of this course is that the student must conduct research project in the field and write a Project.

In order to fulfill this requirement, I am introducing to you the above named student for you to kindly grant her permission to collect data for her Masters Degree Project.

Yours Sincerely,

Date 8/10/19

for

Dr. Charles Kimamo
Chairman,
Department of Psychology

APPENDIX IV: NACOSTI PERMIT

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR
SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **779423**

Date of Issue: **15/October/2019**

RESEARCH LICENSE

This is to Certify that Ms.. Ruth Lumbasi of University of Nairobi, has been licensed to conduct research in Nairobi on the topic: The Effects of social support on self-efficacy and self-management of children with epilepsy for the period ending : 15/October/2020.

License No: **NACOSTI/P/19/2167**

779423

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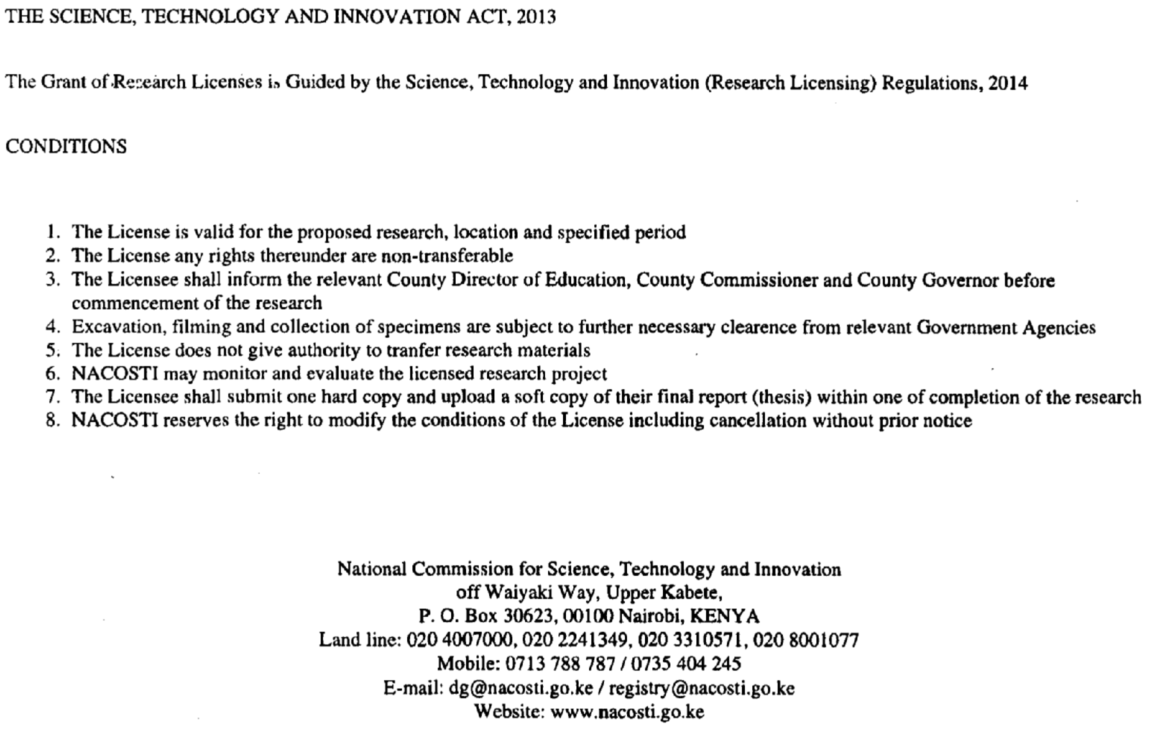

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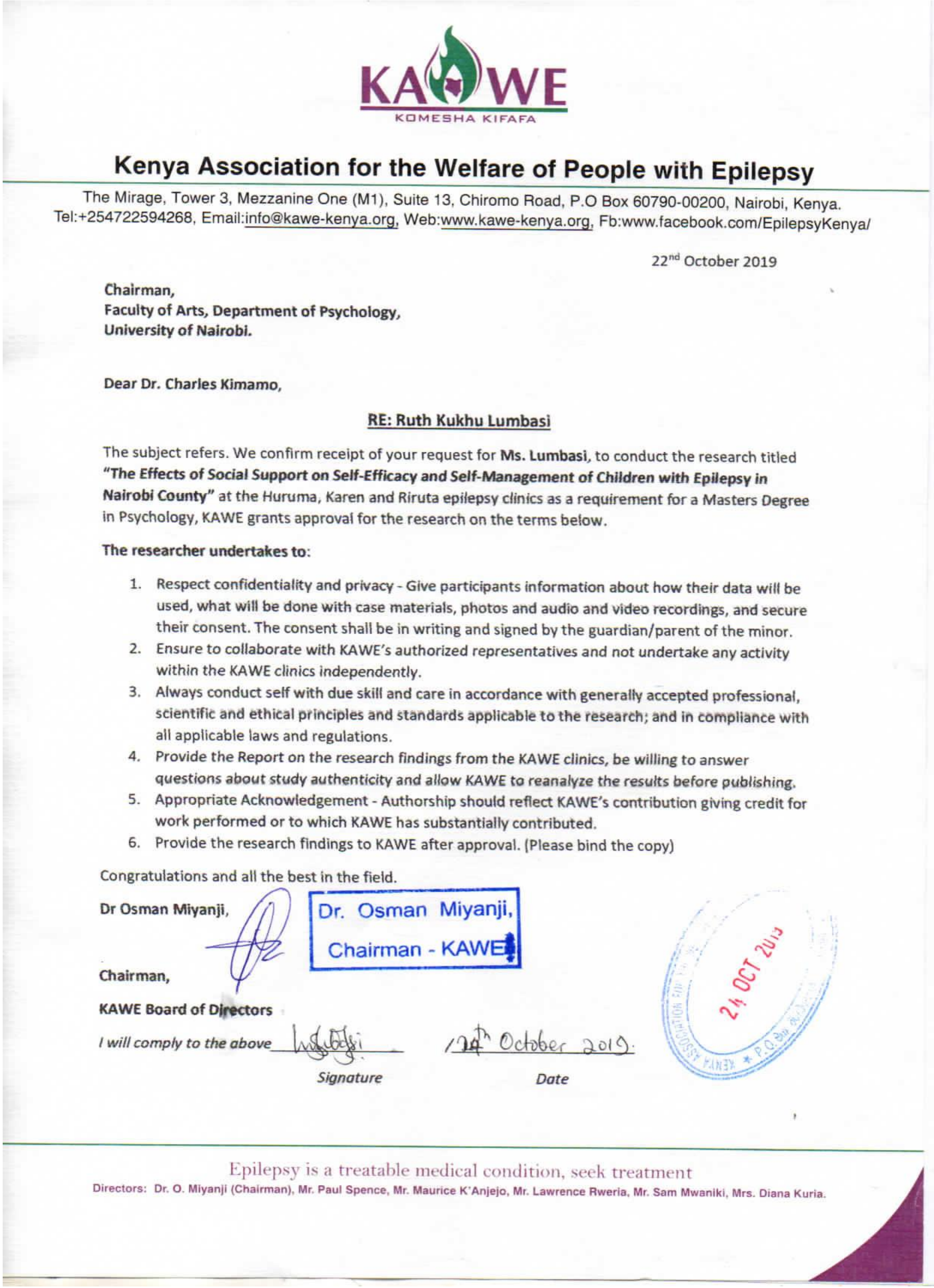
APPENDIX V: KAWE RESEARCH AUTHORIZATION LETTER



KAWE
KOMESHA KIFAFA

Kenya Association for the Welfare of People with Epilepsy

The Mirage, Tower 3, Mezzanine One (M1), Suite 13, Chiromo Road, P.O Box 60790-00200, Nairobi, Kenya.
Tel:+254722594268, Email:info@kawe-kenya.org, Web:www.kawe-kenya.org, Fb:www.facebook.com/EpilepsyKenya/

22nd October 2019

Chairman,
Faculty of Arts, Department of Psychology,
University of Nairobi.

Dear Dr. Charles Kimamo,

RE: Ruth Kukhu Lumbasi

The subject refers. We confirm receipt of your request for **Ms. Lumbasi**, to conduct the research titled ***"The Effects of Social Support on Self-Efficacy and Self-Management of Children with Epilepsy in Nairobi County"*** at the Huruma, Karen and Riruta epilepsy clinics as a requirement for a Masters Degree in Psychology, KAWE grants approval for the research on the terms below.

The researcher undertakes to:

1. Respect confidentiality and privacy - Give participants information about how their data will be used, what will be done with case materials, photos and audio and video recordings, and secure their consent. The consent shall be in writing and signed by the guardian/parent of the minor.
2. Ensure to collaborate with KAWE's authorized representatives and not undertake any activity within the KAWE clinics independently.
3. Always conduct self with due skill and care in accordance with generally accepted professional, scientific and ethical principles and standards applicable to the research; and in compliance with all applicable laws and regulations.
4. Provide the Report on the research findings from the KAWE clinics, be willing to answer questions about study authenticity and allow KAWE to reanalyze the results before publishing.
5. Appropriate Acknowledgement - Authorship should reflect KAWE's contribution giving credit for work performed or to which KAWE has substantially contributed.
6. Provide the research findings to KAWE after approval. (Please bind the copy)

Congratulations and all the best in the field.

Dr Osman Miyanji,

Dr. Osman Miyanji,
Chairman - KAWE

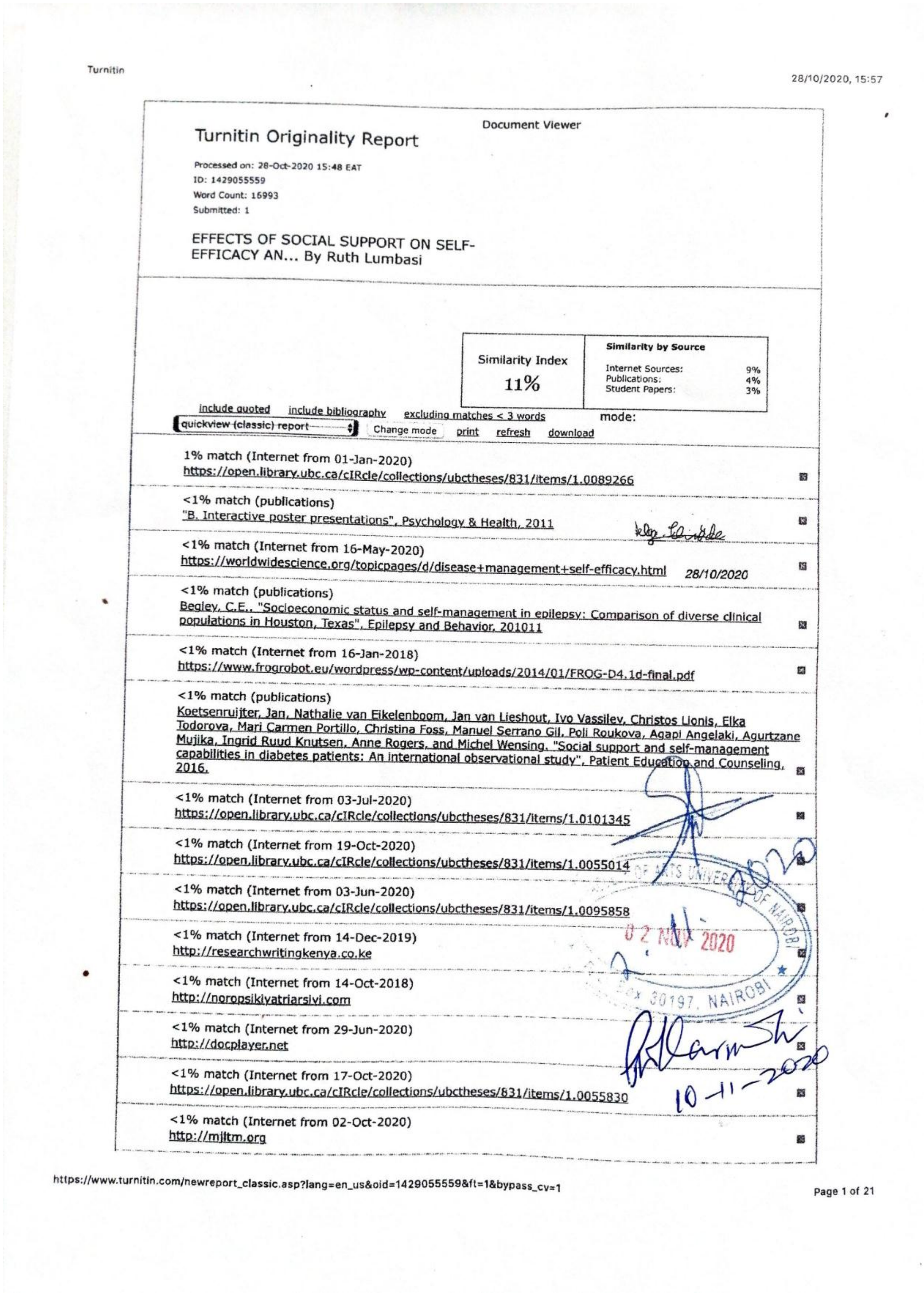
Chairman,

KAWE Board of Directors

24 OCT 2019

I will comply to the above ________ /24th October 2019.
Signature *Date*

Epilepsy is a treatable medical condition, seek treatment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