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Thesis Submitted to the Center of Development Studies in Partial Fulfillment of the Requirements for the Award of the Doctor of Philosophy Degree in Development Studies

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DECLARATION

I, Ngonidzashe Mutanana, do hereby declare that this thesis, submitted to Chinhoyi University of Technology, for the degree, Doctor of Philosophy in Development Studies; Indigenous Practices in Sustainable Management of Epilepsy in Zimbabwe: A Case of Epilepsy Support Foundation Zimbabwe, has not been previously submitted by me for a degree at this or any other university; that this is my work in design and in execution, and that all material contained herein has been duly acknowledged.


Ngonidzashe Mutanana
Date
DEDICATION

A special dedication to all people who are living with epilepsy
ACKNOWLEDGEMENTS

It is not unusual in my Shona indigenous religion to appreciate and acknowledge the assistance that I received from other people during my study. This section is meant for the following people who have made this thesis a reality:

- My supervisors Professor Tsvere and Dr Chiweshe. The African indigenous religion has become a reality to me through you. Thank you for all the guidance and moral support that you gave me during the challenging times of my studies.
- Epilepsy Support Foundation Zimbabwe for affording me an opportunity to carry out this study at their institution. God bless you.
- My ever loving daughters; Kirsty Tadisaishe, Klein Tapiwanashe and Nicole Kunaishe. You are my source of inspiration.
- My son, Keith Tadiwanashe. This is for you.
- My wife, Gamuchirai. You made this thesis a reality through your moral and financial support. Thank you Chihera.
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- My twin brother Kudzai and my sisters Memory, Hazvinei, Joana and Agnes. I really appreciate your support during this pilgrimage.
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- Finally, I thank all those, even though unacknowledged assisted me one way or the other during this study.
ABSTRACT

This study analysed indigenous practices in sustainable management of epilepsy in Zimbabwe. The indigenous practices were measured against the following indicators; (1) why people with epilepsy are not on anti-epilepsy medication, (2) indigenous practices that are used by people with epilepsy to manage their condition, (3) community acceptance on indigenous practices of treating epilepsy in Zimbabwe, and (4) strategies for mainstreaming indigenous treatment practices in relation to the development of sustainable epilepsy management in Zimbabwe. This study, based on the philosophical foundations of the African philosophy was qualitatively driven, that is, both qualitative and quantitative research methods were used but it was biased towards qualitative methods. The target populations were people who are living with epilepsy, their family members, their doctors, nurses, psychologists, traditional healers, herbalists, pastors, and prophets. A sample of 150 parents of children living with epilepsy, 103 adult females with epilepsy and 67 adult males living with epilepsy were identified through proportional stratified random sampling to answer research questions. The study also conveniently identified some people who are living with epilepsy and families who are taking care of people who are living with epilepsy for in-depth interviews. The following were also purposively selected for in depth interviews; doctors, nurses, a counsellor and a psychologist. The researcher finally identified traditional healers, herbalists, and Christian healers for in-depth interviews using snowball sampling. Findings from the research study revealed that people with epilepsy are not on anti-epilepsy medication because they strongly believe epilepsy is caused by witchcraft and evil spirits. They think bio-medication is not helpful in treating the disease. As such, people with epilepsy have resorted to indigenous practices of epilepsy management. There are various modes of indigenous practices which they use and these include prayers, pastors/prophets, herbalists and the clergyman. From these different forms of traditional practices, traditional herbs have proved to be the most popular among people with epilepsy, followed by prayers. People with epilepsy are of the opinion that these indigenous practices are very effective in epilepsy management. Findings revealed that medical practitioners are not cooperating with indigenous practitioners. This is in spite of the fact that the community has a positive perception towards these indigenous practices. To this end, the researcher recommends the community to be educated about bio-medication, and the effectiveness of anti-epilepsy medication in epilepsy management. Local traditions and beliefs should be taken into account in epilepsy management. Medical practitioners should incorporate indigenous practitioners rather than antagonising them. Primary and secondary health workers must go under training in all aspects of management of epilepsy. These people must be trained on the knowledge, attitudes and practices of indigenous practices in epilepsy management. Indigenous practitioners too, must be trained on bio-medication. They should work hand in hand with primary and secondary health workers. The involvement of family members, people with epilepsy and the community at large is important in order to maintain a momentum which will facilitate the sustainability of epilepsy management. Future studies should also investigate the effectiveness of traditional herbs in epilepsy management.
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<td>AED</td>
<td>Anti-Epilepsy Drugs</td>
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<td>AIDS</td>
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<td>CAM</td>
<td>Complementary or Alternative Medicine</td>
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<td>EEG</td>
<td>Electro Encephalon Gram</td>
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<td>EITF</td>
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<td>HBM</td>
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<td>HHS</td>
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<td>IK</td>
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<td>IOM</td>
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<td>IT</td>
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<td>PEOU</td>
<td>Perceived Ease of Use</td>
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<td>UN</td>
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<td>TAM</td>
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<td>TDM</td>
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<td>TRA</td>
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<td>WHO</td>
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CHAPTER ONE: INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 Introduction

This study provides a nuanced analysis of indigenous practices in the management of epilepsy in Zimbabwe. Whilst the subject of epilepsy has been heavily contested (Pimentel, Tojal & Morgado, 2015) in the last decades, insignificant attention has been devoted to examining the indigenous health seeking behaviours of people living with epilepsy in developing countries such as Zimbabwe. The majority of Zimbabweans are poor and the public health systems are incapable of meeting all the health requirements of people who are living with epilepsy (Maroyi, 2013). The public health system has deteriorated over the past 20 years and the absence of a robust biomedical system of health necessitated the development of traditional knowledge sustainable management of epilepsy. Several studies also report major progress in the reduction of diseases like malaria, tuberculosis, polio and the spread of HIV and AIDS but not much has been done to eradicate mental health diseases, such as epilepsy (Mugumbate & Nyanguru, 2013; Maroyi, 2013; Munthaki, et al., 2013). What it shows is that the mental health illness epidemic has been neglected within the development sphere. Zenden (2014) agrees with this observation and state that despite the massive toll and powerful impact the diseases of the brain can have on people’s lives, they have not received the same amount of attention as other infectious disease outbreaks such as HIV and AIDS, malaria or even problems like obesity. The study thus sought to bring mental health illness into the development arena.

Epilepsy is one of the major brain disorders in Zimbabwe and thus a health priority (Dewa, 2012). Statistics by the Zimbabwe National Health Strategy (2013) show that epilepsy contributes 56% of all conditions reported through the mental health surveillance system (psychiatric returns) in Zimbabwe. Epilepsy Support Foundation Zimbabwe (2016) states over 240000 people in Zimbabwe have been diagnosed with this disease. There are efforts to assist people with epilepsy at government hospitals, clinics and non-governmental organisations but in spite of these efforts, studies have shown that there is less uptake of anti-epilepsy medication. For instance, Dewa (2012) observes that a total of 209 patients in an epilepsy register under his study were not on follow-up treatment contrary to the 433 recorded incidences of epilepsy in Gokwe South Region. Mpofu (2001) believes that those who do not come for epilepsy medication make use of traditional healers and prophets.
1.2 Defining Epilepsy

From a biomedical perspective, epilepsy is described by WHO (2012) as a disorder of the brain which is characterized by a recurrence of unpredictable interruptions of the normal function called epileptic seizures. A person should have two or more unprovoked seizures prior to the date of assessment to be diagnosed as being epileptic. Epilepsy Scotland (2008), FEDOMA (2011), Cherney (2016) and Epilepsy Foundation (2017) argue that epilepsy causes the brain to send abnormal signals and this activity results in seizures. These seizures happen because of a number of reasons such as injury or sickness. Cherney (2016) and Epilepsy Foundation (2017) thus describe epilepsy as a condition that causes recurrent seizures and is treated with anti-epileptic drugs (AEDs). There are more than 20 prescriptions of AEDs available and one’s option depends with age, lifestyle, and type of seizure and how often he/she has seizures (Epilepsy Scotland, 2008; FEDOMA, 2011; Cherney, 2016 and Epilepsy Foundation, 2017). In Zimbabwe, the commonly used drugs are Phenobarbital, Carbamazepine and Phenytoin. However, Epilepsy Support Foundation Zimbabwe (2016) reports that about 86% of people living with epilepsy are not on anti-epilepsy medication in Zimbabwe. Those who are on anti-epilepsy medication may still make use of traditional modes of epilepsy treatment to complement AEDs.

Epilepsy is attributed to spirituality in African Traditional Practices (Chilopola et al., 1999; Birbeck, 2000; Munthali et al., 2013 and Diop et al., 2013; Mutanana & Mutara, 2015). Many people in African countries, Zimbabweans included believe in African indigenous practices and have consequently resorted to indigenous and spiritual forms of treatment (Maroyi, 2013; Mutanana & Mutara, 2015). To this end, several studies have demonstrated that people with epilepsy make use of indigenous and spiritual medicines forms of treatment for epilepsy (Watts, 1989, WHO, 2001; Al-Safi, 2007; Luongo, 2008, Shizha & Charema, 2011; Mohammed & Babikir, 2013; Mutanana & Mutara, 2015). The indigenous healer or diviner occupies a central place in communities’ participation in life events, including epilepsy (Mutswanga & Mafunga, 2009). In some cases, studies have suggested an inter-play between bio-medication and African indigenous medication. For instance, Asadi-Pooya (2014) and Saburi (2011) agree that indigenous medicines may be used to complement bio-medication. What it shows is that indigenous medicines are dominant, but unlike anti-epilepsy medications they are not formalised (Maroyi, 2013).
Several studies have revealed indigenous medicine to be more advantageous over bio-medication because they are the most affordable and easily accessible sources of treatment in the primary health care system, especially to the poor rural communities (WHO, 2001; Maroyi, 2013 and Mutanana & Mutara, 2015). The lower uptake of anti-epilepsy medication has been attributed to the fact that many people with epilepsy who live in developing countries have limited access to health care facilities. In this context, it is widely believed that indigenous and spiritual forms of treatment, being easily accessible, play an important role in treating people with epilepsy. What it shows is that some people with epilepsy are relying heavily on traditional and spiritual medicines to sustain their livelihoods and these practices have reached a crucial stage of development in Zimbabwe. However, Maroyi (2013) contends that despite the increasing acceptance of traditional medicine in Zimbabwe, the rich knowledge on these indigenous medicines is not adequately documented, a knowledge gap which this study seeks to cover. Winkler et al.,(2010) also report that in sub- Saharan Africa, studies on the attitude of people (both affected and not affected by epilepsy) towards traditional medicine for treatment of epilepsy are scarce, a knowledge gap which this study also sought to cover.

Throughout history epilepsy has been perceived as a mysterious and supernatural disorder (Mpofu, 2003). Studies have also shown that a widely held notion about epilepsy in Africa is that epilepsy is caused by evil spirits and witchcraft (Carod-Artal & Vazquez- Cabrera, 2007). Mutanana & Mutara (2015) also argue that many communities in Zimbabwe still believe that epilepsy results from witchcraft or possession by evil spirits. There is a grave social stigma attached to epilepsy with some people believing that it is a contagious disease (Epilepsy Support Foundation, 2016). Thus Mpofu (2001; 2003) is of the opinion that traditional healers and prophets (faith healers) are crucial at community level and they are the first port of call and often the last resort. Historically, epilepsy has been neglected, feared and misunderstood (Cure, 2013). As such, a veil of secrecy surrounding this disease has resulted in these myths, superstitions and general lack of knowledge. Cure (2013) believes this has impeded scientific progress towards finding answers to one of the oldest known neurological diseases leaving treatment and research efforts in dark ages.

According to Epilepsy Support Foundation Zimbabwe (2016), stigma and discrimination both at the workplace and school as well as lack of family care have had an influence on epilepsy management. Most people with this condition are living unproductive lives (Mugumbate &
Nyanguru, 2013). They are failing to acquire education, training and employment and this has had a negative impact on their social life. Shortages of medication, staff and equipment at public health centers is also a hindrance to compliance for many, whilst the cost at private centers is very prohibitive. Epilepsy is hindering their development psychologically, medically, educationally and economically (Diop et al., 2003). In consistency with a report by WHO (2010), epilepsy becomes an important subject matter in order to ensure the good health of people with epilepsy as this is essential to their welfare and to sustained economic and social development.

The United Nations (2013) states ensuring healthy lives and promoting the well-being for all ages is essential to sustainable development, yet Epilepsy Support Foundation Zimbabwe (2016) reports about 75% of people with epilepsy are failing to meet their basic needs to treatment and rehabilitation. What it shows is that the government of Zimbabwe is failing to offer meaningful social assistance to people with epilepsy through these western practices. The result has been unmet medical and social needs of people with epilepsy which justifies the development of indigenous technologies for sustainable management of epilepsy. To promote the well-being of people with mental illness, Mpofu et al., (2011), Tseng (1999), Sorsdahl et al., (2009) and Kuno (2007) have strongly recommended the development of these indigenous healing practices.

From the foregoing, there is clear evidence that indigenous practices are at the forefront in epilepsy management, but they are not recognised officially in the medical set-up. This could be attributed to the fact that unlike some other diseases like HIV and AIDS, Malaria, Tuberculosis and obesity, mental health illness has been neglected within the development sphere. The attitudes of local inhabitants to traditional concepts of epilepsy treatment have been neglected in the literature. It is against this background that this study seeks to analyse indigenous practices in relation to development of sustainable management of epilepsy in Zimbabwe. It is envisaged that the overall findings will illuminate some key areas that may see epilepsy in the development sphere and sustainable management of epilepsy in Zimbabwe.

1.3 Statement of the Problem

There is a problem of interplay between bio-medications and indigenous treatment practices of epilepsy management in Zimbabwe. Unlike anti-epilepsy medications, indigenous forms of
treatment are not at the forefront yet the majority of people who are living with epilepsy depend on it to manage their condition. This is evidenced by Epilepsy Support Foundation Zimbabwe (2015) which claims that 75% of people with epilepsy are failing to meet their basic needs to treatment and rehabilitation. The government of Zimbabwe offer free medication and psycho-social support at hospital centers, but according to statistics provided by Epilepsy Support Foundation in Zimbabwe 86% of people who are living with epilepsy are still not receiving anti-epilepsy medication. The presumption earlier was that the government is not resourced enough to take care of people with epilepsy and to solve this problem Non-Governmental Organisations such as Epilepsy Support Foundation Zimbabwe were introduced to help with medication, counselling and social services but this development has not yielded any positive results. A possible cause of this problem could be that the reaction to epilepsy in Zimbabwe is shaped by traditional indigenous beliefs and traditional treatment (Mpofu; 2001, 2003; Mpofu et al., 2011). If these traditional practices are not recognised as part of medication for people with epilepsy, they will continue to live in severe social isolation and discrimination. This is hindering their development psychologically, medically, educationally and economically (Diop et al., 2003). They continue to die prematurely because they are depending on these traditional modes of epilepsy treatment to sustain their livelihoods. It then becomes important for a case study to be conducted in order to firstly understand the low epilepsy medication uptake; secondly to document these indigenous practices of epilepsy treatment and thirdly propose a sustainable model for epilepsy management that combines the both indigenous and bio medical forms of treatment.

1.4 Research Objectives

The main objective of this study was to analyse indigenous practices in sustainable management of epilepsy in Zimbabwe. This study was guided by the following specific objectives:

To:

1. Analyse why people with epilepsy are not on anti-epilepsy medication.
2. Examine indigenous technologies used by people with epilepsy to manage their condition.
3. Assess community acceptance of indigenous technologies of treating epilepsy in Zimbabwe.

1.5 Research Questions

The following are the specific questions;

1. Why are people living with epilepsy not on anti-epilepsy medication?
2. How are indigenous technologies being used by people with epilepsy to manage their condition?
3. To what extent does the community accept development of sustainable indigenous technologies of treating epilepsy in Zimbabwe?
4. Which strategies are suitable for mainstreaming indigenous technologies in relation to the development of sustainable epilepsy management in Zimbabwe?

1.6 Significance of the Study

The substantive theory that emerges from the study may have a positive impact in sustainable management of epilepsy in Zimbabwe by providing a representative view of the main concerns of people with epilepsy and the community at large on indigenous anti-epilepsy practices. The study explores the treatment gap that exists in indigenous technologies of epilepsy management in our country and bridges the current debate on western and indigenous anti-epilepsy practices. To this end, a sustainable multi-cultural approach to epilepsy management is developed in this research. As observed by Mutanana & Mutara (2015), there are some challenges associated with anti-epilepsy medication and it is against this background that some have opted for complementary or alternative medicines. In an earlier study on health seeking behaviours of people with epilepsy in rural communities, Mutanana & Mutara (2015) also discovered that Africans prefer indigenous methods of healing epilepsy over western methods. Mpofu (2001; 2003) also observed that traditional healers and prophets (faith healers) are crucial at community level and they are the first port of call and often the last resort. However, there is a conflict of interest between western practices of epilepsy management and traditional practices of treating epilepsy. This challenge will be resolved because this study seeks to inform both parties on indigenous practices of epilepsy management. Eventually, biomedical practices and traditional practices can complement each other in epilepsy management.
Indigenous practitioners include traditional healers, herbalists, pastors and prophets. It is important that their efforts are recognised in the medical sphere. This study promotes the development of indigenous practices in epilepsy management from the perspective of the communities. To promote the well-being of people with mental illness, Mpofu et al., (2011), Tseng (1999), Sorsdahl et al., (2009) and Kuno (2007) have recommended the recognition and promotion of these indigenous healing practices in Zimbabwe. A detailed study on different indigenous practices used in epilepsy management was thus carried out. As such, people with epilepsy, practitioners in the biomedical set-up and government will be provided with a detailed account of issues and concerns within the epilepsy management system in Zimbabwe. The study will justify the existence of indigenous practitioners and they too will appreciate the existence of the modern health care system in epilepsy management.

The reason why those in the biomedical health care treatment system are failing to appreciate the usefulness of indigenous practitioners is because they are in many ways ill-informed about indigenous practices. It explains why the complexity of why people are failing to take anti-epilepsy medication in spite of the free medical support offered by the government and non-governmental organisations like Epilepsy Support Foundation Zimbabwe. The study explored challenges associated with anti-epilepsy medication and use of complementary or alternative medicines. To this end, medical practitioners will be empowered with indigenous knowledge in epilepsy management.

Based on the findings of this study, the government of Zimbabwe through the Ministry of Health and Child Care should ensure a multi-cultural approach in epilepsy management. Both parties, the modern health care system and the traditional epilepsy management will appreciate each other’s existence and this should make it easy for the government to come up with strategies of harmonizing indigenous practices and biomedical practices in epilepsy management. Voluntary organisations that support people with epilepsy such as Epilepsy Support Foundation Zimbabwe will equally benefit from this study because they too will understand the attitude of their members towards indigenous practices of epilepsy management, and will eventually come up with policies that support this multi-cultural approach to epilepsy management. The study also benefits the research community with new insights and knowledge on indigenous practices of epilepsy management.
1.7 Assumptions

The researcher made several assumptions during the study. Firstly, the researcher assumed that participants would be candid and honest during the study. Secondly, the assumption was that participants were not on anti-epilepsy medication because their reaction to epilepsy is shaped by traditional indigenous beliefs. The study also assumed that participants had a positive attitude towards the development of indigenous practices of epilepsy management. Another assumption was that mainstreaming indigenous practices would help to develop a sustainable epilepsy management system in Zimbabwe. Finally, the researcher assumed that participants would feel confident that data collected would not be used negatively. Participants were assured that nothing that identifies with them would be reported in the newspapers, the social media, their relatives or the organisation that support them, Epilepsy Support Foundation Zimbabwe. Anonymity would be maintained and all information collected would be strictly confidential.

1.8 Delimitations

The research study carried out an analysis of indigenous practices on sustainable epilepsy from one institution that provides epilepsy support to people with epilepsy in Zimbabwe; Epilepsy Support Foundation Zimbabwe. Although the organisations have several branches countrywide, the researcher only managed to collect data in Harare Province, which also monitors support groups in Epworth, and Chitungwiza and Marondera Districts because of financial limitations. The study focused on people who are currently receiving medication, counselling and social help from Epilepsy Support Foundation Zimbabwe. It was assumed these participants are taking medication since they are registered with the institution.

1.9 Limitations

There were several potential limitations to the quality of this study. Research ethics demands the researcher to remain unbiased. The researcher is an African, who may be seen to be trying to promote use of traditional practices in epilepsy management through his experiences, but every effort was made to avoid bias or forcing data through the lens of the researcher’s own experiences (Glaser and Strauss, 1967). Another potential limitation was that data collection was planned to occur during non-duty hours within a 6-month period, which would potentially constrain participants. To overcome this difficulty, the researcher rescheduled his data collection timetable in such a way that the study would be carried out during the
weekends and leave days convenient to participants. This was a self-sponsored project and financial support was also a potential challenge. The study could not rely on the researcher’s salary and to overcome this challenge student had to engage local universities to perform part-time lecturing duties. Participants showed some low level of literacy, and to this end the researcher had to hire research assistants to assist in administering the questionnaires.

1.10 Operational Definitions

1.10.1 Epilepsy
This will be taken as a seizure or disorder. From a biomedical perspective, a person should have two or more unprovoked seizures prior to the date of assessment to be diagnosed as being epileptic (WHO, 2012). Munthali et al., (2013) also remarks that an individual has a 1 in 10 chance of experiencing at least one epileptic seizure in his or her life, but this is not active epilepsy. This study adopts the definition by WHO (2012) which describes epilepsy as two or more unprovoked seizures or disorders prior to the date of assessment.

1.10.2 Epilepsy Management
This will be taken as handling or controlling unprovoked seizures or disorders before or after they happen (Newman, 2011). Biomedical approaches advise the use of anti-epileptic drugs commonly referred to as anticonvulsants, special diet, brain surgery and psychological counselling among some other things. Indigenous technologies on the other recommend use of traditional counselling, traditional medicines and spiritual medicines. Epilepsy management will be viewed from both biomedical and indigenous practices.

1.10.3 Indigenous Practices/technologies
Understanding indigenous practices begins by defining the term ‘indigenous.’ This term may be used in reference to plants, animals or people that naturally belong to a particular place, in this case Zimbabwe. Indigenous is associated with people originating or developing naturally in a particular land, region, or environment. Technology on other hand is simply the organisation of knowledge developed by a culture for practical purposes, for instance spiritual counselling, traditional counselling, spiritual medicines and traditional medicines developed by locals for epilepsy management. For the purposes of this study, indigenous technology will be taken as indigenous knowledge (IK), that is local knowledge; knowledge that is unique to the Zimbabwean culture or society. This term will be used interchangeably with the term ‘indigenous practices’ in this study.
1.10.4 Anti-Epilepsy Medication
These are biomedical suppressants or technologies that are used in epilepsy treatment. They include anticonvulsants such as Sodium Valproate, Carbamazapine, Phenobarbital widely dispersed at private pharmacies (Mutanana & Mutara, 2015). For the purposes of this study, anti-epilepsy will also include psychological counselling. The term anti-epilepsy medication will also be used interchangeably with the term biomedical technologies or practices.

1.10.5 Complementary or Alternative Medicine
Baxendale (2012) defines complementary or alternative (CAM) as an umbrella term that describes any treatment outside the sphere of any conventional Western school syllabus. Examples of CAM are indigenous medicines and spiritual medicines which may be used outside the sphere of conventional biomedical technologies such as anticonvulsants. However, one may choose to complement, that is to use indigenous technologies alongside biomedical technologies or may abandon these biomedical practices and use indigenous practices as an alternative.

1.10.6 Traditional Medicine
This comprises medical aspects of indigenous knowledge developed over generations within Zimbabwe before the era of biomedical medicine. According to WHO (2012) traditional medicine is the sum total of the knowledge, skills and practices based on theories, beliefs and indigenous experiences used in the maintenance of health as well as in the prevention, diagnosis, improvement or treatment of physical and mental illness.

1.11 Structure of dissertation
This dissertation is divided into eight chapters. Chapter One provides an overview of the study in terms of the background, statement of problem, objectives, research questions, significance, assumptions, limitations, operational definitions and structure of the study. Chapter Two aims to build the theoretical framework upon which my study is based by examining the Health Belief Model (HBM), the theory of Human Agency, the Technology Acceptance Model (TAM) and Sustainable Livelihood Theory. Chapter Three explores the global perspectives of epilepsy management. An analysis of perceptions of people with epilepsy is carried out in Central and South America, South East Asia, Africa and western perspectives regarding the same. Chapter Four explores issues surrounding indigenous
practices in terms of reasons why people are not on anti-epilepsy medication, indigenous practices used in epilepsy management, perceptions of the community towards the development of indigenous practices for sustainable management of epilepsy and strategies of mainstreaming indigenous practices in relation to development of sustainable management of epilepsy. **Chapter Five** describes the major methodology applied to answer the research questions in my study. It also provides the rationale for the research approach used and describes in detail the research process. **Chapter Six** describes the findings concerning the collected data on perceptions of participants towards indigenous practices of epilepsy management. It provides a detailed account of participants’ experiences in regard to indigenous practices in epilepsy management. **Chapter Seven** evaluates the findings on indigenous practices used in epilepsy management. The chapter focuses on development of indigenous practices in relation to sustainable management of epilepsy. **Chapter Eight** highlights the model, conclusions and recommendations derived from study in relation to theory, policy, practice and further research.

1.11 Chapter Summary

In this chapter, the study gave an overview of the background to the study, problem statement, research objectives and research questions. The researcher also gave an account of the significance of the study, his assumptions and limitations of the study. The chapter was concluded with operational definitions and the structure of the dissertation. In chapter two, the researcher carries an overview of theories that may be used in epilepsy management.
CHAPTER TWO: THEORETICAL FRAMING OF INDIGENOUS HEALING PRACTICES

2.1 Introduction

This chapter is dedicated to the theoretical framework that was used when exploring the indigenous technologies/practices in sustainable management of epilepsy in Zimbabwe. It explores the Health Belief Model (HBM), the Agency Framework and the Technological Acceptance Model (TAM) and gives justification for the use of these theories. These theories provided a lens that assisted in analysing data and discussing the implications of the findings of the research.

2.2 The Health Belief Model (HBM)

The Health Belief Model (HBM) has been described by Sharma & Romas (2012) as a psychological model that predicts and explains health behaviours. It is a cognitive model that posits that the behaviour of an individual is determined by a number of health threats and beliefs which he/she possesses about his/her well-being and the effectiveness and outcomes of particular behaviours or actions (Hochbaum, 1958; Becker, 1974, and Rosenstock, 1966). Hochbaum (1958) argues the underlying concept of the original HBM was that the health behaviour is determined by an individual’s beliefs and perceptions about the disease and strategies that are available to decrease the occurrence of the disease. For instance, some people with epilepsy believe that epilepsy is caused by evil spirits and strategies available in some non-western countries to manage the condition are traditional. In other words, the personal perception is influenced by some intrapersonal factors which affect the health behaviour.

There are four perceptions that serve as the main constructs of the HBM; perceived seriousness, perceived susceptibility, perceived benefits and perceived barriers. In addition to these four beliefs or perceptions, the HBM suggests behaviour is influenced by cues to action and self-efficacy (Graham, 2002). Jones et al., (2015) posits that the Health Belief Model (HBM) assumes messages achieve optimal behaviour if they target perceived benefits, barriers, self-efficacy and threat successfully. However, Jones et al., (2015) suggest some theoretical limitations within the model notably variable ordering which is currently undefined within the Health Belief Model. Be that as it may, the researchers strongly believe in the model as an ideal explanatory framework in understanding health behaviour.
Glanz & Bishop (2010) agree that the HBM is one of the most widely used theories in health behaviour. Becker (1974), Champion & Skinner (2008), Rosenstock (1974) posits there are six constructs that predict health behaviour; risky severity, risk susceptibility, benefits to action, barriers to action, cues to action and self-efficacy. The theoretical concepts are presented diagrammatically below.

**Figure 2.1: The Health Belief Model**

![The Health Belief Model: Source Siddiqui et al., 2016](image)

The Health Belief Model (HBM) assumes an individual will take action to prevent illness if he/she regards him/herself to be susceptible to a condition (perceived susceptibility), if he/she believes the condition is of serious nature (perceived seriousness) (Jones et al., 2015). The HBM also suggests that one’s belief about health problems, the perceived benefits of action and the barriers to action and the self-efficacy explain one’s engagement or lack of engagement in health promoting behaviours. A stimulus, described by Janz and Becker (1984) and Rosenstock (1974) as a cue to action must be present in order to trigger these health promoting behaviours. First developed in the 1950s by social psychologists in the U.S Public Health Service, Janz and Becker (1984) and Rosenstock (1974) claim HBM has remained one of the most widely used theories in understanding health behaviour research.

**Perceived Severity**

With perceived severity, Janz & Becker (1984), Glanz, Rimer & Viswanath (2008) and Jones et al., (2015) claim it is the subjective assessment about the severity of the health problem and the potential consequences. The HBM has proposed that people who perceive a health
problem as serious are likely to engage in behaviours that prevent the health problem from occurring, or they may try to reduce its severity. Janz & Becker (1984), Rosenstock (1974) and Glanz et al., (2008) agree that the perceived seriousness of the health problem encompasses beliefs about the diseases itself, for example whether it is life threatening or it may cause pain or disability. Perceived seriousness also encompasses broader impacts of the diseases such as effects on work and other social roles. For instance, people may perceive epilepsy to be a serious health problem because it interferes with their daily social roles and work. Consequently, they are forced to engage in behaviours that prevent this health problem from occurring or to reduce its severity.

**Perceived Susceptibility**

According to Janz and Becker (1984), Rosenstock (1974) and Glanz et al., (2008) this refers to the subjective assessment of the risk of developing a health problem. The HBM has predicted that people who perceive they are susceptible to a particular health problem can engage in behaviours that reduce the risk of developing that health problem. On the contrary, those with low perceived susceptibility will deny that they are at risk of contracting a particular health problem. According to Rosenstock (1974), some may acknowledge the possibility of developing an illness, but may believe it is unlikely.

Those who believe they are at low risk of contracting an illness are likely to engage risk or unhealthy behaviours. On the contrary, those who perceive a high risk are more likely to engage in behaviours that decrease the risk of developing the condition. For instance, in this study about epilepsy, if a family perceives a high risk of developing the epidemic, it is likely engage in behaviours that decrease the risk of developing the health problem. Glanz, Rimer and Viswanath (2008) argue a combination of both perceived susceptibility and perceived severity has been referred to as perceived threat. Perceived susceptibility and perceived severity to a given health problem such as epilepsy depend on the knowledge about the health problem (Rosenstock, 1974). The HBM has predicted that higher perceived threats lead to a higher likelihood of engaging in health promoting behaviours.

**Perceived Benefits**

There are also perceived benefits that may promote individuals in engaging health seeking behaviours. As highlighted by Glanz et al., Rimer and Viswanath (2008), health related behaviours are influenced by the perceived benefits of taking action. Perceived benefits are
described by Glanz et al., (2008) as a person’s assessment about the value or efficacy of engagement in a health-promoting behaviour in order to decrease the risk of the health problem. Rosenstock (1974) suggests that if an individual believes in a particular action, he/she is likely to engage in those healthy seeking behaviours in spite of the objective facts and the effectiveness of the action. For example, a person who believes that anti-epilepsy drugs will help to improve his/her condition is likely to take that medication unlike a person who believes they are not useful at all. Similarly, one who believes in traditional doctors will make use of them regardless of the objective facts by medical doctors regarding the effectiveness of the traditional practices in epilepsy management.

**Perceived Barriers**
There are also perceived barriers, described by Glanz et al., (2008) as health-related behaviours that are also a function of the perceived barriers in taking action. This is a person’s subjective assessment about the obstacles to behaviour change. A person may perceive a health condition as threatening believing that a particular action will help to effectively reduce the threat, but barriers may as well prevent engagement in health-promoting behaviours. Simply put, perceived benefits should outweigh perceived barriers for behaviour change to take place. According to Glanz et al., (2008), some of the perceived barriers include expenses, inconvenience, danger, and discomfort involved in health promoting behaviours. For instance, medical doctors may suggest brain surgery for an individual with epilepsy. Perceived side effects associated with medical procedure like danger, expenses and inconvenience may be a barrier to this health seeking behaviour.

**Modifying Variables**
Glanz et al., (2008) identifies individualistic characteristics that can affect perceptions (i.e. perceived severity, susceptibility, benefits and barriers) of health-related behaviours and these include demographic variables, psychosocial variables and structural variables. Demographic variables are described by Rosenstock (1974) and Glanz et al., (2008) as the age of an individual, race, sex, ethnicity and education among some things. What it means is that the environment may affect health-related behaviours of people with epilepsy. The elderly may have different perceptions to the younger generations. One’s education, race and ethnicity may also influence an individual with epilepsy to abandon bio-medication for traditional medicines.
Psychosocial variables on the other hand include personality, class, social, peer, reference group pressure among some other things (Rosenstock, 1974). What it shows is that an individual’s personality may modify his beliefs about treatment and an individual who is particular about evil spirits is more likely to seek traditional help. In a study on health seeking behaviours of people with epilepsy in rural communities of Zimbabwe, Mutanana & Mutara (2015) observed that they were very particular about traditional medicines, and this can be attributed to the class of people. The psychosocial variable also shows that the social, peer and reference group also have an effect on the perception about the health-related behaviours. When one has epilepsy, he is supported by family elders, friends and relatives and these may influence his/her decision on the type of medication to take.

With structural modifying variables, Rosenstock (1974) argues they include the knowledge about a given health condition and the prior contact with the health problem among some other things. Health-related behaviours of people with epilepsy are influenced by perceptions about the causes of epilepsy, and history has suggested that epilepsy is caused by evil spirits and bewitchment. The HBM has thus suggested that the modifying variables discussed above; demographic, psychosocial and structural affect health-related behaviours indirectly by influencing the perceived severity, susceptibility, the benefits and barriers (Rosenstock, 1974; Glanz et al., 2008).

**Cues to Action**

A stimulus, better known as a cue to action is of paramount importance in triggering a necessary engagement in any health-promoting behaviour (Rosenstock, 1974; Glanz et al., 2008; Carpenter, 2010). According to Janz & Becker (1984) and Carpenter (2010) cues can be either internal or external. Physiological cues such as pain or symptoms are an example of an internal cue to action. An individual with epilepsy may have symptoms of a mentally disturbed person, or may be suffering from some internal physiological pain after the convulsions. This may drive the individual or fellow family members in support to seek medication, which may be either traditional or western. External cues on the other hand include information from the media, close others or health care providers and this may promote an individual to get engaged in a certain health-related behaviour. For instance, the media in Zimbabwe is awash with the spiritual *papa* movement with Prophet Makandiwa and Prophet Magaya being on the forefront. The media may trigger an individual with epilepsy to be engaged indigenous practices of epilepsy management. Family members, in particular the
elders may also influence an individual to get help from traditional doctors. Rosenstock (1974) suggest that the intensity that is needed to trigger an action varies between people’s perceived severity, susceptibility, benefits and barriers. For example, an individual who is closely related to an elder or traditional doctor who believes in indigenous technologies is easily persuaded to get traditional medicines of epilepsy treatment. Similarly, an individual who is closely related to a pastor or a prophet is easily persuaded to get spiritual healing. However, Champion & Skinner (2008) observe that cues to action have not been systematically evaluated, especially considering their often fleeting nature.

**Self-efficacy**

Additionally, Jones et al., (2015) posits that Health Belief Model scholars later suggested that self-efficacy (Bandura, 1988) be added to the model. Self-efficacy was eventually added to the four components of the HBM (i.e. perceived seriousness, susceptibility, benefits and barriers). Bandura (1988) describes self-efficacy as an individual’s perception about his/her competence to perform behaviour successfully. Rosenstock, Stretcher and Becker (1988) and Jones et al., (2015) states that self-efficacy was added to the HBM in an attempt to explain the individual differences in health behaviours.

The HBM was originally developed to explain individual person’s engagement in the one-time health related behaviours like cancer and immunization (Rosenstock, 1974; Rosenstock, Stretcher & Becker, 1988). Eventually, HBM was applied to more substantial and long term behaviour change like diet modification, smoking, exercise and in this case epilepsy. Developers of the HBM recognised that confidence in one’s ability to effect change in the outcomes was the key component in the change of health behaviour, hence the self-efficacy subject matter (Glanz et al., 2008; Rosenstock, Stretcher and Becker, 1988). However, Carpenter (2010) observes that in actuality self-efficacy is rarely included in HBM studies. Although less investigated, Champion & Skinner (2008) suggest the model explain that specific cues like factors in an individual’s environment can impact the final action taken by an interested person.

**Application**

Empirically, the HBM has gained substantial support since it was developed in the 1950s (Janz & Becker, 1984; Carpenter, 2010). The HBM has remained to be one of the most used and well-tested models to explain and predict health-related behaviours (Carpenter, 2010), for
example epilepsy. According to Janz & Becker (1984), a review of 28 retrospective and 18 prospective studies suggested the evidence of each component of the HBM to be very strong. Janz & Becker (1984) also notes that review reports showed that empirical support for HBM was notable given diverse populations, their health conditions and the health related-behaviours that were examined as well as the various study designs and assessment strategies that were used in evaluating the model. Carpenter (2010) also adds that a more recent meta-analysis discovered a strong support for the perceived barriers and benefits predicting health-related behaviours. However, there was weak evidence for the predictive power of perceived susceptibility and severity. From this analysis, it shows the HBM is suitable to be applied in understanding indigenous practices in sustainable management of epilepsy in Zimbabwe. As highlighted by Carpenter (2010) and Rosenstock, Stretcher and Becker (1988) HBM has been used in the development of effective interventions in changing health-related behaviours targeting various aspects of its key constructs.

Interventions that are based on HBM try to increase perceived severity and susceptibility of a health condition such as epilepsy by providing education on the prevalence and incidence of the disease as well as individualised risk and information about the consequences associated with the diseases, such as financial, social and medical consequences. Interventions associated with HBM may also increase perceived benefits and decrease perceived barriers by engaging in health-promoting behaviour through information on the efficacy of various health-related behaviours in order to reduce the disease (Glanz et al., 2008). The model helps in identifying perceived barriers and provides incentives to engage in health promoting behaviours. The model also engages social support and other resources in order to encourage health promoting behaviours. This explains why this study was conducted within the epilepsy community.

According to Glanz et al., (2008), these interventions aim to boost self-efficacy through provision of training in certain health promoting behaviours, for instance complex lifestyle changes. Interventions may be done at an individual level or at the societal level. For the individual, the intervention will be aimed at working one on one with the person with epilepsy in order to increase engagement in health related behaviours whereas at societal level interventions may go through changes in the environment or legislation. Currently, in Zimbabwe traditional herbs are not recognised by those adapted to the bio-medication.
Depending with the findings, interventions may help to come up with laws that support both western and traditional medicines.

The HBM makes an attempt to predict some health related behaviours accounting for individual differences in attitudes and beliefs (Janz and Becker, 1984). However, like any other theory, the HBM has been criticised for some limitations. According Janz & Becker (1984), it fails to account for some other factors which influence health behaviours. These factors may become independent of the conscious health related decision making process. Janz and Becker (1984) also argue that some individuals may engage in health related behaviours for some other reasons which are unrelated to health, for instance culture. Janz & Becker (1984) also note that environmental factors which are outside an individual’s control prevent engagement in some desired health related behaviours. Glanz et al., (2008) further highlights that this model fails to consider the impact of emotions on behaviour, for instance fear may be a key factor in influencing an individual to engage in behaviour. According to Carpenter (2010), the theoretical constructs which constitute the HBM are broadly defined. They do not specify how the constructs interact with one another. Thus, this study will also be guided by other theories; the Human Agency Framework, the Technology Acceptance Model (TAM) and the Sustainable Livelihoods Framework.

2.3 The Human Agency Framework
In social science, agency has been described as the capacity for individuals to act independently as well as to make their own free choices. Metcalfe, Eich & Castel (2010) posit that one’s agency implies one’s independent ability or capability to act on one’s will. The capability or ability is affected by one’s cognitive belief structure formulated through one’s experiences and perceptions that are held by the individual and the society. Bandura (2006) described human agency as human capability to exert influence over one’s functioning as well as the course of events by one’s actions. Bandura suggests that it is through cognitive self-guidance that human beings can visualise futures that act on the present. Human beings construct, evaluate or modify alternative courses of action in order to gain valued outcomes and to override environmental influences. To this end, Bandura (2008) concludes human agency to be an agent means which influence intentionally on one’s functioning and life circumstances.
Perhaps an example of an individual with epilepsy will help to grasp this definition. This individual has a wide variety of choices for epilepsy treatment. He/she can visit the hospital, Non-Governmental Organisations such as Epilepsy Support Foundation Zimbabwe or any nearest clinic to get treatment in the form of psychological counselling and anti-epilepsy medication. The same individual can also visit a traditional doctor to get treatment in the form of herbs and spiritual treatment. I will present these choices diagrammatically below.

**Figure 2.2: Variety of choices that an individual with epilepsy may have**

![Diagram showing choices for epilepsy treatment](image)

Figure 2.1 shows a variety of choices that an individual can have when he is seeking treatment. Epilepsy, described as a mental condition by biomedical fraternity, is attributed to spirituality in African Traditional Practices (Chilopola et al., 1999; Birbeck, 2000; Munthali et al., 2013; Diop et al., 2013; Mutanana & Mutara, 2015). Many people in African countries, Zimbabweans included believe in African traditional practices and have consequently resorted to traditional and spiritual medicines (Maroyi, 2013 and Mutanana & Mutara, 2015). To this end, several studies have demonstrated that people with epilepsy make use of traditional and spiritual medicines as treatment for epilepsy (Watts, 1989, WHO, 2001; Al-Safi, 2007; Luongo, 2008, Shizha & Charema, 2011; Mohammed & Babikir, 2013; Mutanana & Mutara, 2015). The indigenous healer or diviner occupies a central place in communities’ participation in life events, including epilepsy (Mutswanga & Mafunga, 2009). In some cases, studies have suggested an inter-play between bio-medication and traditional medication. For instance, Mutanana (2017), Asadi-Pooya (2014), and Saburi (2011) agree that traditional
medicines may be used to complement bio-medication. To this end, it would appear the majority is neglecting bio-medication. This is evidenced by Epilepsy Support Foundation Zimbabwe (2016) which claims that about 86% of people who are living with epilepsy are still not receiving anti-epilepsy medication. This is in spite of the media reports that have supported bio-medication ahead of indigenous medicines.

To explain this conception, Bandura (2006) explains that people are the contributors to their life circumstances. He insists that people create social systems that will in turn organise and influence their lives. Throughout history epilepsy has been perceived as a mysterious and supernatural disorder (Mpofu, 2003). Studies have also shown that a widely held notion about epilepsy in Africa is that epilepsy is caused by evil spirits and witchcraft (Carod-Artal & Vazquez-Cabrera, 2007). Mutanana & Mutara (2015) also argue that many communities in Zimbabwe still believe that epilepsy results from witchcraft or possession by evil spirits. These are the social systems that are organising and influencing people with epilepsy. Human agency is thus cognitive self-guidance that human beings can use to visualise futures that act on the present. Bandura (2006) believes that through cognitive self-regulation, human beings are able to create visualised futures that act on the present. They are able to construct, evaluate and to modify alternative courses of action in order to secure valued outcomes. This explains the problem of interplay between bio-medications and traditional practices of epilepsy management in Zimbabwe reported in some studies.

According to Bandura (2001) social cognitive theory has adopted an agentic perspective towards human development, change and adaptation. Bandura insists that to be an agent means to influence intentionally on one’s functioning and their life circumstances. What it means is that personal influence is part of the causal structure. As highlighted by Bandura (2006:164),

People are self-organising, proactive, self-regulating and self-reflecting. They are not simply onlookers of their behaviour. They are contributors to their life circumstances, not just products of them.

This theory, it would appear, is trying to explain the behaviour of an individual with epilepsy. The government of Zimbabwe offer free medication and psycho-social support at hospital centers, but according to statistics provided by Epilepsy Support Foundation in Zimbabwe 86% of people who are living with epilepsy are still not receiving anti-epilepsy medication.
The presumption earlier was that the government is not resourced enough to take care of people with epilepsy and to solve this problem and Non-Governmental Organisations such as Epilepsy Support Foundation Zimbabwe were introduced to help with medication, counselling and social services but this development has not yielded any positive results. A possible cause of this problem could be that the reaction to epilepsy in Zimbabwe is shaped by traditional indigenous beliefs and traditional treatment (Mpofu; 2001, 2003; Mpofu et al., 2011). According to Bandura (2006), as human beings they are self-regulating, self-organising and self-reflecting. As human beings, they contribute to their life circumstances. They don’t need medical doctors, or the media to advise them on the disadvantages of indigenous medicines because they were created within the social system which is now organising and influencing them. Bandura (2006) thus suggests four core properties of human agency; intentionality, forethought, self-reactiveness and self-reflection.

Bandura (2006) identifies intentionality as the first property of human agency. He argues that people form intentions which include action plans and strategies for realising them. In his analysis, he observes that human beings’ pursuits include other participating agents; as such there is no absolute agency. Bandura (2006) believes individuals should accommodate their self-interests in order to achieve unity of effort within the diversity. If an individual want to get treatment for epilepsy, he/she has to consider his/her self-interests first. There are wide options of epilepsy treatment described above and what are his/her intentions after realising them? Similarly, there are collective intentions described by Bratman (1999) as collective endeavours that require interdependent plans of action in order to realise them. Zimbabwe, for instance, is guided by the Ubuntu/Unhu philosophy. My problems are your problems; as such the intentionality may be formed at family level. What action do we take as a family? Should we seek help from traditional healers or prophets are the best? These are some of the actions plans and strategies that may be taken collectively after realising them.

The second property of human agency identified by Bandura (2006) is forethought. This involves temporal extension of the human agency and Bandura (2006) claims this includes more than future-directed plans. For instance, an individual with epilepsy may be one who is too spiritual. In the event that he/she gets ill, God is the answer or the ancestral spirits will take care of his/her problems. With this property of human agency, Bandura (2006) posits that people set themselves goals and they anticipate the likely outcomes of their prospective actions to guide and motivate their efforts. The future cannot be the cause of the current
behaviour because it has no material existence. However, through cognitive representation, Bandura (2006) believes visualised futures will be brought into the present as the current motivators and guides of their behaviour. As such, in this form of anticipatory guidance, the behaviour of humans is governed by the visualised goals and the anticipated outcomes, instead of being pulled by unrealised future state. What it shows is that the ability to bring anticipated outcomes has a bearing on current activities and promotes purposeful and foresightful behaviour. People with epilepsy, like any other human being, may have strong believes in the almighty or the ancestral spirits. This property helps to understand the behaviour of Africans in this regard because as highlighted by Bandura (2006), when it is projected over a long time course in matters of value forethought perspectives provide direction, meaning and coherence to one’s life.

The third property of human agency identified by Bandura (2006) is self-reactiveness. Bandura describes agents as not only planners and fore thinkers, but self-regulators. Searle (2003) also noted that if one has adopted an intention and an action plan, he/she cannot just sit back waiting for appropriate performances to appear. For instance, an individual with epilepsy has adopted an intention and an action plan to get treatment from a traditional doctor. He/she cannot wait for someone to execute that plan, but will definitely move on according to his/her intentions or action plans. Bandura (2006) thus describes agency as a process that does not only involve the ability to make choices of action, but the ability to construct appropriate courses of actions, motivate and regulate their execution. Bandura (2001) and Carlson (2002) agreed that this multifaceted self-directedness operates via self-regulatory processes within the explanatory gap that links thought to action plan.

The fourth property of human agency identified by Bandura (2006) is self-reflectiveness. Bandura (2006) believes people as not only agents of their actions, but as self-examiners of their own functioning. Humans are self-examiners of their own functioning. Humans reflect on their personal efficacy through functional self-awareness. They also reflect on the soundness of their thoughts, actions, and meaning of their pursuits and take corrective adjustments where necessary (Bandura, 2006). Bandura (2006) describes the metacognitive capability that enables one to reflect upon self as well as the adequacy of an individual’s thoughts and actions as the most distinctly human property of agency.
Bandura (2006) posits human functioning as a product of a reciprocal interplay among intrapersonal, environmental and behavioural determinants. Bandura (2006) disagrees with the notion that people operate as autonomous agents or their behaviour as wholly determined by situational influences. Bandura (2006) remarked that the triadic interaction between intrapersonal, environmental and behavioural determinants includes the exercise of self-influence which is part of the causal structure. People make causal contributions towards the course of events when they are acting as agents. However, Bandura (2006) also states that the relative magnitude of personal contribution towards the codetermination will vary depending on the level of the agentic resources, situational circumstances and types of activities. To this end, the social cognitive theory has rejected a duality between human agency and the social structure (Bandura, 2006). Social systems are thus the product of human activity and these social systems in turn will help to organise regulate and guide human affairs, for instance epilepsy management in this case.

Bandura (2006) insists that human function is socially situated. Perhaps this can explain why the majority of people are neglecting bio-medication in favour of traditional medicines. What it shows is that psychological concepts are socially embedded. The theory of human agency is also relevant in this study because it raises the issue of freedom and determinism. As highlighted by Bandura (2006), if viewed from the social cognitive perspective, freedom is not just conceived passively as absence of constraints. Freedom is also conceived proactively as the exercise on self-influence during the service of desired outcomes and selected goals. This theory was also chosen because in addition of self-regulation, individuals stay in the psychic environment of their own making. For instance, in the case of epilepsy management people with epilepsy may be forced to take bio-medication, yet they strongly believe in traditional practices of epilepsy management. What it means is that they are not living in a psychic environment of their own. Bandura (2006) also posits that self-management of the inner life is part of the agentic process. Self-influence is regarded as an interacting part in determining conditions, thus human agency is compatible with the principle of the regulative causality. Individuals are producers and products of their circumstances in life and they are the partial authors of their past conditions which developed them and the future courses that their lives will take (Bandura, 2006).

From this discussion, it can be noted that people who develop their own competencies, enabling beliefs in their self-efficacy and self-regulatory skills are able to generate a wide
array of options which expand their freedom in action, and they are also more successful in realising their desired futures unlike those with less developed agentic resources (Meichnbaum, 1984; Bandura, 1997; Schunk & Zimmerman, 1994). Bandura (2006) elaborate the exercise of freedom as involving rights, options as well as the means to pursue them. He also claims at societal level people will institute by collective, regulatory sanctions against other unauthorised forms of social control. What are the perceptions of the community towards indigenous practices of epilepsy management? With this theory in guidance, the researcher will be able to answer this problem.

Bandura (2006) argues that human agency is exercised through three different modes namely personal, proxy and collective. He insists in our everyday functioning we require an agentic blend of these forms of agency. Personal agency is exercised individually (Bandura, 2006). People bring their own influence in order to bear their own functioning and on the environmental events. However, Bandura (2006) observes that in many spheres of life people cannot have direct control over the conditions which affect their lives. To this end, they make use of proxy agency, better known as mediated agency. According to Baltes (1996) and Ozer (1995) proxy agency is exercised by influencing other people who have resources, the knowledge and the means to act on their own behalf in order to secure their desired outcomes. Bandura (2006) also argues that people do not live in individual autonomy and many of the things that they seek are only achievable by working together through interdependent efforts. As such, Bandura (2000a) explain collective agency as an exercise through which people pool their resources together, their knowledge, skills and act in concert in order to shape their future. He describes people’s conjoint belief in their capability to achieve certain attainments as they ingredient of collective agency. However, beliefs of personal and collective efficacy have been described as the most central and pervasive mechanisms of human agency. According Bandura (2009), unless people believe that they can produce the desired effects and forestall undesired ones through their actions, then they have a little incentive to act or persevere in the face of their difficulties.

2.4 The Technology Acceptance Model (TAM)
Davies (1989) in Ziyu (2014) proposed this theory, the Technology Acceptance Model (TAM) in order to explain and predict the behaviour of people towards a technological innovation, particularly the acceptance of users towards information technology. Fishbein and Ajzen (1975) supported by Ziyu (2014) posits that that the technological acceptance model
was originally an extension of the Theory Reasoned Action (TRA). TRA is a psychological theory which explains people’s actions by identifying causal connections between the various components of life such as attitudes, beliefs, intentions and the behaviours.

However, with TAM, unlike TRA there are two primary variables and these are independent and dependent variables. The independent variables include perceived usefulness (PU) and the perceived ease of use (PEOU). The dependent variable is the attitude (AT) towards using technology. The perceived usefulness is defined by Davis (1989) as the degree to which a person believes in using a particular system that would enhance his/her performance. Davies (1989) also defines perceived ease of use as the degree to which people believe using a particular system would be free of effort.

Figure 2.3: Research Model on original TAM

Source: Davies et al., (1989)

Epilepsy Support Foundation Zimbabwe (2016), for instance has indicated that about 86% of people living with epilepsy are not on anti-epilepsy medication in Zimbabwe. This has been attributed to the fact that many people with epilepsy who live in developing countries have limited access to health care facilities. In this context, it is widely assumed that traditional and spiritual medicine, being easily accessible, plays an important role in treating people with epilepsy. This could be attributed to the perceived usefulness by users, who may be having a feeling that these traditional medicines are quite useful in enhancing their performance. This can also be attributed to the perceived ease of use (PEOU) described by Davies (1989) as the degree to which people with epilepsy believe in this system would free of effort.
Davies (1993) further theorised that the actual information usage was determined by the behavioural intention and the intention was jointly determined by users’ attitudes towards that system and the perceived usefulness. Studies have also shown that a widely held notion about epilepsy in Africa is that epilepsy is caused by evil spirits and witchcraft (Carod-Artal and Vazquez-Cabrera, 2007). Mutanana & Mutara (2015) also argue that many communities in Zimbabwe still believe that epilepsy results from witchcraft or possession by evil spirits. There is a grave social stigma attached to epilepsy with some people believing that it is a contagious disease (Epilepsy Support Foundation, 2016). Thus Mpofu (2001; 2003) is of the opinion that traditional healers and prophets (faith healers) are crucial at community level and they are the first port of call and often the last resort.

Ziyu (2014) claims that in the previous studies the technology acceptance model was widely used by information technology researchers in order to gain a better understanding of the information technology (IT) adoption and usage within organisations. However, Ziyu (2014) further argues that this is imperfect because all technology acceptance model relationships are not borne out in all studies. There remains a very wide variation in predicted effects of various studies of different types of systems and users. Historically, epilepsy has been neglected, feared and misunderstood (Cure, 2013). As such, a veil of secrecy surrounding this disease has resulted in myths, superstitions and general lack of knowledge. Cure (2013) believes this has impeded scientific progress towards finding answers to one of the oldest known neurological diseases leaving treatment and research efforts in dark ages. To this end, the researcher has also opted for the TAM in order to investigate issues that are related to perceptions, intentions and attitudes of Zimbabweans towards indigenous practices in epilepsy management.

Ward (2013) argues that the information and technology (IT) was proposed in healthcare for a variety of reasons which include benefiting and improving patient care. It also enhances patient care. Ward (2013) further argues that the technology acceptance model focuses on factors and the decision processes that are undertaken by an individual as he or she goes through any decision to accept or use a technology, for instance; indigenous technologies in sustainable management of epilepsy in Zimbabwe. According to Ward (2013), the perceived usefulness and the perceived ease of use are viewed as the key determinants in one’s choice for the right treatment. Many studies have placed much emphasis on the attitude and the social factors on a person’s behavioural intention. For instance, if these indigenous practices
are not recognised as part of medication for people with epilepsy, they will continue to live in severe social isolation and discrimination. This is hindering their development psychologically, medically, educationally and economically (Diop et al., 2003). They continue to die prematurely because they are depending on these traditional modes of epilepsy treatment to sustain their livelihoods.

Gucin & Berk (2015) suggest that the acceptance and the increasing utilisation of technological innovations within the health care sector are not only crucial, but beneficial to both the healthcare professionals and the patients during their diagnosis and treatment processes. The authors seem to be supportive of modern technologies of epilepsy treatment because they strongly feel these are helpful in managing the condition of people with epilepsy. However, Gucin & Berkin (2015) agree that there are influencing factors that may differ for both health care professionals and their patients. They observed that perceived ease of use may be affected by personal norms and the perceived control beliefs. Gucin & Berkin (2015) argue that suspicions of confidentiality and privacy are some of the influencing factors for refusing technology usage among patients. As such, these factors must be considered when one is designing intervention programs in order to enhance technology acceptance among people with epilepsy.

A study by the Turkish Statistical Institute (2014) reveals that internet usage percentage among individuals between the ages of 16 and 74 is determined as 58.5%. The study also noted that the rate of individuals who are using the internet on daily bases or at least within two days a week was 44.9%. However, from their analysis, the researchers discovered that technology usage was mobilised by widespread diffusion of these smart phones which has led to changes in social lives, interpersonal relationships as well as self-expressions. As such, individual and social factors that affect technology usage are studied and interpreted from different disciplines by researchers and this affects the scope and the results of the studies. To this end, Livingstone (2008) suggests that technology acceptance behaviour may be affected and influenced by many personal factors such as age, socioeconomic and gender status. In a study on examining the technology behaviour of the elderly people, Cody & Wendt (1999) discovered that the elderly were falling behind when they are compared with the general population. However, Gucin & Berkin (2015) are of the opinion that difficulties on technology acceptance may be overcome with instrumental support of relatives. Gucin and Berkin (2015) also observe that research studies on socio-economic status have proved that
high income or low income may be a contributory factor towards technology acceptance behaviour.

2.5 Sustainable Livelihoods Framework
Collier (2007) argues that when one is doing development work, an essential factor is to ensure the state is in a position to secure the support of development activities. Petersen & Pedersen (2010) agree with Collier and further posit that if the state is unable or uninterested in creating resources that support different development activities, then there is a little chance of activities to continue. In this study, it will be argued that the government of Zimbabwe should support the development of indigenous practices in sustainable management of epilepsy in Zimbabwe. The researcher therefore agrees with several researchers who have advocated for sustainable livelihoods in developing countries such as Zimbabwe.

According to DFID (2000), the sustainable livelihood approach is inspired by the work of Robert Chambers in the 1980s which was later developed by Chambers, Conway and others in the 1990s. This framework is a tool in development work because it highlights how to understand, describe and analyse the main factors that affect livelihoods of local people, such as people with epilepsy in Zimbabwe. DFID (2000) has described sustainable livelihood as a livelihood that is comprised of the capabilities, assets which include material and social resources and activities which are required as a means of living. To this end, a livelihood is sustainable when it copes with and recovers from shocks and stresses maintaining and enhancing capabilities and assets, while at the same time not undermining the natural resource base.

Researchers such as Chilopola et al., (1999), Birbeck (2000), Munthali et al., (2013), Diop et al., (2013), Mutanana & Mutara (2015) have described epilepsy as a mental condition attributed to spirituality in African Traditional Practices. Many people in African countries, Zimbabweans included believe in African traditional practices and have consequently resorted to traditional and spiritual medicines (Maroyi, 2013 and Mutanana & Mutara, 2015). To this end, several studies have demonstrated that people with epilepsy make use of traditional and spiritual medicines as treatment for epilepsy (Watts, 1989, WHO, 2001; Al-Safi, 2007; Luongo, 2008, Shizha and Charema, 2011; Mohammed and Babikir, 2013 and Mutanana & Mutara, 2015). The indigenous healer or diviner occupies a central place in communities’ participation in life events, including epilepsy (Mutswanga & Mafunga, 2009).
In some cases, studies have suggested an inter-play between bio-medications and indigenous medication. For instance, Asadi-Pooya (2014), and Saburi (2011) agree that indigenous medicines may be used to complement bio-medications. What it shows is that indigenous medicines are dominant, but unlike modern medicines they are not formalised. Simply put, people with epilepsy are coping and recovering from shocks and stresses using traditional resources thus maintaining and enhancing capabilities or assets. However, advocates of sustainable livelihood have argued that there should not be undermining of the natural resource base.

Chambers & Conway (1992) have posited that the Sustainable Livelihoods Framework is a way of understanding the livelihoods of local people, such as people with epilepsy in Zimbabwe. The approach is found to be suitable in this study because it places people with epilepsy and indigenous medicines at the centre of development agenda. This approach also draws its influence from Chambers & Conway (1992) who have suggested that a livelihood is comprised of assets, capabilities and activities that are required as a means of living. These researchers believed a livelihood was sustainable if it coped with and recovered from stress and shocks. A sustainable livelihood also provides livelihood for future generations. This approach is people centred; it is holistic and dynamic in nature. The theory also provides a framework for analysing indigenous practices in sustainable management of epilepsy in community development.

Petersen & Pedersen (2010) argue that this framework best describes what development dedicated to reduction of poverty should be focused on in order to create livelihoods for the local people, such as people with epilepsy. The first basic principle identified by Petersen & Pedersen (2010) is that the development work has to focus on the people. The study will focus on people with epilepsy and the community, the majority of who are poor. What it means is that we need to focus on what matters to people with epilepsy, and as individuals or communities differ in their cultures and how this affects the way in which they understand epilepsy treatment. Another principle identified by Petersen & Pedersen (2010) is that the poor themselves must be key actors in identifying important aspects of their own livelihoods. This study therefore seeks to find out from the community on its perceptions towards both bio-medications and traditional medication. The community knows what matters to itself such as the government, community based organisations and non-governmental organisations that handle issues of people with epilepsy. Petersen & Pedersen (2010) argue it is a principle for
donors such as Epilepsy Support Foundation to be process facilitators that help people with epilepsy to be aware of their priorities and to analyse their own surroundings for resources such as traditional medicines. What it means is that participation and partnership between the community and service providers becomes essential factors in development of indigenous practices of epilepsy management. People with epilepsy are thus empowered instead of being dependant on the outside world for epilepsy management all the time. There are different components within the sustainable livelihood theory. These are vulnerability context, assets, transforming structure and process, livelihood strategies and livelihood outcomes.

**The Vulnerable Context**

DFID (2000) supported by Petersen & Pedersen (2010) explain the vulnerability context as an external environment in which poor people lives in. It includes critical trends like technological and population trends. Petersen & Pedersen (2010) further argue the vulnerability context includes shocks such as the natural disasters and economic inflation as well as seasonality which describe the way prices and employment opportunities shift for various reasons. All these factors, according to DFID (2000) affect assets that people have and therefore the sustainability of their livelihoods. In this study, it will be argued people with epilepsy are vulnerable to technological trends in the world. Indigenous technologies, for instance, the much publicised *spiritual papa movement* by Prophet Magaya and Prophet Makandiwa in Zimbabwe on the social media can influence people with epilepsy. Economically, people with epilepsy may not also be vulnerable because they may not have money to buy bio-medication.

**Assets**

The sustainable livelihoods framework is also centered on the belief that people are in need of assets in order to achieve positive livelihoods outcomes (DFID, 2000). Human beings have different kinds of assets which are combined in order to achieve to livelihoods which they seek. According to Petersen & Pedersen (2010) human capital is one of these assets. It refers to knowledge, skills, ability to good health and labour that enables people to achieve their desired livelihoods. There are people who are knowledgeable about indigenous practices of epilepsy treatment, skills on handing epileptic people, and have the ability and good health to manage people with epilepsy.
The human capital, according to DFID (2000) is essential in order to use in the other kinds of capitals in existence. We also have social capital, described by Petersen & Pedersen (2010) as the social resources that people with epilepsy can get help from so that they can achieve their livelihoods. This can be done through networking, or membership of formalised groups or trust between people that make them help each other. For instance, people with epilepsy can network with indigenous doctors and medical doctors to get help. They can as well be formalised groups, like the Epilepsy Support Foundation Zimbabwe. Petersen & Pedersen (2010) also identifies natural capital which is understood in a very broad manner because it covers tangible factors such as natural resources like trees, land et cetera and more intangible products like atmosphere and biodiversity. In this study, the researcher wants to examine tangible factors such as traditional herbs and intangible products such as spirituality. Then we have physical capital which describes basic infrastructure and producer goods needed in order to support livelihoods that people seek. The financial capital is finally the financial resources which people can use in order to achieve livelihoods that they strive for.

The Transforming Structure and Process Component

DFID (2000) supported by Petersen & Pedersen (2010) identify the transforming structure and process component that includes institutions, policies and organisations that frame livelihoods for the poor. These are found at all levels, which are from the household to the international level. Petersen & Pedersen (2010) explain that these processes and structures are the ones that determine and access that human beings have different kind of assets, thus the importance cannot be over emphasised. Some examples of these processes include international agreements, laws and ownership rights to secure rights of people. Structures might be in existence within ministries, self-help groups in local community and banks that give credit. What it shows is that these indigenous practices need to be supported with laws and international agreements to secure the rights of African people who are suffering from epilepsy.

Livelihood Strategy

Petersen & Pedersen (2010) identify another component, livelihood strategies, and a way that people act so that they can achieve their desired livelihood. According to DFID (2000), access that people have to different kinds of assets affect strategies which they employ and that structures and processes within a given society create possibilities and constraints on
strategies which people are able to use. If one believes in indigenous practices of epilepsy management, it affects the way employ in managing the condition.

Livelihood Outcome

Finally, Petersen & Pedersen (2010) claims livelihood outcomes are achievements of people’s strategies of livelihood. Outcomes are described by the local people themselves, in this case, people with epilepsy since they include more than the income. Petersen & Pedersen (2010) believes for outsiders it is difficult to understand what the people are seeking and why because people are often influenced by values, norms and culture. In this study, the insiders, who happen to be people with epilepsy or people who have interacted with people with epilepsy may be influenced with their culture, norms and values.

Krantiz (2001) claims the description of the sustainable framework shows that it is a systematic and holistic way of describing factors which affect livelihoods of poor people, such people with epilepsy. This framework is an attempt to understand poverty as a multifaceted concept which covers more than just economic growth. Petersen & Pedersen (2010) suggest that these factors have an impact on how people take advantage of the economic opportunities, combine assets and what livelihoods can create. Description of these different factors also show how important it is to include those that are poor, because they are the ones who have the knowledge about the content associated with each factor and how these factors affect each other in negative or positive ways. To this end, it can be noted that this framework emphasizes that other aspects are important, such as social status, health and natural resources.

2.5.1 Participation as a tool

Petersen & Pedersen (2010) claims the sustainable livelihood framework describes participation as a key tool for securing development accomplishment from the poor’s point of view. When people with epilepsy are included in the treatment process, what it means is that their life priorities in life and their understanding of valuable livelihoods are also made clearer. People with epilepsy can give information on difficult subjects about epilepsy, for instance social norms that affect access different people may have to assets, the way they value their assets or livelihoods which they pursue (Krantz, 2001). However, Petersen & Pedersen (2010) observes that the most important point in using participatory methods is that it helps in empowering locals instead for them to be dependent on help from the outside help.
When locals are included in the entire process of gathering information, in analysing the information, making choices on where to action must be taken and in implementing their plans, they are bound to gain valuable information on how they can handle it in the future themselves (Krantz, 2001). It becomes an important skill in a community when one is trying to make sustainable development.

How do psychological theories and studies on participation validate this assumption on positive effects of development work in participatory manner? Petersen & Pedersen (2010) identify two relevant factors to answer this question; motivation and commitment and utilisation of human resources. Lines (2004), a psychologist believes motivation and commitment is one of the empirically proven effects of participation because it increases motivation and commitment among people. In development work, it would entail the locals will be more motivated to make some efforts to implement activities decided and this can bring changes that will lead to more successful improvement in their livelihoods. The locals may also benefit in that due to increased commitment they can stay within the local area and help develop it instead of going outside. Glew et al., (1995) have also stressed that participation have a positive effect if people understand the purpose and also agree with change that is happening. It is very like that people with epilepsy will agree with the development that is needed especially when they are involved in the needed development. Participation can thus lead to increased motivation which then leads increased performance.

Heller (2003) has argued that another way of understanding benefits of participation is that it may lead to better utilisation of human resources, which also results in increased performance. This is supported by Petersen & Pedersen (2010) when he argues that psychological concepts such as self-efficacy and learned helplessness can lead locals in understanding how to use human resources. Better use of human resources in development work by locals is seen as a way of how local knowledge is brought into awareness (Petersen & Pedersen, 2010). When making people with epilepsy in Zimbabwe to describe what kind of strategies they employ, assets which they value and how to combine these different kinds of assets, the study is bringing local knowledge into awareness. When this knowledge is brought into awareness, this may result in more qualified decisions. However, Petersen & Pedersen (2010) believe there are some important factors to consider in the participation of individuals.
Heller (2003) suggests that for human resources to be a useful component, it is important for people to have the ability to be engaged in participation. For instance, an individual must have a positive perception about him/herself, described by Bandura (2006) as self-efficacy. Bertelsen (2005) argues that self-efficacy means whether an individual perceives him/herself as being able to contribute with valuable information. Otherwise the individual may not speak during a discussion and the information may not be revealed. Bertelsen (2005) also claims that self-efficacy may be affected with the social norms of those who are important and valued within the society. It becomes risk for people with minimal social capital to be unrepresented in the discussion because their point of view may not be represented. Narayan et al., (2000) thus emphasizes that it is critical for the voices that are important to be included in the development work since they the ones who are often affected.

2.5.2 Culture in Sustainable Livelihoods Framework

Petersen & Pedersen (2010) posit that culture plays many roles in the sustainable framework, thus influencing different components in the process as well as the interaction between them. A thorough understanding of culture becomes essential in the sustainable framework in order for the framework to be effective. Daskon & Binns (2009) observe that culture is frequently ignored in the Eurocentric strategies, yet it seen as both an inhibitor and a facilitator in development. From a psychological point of view, Heine (2001) argues that the central aspect of studying culture revolves around understanding a dialectic relationship between an individual and culture. Triandis (1993) defines culture as shared attitudes, categorisations, beliefs, expectations, roles, norms, self-definitions, values and other such elements of subjective culture that are found among people whose interaction are facilitated by shared language, geographic region and historical period. This definition gives an insight into some processes through which culture may influence individuals with epilepsy in the management of the epidemic. It is through socialisation that culture specifies a way of living which has been proven in the past.

Rothbaum et al., (2000) argues culture provides patterns of living that include attitudes, norms and beliefs that form the basis for people with epilepsy, from which these people construct perceptions about them and of their life in general. This has been reflected in the sustainable framework through the way it focuses on people as well as what matters to them. As shown in this definition, what matters to people is influenced by their culture. Culture is thus seen as a fundamental of understanding the components of the sustainable framework,
which is from the vulnerability context right through to the different capitals in the livelihood outcome. For the people with epilepsy that the study was intend to help, the components are viewed from a specific cultural stand because culture influences the individual’s perception of wrong or right, personal resources, his/her possibilities and the environmental resources.

Petersen & Pedersen (2010) suggest that being aware of the local culture as well as what it means for the local people helps in empowering them through the sustainable framework. Petersen & Pedersen (2010) posit that the most obvious impact is related to capitals or livelihood assets. As discussed in the human capital, the capital is essential in order to benefit other capitals. Further, culture plays an important role in influencing knowledge and skills that an individual is socialised with. From this analysis, it can be clearly seen that human capital is valuable for people with epilepsy and vary tremendously according to location. Recognising the knowledge and skills that traditional doctors have, this framework is supposed to assist and provide an opportunity for them to be the experts and also to use what it is they value as the starting point of securing sustainable livelihoods for people with epilepsy. Petersen & Pedersen (2010) thus claims the framework does not only benefit recognition of culture as part of the transforming process which determines access people have to assets, but it also views culture as a resource for people within this framework.

The importance of culture is confirmed by Daskon and Binns (2009) in a field work in Sri Lanka when they explore the effectiveness of cultural values in attaining livelihood sustainability in the rural areas. In their study, they demonstrate how the framework can be applied as a pragmatic approach through which cultural knowledge and the traditions can be treated as resources explicitly in the context of achieving sustainable development in the community. This argument is recognised by UNESCO (1995) when it concludes that unless economic development has some cultural basis, it cannot lead to a truly lasting development, thus culture is fundamental. This framework is people centered, and applies the principle that the locals themselves are key actors in identifying important aspects of their livelihoods, thus allowing culture to be perceived as a positive thing which can lead to creativity in the process of securing livelihoods that are sustainable. The study thus noted the recommendation by Petersen & Pedersen (2010) for culture to be made more explicit within the framework. Based on this discussion, it can be concluded that the subject of culture on sustainable development of epilepsy management is indeed a complex matter. For Petersen & Pedersen (2010), a thorough understanding of culture and how it influences individuals and various
components of the sustainable framework must be made. This study cannot ignore cultural resources or cultural differences in sustainable management of epilepsy in Zimbabwe. Petersen & Pedersen (2010) further recommend researchers to draw upon the resources of culture for development of projects, such as epilepsy management.

2.6 Justification for use of these theories in this study

Based on the discussions above, I find the following theories to be suitable in this study; Health Belief Model (HBM), the Agency Approach, Technological Acceptance Model (TAM) and Sustainable Livelihood Theory. These theories helped to justify why some people opt for indigenous practices of epilepsy management. These theories also justified why they opt for those practices and finally helped to manage the knowledge gap currently in existence on indigenous practices of epilepsy management. Below I present these theories diagrammatically.

Figure 2.4: Approaches that can influence an individual with epilepsy

At the centre is an individual with epilepsy. He/she she has various choices of treatment; bio-medication or indigenous medicines in the form of spiritual healing and traditional herbs. These theories; Health Belief Model (HBM), Agency Approach and Technological Acceptance Model (TAM) are trying to explain factors that influence an individual’s choice. The Sustainable Livelihood Framework also helps to understand the choices of an individual and further provide guidance on sustainable management of epilepsy. The Health Belief Model (HBM), described by Sharma & Romas (2012) as a psychological model which attempts to predict and explain health behaviours is a cognitive model. The behaviour of an individual is determined by a number of health threats and beliefs that he/she possesses about his/her well-being as well as the effectiveness and outcomes of particular behaviours or actions. The underlying concept of the HBM is that health behaviour is determined by
individual beliefs and perceptions about the disease and strategies that are available to decrease its occurrence. For instance, some people with epilepsy believe that epilepsy is caused by evil spirits and strategies available in some to manage the condition are traditional. In other words, personal perception is influenced by some intrapersonal factors that affect the health behaviour.

Similarly, the human agency approach has been described as the capacity for individuals to act independently as well as to make their own free choices. Metcalfe, Eich & Castel (2010) suggest that one’s agency implies one’s independent ability or capability to act on one’s will. The capability or ability is affected by one’s cognitive belief structure formulated through one’s experiences and perceptions that are held by the individual and the society. Bandura (2009) described human agency as the human capability to exert influence over one’s functioning as well as the course of events by one’s actions. Human beings construct, evaluate or modify alternative courses of action in order to gain valued outcomes and to override environmental influences. Human agency is thus an agent means that influences one’s intentionality on functioning and life circumstances.

Just like HBM and Human Agency Theory, Davies (1989) explain that the Technology Acceptance Model (TAM) helps predict the behaviour of people towards a technological innovation, particularly the acceptance of users towards information technology. This theory is a psychological theory which explains people’s actions by identifying causal connections between the various components of life such as attitudes, beliefs, intentions and the behaviours.

Finally, the Sustainable Livelihood Framework helps to understand different choices of epilepsy management by individuals with epilepsy. It goes further to understand, describe and analyse the main factors which affect livelihoods of local people, such as people with epilepsy in Zimbabwe. DFID (2000) describes sustainable livelihood as the livelihood which is comprised of the capabilities, assets that include material and social resources as well as activities that are required as a means of living. A livelihood is thus sustainable when it copes with and also recovers from shocks and stresses maintaining and enhancing capabilities and assets, while at the same time not undermining the natural resource base. This framework has also concluded that the subject of culture on sustainable development of epilepsy management is indeed a complex matter. A thorough understanding of culture and how it
influences individuals and various components of the sustainable framework must be made. This study cannot ignore cultural resources or cultural differences in sustainable management of epilepsy in Zimbabwe. Petersen & Pedersen (2010) further recommend researchers to draw upon the resources of culture for development of projects, such as epilepsy management. In conclusion, it can be noted that these theories helped to understand why some individuals opt to use traditional medicines when western medicines are available at hospital centres. They also assisted in understanding the knowledge gap on traditional medicines in epilepsy management.

2.7 Chapter Summary
This chapter was dedicated to the theoretical framework that was used in exploring the indigenous technologies in sustainable management of epilepsy in Zimbabwe. The researcher explored the following theories; the Health Belief Model (HBM), the Agency Framework, the Technological Acceptance Model (TAM) and the Sustainable Livelihood Theory. The researcher also justified the use of these theories in this study. In the next chapter, I take a look at global perspectives in epilepsy management.
CHAPTER THREE: GLOBAL PERSPECTIVES ON EPILEPSY MANAGEMENT

3.1 Introduction
In this chapter the study will carry out an overview of the global perspectives in epilepsy management. The study reveals that in ancient history, epilepsy was thought to be a spiritual condition since time immemorial. The author will examine the perception of the Central and South America groups who still associate epilepsy with evil spirits and witchcraft. Some Asians too, have disregarded the western concept of epilepsy management in spite of the substantial economic development and improvement in health services and analysis will be carried out on their perceptions towards the causes and treatment of epilepsy. In Africa, the reaction to epilepsy has been described as being shaped by traditional beliefs surprisingly similar to each other. The study thus examined the general belief that epilepsy is a supernatural cause and therefore not treatable with bio-medication. These non-western perspectives seem to differ with the western approach to epilepsy management, which include pharmacological treatment, therapeutic drug monitoring and patient education and counselling. The study will also analyse challenges associated with these western approaches in so far as the general side-effects associated with the drugs, psychological, social and economic challenges associated with the bio-medication are concerned.

3.2 Evolution of epilepsy
The word “epilepsy” is derived from the Greek word *epilepsia* which means to take hold of or to seize (Tuan, 2010). Jankovic et al., (1996) further state this meaning is very close to what Babylonians believed was the cause of epilepsy. They used the verb *sibtu* to denote epilepsy and practically this means being seized. In other, words one could say the traditional definition of the word epilepsy means to be seized. Tuan (2010) emphasized that these epileptic seizures were believed to begin with the possession by a demon ending when the demon has departed the body. What it means is that the ancient people were convinced that a person under seizure was spiritually possessed.

Saraceno, Avanzini & Lee (2005) and Tuan (2010) highlight that the oldest medical records indicate that epilepsy has continuously affected people since the beginning of the recorded history. They further indicate that throughout the ancient history, epilepsy was thought to be a spiritual condition. The world’s oldest description of an epileptic seizure is derived from a
text in *Akkadian*, an extinct language that was spoken in ancient *Mesopotamia* (present day Iraq) and was written around 2000BC. According to Magiorkinis, Kalliopi & Diamantis (2010) the person described as being epileptic in the text was diagnosed as being under the influence of a Moon God, and went under an exorcism. Jacobs and Louis (1999) describe exorcism as a religious or spiritual practice of evicting demons or some other spiritual entities from an individual or an area they are believed to have possessed.

Saraceno, Avanzini & Lee (2005) reiterates that the oldest known detailed record of epilepsy is found in the Babylonian medical text from 1067-1046 BC. Babylonia is an ancient cultural area based in central-southern Iraq. Magiorkinis, Kalliopi & Diamantis (2010) pointed out that this record gives signs and symptoms as well as details of treatment and the likely outcomes. In other words, this record describes many features of different types of seizures. However, Saraceno et al., (2005) and Magiorkinis, Kalliopi & Diamantis (2010) observe that Babylonians did not have a biomedical understanding of the nature of this disease and consequently attributed these seizures as possession by evil spirits and thus treatment was offered through spiritual means.

Around 900BC, one Punarvasu Atreya described epilepsy as loss of consciousness (Mervyn & Bladin, 2001). However, the ancient Greeks had contradictory views on this definition. They insisted epilepsy as a form of spiritual possession and also associated the condition with genius and divine (Magiorkinis, Kalliopi and Diamantis, 2010 and World Health Organisation, 2011). The Greeks believed important figures like Julius Caesar and Hercules had the disease. In other words, the Greeks had no hard feelings towards all people with epilepsy as they felt some of those people with epilepsy were genius.

Notable exception to this thought of spiritual and divine view was the school of Hippocrates who rejected the idea that epilepsy was caused by evil spirits. Hippocrates was a Greek physician and is considered as one of the most outstanding figures in the history of medicine. Saraceno et al., (2005) and Magiorkinis, Kalliopi & Diamantis (2010) contended that Hippocrates proposed that epilepsy was a medically treatable problem that originates in the brain. Hippocrates also accused those who were attributing a sacred cause to epilepsy as ignorant through a belief in superstitious magic. He believed heredity was an important cause, described the outcome to be worse if presented at an early age and noted physical characteristics and social shame associated with epilepsy (Magiorkinis et al., 2010). Unlike
the Babyloans and Greeks who were referring the disease as sacred disease, Hippocrates referred to it as the great disease. However, in spite of his effort detailing the physical origins of the disease, his view was not accepted at the time (Saraceno et al., 2005). Evil spirits continued to be blamed for epilepsy.

Mervyn & Bladin (2001) state that in Ancient Rome people could not eat or drink in the same pottery with someone infected with epilepsy. Jilek-Aall (1999) also explains the trauma that people with this disease have suffered. According to him, in many cultures people with epilepsy have been stigmatized and shunned. Jilek-Aall (1999) provided a case by Jean-Martin Charcot, French Professor who discovered people with epilepsy under imprisonment and in another study were he discovered people with epilepsy seating side-by-side with the mentally ill, those with chronic syphilis and the criminally insane. According to Judika (2011), epilepsy in Ancient Rome was known as the assembly hall and seen as a curse from the gods. Judika (2011) also claims in northern Italy, epilepsy was traditionally known as Saint Valentine’s malady. The attitude of people towards epilepsy was and in some parts of the world is still shaped with these traditional beliefs.

Tuan (2010) explains that the work of the 19th century neurologist; John Hughlings Jackson marked the beginning of modern era treatment of epilepsy. Jackson in Tuan (2010) defined a seizure as an occasional, excessive and disorderly discharge of tissue on muscles. Jackson (1876) in Tuan (2010) recognised the association between these clinical seizure manifestations as well as their origin in the brain. Jung and Berger (1979) in Tuan (2010) further recalls another major contribution by a German psychiatrist Hans Berger, who in 1929 showed that it is possible to record from the surface skull electric currents generated in the brain. He named this form of recording electroencephalogram (EEG). Subsequently, it was demonstrated that there could be changes in the EEG during or between seizures in people with epilepsy (Tudor, Tudor & Tudor, 2005).

In London, Shorvon (2014), Sander, Barclay & Shorvon (1993), Lorch (2004), Silvester (2009), Rose (2010) and Stone (1999) report an evolution of epilepsy theory and practice in between 1860 and 1910. Amongst the reported contributions towards epilepsy were the following; the development of the physiological structure theory of the nervous system in relation to epilepsy, investigation and demonstration of cortical localization of the epileptic activity, principle of focal epilepsy establishment and focal seizure types description, the
discovery of bromide as the first effective drug treatment for epilepsy and the first surgical operation for epilepsy. Perucca & Gilliam (2012) support bromide as the first effective anti-seizure medication. Another modern treatment known as Phenobarbital was developed in 1912 followed by Phenytoin in 1938 (Caravat, 2004). Since then, several anticonvulsant drugs have been manufactured and they are on the market.

Nevertheless, these have continuously been referred to as “Western practices” in some non-western countries that are particular about their traditional knowledge. Despite the reported progress in London the supernatural views of epilepsy continue to dominate the perceptions of people towards the causes of epilepsy. For epilepsy treatment, many people especially those in non-western countries remain deeply rooted in spiritual and traditional medicines. Temkin (1971) admits that the Hippocratic concept had little influence on the prevailing supernatural view of epilepsy. Tuan (2010) further posited that the attitudes of past societies towards epilepsy left a legacy of stigma and damaging misconceptions which still persist today. People with epilepsy have continued to face fear, prejudice as well as discrimination in their everyday lives. What then is the current understanding of epilepsy in non-western contexts?

3.3 Understanding epilepsy in non-western contexts

Epilepsy is one of the main leading brain disorders in developing countries. According to WHO (2004), it is estimated that about 80% of people who suffer from epilepsy around the globe reside in developing countries such as Africa. Present statistics also support the notion that developing countries are the most affected with the epilepsy. Forsgren et al., (2005) and Theodore et al., (2006) estimate the lifetime prevalence rate of epilepsy to be at 3.5 to 10.7 per 1 000 years in developed countries. In Asia, Mac et al., (2007) state the lifetime prevalence rate to be varied from 1.5 to 14 per 1000 person-years whereas Burneo et al., (2005) estimated the lifetime prevalence rate in Latin America to be at 5.1 to 57.0 per 1000 person-years. In the Sub-Saharan Africa, Preux & Druet-Cabanac (2005) provided an estimation prevalence rate of 5.2 to 74.4 per 1000 person-years.

From the foregoing, it can be noted that the highest numbers of people who suffer from this disease are from Asia, Latin America and Africa as compared to developed countries. With this development, de Bittercourt et al., (1996) query the broad variations and suspects the environmental regions are attributable to the varying definitions of epilepsy. They also
believe the broad variations are linked to poverty, poor sanitation, illiteracy, birth-related trauma and inaccessibility to healthcare. According to WHO (2004), cultural interpretations have contributed to the exclusion of epileptic patients from educational or productive fields and consequently aggravating the burden which they face resulting in a treatment gap estimated to be at 80%. The treatment gap, as defined by Meinardi et al., (2001) depicts the difference between the number of people with active epilepsy and the number whose seizures are being appropriately treated in a given population at a given point in time, which is expressed as a percentage.

3.4 Epilepsy in Central and South America Communities

Carod-Artal & Vazquez-Cabrera (2007) observe that beliefs about epilepsy in Central and South America communities differ from those observed in other cultures, such as African and Asian. They report epilepsy to be a well-recognised disease in pre-Columbian cultures as chronicled by the Spanish in the sixteenth century. According to Carod and Domenech (1995), some Central and South America societies’ beliefs are deep rooted in the traditional medical system whose knowledge is orally transmitted. This study relies on three different community groups; Maya Tzeltal community of Mexico, Kamayaru people of Brazil and Uru-Chipaya of Spain.

3.4.1 Epilepsy in the Tzeltal Maya community of Mexico

This ethnic group is one of the most deeply traditional groups from Central America and Carod-Artal & Vazquez-Cabrera (2007) observe that the geographic location is in an isolated mountainous area, an ancient social structure and the religion is not yet influenced by the western culture. In Tzeltal language, epilepsy is called tub tubik’al and literally it means a person that breathes anxiously or shockingly (Reis, 1994). In this traditional group, epilepsy is not considered an inborn disorder, but it is thought it is acquired most times during adult life and stay in the blood.

Carod-Artal & Vazquez-Cabrera (2007) further state that the magical and religious conception in this culture is that epilepsy is derived from a religious system based on nahualism, a set of millenarian traditions that is present in most Meso-American cultures. They believe that nahul or an accompanying spirit is assigned to each man at birth. These nahuals live in the sacred mountains and they do share their destiny with man. According to Carod-Artal & Vazquez-Cabrera (2007) these animal spirits can be a jaguar, a puma,
sparrow-hawk among some other animals depending on social or religious of the person. Carod-Artal & Vazquez-Cabrera (2007) pointed out that *nahuals* of the evil forces teach the person accompanying animal spirit the secrets of witchcraft and on the other hand, the *nahauls* of good forces should avoid it. The person’s animal accompanying spirit acquires some knowledge about witchcraft for life in the event that he survives in this fight.

According to Carod-Artal & Vazquez-Cabrera (2007) a person can be attacked during his life time by other *nahuals* or spirits in the sacred mountains and this myth is the origin of epilepsy for the Tzeltal natives. This conception of epilepsy is common among many groups in Central and South America. During daily activities, Tzeltal people may suffer an epileptic attack. They believe the home as a spiritual refugee for the Tzeltal natives because they assume it is a place where protection against the disease exists. They also believe the *nahaul* go to heaven to a place called *atilmatik* at the middle of each year (Carrazana et al., 1999). They are also convinced there is an elderly man who lives in heaven who has a book of the active life for the Tzeltal people (Carod-Artal & Vazquez-Cabrera, 2007). If the name of a person disappears from this book, what it means is that the person will die and this situation is thought to occur in persons with epilepsy.

The Tzeltal people believe that epileptic seizures are as a result of some attack that is suffered by the accompanying animal spirit of the individual after a fight that happens between the *nahauls* or spirits that serve forces of good and those that serve to the evil (Carrazana et al., 1999). The Tzeltal believe in *nahualism* a person who chronically suffers epileptic seizures is a wizard within the community. Although this condition has no cure, they think it can be improved. A combination of two herbs called *kaxlamtunim* and *cheneh pox sbil* can be used to treat seizures (Traore et al., 1998). These dry and worn grains and seeds of both plants are mixed and diluted in cold water, daily, during one week (Carod-Artal & Vazquez-Cabrera, 2007). This clearly demonstrates the knowledge, attitude and practices of the Tzeltal people towards epilepsy. They harbour traditional belief towards the causes and treatment of epilepsy.

### 3.4.2 Epilepsy in the Kamayura community of Brazil

Carod-Artal & Vazquez-Cabrera (2007) state this tribe is located in Brazil and epilepsy in this tradition is called *teawurup*. In this tradition, neurological diseases are thought to be caused by the revenge of the spirit of an animal killed by a Kamayura hunter or fisherman (Traore
et al., 1998). According to the ancient tradition, if a Kamayura man hunts an animal, the spirit of that animal will remain loose and try to take revenge of its assassin. They think the animal spirit may attack the Kamayura hunter when he is asleep and dreaming. As a consequence, the hunter suffers some seizures (Carod-Artal & Vazquez-Cabrera, 2007).

Epilepsy also happens in young and elderly people. It is characterized by recurrent episodes of sudden falls, a tonic-clonic movement of limbs and emission of saliva by the mouth. Epilepsy may also happen to children and in this case it is thought the father of the child could have killed an animal called armadillo and this spirit will be attacking the child during his dreams (Carod-Artal & Vazquez-Cabrera, 2007). For that reason, nobody in this tradition wants to hunt or eat armadillo. This is the origin of the epilepsy taboo in Kamayaru. Epilepsy is treated with two plants called tsimo and wewuru whose roots are kneaded and diluted in non-boiling water for four hours (Carod-Artal & Vazquez-Cabrera, 2007). These are then applied in the eyes of the patient several times for three days. These roots can also be boiled and ingested to induce vomiting as it is thought that the vomit therapeutic properties treat epilepsy. Another common treatment is the infusion of root called enamuan which is cooked and then taken for ten days, four times a day (Carrazana et al., 1999). For children, they are treated with sap of a plant called kamarapalap applied on the skin of the boy and by means of series of prayers made when applying the potion (Carod-Artal & Vazquez-Cabrera, 2007). The patient should also fulfill a diverse of other rules during the therapeutic phase. He cannot eat monkeys, motum (type of wild hen) or any type of fish. It is only when he is cured that he can eat these forbidden foods.

3.4.3 Epilepsy in the Uru-Chipaya community of Spain

Epilepsy in this tradition is called tukuri and it is believed the origin of epilepsy is a witchcraft which enters the nose and the head as a wind (Carod-Artal & Vazquez-Cabrera, 2007). It remains inside the bones, muscles or sometimes within the head. The worst attack usually happens when a person falls down to the ground like a dead person. These attacks are believed to be caused by various causes. Some of these seizures are related to domestic violence or family mistreat. Some believe epilepsy is caused by sleep deprivation. Childhood epilepsy is explained as Chipaya mothers who strike their children until they lose their consciousness (Carod-Artal & Vazquez-Cabrera, 2007).
Epilepsy can be treated by eating a wing-ant called *curupancho*. This is an insect that appears in the rainy days. That insect is caught, dried, milled and poured down in a cup with boiled water. The patient should take this warm water every night, on Tuesday and Friday for three days. These days are considered as magic, sacred and ceremonial days for the Uru-Chipaya people. There is also a butterfly called *jesko* that appears during rainy days that can be used to treat epilepsy. Eating a pigeon is another popular treatment for epilepsy. The Chipaya people cut its head and drink the blood in order to treat epilepsy (Carod-Artal & Vazquez-Cabrera, 2007).

3.4.4 Epilepsy perspectives in some tribes of Central and South America
From the foregoing, it can be noted that epilepsy is associated with supernatural powers in some tribes of Central and South America. Consequently, they prefer indigenous practices of epilepsy management even if bio-medication is available. The treatment gap in these tribes of Central and South America is failing to take into consideration the cultural environment of people with epilepsy and consequently, they shun bio-medication. In the next section, I take a look at epilepsy in South East Asia.

3.5 Epilepsy in South-East Asia
Ismail et al., (2003) posit that the most commonly used term for epilepsy in South Asia is *mirgee* which means ‘fit’ but explain that this has a very negative connotation. In spite of the substantial economic development improvement of health in services, studies have shown that Asia as whole remains a heterogeneous and resource constrained continent. Mac et al., (2007) observe that more than 50 million of people with epilepsy in the world are estimated to be in Asia. Yang et al., (2007) observe some biological differences in epilepsy between the Asian and the West which partly explains why smaller doses of antiepileptic have been found to be ineffective some trials involving these Asians. Tan (2007) believes the climate differences related to encephalitis and malaria also explain the causes of many acute symptomatic seizures in some parts of Asia, particularly in Japan. Several studies that have been conducted on the knowledge and attitudes of the Asian community towards people with epilepsy and they reflect that many communities remain negative towards people with epilepsy (Mac et al., 2007). A third to half, particularly in the Chinese community thinks that a person with epilepsy cannot work like any other person. In this study, I examine epilepsy in South East Asia; India, Sri Lanka and Nepal.
3.5.1 Epilepsy in India

A study on the interplay between epilepsy and religion in India by Khwaya, Singh & Chaundry (2007) shows India is equally affected with social/religious beliefs and superstitions about epilepsy. Their study shows that some patients attribute epilepsy to the curse of God, bad deeds in current or past life. Epilepsy is also regarded as contagious by some people and Khwaya; Singh & Chaundry (2007) observe that after the onset of epilepsy some patients became more religious. In a similar study, Ismail et al., (2005) observe that the belief that epilepsy is caused by the spirit possession is widespread amongst the Indians. They also note that some Indians have attributed epilepsy to sins committed in a past life. Some Muslims believe epilepsy is caused by spirit possession and many have attributed it to the will of Allah. Hindus and Sikhs believe sins committed in the past life cause the condition.

In epilepsy management, some end up consulting priests, some wear amulets to ward off evil spirits, and some organize special prayers in the hope of a cure (Khwaya, Singh and Chaundry, 2007). There are also reported cases of sacred dreams and to this end, Khwaya et al., (2007) are of the view that epilepsy and religion are interrelated. In their study, they also observe that about one third of people with epilepsy had sought for spiritual healing before seeking medical help. Carrazagna et al., (1999) states that people with epilepsy have explained their seizures as religious experience. Sparting (1904) in Khwaya et al., (2007) have reported sudden religious conversions in patients with epilepsy.

A study by Ismail et al., (2003) discovered that many people with epilepsy sought help from traditional healers rather than anti-epileptic drugs. Most respondents in the study indicated that they had made use of two forms of traditional South Asian therapy; religious healing and herbal treatment. Religious healing involves consultations with pirs (for Muslims) and gurus (for Hindus and Sikhs). Epileptic patients are required to drink blessed water or to recite from holy texts. Muslims are required to wear an amulet containing verses from the Koran. Some people with patients visit herbal practitioners for alleviation or cure of epilepsy. Khadilkar (2013) explain that a large proportion of people with epilepsy are failing to get treatment India due to various factors that include non-availability of anti-epileptic drugs, faith in alternative treatments, superstitions and cultural beliefs. As such, Khwaya et al., (2007) and Ismail et al., (2005) conclude that religious beliefs and superstitions regarding epilepsy are still very high in the Indian culture. This has been attributed to poor socio-economic status,
ignorance, illiteracy and cultural factors that play a pivotal role in fostering such beliefs. However, the authors agree that religious beliefs are not maladaptive.

3.5.2 Epilepsy in Sri Lanka

Seneviratne (2002) report a significant number of people in Sri Lanka believe and have tried religious and spiritual healing for epilepsy treatment. Muslims think that prayer has the power to heal many ailments, epilepsy included. In a similar study in Sri Lanka, Padmamali et al., (2005) observed that 41.5% among rural Sri Lankans had resorted to spiritual healing methods because they have a strong belief in those methods. According to a report by the World Health Organisation (2013), some communities in Sri Lanka continue to perpetuate many myths and misconceptions about epilepsy. It is thought epilepsy is a punishment of evil deeds and breaking some taboos.

A report by WHO (2013) emphasized that the strange epilepsy behaviours exhibited by people with epilepsy have led some people in Sri Lanka to a common rural belief that epilepsy is due to possession of spirits. In some parts of Sri Lanka, people who believe in these supernatural powers offer worship and animal sacrifice. It is believed the person with epilepsy should be taken to the sorcerer and have those spirits exorcised. Some believe that a patient having a seizure should not be touched or else the disease will be passed on to you and that women with epilepsy cannot bear children, as such they should not marry.

Scott, Lhatto and Sander (2001), Shorvon and Farmer (1998), Wang, Wu and Wang (2003) and Coleman (2002) support the notion that fear of stigmatization resultant from cultural beliefs contribute to the treatment gap among people with epilepsy. They also identify lack of knowledge and illiteracy as some of the factors that contribute to the treatment gap. However, some myths associated with epilepsy to the effect that women with epilepsy cannot be married are described as a major challenge in Sri Lanka.

A study by Gamage (2004) in Sri Lanka found out that marriage is most often an arrangement between the parties. Gamage (2004) further state that most men are not willing to accept proposal from a girl with epilepsy. Once a history of epilepsy against the girl is established this often results in breaking proposals. Consequently, women with epilepsy remain single. If epilepsy is concealed and subsequently exposed during the marriage, the wife is ill-treated or sent back to her parent’s home. These women with epilepsy are often beaten and suffer a
divorce by their husbands. Gamage (2004) further asserted that epilepsy is a legal and valid reason for divorce in this country. There is also misconception that women with epilepsy cannot bear children. The majorities of women with epilepsy also come from lower socio-economic backgrounds and have very little formal education. According to Gamage (2004), they are not skilled and also have great difficulty in finding suitable employment.

3.5.3 Epilepsy in Nepal
Nepal, also located in South East Asia is multi-religious and multi-ethnic in its population structure consisting of the Hindus, Buddhist among some others. According to Rajbhadhari (2004), the practice of traditional treatment of epilepsy is common among all the Hindu castes as well as Buddhists in Nepal. The Nepalese have a strong belief in the super natural origin of epilepsy. They are also strongly aligned to the various methods that are used to protect people with epilepsy from evil spirits or ghosts as well as to appease or appeal to the gods for help. Finkenbine et al., (1996) also report that it is more convenient to visit a traditional healer than to go for health medication. Indigenous healers also make house calls to treat people with epilepsy. Rajbhadhari (2004) attributed the frequent visit to traditional healers to the low numbers of doctors in the country.

Sharma (1996) state that a study on 150 traditional healers proved that they are very influential and they are usually the first point of contact for any health problem in the rural population as well as some people in the urban set-up. It was discovered that traditional healers used a variety of methods to treat fainting attacks, and this include sprinkles treated water over the forehead. Some use herbal medicine, casting anti-spell water for patients to drink, and inviting god to come by offering puja (Sharma, 1996 and Rajbhadhari, 2004). Dizziness is considered as a manifestation for possession of people with epilepsy. Rajbhadhari (2004) state that a number of methods are used to treat the possession attack and this include jharphuk, herbal medicine, inviting god to come through puja, and wearing amulet. Rajbhadhari (2004) recommends reinforcement of traditional technologies in anticonvulsant treatment as he believes this may be helpful in improving treatment compliance.

3.5.4 Epilepsy perspectives in South-East Asia
From the foregoing, it can be noted that communities in the southern-east part of Asia continue to perpetuate traditional beliefs about epilepsy (WHO, 2013). Epilepsy is frequently
thought to be a punishment for evil deeds. In some cases, it is viewed as causation for breaking certain taboos. These traditional beliefs prevent people with epilepsy from seeking bio-medication. The strange behaviours exhibited by people with epilepsy during the convulsion stage have led them to believe that they are possessed by evil spirits (WHO, 2013). WHO (2013) also report that in some parts of India, Sri Lanka, Nepal and Thailand people who believe in supernatural powers offer worship and animal sacrifice. In Bangladesh, people in the rural community consider epilepsy to be a spell from Satan locally known as batash (bad wind) whilst in some parts of India, attempts have been made to exorcise evil spirits from people with epilepsy. In Indonesia, epilepsy has been considered as punishment from unknown dark forces. To this end, it can be concluded that indigenous practices play an important role in managing the condition of people with epilepsy. Rajbhadhari (2004) is justified for recommending reinforcement of traditional technologies in anticonvulsant treatment as he believes this may be helpful in improving treatment compliance. In the next section, I now take a look at epilepsy in Africa.

3.6 Epilepsy in Africa

Is epilepsy truly an African ailment? This is an interesting question that is posed by Bhala et al., (2014) in a study on the comparison of epilepsy in Africa versus Asia. They were motivated to carry out this study because, “international health agencies often refer to epilepsy as an African disease and the scientific literature has spoken the same tone” (Bhala et al., 2014:01). Indeed, for many Africans, the reaction to epilepsy is shaped by indigenous beliefs surprisingly similar to each other one way or the other. In some studies, it has been suggested that modern treatment is sometimes unavailable and there is a general belief that epilepsy is a supernatural cause and therefore not treatable with biomedical approaches.

The sudden onset impulsive behaviour associated with bursting seizures makes the epilepsy sufferers visible and as if they hold eccentric power (Jilek et al., 2007). This provokes the powerful panic for those present and is most likely much to do with the responsible belief that this disease is caused by evil spirits or supernatural forces. Carod-Artal & Vazquez-Cabrera (2007) state that Africa is a diverse continent which represents people from diverse cultural backgrounds and there is a widely held notion that epilepsy is caused by evil spirits. The authors also report that these beliefs include witchcraft and contagious fears from bodily secretions, that is, saliva or urine that potentially transmits seizures to by standers. This study
provides a comprehensive analysis of epilepsy in Sudan, Nigeria, Ghana, Zambia and Ethiopia.

3.6.1 Epilepsy in Sudan
Al-Safi (2007) state some Sudanese believe there is one Supreme Being who manages human life through a number of euro spirits living in the next world. It is believed this Supreme Being acts through the mediums on earth. Al-Safi (2007) argues that epilepsy is strongly believed to be afflicted to these spirits. He identifies tribes such as the Dago in the Nubba Mountains of Sudan, the Mundari tribe in the Southern Sudan, the near and Danka as all affected by this Supreme Being belief. A study by Mohammed & Babikir (2013) on traditional and spiritual medicine among Sudanese children also agrees with Al-Safi (2007) perception that Sudanese have a strong spiritual belief in African medicine.

In their findings Mohammed & Babikir (2013) observed that about 90% thought epilepsy as an untreatable and contagious disease. They also discovered that about 70.5% had used traditional and spiritual medicine for epilepsy treatment. Mohammed & Babikir (2013) also observe that the common spiritual technique used by the Sudanese is incantations (46.6%), spitting cure (37.2%) and the ritual incensing (36.7%). The Sudanese also use herbs, black cumin commonly referred in their language as novellasativa and olive oil. Interestingly, about 42.5% indicated that they had started traditional or spiritual treatment before seeking medical advice. However, only 2.4% reported stopping the medical treatment as advised by traditional healers. The study also revealed that about 43.3% were convinced that spiritual or traditional treatment was effective in epilepsy management with 60 % indicating there was no difference. Mohammed & Babikir (2013) also observed that even though the majority of these Sudanese patients were on medical treatment, they were also using traditional and spiritual methods as well. To this end, Mohammed and Babikir recommend traditional and spiritual methods in epilepsy management.

Patterson (2014) also report that epilepsy may not be recognised as a medical condition because there is a widely held belief that seizure disorders are caused by evil spirits and that epilepsy is contagious. Robinson (2016), Newman (2011) and Pandey (2012) blame this cultural belief for the treatment gap of epilepsy in Sudan. What it shows is that a large sector of the Sudanese population believes in traditional and religious medicine. Al-Safi (2007) reiterated that in spite of the reported and unreported complications of these traditional
medicines, the Sudanese people continue to seek help from traditional healers regularly and they confide in them, respect them and hold them in high regard. According to WHO (2002), in spite of the increasing health facilities and health caregivers, the belief in supernatural existence is widely believed by the Sudanese among the illiterate and the well educated people. In the next section, I take an overview of epilepsy in Nigeria.

3.6.2 Epilepsy in Nigeria

Studies on epilepsy and traditional beliefs have been carried out in Nigeria for some time. In 1970, in a study on people with epilepsy in Nigeria, Osuntokun and Odeku (1970) discovered that they suffered psychosocial hardships because they considered epilepsy to be a social disgrace. A 1985 study by Awaritefe, Longe and Awaritafe (1985) in the Bini tribe of Nigeria showed that epilepsy was believed to be a disease in which the heart gets blocked by foam, consequently restricting circulation which results in seizures. A study conducted on the literate population in Nigeria also confirmed witchcraft as the second most-often-mentioned cause of epilepsy (Awaritefe, Longe & Awaritafe, 1985). In another study, Awaritefe (1989) reported that epilepsy was believed to be contagious and this was popular even among medical school students. In spite of the “bring epilepsy out of the shadow” campaign which has been instituted by the World Health Organisations and other organisations to try and educate communities on modern era medication, it appears the Nigerians still have a strong belief in indigenous and spiritual modes of epilepsy management.

A recent study on knowledge, attitude and perception towards epilepsy among medical students in Uyo, Southern Nigeria by Ekeh & Ekripo (2015) shows that Nigerians still harbour traditional beliefs on the causes and treatment of epilepsy. In this study, about 26.44% students affirmed that epilepsy is transferable. Some students (22.31%) believed epilepsy is contagious with 24.79% indicating saliva as a route of transmission. About 38.02% reported blood as a route cause for epilepsy. Shorvon (1990) also state that the traditional African belief about epilepsy in Nigeria is that it is a spiritual disease that is caused by evil spirits, witchcraft and excessive palm. Interestingly, medical students were supportive on this traditional African belief irrespective of the clinical exposure that the students had. Osuntokun (1978), Sanya et.al., (2005) and Tekle-Haimanot, Adebe & Forsgren (1991) all agree with the findings by Ekeh & Ekripo (2015) that the belief among many Nigerians is that epilepsy is a contagious disease and its routes of transmission are saliva, urine, blood and even faeces. In their findings, Ekeh & Ekripo (2015) also state that some
students did not know anti-epilepsy medication, but rather indicated traditional and spiritual medicines as options for epilepsy treatment.

In another study on knowledge, attitude and beliefs about epilepsy among adults in Northern Nigerian community by Kair et al., (2005), findings revealed that some participants harboured the belief that epilepsy is caused by evil spirits and the majority (47%) opted for spiritual medicine. Kair et al., (2005) points out that many Nigerians think that epilepsy is caused by possession of evil spirits. They also state that this belief to large extent cause people with epilepsy to seek assistance from traditional healers and Christian healers. However, from their findings, spiritual healing was the most preferred mode of treatment.

In a study on epilepsy prevalence, potential causes and social beliefs in Ebonyi State and Benue State in Nigeria, Osakwe, Otte & Alo (2014) discovered epilepsy is believed to be caused witchcraft. Participants in the study also revealed that epilepsy is transferred from parents to their offspring, is caused through transmission of the blood and is also contagious disease. The study also revealed that some participants believed if you inherit property from someone who suffered from epilepsy you will also suffer from epilepsy. Epilepsy is prevented if a native medicine man performs burial rites for the dead person with epilepsy, takes away his/her property and burn it. People in the study area also believe that burial of people with epilepsy should be done far away from home to prevent those alive from getting the disease. The study also showed epilepsy can be treated through modern and traditional methods though the majority indicated they preferred modern medicine. Some of the identified practices towards epilepsy were that people should not eat together with, or sleep together with and wear the same clothes with people with epilepsy. Treatment of epilepsy includes making of scarification marks and the application of ashes of burnt wall-gecko (lizard) to these marks (Osakwe et al., 2014).

Onyacho & Ibli (unpublished) believe epilepsy is used as a mode of revenge among Nigerians. In a case study on the Becheve people of Northern Cross River in Nigeria, the authors highlight that if a client wants to seek revenge, he approaches a traditional healer, and is asked to bring a cock, two bottles of beer and five thousand naira. Onyacho & Ibli (ibid) state that a concoction is then prepared after prayers from the community. A particular leaf is also used while preparing the charm and the client is then asked to mention where and how the epilepsy charm will attack the victim. The client can tell the charm to throw the victim
either inside water or fire and he/she is given the charm. He/she is then asked to place the charm on a road junction with a statement for the charm to work against the person to be attacked wherever the person is staying. This may sound to be draconian or primitive, but Onyacho & Ibli (ibid) strongly believe this is effective against people with epilepsy. From the foregoing, it can be deduced that Nigerians strongly harbour traditional and spiritual perspectives towards epilepsy.

3.6.3 Epilepsy in Ghana

In a study on the experiences of people living with epilepsy in Ghana, Deegbe (2015) discovered that the majority of participants strongly believe epilepsy is linked to a spiritual cause. Participants in the study indicated that they had consulted spiritualists and pastors who proclaimed that their condition was due to evil spirits. Some Ghanaians also harbour the traditional African belief that epilepsy is caused by someone with evil intentions against a person with epilepsy who can indirectly inflict him/her with epilepsy spiritually due to envy. De Graft Akins et al., (2012) depicts that certain Ghanaian traditional and cultural beliefs on chronic illness such as epilepsy are attributed to spiritual causes such as witchcraft, sorcery and evil work of the devil.

In a study of beliefs on epilepsy in Northern Ghana, Adjei et al., (2013) made some interesting findings which they expressed as horrific perceptions. Epilepsy is believed to be caused by harbouring anal worms in males. They also discovered that a greater proportion of the population is still much attached to the perception that spirituality is the cause of epilepsy. It is widely believed that in Northern Ghana adulterous women have epilepsy as punishment and alternating hot with cold baths can be a cure for epilepsy. In another study on knowledge, attitude and practice of epilepsy in a literate population, Nyame & Biritwum (1997) report that more than one quarter of the literate urban people in Ghana attribute epilepsy to witchcraft or similar causes. They discovered that traditional beliefs and attitudes about epilepsy are still held firmly by the adult working population. Some participants in the study indicated that epilepsy is caused by witchcraft and that they use herbs or consult priests to treat epilepsy. What it shows is that both the literate and the illiterate have positive perceptions towards traditional African perspectives on epilepsy. From the foregoing, it can be concluded that the majority of Ghanaians harbour the perception that epilepsy is caused by evil spirits, can be treated with traditional herbs or prayers. The Ghanaians, like the Nigerians
and Sudanese also believe the traditional mode of epilepsy treatment is more useful in epilepsy management.

### 3.6.4 African Perspectives on epilepsy management

For many Africans, the reaction to epilepsy is shaped by traditional beliefs surprisingly similar to each other one way or the other. This study only looked at epilepsy in three countries; Sudan, Nigeria and Ghana but several other countries in the continent share similar beliefs. In Uganda, for instance, Andermann (2011) state the belief is that epilepsy is caused by a lizard spinning around in circles in the head, thus disturbing the brain resulting in dizziness, which is usually followed by a seizure. For Malawi, Andermann (2011) report epilepsy is believed to be caused by an insect moving inside the stomach. In Swaziland, sorcery is believed to be the causation sending evil animals and spirits into the body, resulting in convulsions (Andermann, 2011). In Zambia, Birbeck (2000) also notes that some people with epilepsy receive treatment from traditional healers.

In Tanzania, Jilek-Aall (1999) contends that epilepsy has been thought as being caused by spirits and witchcraft. He also states that when combined with Christian missionary teaching, these beliefs may cause it to be seen as punishment or result of possession by demons. Matuja and Rwiza (1994) observed that many Tanzanian high school students thought epilepsy was contagious, but only a few mentioned witchcraft as a cause of epilepsy. Jilek (1979) suggests that since ancient times a connection between the phases of the moon and convulsive attacks has been made and it is still believed that it is either the new or the full moon that directly influences and provokes seizure activity. Social stigma is attached to epilepsy in Africa.

As observed by Artal & Vazquez-Cabrera (2007), people with epilepsy in this continent are usually stigmatised and in some countries pronunciation of the word epilepsy is a taboo. Jilek, Aall & Jilk (1989) observe that suffering from epilepsy in the continent implies suffering from a psychological or social trauma. Eventually, people who suffer from the disease are forced to change the way they perceive themselves within the family unit. In some communities it is also believed that epilepsy is contagious or caused by supernatural powers resulting in people with epilepsy being shunned and feared by fellow man and they are themselves ashamed and frightened.
Diop et al., (2003) suggests that these indigenous beliefs contribute to the under-utilisation of medical health facilities, discrimination and social isolation. According to WHO (2004), preventable causes of epilepsy have been launched in Africa and these include infectious disease, insufficient prenatal care, head trauma and consanguinity. Diop et al., (2003) posit that the Global Campaign was launched in 1997 in order to bring epilepsy out of the shadows and its main objective was to reduce the treatment gap, the social and physical burden, to educate health personnel, to dispel stigma and support prevention. However, the treatment gap is failing to take into consideration the cultural environment, a knowledge gap this study seeks to cover.

Education and information about the community is important in order to empower people with epilepsy to make informed choices. Cultural aspects of epilepsy in regard to perceptions, practices and attitudes in relation to epilepsy must be studied in order to come with an informed position. This enables provision of a proper background with appropriate information, education and treatment programmes to be adapted in a holistic way. WHO (2004) also recommended a research on the apparent conflicts between cultural and scientific concepts in order to ensure that these are resolved. Zimbabwe, which is under study, is located in Africa. What are the perceptions of Zimbabweans towards this traditional African belief that epilepsy is linked to spirituality and evil spirits?

3.7 Epilepsy in Zimbabwe
In Zimbabwe, research on knowledge, attitude and traditional practices of epilepsy management is scarce. Statistics show that epilepsy contributes to 56% of all conditions reported through the mental health surveillance system (Dewa, 2014). In a study on health seeking behaviours of people with epilepsy, Mutanana & Mutara (2015) established that rural communities strongly believe that epilepsy is caused by evil spirits and witchcrafts. However, this study was carried out in a rural community and did not cover perceptions of the urban community. In another study on challenges associated with anti-epilepsy medication, Mutanana (2017) observe that anti-epilepsy medication is associated with a number of challenges in rural communities, chief among them the fact that they are not informed on the side-effects of anti-epilepsy medication such as stomach upset, dizziness, blurred vision and sexual dysfunction. In anti-epilepsy management, Mutanana (2017) explains that people with epilepsy people end up making use of traditional and spiritual medicines either as a
complementary or alternative medicines to bio-medication. This study also failed to cover perceptions of the urban community.

Throughout history epilepsy has been perceived as a mysterious and supernatural disorder (Mpofu, 2003). There is a grave social stigma attached to epilepsy with some people believing that it is a contagious disease (Epilepsy Support Foundation, 2016). Thus Mpofu (2001; 2003) is of the opinion that traditional healers and prophets (faith healers) are crucial at community level and they are the first port of call and often the last resort. Saburi (2011) further pointed out that that religious activities should be incorporated among complementary or alternative medicines and that spiritual faith healers should be encouraged to refer their clients for drug therapy and psychological counselling. In Zimbabwe, epilepsy treatment is not taking into consideration the cultural environment of people with epilepsy, and this should explain the current treatment gap of people with epilepsy. There is interplay between indigenous practices and bio-medication, but traditional practices of epilepsy treatment are often on the forefront. Some people with epilepsy use these indigenous medicines to complement bio-medication and in some cases abandon bio-medication and make use of indigenous treatment as an alternative (Mutana, 2017). The next question that comes into one’s mind is; what are the challenges associated with bio-medication?

3.8 Bio-medical approaches to anti-epilepsy medication
Tuan (2010) argues that the work of the 19th century English Neurologist John Jackson marks the beginning of modern medical era of epilepsy. He adopts the Jackson’s definition of a seizure; an occasional, excessive and disorderly discharge of the nerve tissue or muscles. For Fisher et al., (2005), an epileptic seizure is a transient occurrence of signs or symptoms due to abnormal excessive and or synchronous neuronal activity in the brain. Both definitions imply the same thing, excessive or disorderly muscles linked to the brain activity. Jackson in Tuan (2010) also recognised the association between the clinical seizure and clinical manifestations and their origin within the brain. Epilepsy Scotland (2008), FEDOMA (2011), Cherney (2016) and Epilepsy Foundation (2017) state that epilepsy causes the brain to send abnormal signals and this activity results in seizures. Fisher et al., (2005) concludes that the definition of epilepsy requires the occurrence of at least one epileptic seizure. These seizures happen because of a number of reasons such as injury or sickness. Cherney (2016) and Epilepsy Foundation (2017) thus describe epilepsy as a condition that causes recurrent seizures and is
treated with anti-epileptic drugs (AEDs). Below, I take a look at different approaches used in epilepsy management within the western context.

**Pharmacological Treatment**

Tuan (2010) argues that effective drugs have been available since 1850 when bromide was first introduced. He also believes Anti-Epileptic Drugs (AEDs) remain the mainstay in epilepsy treatment. Treatment is prophylactic and aims to reduce or eliminate the risk of further seizures as long as the treatment is maintained. Drug treatment is also individualized and AEDs are selected according to the patient’s type of seizures and other individual characteristics. There are more than 20 prescriptions of AEDs available and one’s option depends with age, lifestyle, and type of seizure and how often he/she has seizures (Epilepsy Scotland, 2008; FEDOMA, 2011; Cherney, 2016 and Epilepsy Foundation, 2017). In Zimbabwe, the commonly used drugs are Phenobarbital, Carbamazepine and Phenytoin (Dewa, 2012). If you are a woman treatment depends on whether you are pregnant or not.

Cherney (2016) and Epilepsy Scotland (2008) agree that the most common way to treat epilepsy is with anti-epilepsy drugs. Findings have revealed that they allow up to 60-70% staying free from seizures and they are less harmful because they are scientifically proven, unlike traditional modes of anti-epilepsy treatment (Cherney, 2016). Glauser et al., (2006) and Glauser et al., (2013) also support AEDs, arguing that treatment with AED in patients with epilepsy aims to provide the best quality of life with no seizures and fewest adverse effects from treatment.

Jilek-Aall & Rwiza (1991) confirm a follow-up of anti-epilepsy medication study in Tanzania which revealed that about 52.4% of epileptic patients managed to achieve complete seizure suppression, with 36% reducing epilepsy frequency of seizures whilst only 7.9% experienced no change during their 20 years of treatment. Nimaga et al., (2002) report that in rural Mali, about 80% of the 96 patients treated with Phenobarbital became seizure free within one year. The general belief among medical practitioners is that epilepsy can be treated or controlled (Manungo, 1993). Chandra et al., (1993) support the notion that treatment of epilepsy is easy because most of the epileptic patients can be managed without sophisticated investigations. Chandra et al., (1993) claim that a study carried out in India has revealed poor adherence to prescribed medication as the main cause of unsuccessful drug treatment for epilepsy. While it has been noted that epileptic seizures could be controlled with medications such as
Phenobarbital, Carbamazepine and Phenytoin in 70% of the patients (Dewa, 2014), the effectiveness of all medicines including anti-epilepsy Drugs (AEDs) depends on adherence to the whole treatment process. This includes taking of medicines required quantities, timeously going for medical/health reviews as appointed. However, Epilepsy Support Foundation Zimbabwe (2016) has indicated that about 86% of people living with epilepsy are not on anti-epilepsy medication, implying that they are not taking these AEDs.

**Therapeutic Drug Monitoring**
In anti-epilepsy medication, physicians also consider Therapeutic Drug Monitoring (TDM) in epilepsy management (Epilepsy Implementation Taskforce, 2015). Decision to perform TDM depends ultimately on the clinical judgment of the treating physician. EITF (2015) and Patsalos et al., (2008) agree TDM assists in the following circumstances:

1. When the physician wants to establish achievement on the individual therapeutic range
2. When the physician wants to determine the magnitude of dose increase
3. When seizures persist in spite of apparently adequate dosage
4. Whenever there is an unexpected change in clinical response
5. When poor compliance by the patient is suspected

Therapeutic drug monitoring or attendance of scheduled medical reviews is a measure of epilepsy treatment adherence and is of paramount importance to the patients. In Zimbabwe, Dewa (2012) reports that the non-attendance of scheduled medical reviews has been unacceptably low. For instance, in a similar study in Gokwe South district he reports that in 2010, about 851 out of the 1604 scheduled medical reviews, which is about 53.1% were missed. This is being much higher than the provincial average of 40.4% during the same year which resulted in a skewed distribution towards Gokwe South district and was of great concern. What this implies is lack of knowledge, negative attitude and beliefs in traditional practices discussed earlier. In some studies, it has been observed that people with epilepsy do not receive adequate education and counselling when they are diagnosed to be epileptic.

**Patient Education and Counselling**
According to EITF (2015), once a diagnosis of epilepsy has been made, patients and their families have questions concerning the diagnosis and how this will affect their lives. Austin, Carr &Hermann (2006) argue that this lack of knowledge increases the level of stigmatization
and negative attitudes about their condition. The healthcare provider thus has a responsibility
to ensure that patients and their families have been provided with clear, accurate and timely
information in as far as their condition is concerned. Patients also need to be informed about
how they will access the resources as this affects the long-term adjustment to their condition
(IOM, 2012).

EITF (2015), IOM (2012) and Austin, Carr and Hermann (2006) agree that education and
counselling needs vary across lifespan. For children and adolescents, they need to be
educated how to manage seizures at school and common learning problems, dealing with
fears, school and vocational planning, establishing health habits, drugs, and alcohol,
transition to adulthood and impact of epilepsy on family dynamics (EITF, 2015). As for
adults, they need education and counselling on career and vocational concerns, discussions
with employers, driving regulations and transportation concerns, sexual and gender specific
topics, drug-alcohol interactions, independent living and impact of epilepsy on relationships
and family dynamics (IOM, 2012). Seniors too need to be educated and counselled on
medication side effects, adverse interactions, adherence, drug-alcohol interactions,
independent living and safety (IOM, 2012).

From the foregoing, it can be noted that education and counselling is an important subject
matter in epilepsy management. It could also be the reason why there is a big treatment gap in
Zimbabwe. As observed by Mutanana (2017), patients are not well informed about challenges
associated with epilepsy medication which explains why they opt for indigenous methods
especially if they suffer from the general side effects of the medication. Tuan (2010) suggests
establishment of community based mental health centers to offer psychosocial support for
people with epilepsy. In Zimbabwe, mental health service is offered at Government Hospitals
and non-governmental organisations such as Epilepsy Support Foundation Zimbabwe. Mental
health centers have the responsibility to provide care for people with epilepsy in the
community.

3.9 General side-effects associated with anti-epilepsy drugs
Many people are concerned with side-effects of epilepsy drug treatments, particularly
because they affect the quality of their life (Health Talk, 2016). Seizure medicines may cause
unwanted side effects in some patients (Stephen et al., 2014 and Health Talk, 2016). The
common side-effects identified by Health Talk (2016), Stephen et al., (2014), Epilepsy
Society (2014) and Epilepsy Scotland (2008) are feelings of tiredness, stomach upset, dizziness or blurred visions which usually happen in the first few weeks of taking seizure medicines. According to Epilepsy Scotland (2008), these drugs may also cause fatigue, nausea, urinary retention and sexual dysfunction. If patients with epilepsy are not educated on these side-effects, they eventually abandon epilepsy medication and attempt traditional medication.

Stephen et al., (2014) also report allergic reactions, for instance rash. There are also unpredictable side-effects, such as problems with liver or pancreas, a serious drop in the number of white blood cells and a serious drop in the number of platelets in the body. Karceski (2007) identified increased sexual dysfunction, diminished fertility and disruption of the normal menstrual cycle as some of the side-effects associated with anti-epilepsy medication. Mutanana (2017) report cases of epileptic women who are failing to conceive while several men are experiencing erectile problems after taking anti-epilepsy medication. For children, the general side-effects are drowsiness in class, inattention and restlessness which affect normal brain functioning and can make learning to be even more difficult (Epilepsy Foundation America, 2009).

These side-effects can be a threat to the lives of people with epilepsy. Take for instance, a woman who fails to conceive because of anti-epilepsy medication. She will be cornered to try indigenous medication to please her partner and family. This also applies to men who become sexually dysfunctional because of medication. The majority of them are young and sexual dysfunctionality has an effect on their marriages. In his study on challenges associated with epilepsy medication, Mutanana (2017) observes that patients are not well informed on these side-effects when they begin taking anti-epilepsy medication. Consequently, some opt for indigenous and spiritual medicines to counter these challenges. As such, if the doctor recommends anti-epilepsy medication, he/she should discuss the benefits and side-effects of the medication (Mutanana, 2017). These side-effects have got some psychological effects on people with epilepsy.

3.10 Psychological challenges associated with anti-epilepsy medication
Seizure medicines can affect how the brain works in some cases. These medicines lower excitability of nerve cells in the brain and this affects normal activity (Stephen et al., 2014). Cognitive problems are problems associated with thinking, remembering, paying attention or
concentrating, finding the right words and can be due to side effects of seizure medicines (Stephen et al., 2014). A study by Al-Faris et al., (2002) in Saudi Arabia discovered that forgetfulness contributed to about 22.5% of the reasons why children fail to attend epilepsy treatment review visits. In other words, these AEDs may affect the cognitive structure of the person with epilepsy. As such, people with epilepsy are afraid of this challenge and opt to use indigenous medication.

Joseph et al., (2014) report epilepsy and its treatment may affect the way that some people think and behave. Eventually, Joseph et al., (2014) observe that it affects the patient’s memory, language, planning and reasoning. This may affect how a person with epilepsy relates with family members and workmates. Some medicines also affect a person’s energy level, mood, motivation or how fast they think or do task (Stephen et al., 2014). Rodriguez (2016) also report that anti-seizure medications like Phenobarbital can affect the mood the patient and increase depression. Mitchel (2017) also argues that cognitive, psychiatric and behavioural abnormalities in children with epilepsy are attributable to antiepileptic medications. Rodriguez (2016) argues that anxiety can also occur as a reaction to the diagnosis and some side-effects of anti-epilepsy medication. Feeling socially isolated due to epilepsy also influence anxiety symptoms. Mitchel (2017) claims there is an increasing concern about suicidal ideation in older children and youth treated with anticonvulsants. Patients with severe mood disorders are also prone to develop suicidal ideation.

Epilepsy medication restricts activities and forces specific behaviours. For instance, taking medicines, not driving, maintaining regular sleep cycles, limiting alcohol changes and the lifestyle and can lead to a loss of independence (Rodriquez, 2016 and Stephen et al., 2013). Mitchel (2017) reports most sedative drugs have the potential for causing excitement and agitation. She gives an example of the Phenobarbital anticonvulsant drug which she claims may cause sustained behavioural difficulties such as over reactivity, irritability and disturbed sleep. In her analysis, 5-25% of children experience over reactivity due to Phenobarbital. Bazil (2003) also support Mitchel when he claims these anti-epilepsy drugs may result in insufficient sleep on top of inadequate sleep hygiene, coexisting sleep disorders and circadian rhythm disturbances.
3.11 Social challenges associated with anti-epilepsy medication

Use of anti-epilepsy medication is associated with social isolation, dependent behaviour, and low rates of marriage, unemployment and reduced quality of life (Devinsky, 1999; Arroyo et al., 2002; Schuele & Luder, 2008). Mitchel (2017) reports adverse outcomes that include less frequent marriages, employment, skilled occupations and social isolation. In study in Finland, Mitchel claims 60% participants were independent in activities of daily living. In Sweden, she states young adults with persisting absence seizures were more likely to be employed in an unskilled job or in an occupation below expectations for educational level as compared to peers without epilepsy. Mitchel also found out that social isolation was reported in 34.5% compared with 7.9% of the reference group and 74% reported that epilepsy had affected at least one area of their social functioning.

Some studies have examined the gender issue in Asia. In Pakistan, Aziz et al., (1997) observe that female patients with epilepsy were failing to cope with the pressure from society and family and consequently tend to internalize the prejudice and discrimination. In Sri Lanka, Gamage (2004) report that men are not willing to accept an epileptic female and that epilepsy is a valid reason for divorce. They believe that epileptic women cannot bear children. In Korea, statistics show that about 24.5% have been discriminated at their workplace (Lee, 2005). More than half of those who have disclosed their illness have been refused a job because of epilepsy.

Epilepsy Support Foundation (2007) also argues people with epilepsy in Zimbabwe face a number of challenges. These include lack of understanding of the disease and impaired access to treatment as well predisposition to burns and injuries, prejudice that also affect socialization, marriage, school and work resulting in impaired quality of life and socioeconomic status. Mugumbate & Nyanguru (2013) also identifies over protection as another challenge that people with epilepsy. In fact, in their findings, 78% indicated they suffered from over protection, and Mugumbate & Nyanguru (2013) attribute this to difficulties in securing independent life.

3.12 Economic challenges associated with anti-epilepsy medication

Use of anti-epilepsy medication is associated with economic burden (Devinsky, 1999; Arroyo et al., 2002 and Schuele & Luder, 2008). The development of new drugs is costly and risk. Perucca, French & Bialer (2007) and Lalonde et al., (2007) argue that chances for successful
completion of development and approval by the regulatory authorities are less than 10%, even for those drugs which are in phase one stage. In spite of the funding of antiepileptic development, Wahab (2010) state that these drugs lack safety and efficacy and historically many of these drugs have been withdrawn from the market because of their severe adverse effects. Newly developed antiepileptic drugs are expensive and their lifelong use makes it almost impossible to afford for the people in developing countries such as Zimbabwe (Wahab, 2010).

Studies have also revealed that these AEDs are normally in short supply (Mutanana & Mutara; 2015) because of an under resourced health care system. Chilopola et al., (1999) has also identified distance (from community to hospital) and lack of knowledge as some challenges associated with AEDs. Mugumbate and Nyanguru (2013) also identify economic aspects that affect people with epilepsy. In his findings, 93% indicated securing adequate income as a challenge, and consequently they fail to acquire anti-epilepsy medication. The majority of those who are diagnosed to be epileptic cannot afford to buy these drugs and this has an effect on compliance.

3.13 Discontinuation of anti-epilepsy medication
Studies in some tribes of Central and South America, in the southern-east part of Asia and Africa indicate that societies continue to perpetuate traditional beliefs about epilepsy (WHO, 2013). Epilepsy is frequently thought as a punishment for evil deeds. In some cases, it is viewed as causation for breaking certain taboos. These traditional beliefs prevent people with epilepsy from seeking bio-medication. Khadilkar (2013) further assert that some epilepsy patients on anti-epilepsy medication discontinue treatment due to fear of the general side-effects associated with the medication. In India, for instance, Das, Banerjee and Mondal (2007) reported 43% discontinuation rate within one year. Kadilkar (2013) blames discontinuation of anti-epilepsy medication on high cost of treatment, superstitions and cultural beliefs, but Bharucha (2012) believes dimensions of medical, social, psychological and financial consequences of epilepsy are enormous and a cause for discontinuation of anti-epilepsy medication. A large proportion of people with epilepsy in the non-western community, as reported earlier do not get anti-epilepsy medication. Below is a diagrammatic presentation of bio-medical approaches of anti-epilepsy medication and challenges associated with anti-epilepsy medication.
Mitchel (2017) points out that people with epilepsy, parents, and teachers are well read over the adverse effects of medications. There are frightening stories in lay media and on the internet about epilepsy medication. Mitchel (2017) believes some people may be under the wrong impression regarding these drugs and express the fear that a medicine will make them retarded or cause developmental problems. Eventually, these fears may lead people with epilepsy to avoid administering prescribed medications. Mutanana (2017) also observes that people with epilepsy make use of traditional medicines because of challenges associated with anti-epilepsy medication.

### 3.14 Chapter Summary

In this chapter, the study carried an overview of the global perspectives in epilepsy management. The study revealed that throughout the ancient history, epilepsy has been thought to be a spiritual condition. The Greeks further insisted epilepsy to be a form of possession associated with genius and divine. Notable exception to this line of thinking was the school of Hippocrates who rejected the idea that epilepsy was caused by evil spirits. Nevertheless, this was not accepted at the time and evil spirits continued to be blamed for epilepsy. The coming in of the 19th century English Neurologist John Jackson who marked the beginning of modern medical era of epilepsy did not help either. The native tribes of Central and South America still associate epilepsy with evil spirits and witchcraft. The Asians have also disregarded the western concept of epilepsy of epilepsy management in spite of the
substantial economic development and improvement in health services. In Africa, the reaction to epilepsy is shaped by traditional beliefs surprisingly similar one way or the other. In some studies, it has been suggested that modern treatment is sometimes unavailable and there is a general belief that epilepsy is a supernatural cause and therefore not treatable with western medicine. These non-western perspectives differ with the western approach to epilepsy management, which include pharmacological treatment, therapeutic drug monitoring and patient education and counselling. However, some studies have indicated that there are some challenges associated with anti-epilepsy medication and these include general side-effects associated with the drugs, psychological, social and economic challenges associated with the bio-medication. Eventually, people with epilepsy make use of indigenous practices to counter these challenges. Coupled with the traditional belief that epilepsy is caused by evil spirits and witchcraft, the indigenous perspective of epilepsy becomes a necessary subject matter to discuss. In the next chapter, I make an overview of indigenous perspectives in epilepsy management.
CHAPTER FOUR: INDIGENOUS PERSPECTIVES ON EPILEPSY MANAGEMENT

4.1 Introduction
According to WHO (2004), the aim of reducing the epilepsy treatment gap should also take into consideration the cultural environment of people with epilepsy and those affected. In other words, information and education of the public about modern and indigenous practices of epilepsy is important in order to empower these people to make informed choices. As such, WHO (2004) has recommended cultural aspects of epilepsy management to be studied with regard to community perceptions, attitudes and practices of epilepsy management. Studies on indigenous practices of epilepsy management provide a background for appropriate information, education as well as treatment programmes to be adapted in a holistic way in relation to cultural specificities and with a great chance of success. The World Health Organisation (2004) also believes research should be done in order to find out how the apparent conflicts between these cultural and scientific concepts can be resolved. To this end, this study carries out an introspection of the indigenous technologies of epilepsy management, community acceptance of these practices and the development of these indigenous practices for sustainable management of epilepsy.

4.2 Indigenous Practices of Epilepsy Management
Chakuchichi & Zvamba (2010) posit that in an Afro-centric perspective, a crisis is viewed as spiritual, caused by avenging spirit and punishment from God. They also state that a crisis is viewed as God’s punishment or anger just as he caused calamities to befall the Israelites when they faltered. Similarly, the traditional African belief on epilepsy is that epilepsy is caused by evil spirits, witchcraft and in some sectors of the population is punishment from God. Effective epilepsy management in this case should consequently be spiritual and religious. Religion therefore fits well in afro-centric perspectives, as indeed Zimbabweans in every respect are quite religious.

4.3 Spirituality and religiosity in epilepsy management
Mbiti (1971) in Chakuchichi & Zvamba (2010) proclaim that Africans are always religious, and if this assertion is correct then the value of spirituality and religion in epilepsy management is not debatable. Madhibha (2005) agrees with Mbiti’s assertion and is also strongly convinced that African communities are always religious. Madhibha claims some believe in traditional religions whereas some believe in Christianity and Moslemic. In the
preceding unit, it was established that people with epilepsy in non-western communities strongly believe in their traditional beliefs about the causes and treatment of epilepsy.

According to Tedrus, Fonseca & Hoehr (2014) spirituality and religiosity are related but they are not synonymous. Koenig & McCullough (2001) describe spirituality as the transcendence, a form of connectedness, values and purpose that may be shared by people with different ethnic, cultural, and religious backgrounds. Values in this case are emphasised as faith, forgiveness, and sense of belonging, gratitude and love. On the other hand, religiosity is explained by Koenig & McCullough (2001) as being embedded in organised systems of faith or religion. For Chakuchichi & Zvamba (2010), religion is a set of beliefs that a society adopts for the moral understanding of its members.

Reis (1994) proclaim that convulsions have had a historical association with spirits and religion through the concept of spirit possession. Epilepsy has been interconnected with spirituality since time immemorial. Within the Asian cultures, epileptic seizures have been attributed to the voodoo spirit possession (Carrazana et al., 1999). Baskind and Birbeck (2005) also note that religious aspects have been observed within the African cultures. Similarly, the South and Central Americans have also regarded the concept of spirituality in epilepsy highly as observed by Carod-Artal & Vazquez-Cabrera (2007). Magiorkinis et al., (2010) argues epilepsy has been associated with an infliction or possession with the supernatural power, either god or demon even in the deeply distant cultures like the Greco-Roman, Islamic, Judeo-Christian, Hindu and Voodoo traditions.

Temkin (1971) in Moselhy (2011) reports that the Greeks have referred epilepsy as a sacred disease and since then this disorder has been associated with mystics, prophets and diviners. Moselhy (2011) argues that the Hippocrates made an attempt to refute the connection between epilepsy and divine but they were unsuccessful. Hippocrates argument was that there is no connection between the widespread beliefs of mystical powers and prophetic powers that were being attributed to epilepsy. In the bible, subsequent religious people were asked to treat people with epilepsy. De Toledo & Lowe (2003) recites New Testament gospels of Mathew (17: 14-20), Luke (9:37-43) and Mark (9:14-29) where Jesus casted out an evil spirit from a boy with epilepsy who had a seizure.
Temkin (1971) in Moselhy (2011) observes the dominance of the religious and the magical treatments throughout the Middle Ages and the Renaissance with Davinsky & Lai (2008) claiming that in the 19th century religiosity was also stressed by physicians such as Esquiro; Maudsley and Morel. Trimble and Freeman (2006) posit that hyper religiosity has been described by many writers in people with epilepsy. These include Howden, Echeverria, Clouston and Kraeplin. Slater, considered as an influential investigator also reported mystical delusions in his series of patients with epilepsy (Slater & Beard, 1963 in Moselhy, 2011). Moselhy (2011) report a case by Dewhurst & Beard (1970) who claimed a series of patients with epilepsy who had undergone religious conversions during his studies.

In another study on religiosity in people with temporal lobe epilepsy, Trimble & Freeman (2006) examined religious experiences of people with epilepsy. About 22 participants expressed no interest in religion and 30 were voluntary regular church goers who expressed interest in religion (Trimble & Freeman, 2006). Participants from the epileptic religious group were significantly likely to have had past episodes of the postictal psychosis and to have had bilateral cerebral dysfunction. Studies revealed between 0.4% and 3.1% of partial epilepsy patients suffered from ictal check work religious experiences (Moselhy, 2011). Ictal religiosity is described by Davinsky & Lai (2008) as a type of ecstatic seizure, for example feelings of joy or pleasure. This includes immense pleasure of God’s presence, or hallucinations of God’s voice. Higher frequencies were observed in systematic questionnaires as compared to spontaneous patients reports (Moselhy, 2011). Among those with ictal religious experiences, a predominance of patients with temporal lobe epilepsy were also discovered. According to Davinsky & Lai (2008) postictal and inter-ictal religious experiences usually occur among temporal lobe epilepsy patients with bilateral seizure foci. Davinsky & Lai (2008) state postictal hyper-religiosity usually manifests as a prolonged intense religiosity which lasts for hours or days. He further argues that multiple reports have been recorded in which participants had religious conversions after these seizures. Intercital religiosity, according to Davinsky & Lai (2008) is presented as a heightened state of religious conviction with personality changes.

Garcia-Santibanez & Sarva (2015) claim a handful of studies provides better characterisation of these events (ictal, postictal and interictal). Garcia-Santibanez & Sarva (2015) provide a case by Roberts & Guberman (1989) which had 50 patients with temporal lobe epilepsy. About 51 percent of these participants had an experience of salvation. In another study of 234
patients by Roberts & Guberman (1989), about 1.3% was observed to have an ictal religious experience which is usually associated with right temporal lobe origin. Ogata & Miyakwa (1998) agree that experiences of participants include a sense of presence of God as well as hallucinations of God. A study by Tedrus, Fonseca and Hoer (2014) showed self-reported spirituality scores were higher not only in people with temporal lobe epilepsy but also in those with lower education level. Garcia-Santibanez & Sarva (2015) argue that religious manifestations may not only be present with behavioural changes, but also with the motor manifestations. Lin et al., (2009), for instance described a sign of the cross as an ictal hand of automatism in about 4 out of 530 people with epilepsy in a study in Brazil. These participants had temporal lobe epilepsy and this study was carried out in Brazil, a country with the largest Catholic population the world over. Lin et al., (2009) suggests this could be the reason why religious background might have played a role in their study.

Tedrus, Fonseca & Hoehr (2014) suggest that spirituality in people with epilepsy is influenced by their level of education. In other words, those who are illiterate are biased towards spirituality and religion whereas the literate group may consider western concepts of epilepsy management. The authors are of the view that spirituality may have positive or negative impact on epilepsy. This finding contradicts Nyame & Biritwum (1997) views who in a study on knowledge, attitude and practice of epilepsy in a literate population reported that more than one quarter of the literate urban people in Ghana attributed epilepsy to witchcraft or similar causes. They discovered that traditional beliefs and attitudes about epilepsy are still held firmly by the adult working population.

Moselhy (2011) concludes that even though psychological and social factors contribute to religious experiences with epilepsy, there is a neurological mechanism that plays a large role. Moselhy (2011) believes there is a limbic system that is often suggested as a critical site of religious experience because of the association between temporal lobe epilepsy and the emotional nature of experiences contributes. For Davinsky & Lai (2008), neocortical areas are also involved which are suggested by the presence of the visual and auditory hallucinations. There are also issues of the complex ideation during these religious experiences.
4.4 Traditional approaches to treatment

The study now takes a look at the different modes used in epilepsy management from an indigenous African perspective. The study begins by examining the concept of a traditional healer and moves on to analyse the following modes; diviner, herbalist and spiritual/faith healer. Some researchers have argued they use the same theoretical approaches in helping people with epilepsy.

4.4.1 The Concept of a Traditional Healer

According Ellis (1996), traditional healer is a generic term. This is contrary to what the majority of people in the community think when they hear about this term. In Zimbabwe, for instance, a traditional healer is only thought to be an n’anga (diviner). Rather, Ellis (1996) describes a traditional healer as a person recognised within the community in which he lives as competent in providing healthcare using animal, mineral substances, vegetables and several other methods which are based on social, cultural, religious background. In the South African context Moagi (2009) defines a traditional healer as someone who possesses the gifts of receiving spiritual guidance from the ancestral world. Cumes (2004) and Campell (1998) also describe traditional healers as highly respected people in the societies where illness is thought to be caused by witchcraft or through neglect by ancestors. Wyk, Oudtshroorn and Gericke (1999) further highlights that traditional healers are consulted by approximately 60% of the South African population and this is usually in conjunction with modern biomedical services.

Skuse (2007) reveals that traditional healers are more important than western trained psychiatrists in medicine. He emphasizes that traditional healers are a significant source of support in Africa. They offer a parallel system of belief towards conventional medicine as in regards to its origins; hence Skuse (2007) is of the opinion that traditional healers offer proper treatment of mental health problems. Lumsden-Cook, Thwala and Edwards (2006) support this view, explaining that in South Africa natives tend to use traditional healing services more often than western medicine. They also assert that sickness or emotional crisis precipitates a lot of visits to a traditional healer.

Traditional healers make use of the community attitudes and beliefs prevalent within that community regarding physical, mental and social well-being as well as the causation of disease and disability. To this end, various categories of traditional healers can be identified
and Karim et al., (1994) states each category has its distinctive features and functions which often overlap and consequently the boundaries become blurred. Karim et al., (1994), Truter (2007), Gumede (1990) and Last & Chavunduka (1986) identify different categories of traditional healers as diviners, herbalists, faith healers and specialists. Contrary to the marked specialisation or part-time characteristic of some healers, some of them tend to be full-time serving as both diviners and herbalists. Traditional healers alternate between roles of diagnosing common illnesses, selling or dispensing remedies for medical complaints. This is supported by Staugard (1985), Last & Chavunduka (1986) and Freeman & Motsei (1992) when they state that diviner-herbalists are able to make a diagnosis and at the same time treat the diagnosed illness with herbal treatments. Below I discuss different approaches used by traditional healers.

4.4.2 The diviner
A diviner is described as the most senior of traditional healers by Makhanya (2012). Makhanya (2012) and Last & Chavunduka (1986) further describe a diviner as a diagnostician. In other words, a diviner is an expert in carrying out a diagnosis. He/she does not only define the illness, but also explains the ultimate cause of the disease according to the African belief system. According to Campell (1998), the goal of the traditional healer in healing is establishing a balanced and harmless relationship between the afflicted patient and the spirits that may be causing the illness or problem. Cumes (2004) believes the diviner intercedes between the afflicted and the world of the dead to make restitution. For Truter (2007), a diviner is a person who is able to communicate with the spirits when he/she is in a state of possession. Karim et al., (1994) explain a diviner to be a person with speciality in divination within the supernatural context via the culturally accepted medium of the ancestral spirits. Skuse (2007) states that at the top of hierarchy is the greatest power, followed by the lesser spiritual entities, the ancestral spirits, living people, plants, animals and objects. As argued earlier, a diviner may also have knowledge of medicinal herbs that may treat epilepsy.

Truter (2007) notes these diviners differ in the methods which they use during the diagnostic process. He points out that some carry out the diagnosis in a state of possession while others make use of possession and casting of bones. Chavunduka (1994) proclaims the ancestral spirits communicate with the diviner through the way the bones will be laying. Some common methods described by Staugard (1985) include use of shell of a tortoise, pieces of polished wood, a mirror, a calabash, a needle and smells. Ellis (1996) state that in some
instances ancestors may reply directly by whistling words from rafters. Cumes (2004) and Wyk, Oudtshoorn & Gerickie (1999) suggest that divination is done by throwing bones, purification of rituals, or animal sacrifice in order to appease the spirits through atonement. Some diviners are able to inform their clients the reason why they have visited him and the social cause of the problem without having been told by the client. Once the spirit has identified the cause of epilepsy, the practitioner then advises the client on the correct procedure to propitiate the spirit. The diviner may also prescribe a herbal remedy to cure the disease.

From the foregoing, it can be noted that a diviner is consulted to find out the spiritual causes and treatment of epilepsy. Baskind & Birbeck (2005) claim the diviner observes the same symptoms that a neurologist elicits, such as olfactory hallucinations, Jacksonian march and automatisms. Diviners acknowledge propensity for some seizures and endorse causes of symptomatic epilepsy. However, they believe witchcraft plays a central, provocative role in most seizures (Baskind & Birbeck, 2005). One does not to become a diviner willy-nilly. Karim (1994) is clear about this aspect and claims the traditional beliefs dictates that only a person chosen or called by ancestors can become a diviner. Truter (2007) also speaks about spirit mediums inherited or believed to have inherited their healing spirit from a deceased healer within the family or an alien spirit. Chavunduka (1994) state that another way of becoming a diviner is by living in a riverbed or pool for a couple of days. For Staugard (1985), in some cases the art of divination is conferred through a dream.

Karim et al., (1994) makes an interesting observation on diviners. He proclaims that symptomatically, the chosen individual is ill and behaves like a mentally disturbed person. Gumede (1990) also points out that the person is prone to excessive dreaming and is riddled with sharp pains in the chest. He suffers serious headaches, general body pains, loses weight and is restless. This is regarded as natural at first and attempts are made to cure it with ordinary medicines at first. All home remedies are exhausted but the symptoms remain. Karim et al., (1994) state it is usually at this stage that a practising diviner of repute is consulted and that is only when they are able to differentiate between the mental illness and “call”. Chavunduka (1994) points out that once it has been established a spirit wishes to confer its powers upon the individual, a ritual ceremony is held and the spirit is honoured and accepted. The person, now regarded as a novice is now tutored by a master diviner of repute. Gumede (1990) states the apprenticeship is informal in nature and requires much discipline of
body and the mind. The physical training includes dancing and mental exercises, for example, mediation, dreams and communication with ancestral spirits. Skuse (2007), Chavunduka (1994) and Staugard (1985) observe that in the majority of cases diviners are females and are regarded as the elite group among healers. The diviners’ activities are part spiritual and part medical.

4.4.3 The herbalist

In the preceding section, it was established that the diviners’ activities are part spiritual, part medical. Unlike the diviner, the herbalist practices the art of healing and Gumede (1990) equates him/her to a general medical practitioner. Whilst diviners are usually females as discussed above, herbalists are usually men and according to Truter (2007), they are often chosen for the profession by an established practitioner. Unlike in the art of divination, the art of healing tends to run within the families but is not hereditary. Karim (1994) also state that one becomes herbalist by choice; as such the profession is freely accessible.

According to Truter (2007), a novice is apprenticed to be a practising herbalist for a number of years. Karim et al., (1994) further point out that during his period of apprenticeship, his business is to act as a messenger, herb gatherer to his master and general hand to his master, and accompanying his master on his excursions as medicine bearer learning by observation and instruction throughout. The novice eventually learns to identify and name relevant herbs, animals, plants, birds, insects and snakes. Karim et al., (1994) notes that student is taught how to select the best and most powerful specimens. Truter (2007) states that later, the novice is sent to go and dig alone and bring the exhibits to the master for checking and approval. He also learns how to mix various ingredients and prepare a mixture. The novice also assists the herbalists in the administration of medicines and is also allowed to treat some patients according to the master’s instructions.

Chavunduka (1994) proclaims that after some few years, student is introduced to the management of progressively more severe illness after which he may begin to treat patients on his own. However, period of apprenticeship varies in standard and the format from one area to another (Chavunduka, 1994). Karim et al., (1994) further notes that the training is not standardised. It is principally based on hands and experience. Chavunduka (1994) claims it is possible for an individual to acquire necessary knowledge through formal training at a school of traditional medicine. However, the number of such schools is still small.
Chavhunduka (1994) reiterates that some herbalists have entered the profession through dreams in which a candidate sees a correct medicine to cure a sick person and is shown the place in the woods where he can find the medicine. He also points out that in Zimbabwe, healers who discover remedies through this way may obtain a licence to practice traditional medicine. However, they are usually limited to the management of a particular illness.

Staugard (1985) proclaims that a herbalist specialises in the retail and wholesale of herbal drugs that are gathered by him. The herbalist may have a small shop or stand in the urban market where his preparations are sold to customers, or may travel around distributing his medicines to clients, and in some other cases to fellow healers. Truter (2007) assert some clients are referred by the spirit medium, whereas others consult them directly. Simply put, herbalists possess an extensive knowledge of traditional pharmacopoeia. Karim (1994) claims their service is comprehensive and their expertise also includes curative, preventive as well as prophylactic treatment. Some herbalists specialise in epilepsy and become renowned experts in this field.

According to Last and Chavhunduka (1986), within the categories of traditional healers there are specialists in management of epilepsy. Gumede (1990) further points out that these become experts in their particular field and are in great demand beyond their local communities. According to Baskind & Birbeck (2005), treatment in epilepsy is initiated after the first seizure and is usually incorporated with certain plants and animal products. Patients who do not experience further seizures are considered as cured whereas those who fail to respond to the treatment are referred to other herbalists.

### 4.4.4 Christian healers

Truter (2007) posit that faith healers are professed Christians who belong to independent African churches. Freeman & Motsei (1992) trace the origin of churches to the rise of the independent African movement that broke away from the more Western oriented churches. Freeman & Motsei (1992) make an interesting observation in the way faith healers are regarded in the society. The African societies believe faith healers are not “traditional” in the usual sense of the word simply because they did exist before the development of Western medicine. Nonetheless, Freeman & Motsei (1992) contend that they are “traditional healers” because they share a common theory of health and disease and treat by integrating Christian
rituals and traditional practices. For Madhibha (2005), every pastor in Christian culture should believe that:

- God is the source of all truth and wisdom needed in treatment
- The pastor is dependent on God, the Holy spirit as his/her counsellor for guidance, wisdom, discernment and directions.
- God’s word contains all the truth and wisdom which is needed by the pastor
- Treatment is seeking to reach the right conclusion and solution according to God’s perspective

Karim et al., (1994) also contend that faith healers believe their healing power comes directly from God and usually through ecstatic states or trance-contact with spirits. Sometimes it is a combination of both ancestral spirit and Christian Holy Spirit possession (Karim et al., 1994). Truter (2007) claim faith healers proclaim to have been chosen by God through a revelation in a dream. Faith healing is a calling from God, diagnosis and treatment flow from him, as such training unlike in the art divination is regarded as unnecessary. Services offered by these faith healers are essentially diagnostic and curative in nature. Truter (2007) further points out that the faith healer may use a simple procedure of asking a patient to open the bible, and from this the practitioner is able to read the diagnosis from respective pages. In some cases, Staugard (1985) state the healer may open the bible in front of the client or make diagnosis by just laying his hands on the holy bible. According to Karim et al., (1994) healing is usually through prayers, laying hands on the patient or through holy water, ashes or herbs. Rhythmic movements or dances are performed in some cases and the patient may live for months or even years at the practitioner’s residence. Truter (2007) states during this period they are prayed for, they go through purification rites and they are in close contact with the healer.

Staugard (1985), Karim et al., (1994) and Freeman & Motsei (1992) agree that faith healing integrates both Christian and traditional African beliefs. As such, faith healers are also regarded as indigenous healers. They do share the same view on the patient’s world and perceptions about the causes and treatment of epilepsy. Just like diviners, they are also called into the profession. The treatment has the same basic features and the approach is holistic. Just like other traditional practitioners, they do occupy the leader’s role amongst the local community. Staugard (1985) therefore concludes that classifying them as traditional healers
may not only be a pragmatic choice adopted to facilitate policy considerations of future cooperation, but is theoretically valid and based on shared basic features.

4.5 Community acceptance of indigenous practices
It is true that traditional modes discussed above are common in epilepsy management. The next question that comes into one’s mind is; what is the level of acceptance among people with epilepsy and the community in general towards these technologies? This question can best be answered with the level of use of complementary and alternative medicines among people with epilepsy and the Ubuntu philosophy in epilepsy management.

4.5.1 Use of complimentary or alternative medicines among people with epilepsy
Saburi (2011), Baxendale (2012), Asadi-pooya & Amani (2013) and Asadi-pooya et al., (2014) share the same view on the under-utilisation of anti-epilepsy medication. They blame traditional African beliefs on the under-utilisation of anti-epilepsy medication. A study by FEDOMA (2011) in Malawi revealed that an estimated 80% of people living with epilepsy in developing countries are failing to get anti-epilepsy treatment because of lack of knowledge, stigma, discrimination, inaccessible health services or general levels of poverty. Dewa (2012) suggests the following as linked to failure in getting treatment; difficulties in speed thinking, challenges in using public transport, difficulties in relationships with others, sexual dysfunctionality and difficulties in daily problem solving. Several studies have revealed that the majorities of people with epilepsy are thus making use of traditional methods to manage their condition. Some continue to make use of anti-epilepsy medication in conjunction with traditional methods whereas some abandon these bio-medications in favour of traditional medications. The Complementary and Alternative Medicines (CAM) subject thus becomes an issue of concern, especially as the study sought to analyse community acceptance of indigenous practices in epilepsy management.

Baxendale (2012) explains that the definitions of what constitute complementary or alternative medicine vary. The National Centre for Complementary and Integrative Health (2016) in Mutanana (2017) describes “complementary” as a non-mainstream practice that is used alongside conventional medicine. “Alternative” on the other hand is described as a non-mainstream practice that is used in place of conventional medicine. There is a notable difference between these two terms; complementary medicine is used together with conventional medicine whereas alternative medicine is not used together with conventional
complementary and alternative medicine (CAM) is an umbrella term that is used to describe any treatment outside the sphere of any conventional Western medical school syllabus, in this case, traditional African methods discussed above; the diviner, herbalist and Christian faith healer. Asadi-pooya (2013) identifies exercises, herbal drugs and traditional medicines as some forms of CAM that are used in epilepsy management.

Baxendale (2012) point out that in some cases CAM treatments are derived from mystical or spiritual schemas of health and disease understanding. Discussions have so far revealed that people with epilepsy in non-western countries attribute epilepsy to spiritual causes; witchcraft and evil spirits. Some CAM treatments are based on theories and hypothesis that depart to some extent from the mainstream scientific thinking, for instance, exercising. Baxendale (2012) proclaim that this alternative or conventional distinction is not relevant, but what matters most is whether the treatment has worked or not. In other words, this approach has a considerable clinical appeal because if it works, it is a treatment and if it doesn’t, it cannot be considered as a treatment. Baxendale (2012) criticises anti-epileptic medications on the basis that they are not universally effective even though they have proved efficacy. However, he agrees that unlike CAM therapies that are not subjected to scientific rigor, the standard test of conventional treatments is randomised controlled trial (RCT) as well as double blind with a cross over design.

Discussions on perspectives of epilepsy in some tribes of Central and South America, South East Asia and African societies have so far shown their allegiance to the traditional mode of epilepsy management. Asadi-pooya (2014) is equally convinced that CAM has been considered by many people with epilepsy. From his analysis, cultural issues are playing an important role in faith towards complementary and alternative methods and consequently the majorities in non-western communities are making use of it. Saburi (2011) recommends community resources such as religious, worship groups, traditional and faith healers in epilepsy management. She is strongly convinced these should be accommodated in epilepsy management because of socio-cultural aspects associated with them. Saburi (2011) proclaims that herbs are used in epilepsy treatment in addition to conventional treatment but non-disclosure is common among people with epilepsy.
Saburi (2011) also reports that in the United States of America prayer and spirituality is commonly used as a form of CAM in addition to stress management and AEDs. The national Centre for Complementary and Integrative Health (2016) support Saburi’s assertion when it claims that in the American society, more than 30 percent of adults and 12 percent of children are making use of healthcare practices developed outside conventional medicines. What it shows is that complementary and alternative medicines are not only peculiar to non-western countries, but only differ in the approaches used between western and non-western countries. CAM is used to compliment epilepsy medication western countries whereas in non-western countries CAM may either be used to compliment or as an alternative to epilepsy medication.

Shizha & Charema (2011) contend that in the traditional African culture, one of the most venerated components is the significant presence of traditional beliefs and use of traditional medicines. Africans also believe in diviners, midwives and herbalists. People with epilepsy usually seek help from traditional healers first. Mpofu (2001) and Mpofu (2003) claims traditional healers and prophets (faith healers) are crucial at community level and they are the first port of call and often the last resort. A study by Watts (1989) revealed that rural African people with epilepsy consider treatment of seizures to be the domain of traditional healers and they only attend hospital when they require treatment for burns suffered during fits.

UNIAIDS (2010) reports that the African Union declared the period 2001 to 2010 as the decade of African traditional medicine. This demonstrates Africa’s allegiance towards traditional medicines. A survey by WHO (2001) in Mutanana (2017) on the legal status of traditional and complementary or alternative medicine revealed that of the 44 African countries surveyed, about 61% had the legal statutes regarding traditional medicine. In other words, the traditional practice is now recognised by several governments and is used in prevention of physical and mental disorders, including epilepsy. Mohammed and Babikir (2013) also report about 70, 5% among Sudanese are making use of traditional and spiritual medicine in epilepsy management. Sidig et al., (2009) emphasises that spiritual and socio-cultural beliefs influence the nature of treatment and care received by people with epilepsy.

Ramose (1999) speaks about a resurgence of interest in the African indigenous knowledge systems as a resource for development and mental emancipation. Epilepsy management, in the mental health category has not been left out either. Studies have been carried in relation to knowledge, attitude and practices of epilepsy of epilepsy management. In Sudan Mohammed
and Babikir (2013) report a 70.5% usage of traditional and spiritual medicine for epilepsy treatment. In the Nigerian community, Kair et al., (2005) findings reveal 47% still harbour the belief that epilepsy is caused by evil spirits and opt for spiritual medicine. Similarly, in Ghana, Tanzania, Malawi, Zambia, Swaziland, Uganda just to mention but a few studies on knowledge and practices of epilepsy management have revealed a positive attitude towards traditional African causes and treatment of the disease. Studies by Staugard (1985), Last & Chavhunduka (1986), Karion et al., (1994), Chavhunduka (1994), Skuse (1997), Truter (2007) and Makhanye (2007) provide evidence on the effects of indigenous knowledge systems in epilepsy management. These researchers argue that traditional healers are a significant source of support in Africa; they offer a parallel system of belief towards conventional medicine as in regards to its origins and hence they offer proper treatment of mental health problems. What it shows is that the community has accepted traditional methods of epilepsy management and the development of indigenous technologies in epilepsy management becomes an issue.

Mpofu (2000) state a large percentage of Africans use both modern and traditional rehabilitation methods. Mpofu et al., (2011) further state that the majority of indigenous Africans seek metaphysical interpretation for disability of their loved ones and this is done through consulting traditional healer or attending faith-based organisations before a decision to seek modern rehabilitation services. In many cases, services of both modern rehabilitation and traditional are combined together (Mpofu 2006, Mpofu and Harley, 2002). This clearly shows that the community has a positive attitude towards indigenous practices of epilepsy management. However, some studies have reported shortcomings on traditional African medicine. Addis (2002) argues that the knowledge surrounding traditional medicine incorporates a number of harmful practices. For instance, knowledge is conveyed verbally which may result in the inevitable distortion of original information. But Al-Safi (2007) contend that in spite of these reported and unreported complications in traditional practice, people seek traditional healers regularly and confide in them with due respect and hold them in high regards.

From the foregoing, it can be deduced that African societies have a positive attitude towards traditional African methods of epilepsy management. An analysis of epilepsy illness behaviour and health care preferences clearly shows that people prefer traditional methods and can also use both traditional and modern methods. The majority see these health care
options as complementary rather than conflicting, and discussions carried so far have revealed use of herbs is common among people with epilepsy but the problem is of non-disclosure. Wolfers (1990) proclaim that the wisdom of people makes them to look for what they need from the right source. It is only the absence, unaffordability and unobtainability of the desired facilities that frustrate their choice. In South Africa, Freeman & Motsei (1992) report dual treatment arguing it regularly takes place. The point here is; both sectors (traditional and modern) are used interchangeably, consecutively or even concurrently on the same ailment. Boonzaier (1985) thus concludes that patients attempt to get what calls “the best of the worlds” and they are perfectly happy to commute freely between the traditional and Western treatment. In the next section, the study takes a look at the effects of the Ubuntu philosophy in epilepsy management.

4.5.2 Ubuntu philosophy in epilepsy management

Mabvurira (2016) state the African traditional medicine is provided through the traditional and cultural philosophy of *Ubuntu*. He further notes that the *Ubuntu* concept has gained tremendous support in recent years. However, Mabvurira (2016) and Mawere (2012) argue the concept of *Ubuntu* is difficult to define because it is not only elastic, but pragmatic and is used in almost all spheres of the Bantu world-views. Broodryk (2012) describes *Ubuntu* as an ancient African world-view based on primary values of intense humanness, caring, sharing, compassion that are associated with values which ensure happiness and a qualitative human community in the spirit of the family. For Mkize (2003), *ubuntu* is basically about qualities such as empathy, warmth, understanding, interaction, communication, participation, harmony as well as a world-view of cooperation.

Nhlanhla et al., (2016) rejects the imposition of western forms of knowledge such as mental health particularly because of the Western European idea of the individual rationality. These scholars agree that the individual rationality is embedded in the dominant western philosophy. Markus &Kitayama (1991) further notes the idea of individualism is self- contained, atomistic view of oneself and a container of psychological attributes and emotions. If one is diagnosed as epileptic, for instance, he/she does not have to consult elders for assistance, but can rather deal with the problem on her own. This is contrary to the *Ubuntu* Philosophy which is embedded in the collectivist approach.
Bennett and Patrick (2011) proclaim that the *Ubuntu* concept implies a collective personhood wherein an individual becomes a person through other people. Museka & Madondo (2012) note as a philosophy, the concept becomes allergic to any form of discrimination. Researchers argue that the *Ubuntu* concept is a way of living which contributes positively towards the welfare of all members who make up the universe. This philosophy is important in the study of epilepsy for a number of reasons. It is enshrined in the traditional African values and belief system and also shapes the behaviour and thinking of people in the African descent. It is seen as effort of helping people in the spirit of service, show respect to others and enhance an honest and trustworthy environment (Mabvurira, 2016).

Interdependence is an important component of what it means to be a person in the African societies. That is the African value perspective. Central to this African value system is the concept of *Ubuntu*-spirit of humanity (Kapumba, 2010). *Ubuntu* is an aspect of all Bantu languages in eastern, southern and parts of West Africa (Chakuchichi & Zvamba, 2010). The *Ubuntu* philosophy serves as the spiritual foundation of most African countries. It is a worldview encapsulated in the adage, “I am because you are” meaning to say a person is a person through other people. As highlighted earlier, implicit in this worldview is the interdependence and co-existence of people.

In this context Nhlanhla et al., (2016), argue that healing in African indigenous thought is not concerned with the individual *per se*, but the system as a whole. If one is diagnosed to be epileptic, he should consult the family elders herein referred to as the “system as a whole”. A round table meeting is arranged to discuss the way forward. The person with epilepsy has no choice, which could be the explanation behind dual medication. Nhlanhla et al., (2016) further argue that this is in line with the holistic, African indigenous worldview which does not draw radical distinctions between the mind and the body, matter and non-matter, and the living (life) and the deceased (death).

Nhlanhla et al., (2016) also proclaim that healing in the African context takes into account African epistemologies and metaphysics, which is the theory about the nature of humans and the world in which they live in. Healing also takes into account axiology (value systems) and ontology (the nature of being). Mkhize (2008) states the strong belief in Africans is that life does not end with physical death, but rather being human entails a series of transformations from one state to another. This leads to ancestor hood and unity with the divine. In other
words, indigenous diviners have the ability to access energy or life force in order to heal people with epilepsy. Nhlanhla et al., (2016) therefore views spirituality as an important aspect of healing and that illness is a result of the disruption of equilibrium forces. Mkhize (2008) state the equilibrium is restored by means of ritual and other processes, and this leads to good health.

Ramose (1999) points out African peoples have associated bodily and spiritual healing to their relationship with the living dead. What it means is that communication between the living and the dead is vital. Ramose (1999) also examines the epistemological and cultural tension between the bones (the African diviner’s diagnostic tools) and the stethoscope (diagnostic tool of the western medicine). He concludes that the tension ensues from different paradigms of healing but believes none has prior and unquestionable superiority over the other.

Ngoma, Prince & Mann (2003) reiterate that in the traditional African medicine health care delivery is provided through curative, apprenticeship, promotional and rehabilitative services. They argue that these services are provided through the Ubuntu traditional and cultural philosophy. The authors also observe that the Ubuntu philosophy requires traditional healing health services to be provided under a humanity first consideration and not for material gain. In the Ubuntu philosophy, health provision is open for all; traditional healers are open and available to serve others when they need health care services.

The World Health Organisation (2001) agrees with the perception that traditional health care services in Africa are practiced according to the Ubuntu philosophy. The organisation also describes this philosophy as an African ethical or humanist philosophy that focuses on people’s allegiances and relations with each other. In other words, in accordance with the philosophy, people are there for each other. The philosophy encourages the collectivist approach and upholds the principle that the living will be united throughout with the dead (World Health Organisation, 2001).

Awofeso (2005) proclaims that the Ubuntu philosophy requires traditional healing services to be provided for free, not for material gain. Traditional health practitioners are obliged to provide health care services to their clients without demanding any charges. Awofeso (2005) observe that this taboo imposes a strong code ethics on practitioners in the provision of health
care services which they should abide to. This also places a huge responsibility on the practitioners to demonstrate a high degree of professionalism and integrity in the discharge of their duties. In other words, a traditional health practitioner who believes in Ubuntu philosophy will strive to provide health care services according to the tenets of the taboo.

Mabvurira (2016) postulate the *Ubuntu* concept plays an important role in the treatment and care of people with chronic illness in African communities. Apart from providing free health care services, Engelbrect & Kasiram (2012) argue that in accordance with the principle, people with mental illness are well supported and cared for by their families and the wider communities. The community is important and individual needs are always secondary to family and community needs. If one’s behaviour is deemed to benefit the community, then he/she is deemed as a human. Mabvurira (2016) also emphasize that the *Ubuntu* values the way people with chronic illness are looked after in African communities. Broodryk (2006) notes that under this philosophy, a person must involve other people such as brothers and sisters for life and this always makes one’s problems lighter.

Mbigi (1995) speaks about the African Collective Fingers Theory which states that the thumb needs other fingers in order to work effectively. In this philosophy, people should work together and must be treated with dignity and worth, whether fit or ill. Broodyk (2006) also posit that sympathy is important and is practised when a problem befalls a community member. Healing and the well-being of people are a communal endeavour because all members of the community work together in preserving and securing life, health and well-being of fellow members (Mabvurira, 2016). The process of obtaining diagnosis from a traditional healer is not an individual affair. Shoko & Burck (2010) agree that a sick person is usually accompanied by family elders who can agree with or can refute the results of the diagnosis.

From the foregoing, it can be concluded that the *Ubuntu* philosophy is a fountain from which actions and attitudes of people with epilepsy and their relatives follow. Mabvurira (2016) also claims that it is the bedrock of African life which promotes communalism and a spirit of participatory humanism. Nhengele (2013) is of the view that participating in community matters also gives a person a place of belonging, personhood and human dignity.
4.6 Developing indigenous technologies for sustainable epilepsy management

It is not in dispute that community has a positive attitude towards indigenous technologies in epilepsy management. What is outstanding is now to develop these indigenous technologies for sustainable management of epilepsy. Some researchers have suggested mainstreaming traditional counselling and traditional medicines as the way forward. Some have suggested the development of the multi-cultural approach to epilepsy management.

4.6.1 Mainstreaming traditional counselling in epilepsy management

The US Department of Health and Human Services [HHS] (2014) recommends the development of culturally responsive clinical skills on the basis that they are vital in the effectiveness of behavioural health services. The department describes cultural competence as the ability to honour and respect the beliefs, languages, interpersonal styles and behaviours of individuals and families receiving services and the staff members providing such services. According to HHS (2003) cultural competence is dynamic, an on-going developmental process which require a long-term commitment that is achieved over time. Cross et al., (1989) has likened cultural competence to a set of behaviours, attitudes, and policies that enable a system, agency, or group of professionals to work effectively in cross-cultural situations. Similarly, people who offer psychological counselling to people with epilepsy should be competent in traditional African beliefs in causes and treatments of epilepsy. Not only that, they should also be equipped with counselling from an afro-centric perspective.

Counselling in afro-centric perspectives takes cognizance of the cultural aspects, context, system and support required (Chakuchichi & Zvamba, 2010). As alluded earlier, life threats such as epilepsy are explained in cultural practices. As such, the whole family including extended families should also take part in the treatment processes. Chakuchichi & Zvamba (2010) also emphasize that in African societies, life-threatening situations are explained in terms of the family systems and in many terms of cultural values contextual to the circumstances. Madhibha (2005) support this perspective, and goes on to explain that no individual can exist in isolation. In other words, everyone interacts with other individuals and with the surrounding environment. Counselling in epilepsy management should thus take into consideration family systems, tribal or community systems and church or other organisations to which a person who suffers with epilepsy belongs. Counselling in this context takes place in groups and ceremonies. In societies where Christianity has been accepted, counselling
takes place in the form of prayers and visitations, fellowship and giving support to the affected families (Chakuchichi & Zvamba, 2010).

From the foregoing, it can be noted that culturally responsive skills in counselling people with epilepsy help in improving their engagement in services. It improves the therapeutic relationship between the client and the counsellor. It also helps in treatment retention and outcomes. According to HHS (2014) cultural competence is also an essential ingredient in decreasing disparities in behavioural health. Eventually, the development of cultural competence epilepsy management has far reaching effects, not only for the clients, but also for the counsellors and communities. HHS (2014) notes that cultural competence improves sustainability of organisations, reinforces value of diversity, ensures flexibility as well as responsiveness in addressing current and changing needs of clients, the communities and the healthcare environment. Cultural competence also ensures a good responsive organizational strategy and help in mitigating organizational risk. Finally, it provides cost-effective treatment matching with people with epilepsy.

Barley (1990) believes traditional counselling prepares people to interact with the world and also helps in interpreting the thoughts of past men and women with a broad mind-set. The values instilled in the counsellor should resemble the values of the community. Mbiti (1971) in Chakuchichi & Zvamba (2010) proclaims that Africans are always religious; as such the value of traditional counselling in epilepsy management is not debatable. Bryant-Davies and Ocambo (2006) postulate that the first people in India have traditional psychological systems and healing practices that are based in spirituality, ceremony and ritual. The authors also consider language, harmony within the community, the environment and cultural practices as relevant cultural practices as relevant. However, the two observe that much anecdotal data available show that these psychological and traditional healing practices models are beneficial to the first peoples, but nonetheless advocate for more reliable data regarding evidence-based practices that really work in combination with psychological and psychiatric approaches, e.g. Cognitive Behaviour Therapy and medication.

Silversides (2010) believes there is a level of cultural mistrust particularly when psychology or medication is a product of the culture from colonisers. As such, there is need to measure the cultural mistrust towards modern counselling practices in epilepsy management. Yang (2012) state in the last 30 years or so, there has been an increasing number of psychological
counsellors in non-western countries that have expressed their dissatisfaction over the artificiality, superficiality and incompatibility of biomedical practices in understanding, explaining and or predicting local people’s psychological and behavioural functioning. According to Yang (2012), countries such as Cameroon, Hong Kong, India, Japan, Korea, Mexico, Latin America, Taiwan and the Philippines have collectively attempted to transform western practices into indigenised practices.

Yang (2012) and Adair (2006) agree that indigenisation of biomedical practices is only possible if theories, concepts, methods, and tools used are sufficiently compatible with the psychological and behavioural phenomena that is structurally and functionally in the ecological, economic, social, cultural and historical contexts. What it means is that a strong cultural consciousness or cultural-mindedness through which non-western practitioners will is needed to give up a habit of ignoring their own culture. Non-western practitioners must also pay attention to cultural factors that are involved in epilepsy management.

More specifically, according to Adair (2006), local psychological counsellors must adopt a habit of criticising western models and methods as culturally inappropriate and also adapt methods to local language and culture, choose research topics in the national interest and continuously study unique behaviours and thoughts about epilepsy. Adair (2006) claims the indigenisation of western practices follows the following sequential stages:

**Figure 4.1: Sequential stages in indigenisation of western practices**

![Sequential stages in indigenisation of western practices](image)

IMPORTATION

IMPLANTATION

INDIGENISATION

AUTOCHTHONIZATION
The process begins by bringing biomedical practices into the counselling system; these are fixed and deeply indigenised. Adair (2006) defines autochthonization as the processes leading to a self-perpetuating discipline independent of its imported source, the culmination of the indigenous process. He also emphasizes that a purposively created indigenous practice in the autochthonization stage can be gradually formed in a non-western country and is critically matured and thus established scholars can now focus on research problems that are culturally appropriate and nationally important, for example, indigenous practices of epilepsy management. He also argues that a well-developed non-Western practice must be as comprehensive as an American indigenous practice in the scope of fields and in the multiplicity of research paradigms. Yang (2012) argues that the primary purpose of indigenising western practices is to assist non-western psychology to re-find its socio-cultural roots in order to ensure the knowledge generated can have sufficient socio-cultural relevance to the mind and behaviour of local people.

However, Yang (2012) admits that the process of indigenisation can never be complete in its cultural footing as endogenous formation because of various reasons. First and foremost, the indigenisation process has to be carried out on the basis of already existing biomedical practices, as such elements of this underpinning can never be completely eliminated or replaced by indigenous elements (Yang, 2012). Ho (1998) and Yang (1998) agree that instead a cross-fertilisation of Western and native ideas may frequently occur. Yang (2012) also observes that the process of indigenisation is also undertaken under continuous influence of new theories, concepts, methods and tools that are incessantly imported into non-Western societies. It should be noted that in many non-Western countries, they make use of English texts and journals as teaching materials in psychological counselling and this affects the formation of indigenous practices in epilepsy management. Finally, Yang (2012) notes that the indigenisation process is carried out under the condition that the majority of local psychological counsellors will be persisting in conducting westernised research, and the majority of them may fail to sympathise with the indigenisation movement for various reasons.

4.6.2 Mainstreaming traditional medicines in epilepsy management
Mposhi, Manyeruke & Hamaushe (2013) state about 80 percent of the population in Zimbabwe is relying on traditional medicines to cure ailments such as epilepsy with some
scholars like Shizha & Charema (2012) putting the figure at 90 percent. Shoko (2007) also agrees that serious diseases and illnesses such as epilepsy are treated through various forms that involve herbal treatment. The United Nations (2004) estimate over a one-third of the world’s population is lacking regular access to affordable drugs, for instance anticonvulsants drugs. What it shows is that modern medicine is not a realistic treatment option for the substantial proportion of the world’s population. On the contrary, indigenous medicine is widely available in remote areas due to its availability locally at a low cost and affordability by the vast majority of people in developing countries. The United Nations (2004) also cites an example of India where government has reported that about 70 per cent of the population is using traditional Indian medicine.

According to WHO (2000), a resolution was passed and adopted in Africa on promoting the role of traditional medicine in health systems. The WHO Regional committee for Africa in August 2000 agreed that African member states were aware that about 80 per cent of the population in the region was depending on traditional medicine for its health care needs. This has seen a global surge in the use of complementary and alternative medicines in developing countries (United Nations, 2004) and the mostly widely used complementary and alternative therapies are herbal medicines. The Convention on Biological Diversity in 2000 reported that the world market for herbal medicines including herbal products and raw materials was US$60 billion. Most recently, the African Union declared the period 2001 to 2010 as the decade of African traditional medicine (UNIAIDS, 2010). A survey by WHO (2001) on the legal status of 10 traditional and complementary/alternative medicine revealed that of the 44 African countries surveyed, 61% had the legal statutes regarding indigenous medicine. Indigenous practices are widely accepted and used in prevention and treatment of physical and mental disorders, including epilepsy as well as social imbalances.

Generally, Karim et al., (1994) proclaim three categories of traditional medicines in existence and identifies these as preventive or prophylactic medicines, traditional medicines that treat ailments and medicines that are used to destroy the power in others. These researchers contend that medications in the first category play an important role because a large part of the healer’s practice is concerned with prescribing these preventive medicines. Chavunduka (1994) observes that preventive medicines can be used for self-fortification, can be sprinkled around to cause discomfort to a witch.
Traditional medicines for treatment are prepared in different forms or decoctions that are used orally, as rectal enemas or through inhalation (Karim et al., 1994). Others are made into powders, lotions, poultices and a variety of ointments and Karim et al., (1994) state these comprise animal fat, clay and sometimes ashes. Shizha & Charema (2012) claim herbal treatment involves burning roots or leaves in fire in which the client is made to inhale the smoke to chase away some evil spirits. In some cases, these herbs are mixed with water and the client drinks the herbal solution. These recipes are kept confidential and are part of the knowledge of the healer and his or her apprentice. The third category that targets particular individuals such as witches is used by placing a concoction on the witch’s path and as he/she passes through will contact a fatal disease (Karim et al., 1994).

Hui (1999) claims human and animals have used and tested botanicals to relieve their suffering since time immemorial. In China, they use traditional Chinese medicine (TCM) which has also attracted the attention of western countries. United States of America is one such country and Hui (1999) states the appropriate use of Chinese herbs requires a proper TCM diagnosis of the zheng (pathophysiological pattern) of the client, a correct selection of the corresponding therapeutic strategy and principles that guide a choice of herbs and the herbal formulas. However, Hui (1999) also notes that if used without a proper guidance a wide array of complications may result.

In epilepsy management, Reetish et al., (2011) and Samieti et al., (2012) proclaim that a number of drugs are available for epilepsy treatment in modern therapy, but their major challenge is the chronic side effects. A study by Reetish et al., (2011) notes that one patient out of three is resistant to anti-epileptic drugs. To this end, the researchers suggest use of new drugs which have least side effects. From time immemorial, plants have been used by mankind for their relieving and therapeutic abilities (Reetish et al., 2011) and we still rely on their healing properties. To this end, this study seeks to identify the advantages of using traditional medicines in epilepsy management.

Studies, particularly in non-Western countries have supported use of herbal drugs for epilepsy treatment because of their fewer side effects. There are many drugs being used for epilepsy treatment and many of these are still being explored scientifically to ascertain their anticonvulsant activity. According to Samieti et al., (2012), it is estimated that in many developing countries of the world, about 80% of the population are still relying heavily on
traditional healers and medicinal plants for their primary healthcare needs. The researchers also proclaim that several plants that were reputed to possess antiepileptic properties have been found and they contain active ingredients after being tested with modern bioassay for detecting anticonvulsant activities.

According to Olufunmilayo, Omoniyi and Olayemi (2007), traditional herbs are very useful and indispensable in the struggle for seizure management and future Anti-Epilepsy Drugs development. To this end, Kupiec & Raj (2005) suggest that alternative therapy including herbal drugs and complementary medicine is becoming very popular. Reetish et al., (2011) identifies a number of antiepileptic herbs that are used as anticonvulsants in India. These include flowers, roots, leaves, cow dung just to mention but a few. There are processes that are carried out in coming up with a proper antiepileptic drug. Several studies in India have recommended use of these antiepileptic herbs. Reetish et al., (2011) also state that some of these herbs are now documented and scientifically proven. The herbal remedies can make the anticonvulsant treatment more rationale and patient friendly (Kupiec & Raj, 2005). A study by Reetish et al., (2011) reveals that certain drugs mentioned in various traditional systems of medicines across the globe have not been exploited up to the desired level.

From the foregoing, it can be noted that traditional medicines are used in epilepsy management. Traditional medicines are widely recognised in developing countries and they are needed because of their availability and low cost. Member countries in Africa have also approved use of traditional medicines and they become a relevant subject matter in epilepsy management.

4.6.3 Developing a multi-cultural approach in epilepsy management

Discussions carried so far have shown that health attributions are influential towards health beliefs and subsequent health behaviours of people with epilepsy. These health attributions are shaped by culture and in turn, cultural health attributions have an effect on beliefs about the disease, treatment as well as the health practices. Similarly, cultures also influence health and healing practices. Vaughn, Jacquez & Baker (2009) postulate that certain cultures are culture-bound and have syndromes which require medical practitioners to be trained. There are other socio-cultural factors like immigration, social support and acculturation that play a significant role towards health attributions and medical adherence.
Vaughn et al., (2009) also posit that culturally diverse patient populations also require medical educators to learn new methods about cultural assessment and treatment so that they can be effective. These medical educators need teaching, learning approaches and philosophies that enable health attributions, practices and beliefs of patients. The majority of people with epilepsy consult traditional healers, thus a non-competitive relationship between modern practices and indigenous must be encouraged. This can be done through sharing of information, research and offering training to the traditional healers in order to strengthen this collaboration. Several field experiences have also emphasized that working closely with these traditional healers, the community and religious leaders give the primary health care workers a better opportunity that ensures they gain acceptance from the community and to modify certain harmful practices.

Feksi et al., (1991) also believes that the role of traditional healers in epilepsy management should not be discredited because in many instances the person suffering from epilepsy tends to obtain a degree of secondary benefit in the way of reassurance and emotional support from this form of intervention. They also encourage efforts in integrating indigenous and some biomedical interventions in such a way that provide a range of services by offering holistic support as well as care for people with epilepsy and their families.

Shizha & Charema (2011) agree with the perception that the current healing systems within the Southern Africa are focusing on the holistic approach to health and wellness of patients. The authors also note these biomedical approaches and traditional healing systems which incorporate spiritual healing, mental healing, physical as well as social healing also play a crucial and significant role in health delivery. They therefore accept an integrative approach as a vital component of holistic healing. In their findings, they observe that biomedicine overlooks the relationship between the social and spiritual being to the body and the effect that the former has had on the latter. Eventually, they conclude that medicine and healing are cultural practices; as such the process of healing and interpretation of illness also reflects and reinforce the cultural definitions of the health problem. Shizha & Charema (2011) also state that while the situation of traditional medicine appears to be weak and marginalised, there are current efforts being made in African countries to integrate biomedicine and alternative healing paradigms.
Abiodun (2005) also agrees with the concept of integrating biomedicine and traditional arguing that it can yield extensive results in healing the physical body and the psychological illnesses. He also highlights that the functioning of the general state of the body and the degree it is free from the physical and psychological illness is always the source of concern for medical experts. Shizha & Charema (2011) added that within the African traditional culture one of the most venerated health components has been the use of African traditional medicine using diviners, midwives and herbalists. They also believe that harmonising traditional medicine and modern medicine means more than utilisation of modern research design or scientific technology.

According to WHO (2001), traditional healers have been known for making use of herbal remedies to treat Africans for some generations now. Shizha & Charema (2011) complain about the pervasive nature of globalisation which has tended to marginalise indigenous healing and medicinal plants while at the same time global scientific researchers have continued to plunder indigenous resources. Nevertheless, Hewson (1998) observes that in spite of the negative global interference, the ancient system of healing continues to thrive in Africa and traditional healers can be located in many parts of the world.

Shizha & Charema (2011) note under the colonial rule, traditional healers were stereotyped as witchcraft practitioners and the practice of traditional healing was outlawed for that matter. However, it would appear many African countries have a positive attitude towards traditional medicines and this is confirmed by NEPAD (2001) which states that interest has been expressed in integrating traditional African medicine by the continent’s health care system. In the neighbour South Africa, Morris (2001) identifies a 48 bed hospital that combines traditional African medicine with homeopathy, western methods and traditional Asian medicine that was established. The hospital was founded by a traditional African healer and is the first of its kind in South Africa. Mpofu (2003) and Shizha & Charema (2011) insist that rural Africans usually seek help from traditional faith healers first before they go for modern health facility. Watts (1989) revealed that rural Africans who suffer from epilepsy consider the condition to be the domain of traditional healers and they only visit the hospital when they require treatment for burns suffered during fits.

Krippner (2002) suggests an assessment of herbal medicine scientifically as some of them may be toxic. This clearly shows the majority of Africans are making use of traditional
medicines to treat epilepsy. As shown by Bonsi (1982), more than 70% of people in African countries rely on traditional medicine as a primary source of healthcare. Peltzer et al., (2006) argue there is a growing debate that is gradually gaining ground and scope with a view to recognise traditional medicine and to consider it to be practised officially in order to compliment shortage of medical personnel. Some reasons advanced include the fact that it is easier to train traditional healers than medical doctors.

Shizha & Charema (2011) insist that traditional medicine is superior in treatment of psychic diseases because traditional healers are knowledgeable about social and ethnic backgrounds of patients. Stenglass (2002) add there is a possibility of finding effective substances used in traditional medicine that are claimed to be unknown to modern medicine. Traditional healers also conserve part of the African culture. However, Shizha & Charema (2011) believe the integration of traditional and modern medicine will largely depend on the official recognition of traditional medicine as a form and type of medical system. This is only possible through a structured cooperation and formal referral in both directions. Peltzer et al., (2006) observed that fewer patients are referred to traditional healers from the biomedical health system even in cases where traditional medicine has an advantage.

In China, Changli & Story (2005) have a similar story on harmonisation of traditional and modern medicine. They note that traditional medicine is practised all over the world and that many developing countries are depending heavily on indigenous medicines for treatment and prevention of diseases. On the contrary, western countries are practising “western” or “modern” medicine. Changli & Story (2005) observe a dramatic increase in popularity of various forms of traditional medicines in China. They agree that many countries practise both traditional and modern medicine. However, traditional medicines and modern medicines are poorly integrated with little understanding by practitioners and the patients. Changli & Story (2005) therefore propose an effective harmonisation of traditional and modern forms of medicine. They strongly believe this requires changes in training and training curricula, for both traditional medicine practitioners and western practitioners. They also opine that efficacy and safety traditional scientific remedies must be established in accordance with the same criteria used in modern medicine.

In the United States of America, a Workshop on Alternative Medicine (1992) has since revealed a current interest in traditional and complimentary medicines in the health care
industry, media, governmental agencies and the general public. According to Wetzel, Eisenberg, and Kaptchuk (1998) an increasing number of insurers managed care organisations have been providing benefits of traditional medicine and the majority of U.S medical schools are now offering courses that cover traditional medicine. What it means is that people in the country are making use of traditional and modern paradigms concurrently and this has created a need for appropriate and smooth merger of the two medicines, particularly in the area of study, epilepsy management. Hui, Yu & Zylows (2005) reflects that theories and techniques of traditional Chinese medicine encompass practices that are classified as complementary medicine in the United States of America and these have increasingly become important in the health sector. Hui, Yu & Zylows (2005) argue that traditional medicine is affordable, safe and effective if it is used appropriately. Spencer & Jacobs (1999) also claim that vigorous research has shown an appetite for the merger of traditional Chinese medicine with modern medicine at clinical level. Academic researchers and institutions are also becoming interested in the potential of integrating traditional medicine and modern medicine.

No matter how indigenously minded investigators may be successful in indigenising western practices, it can never be as pure and genuine as practices spontaneously developed in Euro-American societies. Yang (2012) warns non-western psychological counsellors that they have already lost their historical opportunity to develop pure indigenous practices. He argues non-Western practitioners can strive to construct their indigenous practices with a sufficiently high degree of indigenousness and then be satisfied they are less perfect than western practices but still useful psychology. Yang (2012) opines that non-Western societies need their practices because they are more functional and useful in understanding, explaining, and predicting local people’s minds and behaviours. They also help in solving local people’s personal and social problems. Yang (2000) suggests that indigenous practices can be developed and integrated with all western practices to construct a balanced human psychology.

4.7 Chapter Summary
In this chapter, the study examined indigenous perspectives in epilepsy management and these included indigenous technologies used in the management of the condition. To this end, a critical analysis was carried on the diviner, herbalist and the spiritual or faith healer. The study also looked at the community acceptance of these indigenous in the context of
complimentary or alternative medicines and the effects of Ubuntu philosophy in epilepsy management. The study finally examined mainstreaming of these indigenous technologies in the context of traditional counselling, traditional herbs and harmonization of traditional medicines and modern medicines. In the next chapter, the study carries an analysis of research methods used in the study.
CHAPTER FIVE: RESEARCH METHODOLOGY

5.1 Introduction
In the previous chapters this study analysed theories relevant to indigenous practices in sustainable management of epilepsy; the Health Belief Model (HBM), the Agency Framework, the Technological Acceptance Model (TAM) and the Sustainable Livelihood Theory. The researcher also reviewed literature on global and indigenous perspectives on epilepsy. This chapter is now dedicated to the methodological framework that was used when exploring indigenous practices in sustainable management of epilepsy in Zimbabwe. It outlines all the steps that were followed in this endeavour. I begin by addressing the philosophical foundations of the study, the research design adopted and also provide the justification for the qualitative driven research study that was used. In this chapter I also examine the target population, the sample and the sampling technique used in the study. The study finally carries an analysis on the research instruments, data collection methods, data presentation, interpretation and analysis and the ethics adopted in the study.

5.2 Epistemological and Ontological Foundations of the Study
This study is based on the epistemological and ontological foundations of the African philosophy. Previous research studies have demonstrated a link between epilepsy management and indigenous practices that include spiritual healing and herbal treatment justifying the need to understand the concept of African philosophy in this study. Dewa (2012) posit that studies at local hospitals have also demonstrated that the majority of those on anti-epilepsy medication are defaulting medication, and chances are that they are making use of these indigenous practices to manage their condition. This study thus examined the African philosophy foundations of indigenous practices in epilepsy management.

African philosophy is described by Mabvarura (2016) as a methodology which operates within the African ways of knowing and existence resulting in the implementation of methods, principles, concepts, and ideas which are derived from our own African experiences. It is an orientation on data which the researcher assumes responsibility and right in articulating research participants’ reality from emic perspectives, thus drawing their own values and ideals. Mulemi (2011) thus concludes that the African philosophy is a reaction to distortions of Eurocentric perspectives about the phenomenon of the local African environments. It therefore competes with other philosophical perspectives like Eurocentrism.
The following paragraphs explain why the African philosophy was found to be the most suitable in this study.

Mkabela (2005) and Mabvarura (2016) observe that Africans have been researched from a Eurocentric standpoint for a long time. This, Owusu-Ansah and Mji (2013) believe have resulted in the African voices being either side-lined or suppressed because in the predominantly Western oriented academic investigations the African indigenous knowledge and methods are not taken seriously or are often ignored. According to Mkabela (2005), the Eurocentric approaches do not conform to the people cantered values that are aligned to African indigenous perspectives. Reviere (2001) argues that the traditional criteria of the Eurocentric approach of reliability, objectivity and validity are inadequate and also incorrect particularly when researching human experiences. She also believes the Eurocentric approach to be coloured with European phenomena that will be under investigation.

Several researchers such as Mabvarura (2016), Mkabela (2005), Pellern (2012) and Reviere (2001) are all in agreement with the fact that the Eurocentric criterion of evaluating research in the social sciences is deceptive and inadequate. Reviere (2001) goes on to highlight that even if these criteria are adequate in the physical sciences from which they were borrowed from, they are not appropriate if human behaviour is entered in the equation. Asante (1990) and Banks (1992) supported by Reviere (2001) criticizes the Eurocentric concept of objective, which they regard as dispassionate, value free and invalid operationally for what they claim to be an objectivity that is passed on and regarded as a collective European subjectivity. Asante (1990) supported by (Fisher, 2010) is of the opinion that Eurocentric thinkers, in particular the positivist thinkers or empiricist possess an intrinsic impediment because they are reluctant to see human actions from emotions, attitudes and the cultural definitions in a given context.

To this end, the researcher decided to approach his study from an African philosophy standpoint because it has some values, which include axiology, ontology and epistemology (Mabvarura, 2016). This study has therefore opted for this paradigm (Mabvarura, 2016; Pellern, 2012; Mkabela, 2005; Mazama, 2003) because it deals with question of African identity from the African perspectives as located, centred, grounded and oriented. The major focus of this study was indigenous practices in sustainable management of epilepsy in Zimbabwe. The study was guided by the following specific objectives:
• To analyse why people with epilepsy are not on anti-epilepsy medication
• To examine indigenous technologies used by people with epilepsy to manage their condition
• To analyse community acceptance on sustainable indigenous technologies of treating epilepsy in Zimbabwe and
• To establish strategies for mainstreaming indigenous treatment practices in relation to the development of sustainable epilepsy management in Zimbabwe.

As such, knowledge, science and the methods of investigation cannot be divorced from a people’s history, worldview and cultural context. It becomes necessary to approach this research study from an African ontological and epistemological standpoint. What then is ontology?

Ontology is the study of being (Crotty, 2003; Fisher, 2010). It is concerned with what kind of world is being investigated, the nature of existence and the structure of reality (Ahmed, 2008). According to Guba and Lincoln (1989) supported by Ahmed (2008) ontological assumptions are those that respond to the question; “what is there that can be known?” and or “what is the nature of reality?” Ahmed (2008) recommends ontology which is essentially of social world meanings. I agree with Ahmed (2008) because researchers in this world assume it is a world that is populated by human beings who have their own thoughts, meanings and interpretations like people with epilepsy, their parents and guardians, traditional healers and pastors or prophets in the African society. These people have their own thoughts, interpretations and meanings about epilepsy management. This is evidenced by reports that there is less uptake of anti-epilepsy medication at government hospitals, clinics and non-governmental organisations (Epilepsy Support Foundation, 2016). Dewa (2012), in a similar study observes that a total of 209 patients in an epilepsy register under his study were not on follow-up contrary to the 433 recorded incidences of epilepsy in Gokwe South Region, Midlands Province in Zimbabwe. Mpofu (2001) thus strongly believes those who do not come for epilepsy medication make use of traditional healers and prophets. It therefore becomes necessary to understand the ontological reality from an African perspective.

Brown (2004) supported by Jimoh & Thomas (2015) reflect that culture is very important in understanding the cognitive reality. The authors further highlight that unless one is intimately
familiar with the ontological commitments of a culture, it becomes difficult to appreciate or understand these commitments. The first objective of this study questions why people with epilepsy are taking traditional medicines instead of anti-epilepsy medication. As shown by Jimoh & Thomas (2015), what is central to the traditional African thought is the idea of ancestral spirits whose intentions are difficult to know. These ancestral spirits are individuals who at one point lived in this physical world. Many Africans are of the view that even though they are physically dead, they are capable of initiating actions of their own (Mabvarura, 2016). Brown (2004) argues having the knowledge of their intentions indeed provide a ground of understanding the physical occurrences. What it shows is that for Africans, there is more to reality than what is assumed to be within the realm of empirical inquiry, justifying the need to understand ontological reality in relation to African culture.

The second objective of this study is thus to examine indigenous technologies used by people with epilepsy to manage their condition. Brown (2004) suggest the fundamental tenet of this African culture is that there is more to reality and the realm of experience as compared to that which is readily accessible via empirical inquiry. Brown (2004) further argues that a study of this calibre can be performed by understanding the natural phenomena through appealing experiences of participants whose characterisations are not empirically confirmable but nonetheless that can be ascertainable. The argument here is that in examining the indigenous technologies that are used by people with epilepsy, one should understand there are spiritual components of nature which influence human experiences and perceptions. The phenomenon is not readily explainable by empirical verification; thus it can be explained by the causal efficacy of spiritual components of the nature. This analysis shows a typical African ontological and cultural view of reality fundamentally different from the Western ontological and cultural view of reality which explains science as the primary determinant of what is not real and what is real. As shown by Jimoh & Thomas (2015), anything that cannot be supported or confirmed by science is considered by the Western teaching as a metaphysical fantasy or superstition.

People who are living with epilepsy are not taking medication because they are using indigenous practices of epilepsy management, largely ignored by western practices (Dewa, 2014). What it shows is that indigenous practices are affecting bio-medical treatments, and it becomes a causal reality. From an African perspective, ontology emphasises collective identity, collective destiny and collective struggle. According to Pring (2004), one purpose of
A research study is to explain what the case is or to investigate what has happened and the reason for seeking explanations might be to predict on what may happen in future or what happens if there are certain interventions. For instance, if the government continues to ignore indigenous practices and technologies of epilepsy management, some people with epilepsy will continue to die prematurely. This means I am looking at what will happen if indigenous technologies are not included in sustainable management of epilepsy. Understanding African cultural and ontological reality becomes a step in the right direction. The next question that comes into one’s mind is the nature of African epistemology.

This study also wants to determine community acceptance of sustainable indigenous technologies of treating epilepsy in Zimbabwe and to explore strategies for mainstreaming indigenous treatment practices in relation to the development of sustainable epilepsy management in Zimbabwe. Jimoh & Thomas (2015) argue that there is a distinctive way of reacting and perceiving the world, and that is what constitutes epistemology. Crotty (2003) describes epistemology as a way of understanding and explaining how we know what we know. It is concerned with providing a philosophical grounding to decide what kinds of knowledge are possible and how to ensure that they are adequate and legitimate (Maynard, 1994). From an African perspective, epistemology stresses the importance of understanding the African history, culture, and heritage in order to acquire knowledge that is needed to develop to the fullest potential as human beings and achieve liberation (Mabvurira, 2016). Crotty (2003) thus recommends the constructionist epistemological stance which he describes as a view of all knowledge. Therefore, all meaningful reality is contingent upon the human and is thus constructed in and out of interaction between the human beings and their world which is then developed and transmitted within an essentially social context (Crotty, 2003).

What it shows is that meaning is not discovered but is constructed, for instance, strategies for mainstreaming indigenous treatment practices in relation to the development of sustainable epilepsy management in Zimbabwe. Construction of meaning will be transmitted within an essentially social context.

In Africa, it is widely believed that traditional and spiritual medicine plays an important role in treating people with epilepsy. People with epilepsy are relying heavily on traditional and spiritual medicines to sustain their livelihoods and these practices have reached a crucial stage of development in Zimbabwe. However, Maroyi (2013) contends that despite the increasing acceptance of traditional medicine in Zimbabwe, the rich indigenous knowledge
on these indigenous medicines is not adequately documented, a knowledge gap which this study sought to cover. Winkler et al., (2010) also reports that in sub-Saharan Africa, studies on the attitude of people (both affected and not affected by epilepsy) towards traditional medicine for treatment of epilepsy are scarce, a knowledge gap which this study also seeks to cover. It was therefore necessary to use this methodology in this study.

According to Jimoh & Thomas (2015), African epistemology deals with what is meant by Africans and what they understand when they make the knowledge which they claim. Simply put, this means what Africans see and mean when they talk about reality. Asante (2000) adds; several elements exist in the mind of Africans which govern how human beings behave in regard to cognitive and these are practicality to holism, the idea of inclusiveness, the prevalence of poly-consciousness, the value of personal relationships and the unity of worlds. These constitute the element of the African mind, for instance Mpofu (2003) explain that throughout history epilepsy has been perceived as a mysterious and supernatural disorder. Studies about epilepsy have also shown that a widely held notion about epilepsy in Africa is that epilepsy is caused by evil spirits and witchcraft (Carod-Artal & Vazquez-Cabrera, 2007). Mutanana & Mutara (2015) also argue that many communities in Zimbabwe still believe that epilepsy results from witchcraft or possession by evil spirits. There is a grave social stigma attached to epilepsy with some people believing that it is a contagious disease (Epilepsy Support Foundation, 2016). Thus Mpofu (2001; 2003) is of the opinion that traditional healers and prophets (faith healers) are crucial at community level and they are the first port of call and often the last resort.

Historically, epilepsy has been neglected, feared and misunderstood (Cure, 2013). As such, a veil of secrecy surrounding this disease has resulted in these myths, superstitions and general lack of knowledge. To explain this veil of secrecy surrounding epilepsy, Jimoh & Thomas (2015) argue that from the earliest times has been an underlying commonality on the African apprehension about the universe, society, environment, society and the divine. Jimoh & Thomas (2015) also suggest that whilst the self-remain real and the material concrete for Africans, both the material and the self-remain interwoven by tradition and custom with the former based upon human correlativity. What it shows is that Africans conceive reality as a large system in which personalism should be expressed in concrete consubstantiation of the spirit.
African epistemology is situated within the cultural context. As highlighted by Kaphagawani (1998), the way epistemic rationality is filled out and the concrete content that is offered in terms of social norms and linguistic descriptions varies a great deal from one culture to another. This study would thus want to understand epilepsy management from an African perspective and the body of knowledge that is set to be established should be accepted as true within the society. In collecting data, I was interested in the customs and habits, the religions, values and belief systems about epilepsy management in Zimbabwe. As supported by Kaphagawani and Melherbe (1998), the major concern in this study also included the rational practices and values of understanding epilepsy management in relation to our culture. These rational practices consisted of well-established general beliefs, theories and concepts about people with epilepsy, favoured ways institutionalised in the society of acquiring new knowledge and evaluating accepted facts about epilepsy, customs and practices in religion and the accepted authorities in matters of knowledge and belief in epilepsy (Kaphagawani & Melherbe, 1998). These are the filaments in the fabric of African culture. The next question that may now arise concerns the link between ontology and epistemology in understanding indigenous practices of epilepsy management.

Jimoh & Thomas (2015) posit that African epistemology is basically rooted in African ontology. The researchers are strongly convinced that the epistemological understanding of traditional Africans is consonant with the metaphysics. Temples (1969) in Jimoh & Thomas (2015) therefore argues that it is within this context that we get a clearer understanding that true wisdom, that is knowledge is found in ontological knowledge. Jimoh & Thomas (2015) finally take ontological knowledge to be the intelligence of forces in their hierarchy, interaction and cohesion. Jimoh & Thomas (2015) also state that since epistemology is about the claims made concerning facts of our experience which are interpreted within certain assumptions, theories, concepts and worldviews, this validates the necessity of the relationship between epistemology and ontology in order to recognise, authenticate and understand cognitive claims.

Axiology becomes a necessary component of the Afrocentric research paradigm. Merriam-Webster (2016) describes axiology as the study of nature, types, and criteria of values and value judgments in ethics. Axiology is closely related to other two realms of philosophy; ethics and aesthetics. According to Geisler (2017) ethics is concerned with goodness and tries to understand what is good and what it also means to be good. Geisler (2017) posits
aesthetics is a component that is concerned with beauty and harmony, which tries to understand beauty and how it is defined. Axiology is thus a necessary component for both ethics and aesthetics because as a researcher I used the concepts of both goodness and beauty. Hart (2010) posits that it is difficult to completely determine how axiology informs and guides an Afrocentric research paradigm since there are many ethics, values and principles that would have been identified and outlined. However, some of these principles, values and ethics were noted in relation to this research study.

Building on Wilson’s (2003) outline of Atkinson’s identification of principles of indigenous research, the researcher identified some values that were held and actions that reflected these values. Indigenous people played a critical role in developing, implementing and approving the research study on indigenous practices of sustainable management of epilepsy in Zimbabwe. As a researcher, I had respect for people with epilepsy and the community which was demonstrated by seeking and holding knowledge that was considerate for the community and the diversity unique nature of knowledge brought by individuals to the community. The researcher exercised reciprocity and responsibility by relating and acting within the community, for instance sharing and presenting ideas with intent of supporting the community. I ensured respect and safety which was evident when participants felt safe including confidentiality. I also ensured non-obtrusive observation in which I was quietly aware and also watching without interfering with individual and the community processes. I was listening deeply and hearing with more than ears paying attention to how the participants’ hearts and senses were being emotionally and spiritually moved. I ensured reflective non-judgment where I considered what was on sight and heard without placing a sense of wrong or right and what was being shared. I honoured what was shared and ensured awareness and connection between the logic of the mind and feelings. Self-awareness also assisted during the study. I listened and observed myself particularly in relation to participants during the research process.

The African philosophy of understanding and integration differs from the western. It is impossible to separate man from nature in Africa because they are sacredly united. It can be noted that they both participate in the same locus rather than being in opposites (Jimoh & Thomas, 2015). As such, the African world described by Jimoh & Thomas (2015) as unitary differs from the western thought that is analytical and pluralistic. The final question that may be raised therefore concerns subjectivism and objectivism as Western philosophy has been
accused of intellectual dogmatism which permits a dualism of the object and the subject. Jimoh & Thomas (2015) argue the African philosophy seeks for a central position for the ego. Jimoh & Thomas (2015) posit that subjectivism and objectivism do not constitute a problem to the African philosophy because they are both subsumed in the unity of existence. The subject gets to know the object as such African epistemology do not demarcate between the epistemic object and epistemic subject. As highlighted by Jimoh & Thomas (2015:56):

The epistemic subject, which experiences the epistemic object and the epistemic object which is experienced are joined together such that the epistemic subject experiences the epistemic object in a sensuous, emotive, and intuitive understanding, as well as through abstraction, rather than through abstraction alone as it the case in Western epistemology...

What it shows is that the African philosophy is flexible. It allowed the researcher to use both qualitative and quantitative research methods, which is my case in this study.

From the above analysis, it can be noted that this methodology had several advantages in understanding indigenous practices of epilepsy management in Zimbabwe. It equipped me with a detailed foundation of employing methods that are culturally correct, frameworks and principles in examining African phenomena because it operates within the African ways of knowing (Mazama, 2003). It resulted in the implementation of methods, principles, ideas and concepts which are derived from our own African experiences and took into consideration social, historical and contemporary African experiences (Mabvarura, 2016). As the researcher, I assumed the responsibility in articulating participants’ reality from an emic perspective drawing it from their own values and ideals. Mabvarura (2016) also adds that the African philosophy to data collection and analysis support the goal of practical ethnography in prioritising the people’s need for an improved well-being rather than knowledge production and theory construction. It advocated for indigenisation of tools, cultural immersion and interpretation of the research data from African indigenous perspective. As shown by Mazama (2003), in African philosophy African experience guided and informed all the inquiries, the spiritual component was given its due place because it was important, immersion in the subject was important, wholism was a must, not everything that matters was measurable and the knowledge generated was liberating. Given these characteristics, this methodology became the most suitable in analysing indigenous practices in epilepsy management in Zimbabwe.
5.3 Research Philosophy

The purpose of this research was to carry out a nuanced analysis of indigenous practices in sustainable management of epilepsy in Zimbabwe. From the ontological worldview, reality was explored and constructed through human interactions and meaningful actions. The study also discovered how the communities make sense of their social worlds in their natural settings by means of daily routines of epilepsy management. This comes against the fact that many social realities exist due to varying experiences that include people’s views, knowledge, experiences and interpretations. From the epistemological worldview, events were understood via mental processes of interpretation influenced by the interaction within the social context. Those that are effective in the research process socially constructed the knowledge through their experience in the real life or natural settings. The inquirer and the inquired were both interlocked in the interactive process of talking and listening. In order to understand the social world of the community on epilepsy management, Dina (2012) encouraged the researcher to understand this social world from the experiences and subjective meaning of people attached to it, for instance, people with epilepsy, their relatives, medical doctors, psychiatrists, traditional healers, pastors and or prophets just to mention but a few. In the interpretivism world, I interacted and had dialogue with the studied participants.

From my analysis, a parameter in existence between the positivist and interpretivism camps can be noted. Positivists believe in the power of replication research, whereas interpretivists believe in uncovering inside perspectives or real meanings of social phenomena from the study participants as a good social knowledge. As highlighted earlier, these different ways of seeing the world have proved to have some repercussions in the academic settings; yet, none has been considered to be superior over the other. Both worldviews may be appropriate for some purposes but may be insufficient or overly complex on other purposes.

Following the above discussion, the philosophical assumptions underlying this study are mainly from the interpretivists’ paradigm. However, this study also has some footprints of the positivist paradigm. According to Rudestam (2013; Deetz, 1996), the interpretivists approach gave the study a greater scope in addressing issues that are of influence and impact. The approach also enabled the researcher to ask questions such as why and how in indigenous practices of epilepsy management. Walsham (1993) posits that the interpretivists approach in social sciences produce an understanding of this context as well as the process in which information science influences or is influenced by the context. This assertion justifies my
choice of this philosophical rationale in this study. The researcher thus adopted an interactional or inter-subjectivity stance towards the reality that was under study.

TerreBlanche and Durrheim (1999) argue that constructivism is related closely with interpretivism. What it means is that interpretivists addressed features of shared meaning and understanding and on the other hand constructivism tried to extend this concern with the knowledge produced as interpreted and produced. In the context of this study, research participants constructed their own knowledge (TerreBlanche & Durrheim, 1999). The knowledge was constructed within their socio-cultural context that was influenced by prior understanding and knowledge. The researcher therefore positioned himself as a researcher within the constructivist parameters of the epistemological discourse.

As the emphasis was basically on the socially constructed nature of the reality, the learning environment was created in such a manner that there was an intimate relationship between myself and what was being studied. Participants could thus describe or express their individual experiences during the study. This environment provided me an opportunity to investigate, observe and understand indigenous practices in epilepsy management. I further gathered and documented the experiences of the participants through strategies such as observation, face-to-face interviews and family interviews in a cultural and social context within which epilepsy management occurs. This research paradigm had an influence on the research method adopted in this study.

TerreBlanche and Durrheim (1999) argue that a research process has three major dimensions; ontology, epistemology and methodology. The researchers suggest that a research paradigm becomes an all-encompassing system which is comprised of an interrelated practice and thinking that defines the nature of enquiry along these three dimensions. The term paradigm has been described by Rahi (2017) as an essential collection of beliefs that are shared by scientists, or a set of agreements on how research problems are understood, how the world is viewed by researchers and how we should go about conducting the research. Antwi and Kasim (2015) agree with this definition when they state that a research paradigm is an approach or a research model that is used in conducting a research which has been verified by the research community for a long time. A paradigm therefore implies a pattern, a framework, a structure or a system of scientific and academic ideas, assumptions and values.
As highlighted earlier, ontological and epistemological aspects are concerned with what is commonly referred to as the person’s worldview that has a significant influence on what can be perceived as the relative importance of reality.

There are two possible worldviews; objectivist and constructivist (TerreBlanche & Durrheim, 1999; Denscombe, 2010; Cresswell & Clark, 2011). According to these researchers, these different ways of seeing the world have proved to have some repercussions in the academic settings; yet, none has been considered to be superior over the other. The researchers further argue that both worldviews may be appropriate for some purposes but may be insufficient or overly complex on other purposes. This study therefore made use of elements from both views as they are considered as complementary. From this argument, it can be noted that research paradigms reflect beliefs about the world that we live in or want to live in (Lather, 1986). Rahi (2017) classifies these research paradigms into three philosophically distinct categories; positivism, interpretivism and pragmatism. TerreBlanche and Durrheim (1999) argue that the key features of these three philosophical perspectives discussed below include the worldview, nature of knowledge that is pursued and different means in which knowledge is produced and assessed.

According to Henning et al., (2004), the positivist paradigm of exploring social reality is based on philosophical ideas of a French Philosopher, August Comte. Observation and reason are the best ways in understanding human behaviour. Those who support the positivist paradigm claim true knowledge is obtained through observation and experiment (Rahi, 2017). Positivism has also been called quantitative research, scientific method, post positivism and empirical evidence. As such, positivists normally select scientific method in order to produce knowledge. According to Levine et al., (1987), this paradigm has remained stable and it can be described or observed through an objective. Neumann (2011) argues that positivists seek to obtain law-like generalisations by conducting a value-free research that measures social phenomena. For instance, in this study I measured whether people with epilepsy are on anti-epilepsy medication or not or whether they are using both anti-epilepsy medication and traditional practices or not. Positivists believe that if different researchers are observing a similar problem on traditional practices in epilepsy management they will generate similar results if they carefully use statistical tests and apply a similar research process when investigating a large sample. Creswell (2009) posits that their common belief rests in the
existence of a universal generalisation that is applied across contexts and this is now referred to as naïve realism.

Walshman (1995; Bell, 2010) argue that the positivist position has maintained that knowledge consists of facts whereas its ontology has considered reality as independent of the social construction. TerreBlanche and Durrheim (1999) states that if the research study consists of a stable or unchanging reality, then one can adopt an objectivist perspective, which is the realist ontology which is detached from the epistemological stance. As highlighted earlier, the epistemology stance is based on the belief or the perceptions of people and whether their statements are true or false, wrong or right. TerreBlanche and Durrheim (1999) also regard positivism as one which views human behaviour as passive, determined and controlled by the external environment. Generally, the traditional styles of epilepsy management in Africa are also underpinned by this objectivist and realist view of knowledge.

However, Hirschheim (1985) has argued that there is a strong debate available on whether using the positivist paradigm is appropriate in social sciences or not. TerreBlanche and Durrheim (1999) claims its dominance has been challenged by critics because of its lack of subjectivity in interpreting the social reality. Critics of positivism have argued that objectivity needs to be replaced by subjectivity in scientific inquiries. Dina (2012) responds to this debate by challenging the belief of absolute truth, particularly in relation to the study of human behaviour in social science. As highlighted earlier, this approach believes in generalisation, but Dina (2012) admits that knowledge is a result of social conditioning. Dina (2012) has called this critical realist stance, meaning that understanding of social reality should be framed in a certain context of relevant dynamic or law social structures that have created the observable phenomena within the social world. For instance, in this study a problem of interplay between bio-medications and traditional practices of epilepsy management in Zimbabwe has been reported. Unlike western anti-epilepsy medications, traditional practices of epilepsy management are not on the forefront yet the majority of people who are living with epilepsy depend on it to sustain their livelihoods. This is evidenced by Epilepsy Support Foundation Zimbabwe (2015) which claims that 75% of people with epilepsy are failing to meet their basic needs to treatment and rehabilitation. From Dina’s (2012) perspective, what it shows is that the observable phenomenon has been created among people with epilepsy and the social reality should be created within that context.
Interpretivists on the other hand believe that reality consists of the people’s subjective experiences about the external world, as such they may adopt an inter-subjective epistemology and the ontological belief about reality that is socially constructed (Terre-Blanche & Durrheim, 1999). For the supporters of the interpretive paradigm, Rahi (2017) observes that they believe in the deeper understanding of the concept and they explore the understanding in which the world lives in. This paradigm has also been called qualitative research, constructivism or social constructivism. According to Rahi (2017), the interpretivists believe that true knowledge is only obtained by a deep interpretation of a subject. As such, subjective meanings are developed from their experiences or through certain objects or things. According to Dina (2012), interpretivists believe in reality that is constructed by social actors as well as the perceptions of people about it. From my own analysis, this comes against the recognition that individuals with their own varied backgrounds have experiences and assumptions that contribute to the on-going construction of reality that exists in their broader social context. For instance, the indigenous technologies used by the community in epilepsy treatment, community acceptance of these indigenous practices and strategies for mainstreaming indigenous treatment practices in relation to the development of sustainable epilepsy management in Zimbabwe.

Social reality about traditional practices and bio-medication in epilepsy management may change and can also have multiple perspectives (Hennik, Hutter & Bailey, 2011) because human perspectives and experiences are subjective. Walsham (1993) adds that in the interpretive tradition there are no correct or incorrect theories. Rather, they are judged according to how interesting they are to the researcher and those involved in the same area. Gephart (1999) also argues that in the interpretive paradigm the assumption is that knowledge and meaning are all acts of interpretation, thus there is no objective knowledge that is independent of reasoning and thinking human beings. Myers (2009) believes access to reality is through social constructions such as consciousness, language, and shared meanings. The paradigm is underpinned by interpretation and observation, as such to observe is to collect information about events, whereas to interpret is to make the information by drawing inferences (Aikenhead, 1997).

Berrell & Morgan (1979), Boland (1985), Klein & Myers (1999) and Kaboob (2001) have all argued that the philosophical base of interpretivism is hermeneutics and phenomenology.
Klein & Myers (1999) and Kaboob (2001) describe hermeneutics as the underlying philosophy and the specific mode of analysis. According to Bleicher (1980), as a philosophical approach to human understanding, hermeneutics is the philosophical ground for interpretivism and as a mode of analyses it provides the suggestion on the way of understanding the meaning or making sense about the textual data which may not be clear. TerreBlanche and Durrheim (1999) claims the fundamental principle of hermeneutics is that human understanding can be achieved by iterating between the consideration of independent meaning parts and the whole which they form. TerreBlanche and Durrheim (1999) also add that modern hermeneutics do not only encompass issues that involve written text, but everything that is interpretive including non-verbal forms of communication. In interpretivism, the researcher is trying to understand human beings in their social context.

Phenomenology on the other hand, implies the study of phenomena; the appearances of things, or how things appear from our experiences, or the way, in which we experience the things, thus it means meanings provided to things in our experience (Stanford, 2008). According to Wikipedia (2009) phenomenology attempts to create conditions for the objective study of topics that are usually regarded as subjective and these include consciousness as well as the content of conscious experiences like judgments, emotions and perceptions. For Creswell (2009), phenomenology describes the meaning of the lived experiences of several individuals about a concept or phenomenon. This translates into deep information and perceptions gathered through inductive qualitative research methods like interviews and observations (Lester, 1999) and this information represents perceptions from the research participants. Lester (1999) also argues that phenomenological strategies are effective in bringing to the fore the experiences and perceptions of individuals.

5.4 Research Paradigm
A research method is described by Myers (2009) as a strategy of enquiry that moves the underlying assumptions of the research design and data collection. They may be other distinctions of research modes, but the most classifications of research methods are quantitative and qualitative. TerreBlanche and Durrheim (1999) argue that at some level, quantitative and qualitative research methods refer to the distinctions about the nature of knowledge under study; that is how researchers understand the world as well as the ultimate purpose of the research. At some level, these terms refer to the research methods; how data is
collected or analysed and the type of representations and generalisations that are derived from the data.

This was a multi method driven approach, described by Hesse-Biber (2010) as a design in which the study is at its core a qualitative study with some quantitative data added to supplement and improve the qualitative study through providing an added value and a deeper, wider as well as fuller or more complex answers to the research questions. Hesse-Biber (2010) explains that in a qualitatively driven approach, high qualitative quality criteria are emphasised but high quality quantitative data must also be collected and analysed. As such, both qualitative and quantitative methods were used, but a high quality criterion was biased towards the qualitative data with the quantitative data coming in to supplement or improve the research study. The researcher begins by explaining why qualitative research method was important before he moves on to the quantitative research method.

The qualitative research method was regarded as inductive towards the study. Creswell (2014) and Holliday (2007) content this approach put emphasis upon exploring and understanding. What it means is that individuals or groups of people were ascribed to a specific social or human problem. For Denzin and Lincoln (2005) this approach gained perspectives of issues by investigating them in their own specific context as well as the meaning that participants brought to them. This approach focused on drawing the meaning from the experiences and opinions of individuals (Cohen et al., 2011). As highlighted by Merriam (2009) this approach pinpointed meaning, purpose or reality. As highlighted earlier, qualitative research is regarded as inductive and as posited by Rovai et al., (2014) the underlying assumption was that reality is a social construct, variables are difficult to measure, there was primacy of subject matter, complex and interwoven and the data that was collected comprised an insider’s viewpoint. This approach valued individuality, social justice and culture (Tracey 2013). As shown by Rovai et al., (2014), this method provided a current context and content rich breadth of information even though it was subjective in nature. Using qualitative research did not prevent administration of a disciplined, critical and a balanced study on indigenous practices in sustainable management of epilepsy in Zimbabwe (Bell 2010).

As indicated by Hesse-Biber (2010), in a qualitatively driven research design high quality quantitative data must also be collected to improve the qualitative study. According to Rovai
et al., (2014), quantitative research should be regarded as a deductive approach towards the research. At some point, the researcher regarded the world to be outside him, hence the necessity of this approach. As clarified by Rovai et al., (2014) there was an objective reality independent of any other observations in some research questions. The researcher subdivided the reality into smaller manageable pieces, and for the purposes of the study reality was understood (Almalki, 2016). Observations were made within these smaller subdivisions and hypothesis was tested and reproduced in regard to the relationships between these variables. As shown by Rovai et al., (2014) this approach was typified by a researcher who put forward a theory which is exemplified within a specific hypothesis. It was then put to test and conclusions were drawn with regard to the hypothesis following a series of data analysis and observations. Aliaga and Gunderson (2000) endorsed by Muijs (2011) reported that a feature of this approach towards the research is that collection and analysis of data is done using mathematically based methods. Babbie (2010) agrees with this contention and states these mathematically methods focus upon polls or surveys on gathering numerical data and generalising it across groups of people.

There are some notable differences that can be noted between the quantitative and qualitative approaches in that the assumption about the world of the quantitative research method is that there a single reality, that is, it can be measured by an instrument whereas in the qualitative research method there are multiple realities. The research purpose in quantitative research methods was to establish the relationships between measured variables whereas in qualitative research the purpose was to understand a social situation from the participants’ perspectives. For research methods and processes, quantitative procedures were established before the study began, a hypothesis was formulated before the study began and was deductive in nature whereas in qualitative the procedures were flexible, the design emerged as the data was collected, hypothesis was not needed and was inductive in nature. As the research was carried out, in quantitative the researcher’s role was ideally an objective observation and did not participate or influence what was being studied whereas in qualitative the researcher had to participate and became immersed in the social setting. However, the research study was mainly qualitative, and assisted by the quantitative research method. I will explain the reasons why it was qualitatively driven in the following paragraphs.

Domegan and Fleming (2007), Henning, Van RensBurg & Smit (2004) suggest that human learning can be best researched using qualitative data. This study was about understanding
indigenous practices of epilepsy management and researchers such as Guba (1981) have claimed that it is proper to select a paradigm whose assumptions are able to be met by the phenomenon under investigation. When one is investigating a function of perception like this, researchers have suggested that qualitative research methods are more appropriate as compared to quantitative approaches (Price, 2002). Qualitative approaches provided a necessary insight to understand the role of participants in the events and their perceptions about their experiences. Price (2002) also observed that the qualitative research approaches are becoming more popular in data analysis methods and are now more widely used in searching for better ways of gathering data about problems. The purpose of this study was to investigate indigenous practices in sustainable management of epilepsy in Zimbabwe using various methods that include face-to-face elements. The main focus on the study was on the participants’ perceptions, meanings and processes and the researcher understood these. The main processes in the study were centred on observations, investigations and documentation in detail.

The processes which influenced these experiences and the data analysis of the data were undertaken by the researcher who was an active participant in the study. This descriptive approach allowed the researcher to make thick narrative descriptions of the phenomena that was under study; indigenous practices in sustainable epilepsy management. This approach also gave the researcher an opportunity to take into account perceptions of participants and multiple interpretations in the group’s natural environment. The researcher discovered the qualitative description of the participants’ experiences and the inductive analysis of the data to be appropriate for the purpose of this study as all of these procedures would have been lost if the quantitative had been used as the main research method.

However, this study had some footprints of the quantitative approach. The researcher wanted to establish why people with epilepsy are not on anti-epilepsy medication. To answer this research question, the quantitative research proved to be effective, as such the researcher had to make use of questionnaires to gather and analyse data on this aspect. According to Hittleman & Simon (1997) quantitative research method allows researchers to measure variables on a sample of subjects and also expresses the relationship between these variables using statistics. This part of study clearly indicated an exploratory research approach. The researcher was able to explore the indigenous practices that are used in management of epilepsy in Zimbabwe. According to Neumann (2006) exploratory research is valuable when
one is investigating an area with little information that is available as was anticipated in this study. Although results of this exploratory research were not useful on decision making (Neumann, 2006), they served as a means of determining the feasibility of the proceedings in some areas of the study and provided a sense of direction for applications.

5.5 Research Design
Hakim (2001) endorsed by Almalki (2016) observes that a research design is primarily concerned with the aims, purposes, uses, intentions and plans found with the practical constraint of the study location, money, time and the availability of the researcher. For Creswell (2014), as the researcher I must question myself about the knowledge claims and theoretical perspectives that I am bringing in the research, reflect upon strategies that I intend to use within the study which will in turn inform the methods and question how I will collect and analyse the information. Vogt et al., (2012) agrees with this perception and goes on to say this is done in order for the researchers to be cognisant about any bias that may be brought to the study, how this will affect the choice of approach that may be utilised and the tools to be used in the study.

For the purpose of this research study the researcher adopted a descriptive multi-case study design. Zainal (2007) states a multi-case design can be adopted with real life events which show numerous sources of evidence. Campell (1975) supported by Zainal (2007) also argues that a multi-case study supports and enhances previous results. This design allowed the researcher to have an in-depth understanding of indigenous practices used in sustainable management of epilepsy in Zimbabwe, thus it was descriptive in nature. Dudovskiy (2017) argues a descriptive case study aims to analyse sequences of interpersonal events, such as indigenous practices of epilepsy management after a certain period of time has passed. A case study of this category also helped in describing culture or sub-culture and attempted to discover the phenomena (Dudovsky, 2017). Similarly, Zainal (2007) also supports descriptive case studies because they are set to describe the natural phenomenon which occurs within the data in question. The goal that was set by the researcher in this study was to describe indigenous practices in epilepsy management as it occurs. The researcher opted for the descriptive research design because it may also be in narrative form.

However, this study was also explorative in nature. This study had some footprints of quantitative approach and this part of study clearly indicated an exploratory research
approach. The study was able to explore the indigenous practices that are used by people with epilepsy to manage their condition. As highlighted in the above paragraphs; Neumann (2006) argues exploratory research is valuable when one is investigating an area with little information that is available as was anticipated by the researcher in this study. Although results of this exploratory research were not useful on decision making (Neumann, 2006), they served as a means of determining the feasibility of the proceedings in some areas of the study and provided a sense of direction for applications.

Research participants included people with epilepsy and these were identified through Epilepsy Support Foundation Zimbabwe, located in the capital city of Zimbabwe, Harare. However, to facilitate free medical diagnosis, treatment, counselling and rehabilitation the organisation has established support groups in Marondera District, Makumbe, Buhera, Gokwe South, Gwanda, Rusape and Gutu. Data was also gathered from these support groups because they operate under Epilepsy Support Foundation Zimbabwe. The researcher also gathered information from families, traditional medical doctors, elders, medical doctors, nurses and psychologists associated with people with epilepsy from the organisation.

This case study design is described by Payne and Payne (2011) as a detailed enquiry into a single example that is seen as a social unit in its own right and also a holistic entity. Epilepsy Support Foundation Zimbabwe, for instance is an umbrella organisation for people with epilepsy and their close ones. Gray (2004) believes a case study is most suitable because it is ideal when how and why questions are being asked about contemporary set of events over which the investigator has no control. A case study is conceptualised and analysed empirically as a manifestation of broader class of phenomena or events (Mabvurira, 2016). This is one of the several ways of doing a research in social science because it aims to understand in their social context by interpreting their actions in a single group, single event or community: a case (Gillham (2000). What it shows is that it is an event, a programme or an activity that is bounded at a place or time, for instance epilepsy management at Epilepsy Support Foundation Zimbabwe.

For Bryman (2008), a case study entails a detailed and intensive analysis of a single case, in this case indigenous practices in sustainable management of epilepsy in Zimbabwe. This research design was applicable in my case because it represented an intensive analysis of a single unit in order to generalise the results across a larger set of units (Gerring, 2004). Pacho
(2017) argues that the purpose of a case study research design is to understand a situation in great depth and this includes a particular individual or a programme studied for a defined period of time. According to Leedy & Ormrod (2005), the researcher recorded details about the context surrounding the case and this included information about the physical environment and any economic, historical, and social factors that may have a bearing on the situation.

Yin (2003) endorsed by Mabvarura (2016) reports that a case study design is used in the following circumstances; if the focus of the study is to answer the how and why questions, if one is unable to manipulate the behaviour of those who are involved in the study, if one wants to uncover contextual conditions because he/she believes they are relevant to the phenomenon that is under study and if the boundary are not clear between the phenomenon and the context. More specifically, the case study research design provided a variety of research participants’ perspectives because it allowed the researcher to use multiple data collection techniques and examined indigenous practices of epilepsy management within the African philosophy using the values discussed earlier; ontology and epistemology.

Further, Merriam (1998) states that unlike other forms of data collection and analysis, a case study does not restrict one to use particular methods of collecting data and analysis. Therefore, a combination of data collection was used in order to provide an even more complete picture. As such, it allowed for the adoption of both qualitative and quantitative data collection methods which presented an even more coherent picture of a unique situation; indigenous practices in epilepsy management in Zimbabwe. In this study, I collected extensive data on individuals, events and programmes which the investigation was focused on. Data was collected using questionnaires, observations, interviews, documents, past records and so on. The collected evidences were collated in order to arrive at the best responses to the research questions. This is supported by Yin (2003) when he states that a case study approach makes use of multiple data collection methods and these gives thick descriptions of the phenomena under study.

Scapens (2004) also has a very useful suggestion on selection of case organisations. Scapens (2004) claims it is very important to be mindful about selecting a representative case solely for the purposes of generalisation. As highlighted earlier, the positivists are biased towards frequencies and statistical generalisations that relate to larger populations, whereas
Interpretivists strongly believe in analytical generalisation in order to develop and extend a theory. To this end, the selection of the case study method was driven by research questions as it provided characteristics of the cases to be studied.

Merriam (1998) also notes four essential characteristics of the case study and these are particularistic, descriptive, heuristic and inductive. Merriam (1998) claims particularistic refer to one event, situation or process which is the focus of the study. Descriptive is described as rich and an extensive set of details that relate to the phenomena. Each of these two, Merriam (1998) believes is heuristic because the two advance an understanding of the phenomena whereas inductive is a form of reasoning that is used to determine concepts or generalizations which emerge from the data. Tellis (1997) explain that case studies do not claim to be representative, but they emphasize on what can be learnt from that single case. They have a value in advancing the fundamental knowledge in relevant knowledge domains. Stufflebeam et al., (2000) believes the underlying philosophy of a case study is to improve not to prove. Indeed, this study sought to improve epilepsy management in Zimbabwe. This study focused on Epilepsy Support Foundation Zimbabwe (ESFZ), an organisation charged with the responsibility of taking care of people with epilepsy medically, socially, psychologically and in some instances economically.

There were a number of advantages in adopting the case study research design. Mabvurira (2016) believes examination of data is conducted within a situation in which the activities are taking place, in my case epilepsy management. This can inform practice or understanding of similar situations. Mabvurira (2016) also agrees there is a detailed account that is produced in case studies which assist in explaining the complexities of real life situations, for instance the effectiveness of traditional medicines in sustainable epilepsy management. Leedy & Ormrod (2005) also claim this design is suitable for learning more about little or situations poorly understood thus making it useful to generate or provide preliminary support for hypothesis.

This is not to say there are no disadvantages. Some researchers like Zainal (2007) have criticised this design on a number of grounds. The design has been accused of lacking rigour. Zainal (2007) believes a case study researcher allows equivocal evidence or biased views in order to influence the direction of the findings or conclusions. Case studies have also been accused of providing little basis for generalizations because they use small number of participants (Leedy& Ormrod, 2005). For Gerring (2004), case study research designs fall
short in their representativeness since the degree to which the causal relationship evidenced by a single unit may be assumed to be true for a larger set of unstudied units. Leedy & Ormrod (2005) sum up by saying one cannot be sure that the findings are generalisable to other situations. Denzin and Lincoln (2000) differ with Leedy & Ormrod (2005) when they argue that a case study can be generalized because looking at multiple actors in the multiple settings enhances generalizability. Yin (2003) similarly argues that a case study can be used for analytical generalizations especially where the researcher’s objective is to generalize a particular set of results into some other broader theoretical propositions. What it shows is that no research methodology is perfect thus as the researcher I had to use data which was obtained from multiple methodologies. Given the interpretivists stance which was adopted in this study and the nature of research questions, I believe the case study was the best approach and most appropriate research strategy for this study. It had several advantages in revealing in detail unique perceptions on indigenous practices of sustainable epilepsy management in Zimbabwe using Epilepsy Support Foundation as a case study. As highlighted by Yin (2003), a case study is particularly suited in situations where it is difficult to separate phenomenon variables from their context.

5.6 Research Study Area
The map below illustrates where data in this study was collected from. As shown on the map, data was collected in from Harare province and Marondera district. Both provinces are located in the Mashonaland Region, which basically means the majority of people who stay in this area are Shona people. Epilepsy Support Foundation Zimbabwe is located in Harare. This organisation can be located at number 43 St David Road, Hatfield in Harare. To facilitate free medical diagnosis, treatment, counselling and rehabilitation the organisation has established support groups in Marondera, Makumbe, Buhera, Gokwe South, Gwanda, Rusape and Gutu. Because of limited resources, data was only collected from Harare Province and Marondera District which located in Mashonaland East Province of Zimbabwe. However, the main office, located in Harare monitors support groups within Harare Province, Chitungwiza and Epworth where data collection was carried out. Harare province alone has a population of 2,123,132 people, of which 1,025,596 are males and 1,097,536 are females (Zimstat, 2012).
About 98% of these persons are of the African origin. There are several churches belonging to different popular prophets such as Prophet Makandiwa, Apostolic Faith Mission and Prophet Magaya. Chitungwiza has a population of about 456,206 people (Zimstat, 2012). The town is located in the traditional territory of the Hera people and is most distinguished with historical figures such as the pre-colonial svikiro (spirit medium) of Chaminuka who is remembered for predicting the colonisation of the country by the British. The Johane Masowe weChishanu is the largest religion that is worshiped in this area. Epworth has a population of 167,462 people. The area is also dominated by people who believe in Christianity and African Tradition Region. Marondera district has a total population of 199,607 people. It comprises of a town and some rural communities and the churches found in the area include Johane Masowe, Apostolic Faith Mission, ZAOGA and United Methodist Church.

5.7 Population and Sampling Framework
Epilepsy Support Foundation Zimbabwe is an organisation with over 25 years of fighting epilepsy in the country. Currently, the organisation has 1874 members of people living with
epilepsy in their register and these include men, women and children. To facilitate free diagnosis, treatment, counselling and rehabilitation the organisation has established support groups in Marondera, Buhera, Gokwe South, Gwanda, Rusape and Gutu. The target population thus includes people who are living with epilepsy, family members, elders, their doctors and psychiatric nurses, psychologists, traditional healers or herbalists, and pastors or prophets. The next question that may arise is why I chose this target population.

A population is a group of individuals that have one or more characteristics in common that is of interest to the researcher (Nitschke, Ihemba & Nekundi, 2009). Welman, Kruger & Mitchel (2007) describe it as a collection of all units of the study from which the research wishes to make specific analysis and conclusions. Mabvurira (2016) claims central to Afrocentric research it is the canon of Ujamaa; that is the need for recognition and the maintenance of the community. Although the study was on epilepsy management, it was also targeting other members of the community. Epilepsy Support Foundation Zimbabwe (2016) states that epilepsy touches peoples’ families, friends and colleagues. As such, the study was interested by those diagnosed with epilepsy and those affected by the condition who included their families, friends, traditional medical practitioners and the elderly.

Mhamhe, Busia & Kasilo (2010) supported by Mabvurira (2016) highlight that satisfactory healing in traditional African communities does not only involve recovery from physical symptoms, but also from social and psychological re-integration of the patient back into his/her community. There was therefore a need to include other members of the community who were thought would provide rich information on indigenous technologies of epilepsy management. These included doctors, nurses, counsellors, and psychologists. These people existed within a cultural setting and a community and it must also be understood that the individual and the community shape benefit and influence each other (Mabvurira, 2016). Mabvurira (2016) also goes on to say these workers must aspire to recognise and promote Unhu/Ubuntu and should appreciate that what is inherent in each person is dignity, value and that each individual deserves respect.

The ultimate authority in indigenous technology of epilepsy management should be the experiences of the community. The study therefore targeted all members of the community who subscribe to African traditional religion. Unlike in Western settings, in Africa one person’s problem becomes a family problem and eventually a community problem.
According to Banks (1992) endorsed by Mabvurira (2016), an important tenet of this Afrocentric type of research is that inquiry must not represent a position of one individual, but it must be validated by the community that serves the subject of inquiry. Mkabela (2005) recommends the inclusion of elders and traditional cultural leaders. For purposes of exclusion and inclusion, the term traditional medical practitioner was used to refer to psychic healers, herbalists, faith healers, spiritualists and diviners who use indigenous knowledge in developing materials and procedures for epilepsy treatment and the elderly was defined as any person above 70 years.

Becker (2005) contends these community members can act as cultural brokers by acting as leaders who help medical practitioners with understanding of nuisances and culturally diverse religions and world views. According to SAfaids (2011), traditional leaders and elders wield much influence and command much respect in the traditional African communities. SAfaids (2011) goes on to highlight that with adequate support traditional leaders and the elders can facilitate a positive change in the community. They are the custodians of our culture and have the required influence to alter any underlying values and beliefs that can be detrimental to the community members. Traditional medical practitioners are agencies of the African traditional religion. Green (1994) also describes these traditional doctors as religious ritual specialists, family and community specialists, social and moral philosophers, visionaries and teachers.

People living with epilepsy were included for their first hand experiences in epilepsy management. Families of people with epilepsy were included because they are usually the primary care givers and live with people with epilepsy and they take part in the management of epilepsy. Liu, Manton & Aragon (2000) states that about sixty-six percent of people in the community in need of long term care are relying solely on family and friends for help. Gray & Fook (2004) contend that another critical aspect in traditional African cultures is that there is more emphasis on collective interests rather than individual interests and individual fulfilment is achieved via the group means. Goldberg & Ricker (2011) argue that families influence the patient’s psychological management and adjustment. What it shows is that chronic illnesses like epilepsy exert a burden on the patients’ family members because they can also experience psychological distress and decreased satisfaction in relationships (Glasdam, Timm & Vittrup, 2010). Mabvurira (2016) observes that having a child with a chronic illness has also been found to be having a negative impact on the family. The next question that now needs to be is on the sample and sampling techniques.
Choga & Njaya (2011) define sampling as a process of selecting units from a population of interest so that by studying the sample you may fairly generalize results back to the population from which they were chosen. Gray et al., (2007) describe sampling as a process of selecting a relatively small number of cases from a social whole. For Mabvurira (2016), sampling saves time and money if it is done properly and it does not stop findings from being generalised. What it shows is that sampling is a subset of the total population and the concept arises from the inability of the researcher to test all the individuals in the estimated population.

The study had a target population of 1874 people who were living with epilepsy in the register at ESFZ; 874 children (being the largest proportion), 605 adult females and 395 adult males. Parents of children with epilepsy were representing their children. As such, a total of 150 parents of children with epilepsy, 103 adult females and 67 adult males who are living with epilepsy participated in the study. This study sample was identified through mixed methods of sampling. The sample of those living with epilepsy was selected using the stratified random sampling technique and participants were grouped in three categories; parents of children with epilepsy, adult females and adult males with epilepsy. The study also identified families, nurses, doctors, prophets, pastors, traditional healers and herbalists to scrutinize their perceptions on the development of these indigenous healing practices.

Table 5.1: Sample of Study

<table>
<thead>
<tr>
<th>Participants</th>
<th>Sample</th>
<th>Sampling Technique</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents of children with epilepsy</td>
<td>150</td>
<td>Proportional Stratified Random Sampling</td>
</tr>
<tr>
<td>Adult females with epilepsy</td>
<td>103</td>
<td>Proportional Stratified Random Sampling</td>
</tr>
<tr>
<td>Adult males with epilepsy</td>
<td>67</td>
<td>Proportional Stratified Random Sampling</td>
</tr>
<tr>
<td>People with Epilepsy(Interview)</td>
<td>11</td>
<td>Convenience Sampling</td>
</tr>
<tr>
<td>Families</td>
<td>10</td>
<td>Convenience Sampling</td>
</tr>
<tr>
<td>Doctors</td>
<td>02</td>
<td>Purposive Sampling</td>
</tr>
<tr>
<td>Nurses</td>
<td>02</td>
<td>Purposive Sampling</td>
</tr>
<tr>
<td>Psychologists/Counsellors</td>
<td>02</td>
<td>Purposive sampling</td>
</tr>
<tr>
<td>Traditional Healers/Herbalists</td>
<td>04</td>
<td>Snowball Sampling</td>
</tr>
<tr>
<td>Prophets/Pastors</td>
<td>04</td>
<td>Snowball Sampling</td>
</tr>
</tbody>
</table>

From an estimated target population of people affected with epilepsy, a total of three hundred and forty-five (345) individuals and 10 families participated in the study. As shown on
Proportional stratified random sampling was used to select people with epilepsy and these included 150 children who were represented by their parents, 103 adult females with epilepsy and 63 male adult males with epilepsy. As highlighted earlier, from a target population of 1874 people who are living with epilepsy in the ESFZ register; 874 were children (being the largest proportion), 605 were adult females and 395 were adult males. Muchengetwa (2010) recommends this technique as it involves selecting a sample according to the proportions of each stratum. This technique is applied when the strata are of different population sizes. Firstly, the researcher identified members of each stratum and then randomly sampled them from each group. This was done to ensure that the sample drawn from the population is proportionate to the stratum’s share of the total population. The advantages of selecting by proportional allocation were that it had a higher statistical efficiency than a simple random sample, it was much easier to carry out than other stratifying methods and it provided a self-weighing sample.

Family participants were identified using the convenience sampling technique. Saunders et al., (2003) describes convenience sampling as accidental sampling. This technique involves selecting participants that are available, for instance family members of people with epilepsy who are available for an interview. Doctors, psychiatric nurses and psychologists were identified using purposive sampling. Leedy & Ormrod (2005) argue that participants are selected for specific purposes. For instance, the researcher wanted professionals who are knowledgeable in epilepsy management issues in Zimbabwe. For traditional healers/herbalists, and prophets/pastors the study used snowball sampling. Snowball sampling is a sampling procedure where population elements are used to locate others with similar characteristics and who in turn identify others (Muchengetwa, 2005). This technique is useful where it is difficult to identify the population of interest. For example, traditional healers who are knowledgeable on epilepsy issues, or prophets who offer treatment to people with epilepsy. Respondents in this case were identified through the referral network.

Research participants were selected according to a specific criterion. For the traditional medical healer, he/she had to be a known traditional healer, to be mentally sound enough to
give consent to participate in the study, to be willing to participate, and to be Shona and English speaking (Makhanya, 2012). For the criteria for people with epilepsy and their families, Makhanya (2012) recommended participants who are willing to participate and who are mentally sound to consent to participate.

5.8 Data Sources
The research for this Doctor of Philosophy comprised both primary and secondary data collection.

5.8.1 Primary Data
Questionnaires, interviews and observations were the key for collecting the primary data. The questionnaires and the unstructured interviews on the interview guide contained areas of interest for the researcher and the participants. The approach was appropriate for this study and enabled specificities for the case. They allowed the researcher to uncover focus on predefined variables. Data was collected for the purpose of this research between November 2017 and April 2018.

5.8.2 Secondary Data
Mogalakwe (2006:2) defined a document as “an artefact which has at its central feature an inscribed text”. Secondary data basically refers to data that was collected by someone other than the user. Documents were produced by individuals or group of individuals to meet their everyday needs and for practical purposes. This study concentrated on secondary documents such as public and private documents to corroborate the evidence from other sources. Documents scrutinized included ESFZ reports and consultancy reports, reports from other community-based organisations, hospitals and clinics. Creswell (2009) argued that documents are a convenient and unobtrusive way to get information. The authors of the documents put critical thoughts into compiling them. The documentary collection of data saved the researcher time and expenses in transcribing. As such, the researcher also used these records and statistics to analyse data.

5.9 Data Validation
The researcher validated the instruments by pilot testing them. A pilot study is a mini survey, which tests the questionnaire, enumerator techniques, all fieldwork plans, data entry and analysis (Chimedza et al., 2006). These enabled the researcher to test and fine tune the data
organisation procedure and determine the final sample. A random sample of five questionnaires, two interviews with key informants and one family interview was carried out for the pilot study. After obtaining respondents comments, the researcher then made some improvements to the questionnaire and the interview guides.

Some qualitative researchers have started questioning the relevance of the term validity within the qualitative research method. They are rather opting for terminologies such as credibility, confirmability, dependability, trustworthiness, transferability and verification (Huberman & Miles, 2002; and Tobin & Begley (2004). These authors opine that it is not appropriate to transfer terminologies across research paradigms. As such, they have suggested use of alternative terminologies outside the confinement of the quantitative research paradigm. The trend has rather emphasised rigour in order to ensure the reliability and validity in qualitative research studies (Twycross & Shields, 2005; Onwuegbuzie & Leech, 2007; and Tobin & Begley, 2004). These scholars emphasise that rigour in qualitative research relates to the overall planning and the implementation in order to ensure authenticity and trustworthiness in procedures.

With credibility, the researcher was engaged in data recording intensively in order to demonstrate clear links between the data and the interpretations (Leech, 2007). Notes and transcripts were also carried out clearly and regular discussions were done and the adjustments were clearly made in accordance with the recommendations and suggestions. Riege (2003) has described dependability as the analogous over the notion of reliability in quantitative research methods. The purpose of this test was carried out by the researcher in order to show indications of stability and consistency in the enquiry process. The researcher took care in order to ensure the research process to be traceable, logical and to be clearly documented in a reflexive manner giving a detailed account of the whole research process.

The development of the research questions was based on substantial theoretical basis as was described in chapters two, three and four in order to ensure authenticity (Leech, 2007). The interview schedule was first carried out during the pilot test study in order to ensure that the data and the interpretations of the findings are sound and confirmed results. It also ensured reasonable, unbiased and valid data in the study. For confirmation, the audit process was implemented through working forward and backward during the research process (Riege, 2003). This was done in order to ensure the data and the interpretations were of sound and
confirmed findings. The intention was to generalise the findings to the population and to identify accepted principles and trends that were related to the research topic. In order to ensure trustworthiness, this study applied the following criteria; credibility, dependability, authenticity and confirmation. The description of the qualitative research study is about what was done, how it was done and why it was done. The study also ensured adherence to the criteria of the qualitative research study, ensured authenticity and trustworthiness during the research phase.

For data collected through the quantitative research methods, Salkind (2012) has referred consistent, dependable, stable, faithful, trustworthy and predictable as synonymous for reliability. Reliability deals with what is being measured (Delport & Roestenburg, 2011). Reliability therefore ensured the degree of accuracy and consistency with which an instrument measured the attributes it was designed to measure (Polit & Hungler, 2004). It was associated with the methods used to measure the research variables (Polit & Beck, 2004). A reliable measure maximised the true score and minimised the error scores. Reliability testing focused on stability, equivalence and homogeneity. To ensure reliability in this study a standardized interview protocol and questionnaire was developed and used on all respondents to increase consistence of information. Consistency in the responses to questions was made possible by explaining the instructions to each and every participant in English or Shona.

Validity is the degree to which an instrument measures what it is supposed to measure (Polit & Beck, 2006). It is also concerned with the quality of the research evidence regarding the effect of the independent variable on the dependent variable. It is the extent to which the findings of a study are a true reflection of reality rather than the result of extraneous variables (Burns & Groove, 2005). This study put into consideration homogeneity of selected participants. This refers to the extent to which the results of a study can be generalised to other settings or groups, (Fisher & Foreit, 2002). Polit & Beck, (2004) are of the notion that a study is representative of the broader population, and the study setting and experimental arrangements are representative of other environments. To ensure validity this study made comparison of the findings with other studies and inclusion of a representative sample size.

5.10 Data collection instruments
The study adopted a multi-mode approach in collecting information which included a distribution of three hundred and twenty (320) questionnaires, twenty-five (25) face to face
interviews and ten (10) family interviews. It adopted this multi-technique approach to data collection in order to obtain a holistic or total view of the subjects under investigation (Tashakkori & Teddlie, 1998). This enabled the facilitation of gathering valid and reliable data from the respondents over and above enabling triangulation to cross and validate the solicited data.

5.10.1 Questionnaire
This was a structured list of pre-set same questions in the same order though distributed to different people (Wegner, 2003). A questionnaire was a list of printed questions whose purpose was to get responses from the respondents. For Thompson (2003), a questionnaire is a research instrument consisting of a series of questions and other prompts for the purposes of gathering information from respondents. Laberee (2002) defines a questionnaire as a collection of questions which are formulated and are comprehensive that enable one to get a detailed picture of what they are interested. The advantages of a questionnaire were that the data provided an opportunity to be checked for verification by other researchers thus it was more reliable. This increased the level of reliability of the results from the research and a larger quantity from a considerable number of people over a relatively short period of time. Questionnaires consumed less time thus enabled the researcher to undertake personal interviews on the targeted population. The questionnaires significantly reduced the level of bias as each individual responded to the same questions, which were simple and clear under normal circumstances. It also collected large quantity of data for consideration from a considerable number of people over a relatively short period of time. Data reliability was higher as each individual respondent answered precisely the same question.

Despite the advantages of the questionnaire as outlined above, it had its own disadvantages. The researcher could not probe deeply into respondent opinions and feelings. However, he had to apply open ended questions. Questionnaires could be answered by respondents for which they were not intended as such the researcher had to appeal to the respondents to answer the questionnaires themselves. However, Robson (1993) observed that questionnaires still remain the most reliable means of collecting data with limited distortion despite some noted disadvantages of using it as a data collection tool.
5.10.2 Interview Guide
This was a method of gathering information through the oral quiz by using a set of pre-planned core questions. Shneidrman & Plaisant (2005) argue interviews are very productive because the interviewer can pursue specific issues of concern that lead to focused and constructive suggestions. In this case the researcher used this method to interview people with epilepsy, doctors, nurses, traditional healers or herbalists, and pastors or prophets. The researcher used this method because it allowed open-ended questions and the interviewees expressed themselves freely. This type of interview required both the researcher and the participant to be at ease as the interview session was like a discussion or brainstorming on the topic.

The direction of the interview was not predetermined, but determined by both the researcher and the participant. As such, it was possible to generate rich data, ideas and information in such conversations because the level of questioning was varied to suit the context and the interviewer quizzed the participants more deeply on specific issues arising. There were some advantages associated with this method of data collection and these included the fact that the researcher was able observe non-verbal communication, it allowed the researcher to probe further than questions on paper and even explain questions in case respondent did not understand thus fully offered flexibility, there was room for making use of visual aids to improve validity. There were some disadvantages associated with this method; it was not suitable for a large group of people and participants were not free to air their views under the watchful eye of the researcher.

5.10.3 Family Interviews
Data was also collected through a set of ten families of people who are living with epilepsy. Wintersteen, Mupedziswa & Wintersteen (1995) supported by Mabvurira (2016) claim this data collection method has been successfully used in research studies on mental illness in Zimbabwe. Families are the basic foundation of all human cultures in their remarkable diversity (Mabvurira, 2016). As such, the family plays an important role when dealing with a person affected with epilepsy. It became necessary to understand the family’s set of beliefs, their cultural expectations and caring practices for people with epilepsy. Mufamadi (2009) highlights that in most African cultures the family has been considered as an entity that has been in existence before one was born and will exist after one has died. The researcher ensured that each family member participated and was given an opportunity to share his or
her own ideas. These interviews were conducted at the respondents’ homesteads during their free time. However, people with epilepsy were excluded from family interviews. Wintersteen et al., (1995) observes that this allows family participants to be comfortable and free to talk when the ill members are not present.

5.10.4 Observation
Neiuwenhuis, in Maree (2010:76), pointed out that participant observation occurs when the researcher spends time living in a community observing and doing in-depth interviews, reading and researching primary source material and observing the lives of the people he or she wishes to study. Participant observations were done with the community aware of the researcher’s role. The researcher looked for patterns of behaviour in the community to understand the assumptions, values and beliefs of the participants – but remained uninvolved and did not influence the dynamics of the setting. The researcher participated in the lives of the people under study while also maintaining a professional distance. A form of participant observation adapted was to get an insight of indigenous practices of epilepsy treatment in the community “to get a general feel for conditions” by visiting indigenous healers and medical doctors. During these visits, the researcher had an opportunity to ask informal questions about indigenous technologies in epilepsy management. There were several advantages, adapted from Creswell (2009), drawn from participant observation in relation to this study. The researcher had first-hand experience, information was recorded as it occurred and hidden aspects were noticed during the observation. Through participant observation, the researcher was able to gather background information on traditional practices in epilepsy management and collected information on the past and current indigenous technologies.

5.11 Ethical Implications
Research has been shaped by ethical issues throughout history because ethical decisions involve one’s morality (Mabvurura, 2016). Ethical decisions can be harmful to individual and the society. According to the Random House Dictionary of English Language (1987) cited in Makore-Rukuni (2001), ethics is that branch of philosophy relating to human conduct, with respect to the rightness or wrongness of certain actions, and the badness or goodness of the motives and ends of such actions. Rubin &Babbie (2012) argue that an ethic is something that is associated with morality which deal with what is right or wrong. As such, ethics basically are principles that are adopted by various professions in order to protect the dignity and rights of the society. Mabvurira (2016) highlights that chronic conditions are life-
threatening and they are associated with grief. To this end, the victims may suffer from denial, shame, blame, rejection and denial and in some cases may be suicidal. It becomes necessary to respect applicable research ethics. The researcher observed the following ethics:

5.11.1 Briefing
The participants were briefed on the nature of the study, research questions and the reasons for carrying out the study. Participants were also briefed on the benefits of this study to them and the society at large. They were assured that the researcher would come back for debriefing with the results.

5.11.2 Informed consent
According to De Vaus (2008) informed consent involves a number of elements that include the purpose of the study and its procedure, the identity of the researcher and use to which the data might be put to. Additionally, Gray et, al (2007) suggest that a disclaimer stating participants may decline to answer questions or withdraw, a statement that shows availability of findings to participants, the names of investigators and their affiliations, the procedure for ensuring confidentiality of data. The researcher fully identified himself to the participants. Each questionnaire sought consent asking permission from the respondent to participate in the study. Participants requested to fill in the consent forms. The consent explained reasons for carrying out the research and emphasized on voluntarism of participants and being free to decline or withdraw participation.

5.11.3 Confidentiality
According to Gray et al., (2007), if the data is confidential the identity of participants is known by the researcher and is kept quiet. Mabvurira (2016) suggest that one can remove identifying information of the respondents from research instruments as a way of ensuring confidentiality. Participants were not asked to provide names and could use fake names. Interviews were held in private and comfortable rooms where appropriate. The researcher only asked information that is relevant to the study; as such information was only used for academic purposes.

5.11.4 Reduction of Risk to Harm
The researcher ensured participants are not exposed to both physical and psychological harm. The researcher would endeavour to work closely with caregivers in this regard. Each
interview was carried between thirty (30) to forty-five (45) minutes to avoid delaying the clients. Participants were debriefed on the research outcomes and the researcher also sought their opinions on the outcome.

5.11.5 Ubuntu

Under this canon of ubuntu, the mutuality between participants and researchers must be respected (Mabvurira, 2016). Additionally, Mkabela (2005) says feelings of tolerance, hospitality and the respect for others, language, opinions and conversation styles are highly regarded. The researcher identified participants throughout data collection using their local language of communication. Traditional medical doctors and elders were informed before the meeting.

5.11.6 Debriefing

Participants debriefed about the research outcomes and the researcher also sought their opinions on the findings. Participants were in agreement with the findings, and the research was submitted to Chinhoyi University of Technology for consideration.

5.12 Data Analysis

For the purposes of this study, the analysis was focused on the indigenous practices in sustainable management of epilepsy in Zimbabwe. Below is table 2 on how data was analysed. Data collected using quantitative methods was analysed using computer software, the Statistical Package for Social Sciences (SPSS) to analyse the internal consistency of the items in the question. The study employed quantitative data analysis procedure where descriptive statistics such as frequencies and percentages were used. The SPSS (Version 24) was used to run the descriptive statistics. Tables and figures were used to the summarize data. The quantitative data was derived from people with epilepsy and their parents or guardians.

The data was gathered on the extent to which people living with epilepsy were using anti-epilepsy medication, how indigenous technologies were being used by people with epilepsy
to manage their condition, and the extent to which the community accepted development of sustainable indigenous technologies of treating epilepsy in Zimbabwe.

Table 5.2: Data Presentation and Analysis

<table>
<thead>
<tr>
<th>Questions</th>
<th>Sources</th>
<th>Methods</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>To what extent are people living with epilepsy using anti-epilepsy medication?</td>
<td>People living with epilepsy, parents, partners, Doctors, Counsellors, Psychologists</td>
<td>Questionnaires, interviews, documents</td>
<td>SPSS, Content Analysis</td>
</tr>
<tr>
<td>How are indigenous technologies being used by people with epilepsy to manage their condition</td>
<td>People with epilepsy, partners, parents traditional leaders/herbalists Pastors, Prophets</td>
<td>Interview Guides, Observations and documents</td>
<td>Content Analysis</td>
</tr>
<tr>
<td>To what extent does the community accept development of sustainable indigenous technologies of treating epilepsy in Zimbabwe?</td>
<td>People with epilepsy, traditional leaders/herbalists Pastors, Prophets</td>
<td>Interviews, Observations and questionnaires</td>
<td>Content Analysis. SPSS</td>
</tr>
<tr>
<td>Which strategies are suitable for mainstreaming indigenous technologies in relation to the development of sustainable epilepsy management in Zimbabwe?</td>
<td>Doctors, Nurses, Traditional Healers, Herbalists, Pastors, Prophets</td>
<td>Interviews</td>
<td>Content Analysis</td>
</tr>
</tbody>
</table>

In qualitative data analysis, thematic content analysis was used to analyse the data. According to Braun & Clarke (2006) in agreement with Mabvurira (2016) thematic content analysis is a method that involves identifying, analysing and reporting the patterns (themes) within the data. It has a theoretical freedom in that it is not tied to any particular theory and offers a flexible and useful research tool. In thematic analysis, Braun & Clarke (2006) states that a theme captures something that is important about the data in relation to the research question. The researcher’s judgment becomes important in determining the theme since there is no hard and fast answer to the proportion of data that constitute a theme. It involves searching across
a data set in order to find repeated patterns of meaning. The following steps were used in data analysis by the researcher as recommended by Mabvurira (2016); the first step in data analysis was familiarization with the data. Familiarization began during data analysis when the researcher captured responses of study participants. The researcher read through the data several times and noted down interesting ideas. The second step towards data analysis was generating initial codes. Data was organised into groups and the researcher used a highlighter to indicate patterns observed in the data. Related data was then collated into specific codes. The third step was searching for meaningful themes and the codes were collated into possible themes. Relevant data to each particular group was grouped together. The fourth step was reviewing and refining themes. The researcher went through all the themes and ensured that they capture the coded data. Themes that were not supported with sufficient codes were then removed whereas others were spitted into two or themes. The final stage was naming the themes in relation to the aim of the study. The last step was report writing.

5.13 Chapter Summary
The interpretivists paradigm, with a bit of positivism was proper because it was important to focus on understanding issues and finding solutions to problems rather than focusing on specific methods or approaches. Epilepsy Support Foundation Zimbabwe, an organisation that takes of people with epilepsy was taken as a case study. Data was collected from people with epilepsy, their family members, and traditional medical doctors, the elderly, medical doctors, nurses, counsellors or psychologists. Data was collected through five methods; questionnaires, one on one interviews, family interviews, observations and secondary data. Quantitative data was analysed using SPSS and qualitative data will be analysed using thematic content analysis. In the next chapter, I present my findings.
CHAPTER SIX: PERCEPTIONS, ATTITUDES AND KNOWLEDGE AROUND ANTI-EPILEPSY MEDICATION

6.1 Introduction
In this chapter, I analysed perceptions, attitudes and knowledge about epilepsy. The study identified the experiences of research participants who have used bio-medications. The assumption was that it is the reason why some of people with epilepsy are not on anti-epilepsy medication. The study focused on people who are living with epilepsy, their family members, traditional healers, nurses, doctors, counsellors and Christian healers. This chapter now presents results obtained from an open ended questionnaire, one-on-one interviews, family interviews and observations. The study findings are discussed and interpreted in relation to four theoretical bedrocks of the study which are; Health Belief Model (HBM), the Agency Framework, the Technological Acceptance Model (TAM) and the Sustainable Livelihood Framework. The findings from this study are presented in a comparative manner, where information from two categories of the sample (indigenous and bio-medications) is compared to elicit the differences and commonalities. In this manner, the study was able to uncover the realities faced by people living with epilepsy from their own understanding. This enriched the information that was used to develop a proposed model that is hoped to assist in sustainable management of epilepsy in Zimbabwe.

As already indicated, data was collected using open ended questionnaires, one-on-one interviews, family interviews and observations. A total of 320 questionnaires were distributed and the return rate was 97.5% (312 questionnaires); 150 parents of children living with epilepsy, 95 adult females with epilepsy and 67 males living with epilepsy. Ten family interviews were contacted and the researcher also carried out one-on-one interviews with the following participants; 11 people living with epilepsy, 2 doctors, 2 nurses, 1 counsellor, 1 psychologist, 2 traditional healers, 2 herbalists, and 4 Christian healers. The profile of these participants is provided in order to enhance a clear understanding of the discussion of the findings.

6.2 Social Demographic Analysis of Research Participants
A total of 320 questionnaires were distributed and the return rate was 97.5%. The bio data of the respondents is presented below.
6.2.1 Gender of Respondents

As shown on Figure 6.1 below, the majority of participants were females. Proportional stratified random sampling was used to select research participants and these included 150 children who were represented by their parents (140 females and 10 males), 95 adult females with epilepsy and 63 male adults with epilepsy.

Figure 6.1: Pie Chart showing the Gender of Respondents

What it shows is that many children with epilepsy are being taken care of by women and this means that women have a major role to play in epilepsy management. Similarly, in a study on caring someone with epilepsy, Epilepsy Society (2016) reports that in UK, 1 in 10 people are carers and nearly 6 in 10 of these people (about 60%) are women. People with epilepsy need caring, especially when they have a seizure. Caring involves keeping them safe during a seizure, giving first aid and calling for emergency medical assistance, staying with people with epilepsy after a seizure, noting patterns of seizures, helping to take anti-epilepsy medication, providing descriptions of seizures to Doctors and helping them to go for appointments (Epilepsy Society, 2016).
6.2.2 Age of respondents

Table 6.1 below shows the distribution of respondents by age. Results illustrate that the majority of the respondents were above 50 years (71, 22.8%), followed by those in the 31-40 years’ category (67, 21.5%). The least was the below 20 years’ category (26, 8.3%).

Table 6.1 Distribution of respondents by age

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 20</td>
<td>26</td>
<td>8.3</td>
</tr>
<tr>
<td>21-30</td>
<td>92</td>
<td>29.5</td>
</tr>
<tr>
<td>31-40</td>
<td>67</td>
<td>21.5</td>
</tr>
<tr>
<td>41-50</td>
<td>56</td>
<td>17.9</td>
</tr>
<tr>
<td>Above 50</td>
<td>71</td>
<td>22.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>312</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

What it shows is that the majority of the respondents had vast experience with epilepsy and knowledge about both traditional and bio-medications systems. Simply put, participants were a reliable source of information.

6.2.3 Religion of Participants

In Christianity, healers may view epilepsy as punishment of sins committed in the past or as God’s will. In the African Religion Tradition, epilepsy may be seen as something that is caused by ancestral spirits who may be unsettled or want something from the affected family. As such, it was necessary to collect data from participants who believe in both Christianity and African Tradition Religion. Results on Figure 6.2 below show that the majority of participants were identified as Christians as opposed to the African Tradition. Africans are religious, and as such the value of spirituality and religion in epilepsy management is not debatable.
Figure 6.2: Distribution of Respondents by their Religion.

What it shows is that the majority of participants believe in Christianity. Convulsions have had a historical association with spirits and religion through the concept of spirit possession. As such, epilepsy has been interconnected with spirituality since time immemorial. Similarly, Magiorkiniset, et al., (2010) argues epilepsy has been associated with an infliction or possession with the supernatural power, either god or demon.

6.2.4 Nature of Employment

Results in Figure 6.3 below shows that the majority of participants (43.9%) are not employed, 33% are formally employed and 23.1% are informally employed
It is unrealistic to give an impression that epilepsy poses no challenges in those employed. However, as shown on the graph above, there are many people with epilepsy who hold responsible positions at their workplaces, for instance those who are formally employed. Those who are formally employed were asked to state their profession or type of work. This was an open ended question, and as shown by the results below, the majority of them are civil servants.

Table 6.2: Profession/Type of Work of Participants

<table>
<thead>
<tr>
<th>Profession/Type of Work</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>10</td>
</tr>
<tr>
<td>Nurse</td>
<td>05</td>
</tr>
<tr>
<td>Police Officer</td>
<td>15</td>
</tr>
<tr>
<td>Manager</td>
<td>10</td>
</tr>
<tr>
<td>Security Guard</td>
<td>07</td>
</tr>
<tr>
<td>Other</td>
<td>55</td>
</tr>
</tbody>
</table>

Results on Table 6.2 above show many participants were police officers, followed by teachers. Some participants were employed in the private sector, for instance security guards. There are also some participants who have senior positions at their workplaces, for instance
managers. What it shows is that like any other human being, people with epilepsy need to be employed.

6.2.5 Monthly Income
Results on Figure 6.4 below show that the majority of participants are getting a monthly income between US$200 to US$500. Only a few are getting a monthly income between US$500 to US$1000.

Figure 6.4: Distribution of Respondents by Their Monthly Income.

<table>
<thead>
<tr>
<th>Income</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between $500 to $1000</td>
<td>119</td>
</tr>
<tr>
<td>Between $200 to $500</td>
<td>372</td>
</tr>
<tr>
<td>Below $200</td>
<td>34</td>
</tr>
</tbody>
</table>

What it shows is that the majorities are living below the poverty datum line and they may have challenges in acquiring new drugs. Several studies have confirmed that people with epilepsy sometimes face challenges of acquiring new drugs. This is confirmed by Devinsky, (1999), Arroyo et al., (2002) and Schuele & Luder, (2008) who all state that use of anti-epilepsy medication is associated with economic burden to the society. What it shows is that there are economic aspects that affect people with epilepsy. In his findings, Mugumbate & Nyanguru (2013) also observed that 93% of people under his study indicated securing adequate income was a challenge, and consequently they fail to acquire anti-epilepsy medication.

6.2.6 Period living with epilepsy
Results from Figure 6.5 below show that the majority have been living with epilepsy from 6 to 12 months, and followed by those in the 36 to 60 months’ category. Many people who were under study had more than 6 months’ experience with epilepsy. What it shows is that the participants had some experience in issues to do with epilepsy and this ensured the
reliability and validity of the results. However, Garcia (2018) has a different view. He claims that long time periods may affect visual memory loss, attention, problem solving and perceptions. What it means this may affect the reliability and validity of this study because participants may have lost memory, or their perceptions may be affected because they have been living with the condition for some time. Be that as it may, Garcia (ibid) admits that these effects vary from person to person.

Figure 6.5: Distribution of Respondents by Their Period Living with Epilepsy.

6.2.7 History of Epilepsy in Family

Family history in epilepsy is a useful place to start with (Epilepsy Support Foundation, 2017). The availability of family history provides an opportunity to offer counselling on the unaffected family members concerning their risk of having the disease or carrying the gene (Epilepsy Support Foundation, ibid). It was thus important to find out family history of participants in this study. Results on figure 6.6 below indicate that about 50.6% of the participants agreed that there is a history of epilepsy in their families.
Some participants indicated they had been informed about the existence of epilepsy within their families, but had not seen their elders who had a similar problem. In one interesting case, a respondent indicated that in their family, he had one elder brother and a sister who had a similar problem. Some indicated they had their grandparents and uncles who had a similar challenge. It shows that genetics have a role to play in many types of epilepsy. Heredity is an important cause in epilepsy. In a study on the role of genetics in epilepsy, it was observed that if a parent has idiopathic epilepsy, there is about 9 to 12% chance that the child may also have epilepsy (AboutKidsHealth, 2010). According to Epilepsy Support Foundation (2017), if there is more than one affected sibling who is affected or a close relative it suggests a similar disorder within fellow family members.

6.3 Description of Other Participants

The researcher also interviewed 11 people who are living with epilepsy. This was a follow up to some interesting cases, for instance, those who were claiming they had been cured with traditional herbs. Family interviews were also carried out to find out about their knowledge, attitude and perceptions towards indigenous and western practices of epilepsy management. Finally, the researcher had to interview the following stakeholders; Doctors, Nurses, Counsellors, Psychologists, diviners, herbalists and Christian healers. The description of the participants is provided below.
6.3.1 Description of Research Participants who are living with Epilepsy

In this study, eleven people who are living with epilepsy (see Table 6.3 below) participated in the study. These were sampled purposively with the support of the staff from Epilepsy Support Foundation Zimbabwe. Of the eleven participants, six were males and five were females. The highest age which narrated perceptions on epilepsy medication was seventy-five years while the lowest was twenty years. The highest length with illness was twenty-five years and the lowest length with illness was six months. Of the eleven interviewed participants, ten of them believed in Christianity and one participant believed in the African Traditional Religion.

Table 6.3 Description of Study Participants with Epilepsy

<table>
<thead>
<tr>
<th>Participant</th>
<th>Age (Years)</th>
<th>Sex</th>
<th>Length with illness</th>
<th>Religion</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>36</td>
<td>Male</td>
<td>3 Years</td>
<td>Christianity</td>
</tr>
<tr>
<td>B</td>
<td>40</td>
<td>Male</td>
<td>2 Years</td>
<td>Christianity</td>
</tr>
<tr>
<td>C</td>
<td>38</td>
<td>Female</td>
<td>20 Years</td>
<td>Christianity</td>
</tr>
<tr>
<td>D</td>
<td>20</td>
<td>Female</td>
<td>4 Years</td>
<td>Christianity</td>
</tr>
<tr>
<td>E</td>
<td>56</td>
<td>Male</td>
<td>30 Years</td>
<td>Christianity</td>
</tr>
<tr>
<td>F</td>
<td>32</td>
<td>Female</td>
<td>4 Years</td>
<td>Christianity</td>
</tr>
<tr>
<td>G</td>
<td>18</td>
<td>Male</td>
<td>6 Years</td>
<td>Christianity</td>
</tr>
<tr>
<td>H</td>
<td>30</td>
<td>Male</td>
<td>6 Months</td>
<td>Christianity</td>
</tr>
<tr>
<td>I</td>
<td>22</td>
<td>Female</td>
<td>7 Years</td>
<td>Christianity</td>
</tr>
<tr>
<td>J</td>
<td>75</td>
<td>Male</td>
<td>25 Years</td>
<td>African Traditional Religion</td>
</tr>
<tr>
<td>K</td>
<td>20</td>
<td>Female</td>
<td>10 Years</td>
<td>Christianity</td>
</tr>
</tbody>
</table>

6.3.2 Description of Stakeholders

In this study, the researcher interviewed two Doctors, two nurses, one counsellor, one psychologist, two traditional healers, two herbalists, two prophets and two pastors. The Doctors had more than ten years’ experience and one female nurse had 22 years of experience. The traditional healers and the herbalists had more than 10 years in the field. The prophets and the pastors had more than 6 years and years of experience. The researcher was interested in finding out if the participants had relatives who are living with epilepsy. Of the fourteen participants, five indicated they had relatives who had the disease.
Table 6.4 Description of Stakeholders

<table>
<thead>
<tr>
<th>No</th>
<th>Participant</th>
<th>Sex</th>
<th>Experience</th>
<th>Relative with epilepsy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Doctor</td>
<td>Male</td>
<td>10</td>
<td>No</td>
</tr>
<tr>
<td>2</td>
<td>Doctor</td>
<td>Female</td>
<td>12</td>
<td>Yes</td>
</tr>
<tr>
<td>3</td>
<td>Nurse</td>
<td>Male</td>
<td>8</td>
<td>Yes</td>
</tr>
<tr>
<td>4</td>
<td>Nurse</td>
<td>Female</td>
<td>22</td>
<td>No</td>
</tr>
<tr>
<td>5</td>
<td>Counsellor</td>
<td>Female</td>
<td>8</td>
<td>Yes</td>
</tr>
<tr>
<td>6</td>
<td>Psychologist</td>
<td>Male</td>
<td>9</td>
<td>Yes</td>
</tr>
<tr>
<td>7</td>
<td>Traditional Healer</td>
<td>Male</td>
<td>10</td>
<td>No</td>
</tr>
<tr>
<td>8</td>
<td>Traditional Healer</td>
<td>Female</td>
<td>20</td>
<td>No</td>
</tr>
<tr>
<td>9</td>
<td>Herbalist</td>
<td>Male</td>
<td>15</td>
<td>Yes</td>
</tr>
<tr>
<td>10</td>
<td>Herbalist</td>
<td>Male</td>
<td>12</td>
<td>No</td>
</tr>
<tr>
<td>11</td>
<td>Prophet</td>
<td>Male</td>
<td>6</td>
<td>No</td>
</tr>
<tr>
<td>12</td>
<td>Prophet</td>
<td>Male</td>
<td>10</td>
<td>No</td>
</tr>
<tr>
<td>13</td>
<td>Pastor</td>
<td>Male</td>
<td>8</td>
<td>No</td>
</tr>
<tr>
<td>14</td>
<td>Pastor</td>
<td>Male</td>
<td>20</td>
<td>No</td>
</tr>
</tbody>
</table>

6.3.3 Description of Family Participants

A total of ten families participated in family interviews and out of these participants, five of them had their relatives who are living with epilepsy participating in individual interviews (Participants A, C, D, E, and K). This was done to provide for those people with epilepsy who could not be interviewed. Five families had elders aged 70, 72, 75, 80 and 82 years participating in the study. This was done to ensure the reliability and validity of data on indigenous practices of epilepsy management.

6.4 Perceptions, Attitudes, and Knowledge about Epilepsy

6.4.1 Perceptions, Attitudes and Knowledge of Epilepsy among People with Epilepsy and their Families

The word “epilepsy” is derived from the Greek word ‘epilepsia’ which means to take hold of or to seize (Tuan, 2010). According to Jankovic et al., (1996), this meaning is very close to what Babylonians believed was the cause of epilepsy. They used the verb sibtu to denote epilepsy and practically this means being seized. In other, words one could say the traditional
definition of the word epilepsy means to be seized. Tuan (2010) emphasized that these epileptic seizures were believed to begin with the possession by a demon ending when the demon has departed the body. What it means is that the ancient people were convinced that a person under seizure was spiritually possessed. The researcher was thus interested in finding out how participants define epilepsy in this modern era.

To this end, participants were requested to give their perceptions on the causes of epilepsy. It became evident during data analysis that these participants believed epilepsy is caused by evil spirits, witchcraft and that it can be inherited. However, because of the education about epilepsy that they are receiving, it would appear some have adopted the western perceptions on the causes of epilepsy which include accidents, hospital operations, and complications at birth. Table 6.5 below gives a summary of the perceptions on the causes of epilepsy by respondents who responded to an open ended question; “what do you think are the causes of epilepsy?” Table 6.5 shows that the majority (41%) reflected that epilepsy is caused by evil spirits with 39% indicating the disease is caused by witchcraft. A considerable number (28%) reflected that epilepsy can be inherited and 8% showed that epilepsy is caused because of complications at birth. Some attributed the disease to accidents with some arguing it is caused during hospital operations.

Table 6.5: What are the Causes of Epilepsy?

<table>
<thead>
<tr>
<th>Causes of epilepsy</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accidents</td>
<td>20</td>
<td>6%</td>
</tr>
<tr>
<td>Hospital Operations</td>
<td>10</td>
<td>3%</td>
</tr>
<tr>
<td>Witchcraft</td>
<td>125</td>
<td>39%</td>
</tr>
<tr>
<td>Complications at birth</td>
<td>25</td>
<td>8%</td>
</tr>
<tr>
<td>Evil Spirits</td>
<td>130</td>
<td>41%</td>
</tr>
<tr>
<td>Epilepsy can be inherited</td>
<td>90</td>
<td>28%</td>
</tr>
</tbody>
</table>

An analysis on the results shown on the table above clearly shows that participants are of the opinion that epilepsy is caused by evil spirits and witchcraft respectively. Zimbabwe, located in Africa is a diverse country which represents people from diverse cultural backgrounds and there is a widely held notion that epilepsy is caused by evil spirits. Family members reported that these beliefs include witchcraft and contagious fears from bodily secretions, i.e. saliva or
urine that potentially transmit seizures to bystanders. Similarly, in a study on health seeking behaviours of people with epilepsy, Mutanana & Mutara (2015) also report that rural communities strongly believe that epilepsy is caused by evil spirits and witchcrafts. Some participants have attributed epilepsy to inheritance, accidents and complications at birth. Some people who are living with epilepsy and their families had this to say about the causes of epilepsy:

It is difficult to understand how epilepsy starts, and how it grows in a person’s body. We just see it happening, but we don’t understand exactly what will be happening (Person Living with Epilepsy).

I think it is a problem that is inherited, or that move within the lineage (Person Living with Epilepsy)

Some people with epilepsy indicated they had been educated on the causes of epilepsy by Epilepsy Support Foundation Zimbabwe. These are western perceptions but the moment they return to their families they have no choice but to accept the traditional causes of epilepsy. Some participants indicated they were now confused on whether to accept traditional perceptions or the western perceptions. One participant summed this up by saying: “Zvakatoooma, God has the answer.” It means people with epilepsy have a serious challenge because on one hand, they are lured to use bio-medications and on the other hand family members force them to use indigenous practices in managing their condition. Family members illustrated this finding:

Epilepsy could actually be evil spirits that is caused by the spirit of a clan or by a relative sending evil spirits so that the spirit attacks the person. When the spirit attacks the person he or she reacts in such a way that even the parents are surprised by his or her actions (Elderly Family Member).

We can say such a disease could be blood related or it can be a case of demon possession (Elderly Family Member).

That disease called epilepsy came from God (Family Member).

My child grew up without such a thing, it only started when he was grown up, so he was bewitched (Family Member/Mother very furious).

From these narratives it is clear that some family members have a negative attitude towards bio-medications because they have a strong belief that epilepsy is caused by evil spirits, and it is a disease that can be healed through prayers or some other divine intervention. What it
shows is epilepsy has been thought as being caused by spirits and witchcraft. This is combined with Christian beliefs that epilepsy is a punishment or a result of possession by demons. Matuja and Rwiza (1994) also observed that in Tanzanians high school students thought epilepsy was contagious, but only a few mentioned witchcraft as a cause of epilepsy. However, the ancient Greeks had contradictory views on this definition. They believed epilepsy as a form of spiritual possession and also associated the condition with genius and divine (Magiorkinis, Kalliopi & Diamantis, 2010 and World Health Organisation, 2011). These Greeks believed important figures like Julius Caesar and Hercules had the disease. In other words, the Greeks had no negative attitudes towards all people with epilepsy as they felt some of those people with epilepsy were genius. However, there are some family members who strongly believe in bio-medication, but are failing to influence their relatives who are strongly tied to the traditional beliefs.

In Christianity, the belief is that you need to repent in your life for the sins that you may have committed in your previous life, but I am not sure, illness is something fated to happen in one’s life. I am not really sure, I just can’t understand this, but I think I was fated to have the illness (Person Living with Epilepsy).

What it shows is that they have a negative attitude towards bio-medication; they would rather go and consult Christian healers or traditional healers to get their treatment. In this context, it becomes necessary to consider traditional practices of epilepsy management. However, there are some people who are living with epilepsy and family members who have a negative attitude towards these traditional practices. This is illustrated below:

Wangu mwana ndakanzw a kuti mudzimu wasekuru urikupotera paari. Ndisekuru vari kupotera paari. Akambodonha paairport akatsemuka musoro. Haadi kana kunzwa nezvempiritsi kana kuuya kuEpilepsy Support Foundation. Hama haadi kana kunzwa nezvavo (Family Member) (I heard there are some ancestral spirits which have visited my child. He once fell at the airport and had a head injury. He doesn’t want to hear about bio-medication or to come to Epilepsy Support Foundation. He doesn’t want to hear about it).

This is an isolated case of a family member, who is encouraging her child who is living with epilepsy to take anti-epilepsy medication, but the child has a negative attitude towards the medication. Indeed, there are some cases that were observed of people who are living with epilepsy that have disregarded the western perceptions on the causes of epilepsy. This is confirmed below:

In Christianity, the belief is that you need to repent in your life for the sins that you may have committed in your previous life, but I am not sure, illness is something fated to happen in one’s life. I am not really sure, I just can’t understand this, but I think I was fated to have the illness (Person Living with Epilepsy).
Our child has gone for ages without getting any medication (family member). Several suggestions have been made in regard to this epilepsy thing. Some say he has got that, he has got this, he is possessed with some spirit, and with some saying winds have affected him. But as a family, we have never believed in such type of thing. I think these beliefs are very prevalent in the African society, Zimbabwe included. I would want to believe it’s more in the rural communities because these people are deprived on the knowledge about epilepsy (Family Member).

This is a family member who has disregarded indigenous practices in epilepsy management, but is in disagreement with fellow members who strongly believe their family member with epilepsy should be treated using indigenous practices. It shows that in some cases there are disagreements on the causes of epilepsy within families. Some family members will be advocating for bio-medications, whereas others will be advocating for indigenous practices. In the end the person who is living with epilepsy is bound to be confused. But all the same, some family members have agreed on bio-medications as illustrated below.

Many people have considered a person with epilepsy to be possessed and the condition is seen as punishment of the wrong doing of the family. But as a family we do not think so (Family Member).

I have been living with epilepsy for the past 30 years. Many people think epilepsy kills that’s why they hurry to traditional healers, herbalists and prophets. They are worried with these seizures that take place when one is in an attack (Person living with epilepsy).

Some family members have suggested that epilepsy is caused by evil spirits, but I don’t believe in that kind of staff (Person living with epilepsy).

Ndaimbofunga kuti kuroyiwa, but pandakazotanga kutora ma tablets ndakabva ndarega kupinda muattack, ndikaona kuti hakusi kuroyiwa (I used think I was bewitched, but when I started to take bio-medications the seizures stopped, then I realized I had not been bewitched) (Person living with epilepsy)

I remember having a conversation with a traditional healer who said in my previous life I had killed a snake which is why I am epileptic. But I don’t believe in that sort of thing (Person living with Epilepsy).

Some participants refused to accept the traditional view on the causes of epilepsy but strongly believe epilepsy is a medical problem. As such, they use anti-epilepsy medication. They strongly believe epilepsy is caused through hospital operations, accidents and that epilepsy can be inherited, contrary to the belief that epilepsy is caused by evil spirits and witchcraft.
From the various views discussed above, it can be noted that epilepsy is largely viewed within an African worldview. Some believe epilepsy is caused by evil spirits, and some believe epilepsy is caused by witchcraft. This leads to negative attitudes towards bio-medication. This is what they have learnt from their family elders, which clearly shows their knowledge about epilepsy is strongly biased towards indigenous practices of epilepsy management. However, there are some who have adopted the western view on causes of epilepsy after being educated by Epilepsy Support Foundation. They now believe that epilepsy is caused during pregnancies, head injuries suffered from accidents and that epilepsy can be hereditary. To this end, some have completely disregarded the western notion on epilepsy management.

The Health Belief Model (HBM), as a psychological model has attempted to predict and explain these health seeking behaviours. According to Hochbaum (1958), Becker (1974) and Rosenstock (1966) the Health Belief Model is a cognitive model that posits that the behaviour of an individual is determined by a number of health threats and beliefs that he/she possesses about his/her well-being as well as the effectiveness and outcomes of particular behaviours or actions. In this case we have people who are living with epilepsy and their families who are strongly convinced that epilepsy is caused by evil spirits and bewitchment. Hochbaum (1958) also argues that the underlying concept of the original HBM is that health behaviour is determined by individual beliefs and perceptions about the disease and strategies that are available to decrease its occurrence. For instance, people with epilepsy in this research believe that epilepsy is caused by evil spirits and strategies available to manage the condition are traditional, not bio-medication. In other words, their personal perceptions are influenced by some intrapersonal factors that affect their health behaviour.

From the above discussion, it can also be noted that some people with epilepsy are not independent to act on their own. In other words, they lack the agency to decide on the choice of medication because they are influenced by their family members. In social science, human agency has been described as the capacity for individuals to act independently as well as to make their own free choices (Bandura, 2009). One’s agency implies one’s independent ability or capability to act on one’s will. The capability or ability is affected by one’s cognitive belief structure formulated through one’s experiences and perceptions that are held by the individual and the society. Bandura (2009) also described human agency as the human capability to exert influence over one’s functioning as well as the course of events by one’s
actions. The individual has a wide variety of choices for epilepsy treatment. He/she can visit the hospital, Non-Governmental Organisations such as Epilepsy Support Foundation Zimbabwe or any nearest clinic to get treatment in the form of psychological counselling and anti-epilepsy medication. The same individual can also visit a traditional doctor to get treatment in the form of herbs and spiritual treatment.

Epilepsy, described as a mental condition by the western, is attributed to spirituality in African Traditional Practices. Participants believe in Christianity and African traditional practices and have consequently resorted to traditional and spiritual medicines. Similarly, several studies have demonstrated that people with epilepsy make use of traditional and spiritual medicines as treatment for epilepsy (Watts, 1989, WHO, 2001; Al-Safi, 2007; Luongo, 2008, Shizha & Charema, 2011; Mohammed & Babikir, 2013 and Mutanana & Mutara, 2015). What it means is that the indigenous healer or diviner occupies a central place in communities’ participation in epilepsy management. In some cases, studies have suggested an inter-play between bio-medication and traditional medication. For instance, Asadi-Pooya (2014) and Saburi (2011) agree that traditional medicines may be used to complement bio-medication. To this end, it would appear people who are living with epilepsy are neglecting bio-medication instead of indigenous medicines. What then are the perceptions of traditional healers on the causes of epilepsy?

6.4.2 Perceptions, attitudes and knowledge of epilepsy among traditional leaders

As highlighted by Ellis (1996), traditional healer is a generic term, which is contrary to what the majority of people in the community think when they hear about this term. In Zimbabwe, for instance, a traditional healer is only thought to be a n’anga (diviner). On the contrary, a traditional healer is a person recognised in the community in which he lives as competent in providing healthcare using animal, mineral substances, vegetables and several other methods which are based on social, cultural, religious background. Traditional healers are highly respected people in societies where illness is thought to be caused by witchcraft or through neglect by ancestors. In this context, traditional healers are diviners, herbalists and Christian healers. The traditional healers have been regarded to be more important in the African society than western trained psychiatrists in epilepsy management. It was thus important to find out their perceptions, attitudes and knowledge about epilepsy. The researcher began with the perceptions, attitude and knowledge of herbalists.
The herbalist practices the art of healing and Gumede (1990) equates him/her to a general medical practitioner. Whilst diviners are usually females, herbalists are usually men and according to these key informants, they are often chosen for the profession by an established practitioner. These key informants also highlighted that unlike in the art of divination; the art of healing tends to run within the families and it is not hereditary. What it shows is that one becomes a herbalist by choice; as such the profession is freely accessible. The first herbalist had this to say about the causes of epilepsy.

There are two types of epilepsy. We have the original epilepsy wherein if an individual is involved in convulsions he or she releases forth from his mouth. Then the second type of epilepsy; if a person is involved in convulsions he releases saliva. What causes the original epilepsy there is forth which surrounds the individual’s lungs. The forth surrounds the individual’s lungs, which results in him failing to breathe and consequently he or she collapses. The individual will be having difficulties in breathing. What is needed is now to drain the forth enable the person breathe well. When the individual collapses, the forth comes out. That is what we call epilepsy. If one doesn’t get treatment it remains like that (Herbalist).

The herbalist was so confident in his understanding of epilepsy, and was strongly convinced that epilepsy cannot be treated using ant-epilepsy medication. From my observations, the herbalist’s services are on demand as shown by a number of people who were seen at his house. These included people with epilepsy, cancer and sugar diabetes. The researcher also took time to interview one patient, who had come to thank the herbalist. Participant was of the view that epilepsy is caused by witchcraft. I observed that the herbalist had become an expert in this field of epilepsy management and was in great demand beyond his local community. The herbalist’s modes of treatment are to be presented later, but he showed a negative attitude towards the western definition of epilepsy. But another herbalist had a different view on the causes of epilepsy, although he was not supportive to the western definition.

Epilepsy is transferred between the family members through the ancestral spirits. These ancestral spirits cause problems because they have unfulfilled desires (Herbalist).

In his own understanding, epilepsy is caused by ancestral spirits who have unfulfilled desires. This perception was supported by diviners (n’angas). According to the diviners, they are the most senior of traditional healers. Makhanya (2012) and Last& Chavunduka (1986) describe
a diviner as a diagnostician. In other words, a diviner is an expert in carrying out a diagnosis. Diviners indicated that they do not only define the illness, but also explain the ultimate cause of the disease according to the African belief system. Traditional healers reported their goal in healing epilepsy management is establishing a balanced and harmless relationship between the afflicted patient and the spirits that may be causing the illness or problem. Diviners reported that they intercede between the afflicted and the world of the dead to make restitution. As diviners, they reflected they are able to communicate with the spirits when they are in a state of possession. Similarly, Karim et al., (1994) explain a diviner to be a person with specialty in divination within the supernatural context via the culturally accepted medium of the ancestral spirits. These diviners indicated at the top of hierarchy are the greatest power, followed by the lesser spiritual entities, the ancestral spirits, living people, plants, animals and objects. As argued earlier, a diviner may also have knowledge of medicinal herbs that may treat epilepsy. Below is an illustration of their perceptions, attitudes and knowledge about epilepsy.

These spirits always want things. They may need a goat or a chicken or even a piece of cloth. They become a problem and come through an individual, who is normally diagnosed to be epileptic (Diviner).

They are like living people; they want things because they are hungry. If specific rituals are not performed following the death of a member with epilepsy the spirit of the dead family member returns to the family, bringing in epilepsy. The family’s next child will definitely have this disorder (Diviner).

The person in convulsions may be doing it for a greater good. In some cases these convulsions may be an attempt to remove some bad spirits that are surrounding the family and through these convulsions, the bad spirits will be removed (Diviner).

These convulsions are a calling from the ancestors for that person experiencing these convulsions to be a traditional healer. It is only until that person has accepted the calling that these convulsions will stop (Diviner).

These traditional healers strongly believe epilepsy is a calling from the ancestors. They strongly believe the ancestors may be unsettled, they are like human beings and they may need something to settle them. In some cases, they may need a cloth, a chicken or a goat. The ancestors may be hungry and if specific rituals are not carried out following the death of a member with epilepsy it means the next family member may be affected. These diviners indicated that epilepsy is a calling from the ancestors for that person with convulsions to be a traditional healer. The convulsions will only stop if that person has accepted the calling. However, some strongly believe that the convulsions may be an attempt to remove some bad
spirits within the family. These are the perceptions, attitude and knowledge of traditional healers; it was also interesting to know the perceptions of Christian healers.

Christian healers reflected they are professed Christians who belong to independent African churches. A key informant, a pastor traced the origin of churches to the rise of the independent African movement that broke away from the more Western oriented churches. This key informant also made an interesting observation in the way faith healers are regarded in the society. He indicated the African societies believe faith healers are not “traditional” in the usual sense of the word simply because they did exist before the development of Western medicine. Nonetheless, he contended that they are “traditional healers” because they share a common theory of Western of health and disease and treat by integrating Christian rituals and traditional practices. Christian healers reflected their healing power comes directly from God and usually through ecstatic states or trance-contact with spirits. Another key informant, a psychologist was of the view that sometimes it is a combination of both ancestral spirit and Christian Holy Spirit possession. What it shows is that faith healing is a calling from God, diagnosis and treatment flow from him; as such training unlike in the art divination is regarded as unnecessary. These faith healers reported that the healer may open the bible in front of the client or make diagnosis by just laying his hands on the holy bible. What it shows is that healing is usually through prayers, laying hands on the patient or through holy water, ashes or herbs. What are their perceptions, attitudes and knowledge about epilepsy?

Epilepsy illness is the fate and will of God. It is also punishment by God for the sins committed in the past life (Pastor).

You see my friend, everything really comes from up there, that is from God and it is only God who can fix it as well. You see, that is my belief. Yes, Doctors can give you medication but all the same cure comes from Jesus Christ (Pastor).

If it was written for you, it was written for you and there is absolutely nothing you can do about it. So when this epilepsy disease comes to you, it is in God’s hands there is nothing you can do about it (Prophet).

Yes, spiritual causes do have a major position within the traditional beliefs on epilepsy but there are other sinister forces which bring about illness. These include bewitchment, witchcraft, poisoning, evil spirit presence, and casting of a spell on the family by a jealous person (Prophet).
Some spiritual or faith healers strongly believe that epilepsy is a punishment from God because of sins committed in the past life. This could explain why the majority of people who are living with epilepsy do not want to come out. Some believe it is the will of God, everything comes from up there and even if one is supplied with medication by bio-medical Doctors, the healer is God. For some, it is something that was written for people with epilepsy and there is absolutely nothing they can do about it. Epilepsy is caused by bewitchment, witchcraft, and poisoning, evil spirits and casting of spell by a jealous person, that is the view of some other faith healers. What it shows is that faith healers believe in the word of God, they are convinced he superintends over the epilepsy disease, as such the western concept do not exist in their dictionary.

In a similar study, Deegbe (2015) discovered that the majority of participants strongly believe epilepsy is linked to a spiritual cause. Participants in his study indicated that they had consulted spiritualists and pastors who proclaimed that their condition was due to evil spirits. Participants harbour the traditional African belief that epilepsy is caused by someone with evil intentions against a person with epilepsy who can indirectly inflict him/her with epilepsy spiritually due to envy for a bright future. De Graft Aikins et al.,(2012) also discovered that traditional and cultural beliefs chronic illness such as epilepsy are attributed to spiritual causes such as witchcraft, sorcery and evil work of the devil.

From the above discussion, it can be noted that traditional healers (Herbalists, diviners and faith healers) are not in agreement with the western concept on the causes of epilepsy. Though they differ on the causes of epilepsy, they all disagree with the western understanding of epilepsy. For diviners, epilepsy is caused by ancestral spirits who may be unsettled or want something from the affected family, but for the faith healers this may be a punishment of sins committed in the past or that is God’s will. These definitions disagree with the western understanding on the causes of epilepsy. What it shows is that many people with epilepsy widely assume that traditional and spiritual medicines play an important role in treating people with epilepsy. This could be attributed to the perceived usefulness by users, who may be having a feeling that that these traditional medicines are quite useful in enhancing their performance.
6.4.2 Perceptions, attitudes and knowledge of epilepsy among doctors, nurses and counsellors

A key informant, a psychologist reported that an evolution of epilepsy theory and practice was between 1860 and 1910. These key informants reported the following contributions towards epilepsy; the development of the physiological structure theory of the nervous system in relation to epilepsy, investigation and demonstration of cortical localization of the epileptic activity, principle of focal epilepsy establishment and focal seizure types description, the discovery of bromide as the first effective drug treatment for epilepsy and the first surgical operation for epilepsy. Nevertheless, these have continuously been referred to as “Western practices” in some non-western countries that are particular about their traditional knowledge. The researcher sought to find out perceptions, attitudes and knowledge of doctors, nurses, counsellors and psychologists on epilepsy. Below are their perceptions and their attitudes:

This is an occasional, excessive and disorderly discharge of the nerve tissue or muscles (Doctor)

An epileptic seizure is a transient occurrence of signs or symptoms due to abnormal excessive and or synchronous neuronal activity in the brain. These seizures happen because of a number of reasons such as injury or sickness. (Doctor)

This disease can be caused with meningitis. In some cases, complications at birth can result in epilepsy, for instance if the child was under pressure to come out during birth. Birth asphyxia, can also cause epilepsy that is when the child fails to get oxygen in time during birth. Vacuum extraction has been identified as another cause, because it damages the child’s head which may not be strong enough for the process. Accidents can also damage an individual brain resulting in these convulsions. (Nurse)

This explanation was confirmed by a family member who claimed when she gave birth to her child, he was overweight:

_Pakusununguka kwandakaita mwana akabuda ari over weight. Handina kumbotora nguva ndaenda kuhospital. Kusvika kuchurch, kuzvipatara_ (When I gave birth my child was overweight. I did not take time, I went to the hospital. I also visited the church and hospitals) (Family Member/Mother).
The medical professionals insisted epilepsy can be caused by head injuries, infections or complications during birth as illustrated below.

Head injuries, brain infections and complications at birth are some of the causes of epilepsy (Nurse).

People do not really understand what epilepsy is. If they hear about epilepsy they think it is bewitchment. Epilepsy is a chronic disorder of the brain characterized by recurrent seizures. These are brief disturbances in the electrical functions of the brain (Psychologist).

Damage of brain cells, accidents, stress during pregnancy, evil spirits, it can be inherited, over working (Counsellor).

From my analysis these key informants understand epilepsy from a western concept. Epilepsy was described as a chronic disorder in the brain which is characterised by recurrent seizures. Similarly, Saraceno, Avanzini and Lee (2005) and Magiorkinis, Kalliopi & Diamantis (2010) contended that Hippocrates proposed that epilepsy was a medically treatable problem that originates in the brain. Hippocrates also accused those who were attributing a sacred cause to epilepsy as ignorant through a belief in superstitious magic. This understanding differs from the traditional understanding of epilepsy as shown by a psychologist who said; “I think elders think epilepsy is caused by evil spirits” (Psychologist). This evil spirits and bewitchment perspective may appear to be an old perspective, but all the same they are Africans. As shown in the key informants’ bio data some of them have relatives who are living with epilepsy.

How are they handling it? It was interesting to find out from the key informants. The medical knowledge did necessarily preclude the traditional belief in epilepsy, as the following are the comments from a medically trained Doctor, Nurse; and a counsellor.

It is one of the things, not like coronary heart disease or diabetes, I mean one thing which happened to me, maybe these are evil spirits, and evil spirits are a factor to consider. In as much as my medical knowledge is concerned, I do not know anything… (Doctor)

My child is epileptic. I have tried everything; herbs and prophets. It has not yet worked but I think one it will work (Doctor)

I know a Pastor from AFM, he is very spiritual, try him and I can assure you that you will get positive results (Nurse)

With epilepsy you can’t rule out traditional medicines. I normally advise my clients to try it. But they should not abandon medication (Counsellor).
In as much as they believe in the biomedical concept of epilepsy, these professionals are Africans, and as Africans they sometimes have to accept the traditional definition of epilepsy. With that in mind, participants indicated they have no reason to stop their patients from seeking traditional modes of epilepsy management, but they do not encourage them to stop anti-epilepsy medication. In a similar study on the knowledge, attitude and perception towards epilepsy among medical students in Uyo, Southern Nigeria Ekeh & Ekripo (2015) observed that these students still harboured traditional beliefs on the causes and treatment of epilepsy. In this study, about 26.4% students affirmed that epilepsy is transferable. Some students (22.3%) believed epilepsy is contagious with 24.8% indicating saliva as a route of transmission. About 38% reported blood as a route cause for epilepsy. These medical students were supportive on the traditional African belief irrespective of the clinical exposure that they had.

From my own analysis, there are varying perceptions on the causes of epilepsy among Zimbabweans, but the majority of them strongly believe epilepsy is caused by evil spirits, bewitchment and misfortunes that may be casted by a jealous family. Some believe epilepsy is a punishment from God for previous sins committed. For diviners, epilepsy is caused by ancestral spirits who may be unsettled and it may be a calling for the person with epilepsy to be a traditional healer. The medical professionals and the psychological professionals believe epilepsy to be a chronic disorder in the brain which is characterised by recurrent seizures. Be that as it may, they indicated they cannot run away from the traditional concept on the causes of epilepsy because they are Africans.

6.5 People with Epilepsies’ Experiences with Bio-medication
A key informant, a doctor reported that effective drugs have been available since the introduction of bromide. The key informant also believes Anti-Epileptic Drugs (AEDs) remain the mainstay in epilepsy treatment. Treatment is prophylactic and aims to reduce or eliminate the risk of further seizures as long as the treatment is maintained. Drug treatment is also individualized and AEDs are selected according to the patient’s type of seizures and other individual characteristics. There are more than 20 prescriptions of AEDs available and one’s option depends with age, lifestyle, and type of seizure and how often he/she has seizures (Epilepsy Scotland, 2008; FEDOMA, 2011; Cherney, 2016 and Epilepsy Foundation, 2017). In Zimbabwe, the commonly used drugs are Phenobarbital, Carbamazepine and Phenytoin (Dewa, 2012).
While it has been noted that epileptic seizures could be controlled with medications such as Phenobarbital, Carbamazepine and Phenytoin in 70% of the patients (Dewa, 2014), the effectiveness of all medicines including anti-epilepsy Drugs (AEDs) depends on adherence to the whole treatment process. A key informant, a nurse argued this includes taking of medicines required quantities, timeously going for medical/health reviews as appointed. However, Epilepsy Support Foundation Zimbabwe (2016) has indicated that about 86% of people living with epilepsy are not on anti-epilepsy medication, implying that they are not taking this AEDs. To this end; the researcher had some questions on bio-medication. There are two subthemes on patients’ experiences with bio-medication which are discussed; epilepsy management using bio-medication and the general side effects associated with bio-medication.

6.5.1 Epilepsy management using anti-epilepsy medication

Key informants agreed that in epilepsy treatment, many people especially those in non-western countries remain deeply rooted in spiritual and indigenous medicines. Key informants also reported that the attitudes of past societies towards epilepsy left a legacy of stigma and damaging misconceptions which still persist today. What it shows is that people with epilepsy have continued to live in fear, prejudice as well as discrimination in their everyday lives. Eventually, as highlighted above, they shun bio-medication in favour of traditional modes in epilepsy management. To this end, the researcher was interested in finding out if participants are taking western anti-epilepsy medication. Participants were asked whether they are using anti-epilepsy medication or not. Results on Figure 6.7 below show that the majority (76%) are taking bio-medication as compared to 24% who are not.
From my analysis, the people who are registered with Epilepsy Support Foundation Zimbabwe are taking anti-epilepsy medication. A key informant, a doctor supported bromide as the first effective anti-seizure medication. Another key informant, a nurse supported modern treatment known as Phenobarbital which she claimed was developed in 1912 followed by Phenytoin in 1938. These two key informants reported that several anticonvulsant drugs have been manufactured and they are on the market.

As highlighted earlier, there are more 20 anti-epilepsy medication drugs that are used in Zimbabwe, and it appears the majority have indicated that they are using them. It was also interesting to find out how participants are taking medication based on religion. Results on Figure 6.8 below show the majority of those who believe in Christianity are taking bio-medication as compared to those who believe in the African Tradition Religion.
What it shows is that many people who believe in the African Tradition Religion are not taking bio-medication. Key participants (Doctor and nurse) blamed the cultural belief for the treatment gap of epilepsy in African countries. A large sector of the African population believes in traditional medicines. What it shows is that in spite of the reported and unreported complications of these traditional medicines, the African people continue to seek help from traditional healers regularly and they confide in them, respect them and hold them in high regard. According to WHO (2002), in spite of the increasing health facilities and health caregivers, the belief in supernatural existence is widely believed by the Africans among the illiterate and the well educated people.

For those that are not taking anti-epilepsy medication, the researcher enquired why they were not taking the medication. This was an open ended question and table 6.6 below gives a summary on the reasons why they are not on anti-epilepsy medication. Results on this table below show that the majorities are not on anti-epilepsy medication because of shortage of medication whereas some are encouraged to stop medication by diviners and herbalists. Some
indicated they are not on anti-epilepsy medication because they are influenced by their relatives and Christian healers.

**Table 6.6: Reasons for not taking Anti-epilepsy Medication**

<table>
<thead>
<tr>
<th>Why are you not using bio-medication?</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shortage of medication</td>
<td>30</td>
<td>40%</td>
</tr>
<tr>
<td>Influence from relatives or friends to abandon medication</td>
<td>05</td>
<td>7%</td>
</tr>
<tr>
<td>Faith healers advise us their prayers are effective</td>
<td>10</td>
<td>13%</td>
</tr>
<tr>
<td>Diviners and herbalist tell us to abandon these medicines</td>
<td>30</td>
<td>40%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>75</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

From my analysis, many people are failing to take anti-epilepsy medication due to shortage of medication. As indicated earlier, many people with epilepsy are living below the poverty datum line, and they depend on free medication from government hospitals and organisations such as Epilepsy Support Foundation, Zimbabwe. During my attachment at this organisation when I was collecting data, I observed that this organisation had run out of medication, they did not have a vehicle to go out and carry out awareness campaigns, and many other resources that can help the organisation to move on. What it then shows is that there is a shortage of anti-epilepsy medication and some people with epilepsy have resorted to indigenous practices of epilepsy management. This is confirmed by the following participants:

There is a serious shortage of medication that affects most people rural in areas. Even if one accepts his or her condition, if he goes to the hospital he won’t get anything (Doctor).

Accessing epilepsy medication is a serious challenge in those people in the rural community (Nurse).

I thought there was no medication for epilepsy, if it is possible the government could help in that field. The medication should be equally provided in rural areas where they are under privileged people who have no one to look after them” (Family Member).
Indeed, some people with epilepsy now think there is no medication because they are failing to acquire it. It shows that these AEDs are normally in short supply because of an under resourced health care system. Some participants reported that they had a challenge of travelling long distances from the community to the hospital to get medication. Mugumbate and Nyanguru (2013) also identify economic aspects that affect people with epilepsy. In his findings, 93% indicated securing adequate income as a challenge, and consequently they fail to acquire anti-epilepsy medication. The majority of those who are diagnosed to be epileptic cannot afford to buy these drugs and this has an effect on compliance.

However, they are some who are failing to go for medication because they are influenced by relatives or friends. They are forced to use traditional practices of epilepsy management. Some participants are not taking the medication because they would have been advised to stop the medication by their pastors, traditional healers and herbalists. These are all factors contributing to abandonment of anti-epilepsy medication. There are several other reasons why people are not on anti-epilepsy medication as shown below:

Epilepsy Support Foundation has championed numerous nationwide epilepsy campaigns, but evidence from societies and streets proves the majority still believe in the superstition associated with the disease (Counsellor).

A person with epilepsy is very scary, what happens when they are attacked is very scary. So it takes time to accept the problem, hence people end up abandoning bio-medications (Psychologist).

A person with epilepsy has deadly temper, in the event that he grabs you isolated from other people, he can surely throw you down to death (Family Member).

_Chinhu chinongovhundusa, zvekuti you are forced to try everything. Mai vangu vakatombogara mubako vari vega nemwana”_ (Family Member). (It is something that is frightening so much that you are forced to do anything. My mother was forced to stay in the curve with a child alone because of this disease

Some people with epilepsy strongly believe in the superstition attached to the disease, and what happens to the person in an attack is scary and as confirmed by a family member a person with epilepsy has deadly temper. Eventually, these people as families or as individuals are forced to make use of traditional practices of epilepsy management instead of anti-epilepsy medication. A key informant, a psychologist reported that the sudden onset impulsive behaviour associated with bursting seizures makes the epilepsy sufferers visible
and is if they hold eccentric power. This provokes the powerful panic for those present and this may be the reason why people believe this disease is caused by evil spirits or supernatural forces. However, some participants indicated the disease is seldom mentioned in the social circles as shown below:

Epilepsy is viewed as a form of mental illness, which makes it difficult for those with the epilepsy to open up and come out to take medication (Doctor).

Due to superstitious tied with epilepsy; the condition is seldom mentioned in social structures (Counsellor).

A key informant, a doctor described epilepsy as a form of mental illness, which explains why some people do not open up for medication. Key informants, (Counsellor and Psychologist) also highlighted that use of anti-epilepsy medication is associated with social isolation, dependent behavior, and low rates of marriage, unemployment and reduced quality of life. These informants reported adverse outcomes that include less frequent marriages, employment, skilled occupations and social isolation. This disease is also seldom mentioned in the social circles as such people with epilepsy are not opening up at workplaces or within their communities. What it shows is that people with epilepsy and the communities are not well educated about epilepsy. Key informants also explained the trauma that people with this disease have suffered. According to them, in many cultures people with epilepsy have been stigmatized and shunned. Similarly, Jilek-Aall (1999) provided a case by Jean-Martin Charcoot, French Professor who discovered people with epilepsy under imprisonment and in another study discovered them seating side-by-side with the mentally ill, those with chronic syphilis and the criminally insane. Be those it may, it was also interesting to know the attitude of people with epilepsy towards anti-epilepsy medication and their responses are presented below:

*Mapiritsi tiri kushandisa. Anongobatisra kucontroller but haaporese (Epileptic Patient).* (We are taking the medication. It only helps to control seizures but they do not heal

In my analysis, I observed that the majority of these participants have a higher expectation to get healed when they take the medication. This is confirmed by a Doctor who noted:
The expectation among the majority of these people is that modern medicines will cure epilepsy, so when the medication has run out or when they stop taking these drugs, these seizures return and at the end they see little benefit from the bio-medication (Doctor).

As confirmed by the doctor, many people think these anti-epilepsy medications will treat them, which is not the case. If they are not cured, they then opt for traditional practices of epilepsy management. The psychologist had his own opinion:

When these religious patients are depressed, they believe counselling may interfere compliance of conventional treatments, particularly psychotherapy. Many of these clients have a tendency to shy away from psychotherapy because they think it is unsympathetic to their religious beliefs (Psychologist)

Treatment of epilepsy within the faith community is not always effective, as such; people with epilepsy need to be referred to mental health professionals for treatment (Counsellor).

The psychologist is of the opinion that many of these participants think anti-epilepsy medications are not sympathetic to their religious beliefs; as such they shy away from psychotherapy. The psychological professionals strongly believe that these people must be referred for treatment, because some of them are adamant as shown in the verbatim quotes below:

I think that is desperation because I have been trying something for a long time and it is not getting me anywhere. So I do not care anymore about bio-medication. Anything that is able to help me, I am willing to use it. I will try anything that will cure my epilepsy problem, not rely on these tablets which are failing to assist me (Person living with epilepsy).

I am really tired and sick about this bio-medication as nothing is helping when I am suffering. I will try anything that will get me better. The traditional healers have tried to help me, and I believe in them (Person living with epilepsy).

We tried everything, anybody said, but you know it is failing to help. As a family, we have been to the prophets, traditional healers, and herbalists, anywhere that you can think of. Our family is too religious so we had no choice. I suppose, you know when your child has got this kind of diseases you become helpless and you run short of ideas, run to everyone and at the end you don’t care who are approaching and their religion (Family Member).
I have all the confidence in the drug control, but still don’t like taking them” (Person living with epilepsy).

I do not take bio-medication because it often appears it does not work. The Doctor prescribes the same medication every time but the seizures still persist (Person living with epilepsy).

From my own observation, these participants have been living with this condition for some time taking anti-epilepsy medication but “it is not working.” They are now desperate; they want to be cured but it is failing. Doctors indicated that the medications help to control seizures, an assertion that is not understood by many people who are living with epilepsy. Consequently, they end up using indigenous practices of epilepsy management techniques which are to be discussed in chapter seven. And for those who are taking anti-epilepsy medication, do they know how to take the medication? The results are illustrated on figure 6.9 below which shows that the majority of the participants (91.7%) understand how to take their medication.

Figure 6.9: Responses on Whether Participants Know how to Take Medication
Participants were requested to explain how they are taking the medication and below are the responses:

I understand how to take the medication. If my child does not take medication something happens. My child knows he must eat to in order to take the medication. If he doesn’t take the medication, he experiences dizziness (Family Member).

I use a drug wallet which has a section on each day of the week. This helps to keep track about when to take medication (Person with epilepsy).

I take my medication at the same time each day, normally at regular intervals, that is between 6 am and 6 pm (Person with epilepsy).

Evidence shows that participants know how to take the medication because they have been educated about it. However, there are some who indicated they sometimes forget to take medication as shown by one respondent who noted: “I sometimes forget to take medication because of memory loss. I need someone to remind me” (Person living with epilepsy). However, the Doctors encouraged patients with epilepsy to take their medication because it helps in controlling seizures. This is illustrated by the arguments below:

Most cases of epilepsy can be controlled through the uptake of anti-epilepsy medication. But according to the WHO, only 7 out of 10 people living with epilepsy lack access to this medication (Doctor).

Taking the medication at the same time on each day helps to keep levels of the drug steady throughout the day. It is also helpful to take these medications at the same time regularly (Doctor).

Patients were encouraged to take their medication regularly, at the same time in order to keep the levels of the drug steady throughout the day. Chandra et al., (1993) claim that a study carried out in India has revealed poor adherence to prescribed medication as the main cause of unsuccessful drug treatment for epilepsy. But even if they take medication regularly, how helpful is epilepsy management using bio-medication? Results on Figure 6.10 below show that the majority of participants (49%) think the anti-epilepsy medication is somewhat helpful, 34.6% are of the opinion that the drugs are not helpful at all, 8.7% think they are very helpful and 7.7% believe they are helpful.
It shows that participants do not trust anti-epilepsy medication. On the contrary, key informants (doctor and nurse) revealed that anti-epilepsy medication allows up to 60-70% staying free from seizures and they are less harmful because they are scientifically proven, unlike traditional practices of anti-epilepsy treatment. They also supported AEDs, arguing that treatment with AED in patients with epilepsy aims to provide the best quality of life with no seizures and fewest adverse effects from treatment. It was also interesting to find out participants’ views based on their religion. Results on Figure 6.11 above show the majority of participants who believe in African Tradition Religion believe that the anti-epilepsy medication is not helpful at all as compared to participants who believe in Christianity.
It means that many people who believe in the African Tradition Religion do not have trust in anti-epilepsy medication. Participants were requested to explain their responses. Some participants reported that anti-epilepsy medication had a lot of side effects, for instance failing to have children after taking them. Some reported that this medication cannot deal with evil spirits, with some claiming that they have been taking the medication for sometime but has proved to be useless. This is contrary to some findings on the effectiveness of anti-epilepsy medication. For instance, Jilek-Aall & Rwiza (1991) confirm a follow-up of anti-epilepsy medication study in Tanzania which revealed that about 52.4% of epileptic patients managed to achieve complete seizure suppression, with 36% reducing epilepsy frequency of seizures whilst only 7.9% experienced no change during their 20 years of treatment. Nimaga et al., (2002) also report that in rural Mali, about 80% of the 96 patients treated with Phenobarbital became seizure free within one year. The general belief among medical practitioners is that epilepsy can be treated or controlled (Manungo, 1993). Chandra et al., (1993) also support the notion that treatment of epilepsy is easy because most of the epileptic patients can be managed without sophisticated investigations.

6.5.2 Side-effects associated with bio-medication in epilepsy management

Research participants were asked to state the general side effects associated with biomedication that they have observed since they started to take the medication. This was an open ended question and below is a summary of the side effects that was provided by the respondents. Results on table 6.7 below illustrated that the majority (22%) reported
overweight, with some indicating they become tired after consuming drugs (60%). Some participants reflected the need for more food (35%) and memory loss (35%). It was also reported that anti-epilepsy medication affects sexual arousal and dizziness.

**Table 6.7: Side effects associated with bio-medication**

<table>
<thead>
<tr>
<th>Side Effects Associated with Bio-medication</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>You need more food</td>
<td>35</td>
<td>11%</td>
</tr>
<tr>
<td>You become tired if you consume them</td>
<td>52</td>
<td>19%</td>
</tr>
<tr>
<td>Overweight</td>
<td>70</td>
<td>22%</td>
</tr>
<tr>
<td>Memory loss</td>
<td>35</td>
<td>11%</td>
</tr>
<tr>
<td>Affects sexual arousal</td>
<td>24</td>
<td>8%</td>
</tr>
<tr>
<td>Dizziness</td>
<td>13</td>
<td>4%</td>
</tr>
<tr>
<td>Not Answered</td>
<td>83</td>
<td>25%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>312</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

What it shows is that these drugs affect people with epilepsy one way or the other. The researchers made a follow up on these side effects and below are the findings:

I do not mind in taking the bio-medication for as long as it controls my seizure. However, at times I get worried about these side effects (Person living with epilepsy).

This medication affects mood and memory, and this sometimes makes me to resent them. I can risk a seizure in order to have my memory back because remember, it is the memory that makes your identity (Person living with epilepsy).

Increase of weight, dizziness, memory loss, loss of sight is some of the side effects (Person living with epilepsy).

Participants who are living with epilepsy confirmed the side effects which include loss of memory, mood swings, overweight, loss of sight and memory loss. Some participants indicated that they are failing to take medication because they are worried about these side effects.
Family members were requested to state their observations on people living with epilepsy.

My own opinion, combined together with what I usually hear other people saying...assuming that the condition is on a male bio-medication weakens his reproductive organs. As a result he totally fails to impregnate which in turn might ruin his marriage in his life because of this condition (Family Member).

I have observed that these drugs have affected him because he is now a slow learner. Before he started these drugs he was a fast learner. (Family Member)

He struggles when he is talking (Family Member).

Some family members believe the anti-epilepsy medication affects the male reproductive system. Some participants reported slow learning among people with epilepsy with some reporting that they have observed that people with epilepsy normally struggle when they are talking. The medical professionals where interviewed on these findings and below are their responses:

Like in any other medications bio-medications may cause side effects and these possible side effects will vary from one anti-epilepsy drug to another. Whether one will have side effects largely depends on how he or she reacts to the drug, because patients respond differently to the same drug (Doctor).

For about 70% of the people with epilepsy, bio-medication can control seizures but cannot cure epilepsy. Be that as it may, these patients need to continue taking the medication. However, the possible side effects of these drugs are drowsiness, fatigue, vomiting and nausea (Doctor).

Some side effects associated with these drugs include fatigue, vision change, dizziness and rash (Nurse).

There are general side effects associated with these drugs. These include tiredness, nausea, unsteady walking, depression, and in some cases loss of appetite. Studies have also shown that in children these drugs may cause drooling and hyperactivity (Doctor).

The most common side effects of bio-medication include dizziness, vomiting, tremor fatigue and blurred vision (Nurse).

The medical professionals confirmed that indeed there are some side effects that are associated with anti-epilepsy medication. Participants reported that this may have an effect on
the uptake of the medication. Be that as it may, one Doctor Participant indicated the side effects may have a positive effect on the patient as illustrated in the verbatim quote below;

These adverse effects are unwanted and unpleasant. However, in some cases these side effects may be positive, for instance these side effects lower appetite if you are overweight or they may cause sleepiness if you often have a hard time in sleeping (Doctor).

Participants indicated that in some cases they have sleepless nights, and as confirmed by the Doctor the drugs have helped them to sleep well. The drugs also increase an appetite and this helps in reducing the overweight. What it shows is that the side effects may have some negative effects and positive effects. Literature has also revealed several side effects that are associated with epilepsy medication. The common side-effects identified by Health Talk (2016), Stephen et al.,(2014), Epilepsy Society (2014), and Epilepsy Scotland (2008) are feelings of tiredness, stomach upset, dizziness or blurred visions which usually happen in the first few weeks of taking seizure medicines. According to Epilepsy Scotland (2008), these drugs may also cause fatigue, nausea, urinary retention and sexual dysfunction. If patients with epilepsy are not educated on these side-effects, they eventually abandon epilepsy medication and attempt traditional medication.

Family members indicated that their relatives with epilepsy are slow learners. This may confirm Stephen, et al., (2014) assertion that these medicines lower excitability of nerve cells in the brain and this affects normal activity. Participants indicated loss of memory, poor concentration and difficulty in pronouncing words, a similar observation that was carried out by Stephen et al., (2014) when he highlighted that cognitive problems are problems associated with thinking, remembering, paying attention or concentrating, finding the right words and can be due to side effects of seizure medicines. A study by Al-Faris et al., (2002) in Saudi Arabia also discovered that forgetfulness contributed to about 22.5% of the reasons why children fail to attend epilepsy treatment review visits. In other words, these AEDs may affect the cognitive structure of the person with epilepsy. As such, people with epilepsy are afraid of this challenge and opt to use traditional medication.

Research participants reported behavioural challenges among people with epilepsy. The medical professionals revealed that epilepsy and its treatment may affect the way that some people think and behave. As such, these drugs affect the patient’s memory, language, planning and reasoning. This may affect how a person with epilepsy relates with family
members and workmates. Some medicines also affect a person’s energy level, mood, motivation or how fast they think or do task. Key informants also reported that anti-seizure medications like Phenobarbital can affect the mood of the patient and increase depression. Similarly, Mitchel (2017) has argued that cognitive, psychiatric and behavioural abnormalities in children with epilepsy are attributable to antiepileptic medications.

Epilepsy medication restricts activities and forces specific behaviours. For instance, not driving, maintaining regular sleep cycles, limiting alcohol changes and the lifestyle and can lead to a loss of independence (Rodriquez, 2016 and Stephen et al., 2013). Mitchel (2017) argues most sedative drugs have the potential for causing excitement and agitation. She gives an example of the Phenobarbital anticonvulsant drug which she claims may cause sustained behavioural difficulties such as over reactivity, irritability and disturbed sleep. In her analysis, 5-25% of children experience over reactivity due to Phenobarbital. Bazil (2003) also support Mitchel when he claims these anti-epilepsy drugs may result in insufficient sleep on top of inadequate sleep hygiene, coexisting sleep disorders and circadian rhythm disturbances.

Medical practitioners indicated that these medications can result in allergic reactions. Medical practitioners reported unpredictable side-effects like problems with liver or pancreas, some serious drops in the number of white blood cells and a serious drop in the number of platelets in the body. They highlighted that for children, the general side-effects are drowsiness in class, inattention and restlessness which affect normal brain functioning and can make learning to be even more difficult. These side-effects can be a threat to the lives of people with epilepsy. Eventually, they are bound to abandon these medications and opt for indigenous practices of epilepsy management.

In summary, it can be noted that some Zimbabweans are not taking anti-epilepsy medication because they believe epilepsy is caused by evil spirits and bewitchment. Similarly, studies in some tribes of Central and South America, southern-east part of Asia and Africa indicate that they continue to perpetuate traditional beliefs about epilepsy (WHO, 2013). From these findings, it can be noted epilepsy is frequently thought as a punishment for evil deeds. The disease is viewed as causation for breaking certain taboos in some cases. What it shows is that these traditional beliefs prevent people with epilepsy from seeking anti-epilepsy medication. This is confirmed by Khadilkar (2013) when he argues that some people who are
living with epilepsy on anti-epilepsy medication discontinue with this medication due to fear of the general side-effects associated with the medication. In India, Das, Banerjee and Mondal (2007) have reported 43% discontinuation rate within one year. Kadiilkar (2013) has blamed discontinuation of anti-epilepsy medication on high cost of treatment, superstitions and cultural beliefs. Bharucha (2012) believes dimensions of medical, social, psychological and financial consequences of epilepsy are enormous and can result in discontinuation of anti-epilepsy medication. As reported earlier, a large proportion of people with epilepsy in the non-western community are failing to get anti-epilepsy medication because they do not have the financial resources. Mitchell (2017) argues that people with epilepsy have read over the adverse effects of medications and there are frightening stories in the media and on the internet about the side effects of epilepsy medication. Mitchel (2017) is of the opinion that some people may be under the wrong impression regarding these drugs and express the fear that a medicine will make them retarded or cause developmental problems. Eventually, these fears may lead people with epilepsy to avoid administering prescribed medications.

6.6 Chapter Summary

In this chapter, the researcher presented, analysed and discussed data on perceptions, attitude and knowledge of participants about epilepsy. Participants included people who are living with epilepsy, their families, traditional healers and medical professionals. The researcher also presented data on experiences of people with epilepsy in relation to bio-medication. It was established the majority, especially those who believe in the African Tradition Religion do not have faith in bio-medication hence they resort to indigenous practices. In the next chapter, the researcher presents data on indigenous technologies used in epilepsy management.
CHAPTER SEVEN: INDIGENOUS PRACTICES AND COMMUNITY PERCEPTIONS OF EPILEPSY MANAGEMENT

7.1 Introduction
In the previous chapter it was noted that some respondents are not taking anti-epilepsy medication because they believe that it is caused by evil spirits and bewitchment. Findings revealed so far have indicated that epilepsy is frequently thought as a punishment for evil deeds. The disease is viewed as punishment for breaking certain taboos in some cases. What it shows is that these are the traditional beliefs among people who are living epilepsy and their relatives. To this end, WHO (2004) has suggested that the aim of reducing the epilepsy treatment gap should also take into consideration the cultural environment of people with epilepsy and those affected. What it means is that information and education of the public on modern and indigenous practices of epilepsy is important in order to empower people to make informed choices. As such, WHO (2004) has recommended cultural aspects of epilepsy management to be studied with regard to community perceptions, attitudes and practices of epilepsy management. As a follow up to the previous chapter, I now present evidence gathered on indigenous practices of epilepsy management and the community perceptions towards these practices.

7.2 Prevalence of Indigenous Practices
An analysis in Chapter 6 shows that some participants are of the opinion that epilepsy is caused by evil spirits and witchcraft respectively. Similarly, Carod-Artal & Vazquez-Cabrera (2007) and Mutanana & Mutara (2015) have agreed that people in Africa have a widely held notion that epilepsy is caused by evil spirits. Chakuchichi & Zvampa (2010) posit that in an Afro centric perspective, a crisis is viewed as spiritual, caused by avenging spirit and punishment from God. To this end, the researcher was interested in the prevalence rate of indigenous practices use among participants. Participants were asked if people in their communities are using indigenous practices such as herbs, prayers, and traditional healers to treat epilepsy. Results on Table 7.1 below show that the majority (85.3%) agreed that people are using indigenous practices as compared to 14.7%.
Figure 7.1: Responses on whether people in the community are using indigenous practices or not

What it shows is that people in the community are using indigenous practices in managing epilepsy. From these findings, it can be clearly noted that participants are using traditional practices in epilepsy management. Similarly, Mohammed & Babikir (2013) observed that about 90% of participants in their study were using indigenous practices in management of epilepsy. This clearly shows people with epilepsy are either using indigenous practices as complimentary or as an alternative to bio-medication. This has been affected by traditional beliefs towards the causes of epilepsy as highlighted in chapter 6. Participants attributed evil spirits and witchcraft as the major causes of epilepsy. In his Health Belief Model theory, Hochbaum (1958) also posit that the underlying concept of the original health behaviour is determined by individual beliefs and perceptions about the disease and strategies that are available to decrease its occurrence. The study was also interested in understanding whether these participants themselves; constituting people with epilepsy and parents of children with epilepsy are using these indigenous practices in managing their condition as a follow to the above question. Results on table 7.2 above show that 88.1% of the participants are using indigenous practices in managing their condition as compared to 11.9%.
Figure 7.2: Responses on whether participants are using indigenous practices in epilepsy management

What it shows is that participants are using indigenous practices in managing their condition. Participants agreed that indigenous practices were used in the Zimbabwean society on epilepsy management. Participants supported the assertion that traditional and spiritual medicines were very common in African traditions. They agreed that people with epilepsy consider spiritual and traditional management of epilepsy before they consider anti-epilepsy medication. In a similar study, Mohammed & Babikir (2013) discovered that about 70.5% had used traditional and spiritual medicine for epilepsy treatment. Interestingly, Mohammed and Babikir (2013) observe that about 42.5% had started traditional or spiritual treatment before seeking medical advice. Mohammed & Babikir (2013) also observed that even though the majority of these Sudanese patients were on medical treatment, they were also using traditional and spiritual methods as well. To this end, Mohammed & Babikir (ibid) recommend traditional and spiritual methods in epilepsy management.

Participants revealed that people with epilepsy take traditional medicine because the condition is viewed seriously. According to the Health Belief Model (HBM), an individual takes action to prevent illness if he thinks he is susceptible to a condition, and if he believes the condition is of serious nature (Jones et al., 2015). Findings also reflected that traditional medicine is used in epilepsy management because there are some perceived benefits within these traditional methods, for instance dealing with witchcraft. The perceived benefits of their actions and self-efficacy explain their engagement in these indigenous health promoting behaviours.
It is through the cognitive self-guidance that people with epilepsy use indigenous practices in epilepsy management. They construct, evaluate and modify alternative courses of action in order to gain valued outcomes and to override environmental influences. It is also widely assumed that traditional and spiritual medicine, being easily accessible, play an important role in epilepsy management. This can also be attributed to perceived usefulness by users, who have a feeling that those indigenous practices are quite useful in enhancing their performance. To this end, Bandura (2008) concludes human agency is an agent means which influences intentionally on one’s functioning and life circumstances, for instance use of indigenous practices in epilepsy management. Davies (1989) attributes this to the perceived ease of use (PEOU), the degree to which people with epilepsy believe in a system that would be free of effort.

From these findings, it is clear culture plays many roles in the sustainable framework; as such a thorough understanding of culture becomes important in the sustainable framework in order for it to be effective. Culture has been ignored in the Eurocentric strategies, for instance in bio-medication yet it seen as both an inhibitor and a facilitator in development. The central aspect of studying indigenous practices revolves around understanding a dialectic relationship between an individual and culture. Triandis (1993) defines culture as shared attitudes, categorisations, beliefs, expectations, roles, norms, self-definitions, values and other elements of subjective culture such as indigenous practices in epilepsy management. This gives an insight into some processes through which culture has influenced individuals with epilepsy in the management of the epidemic. It is through socialisation that culture specifies a way of living which has been proven in the past.

7.3 Nature of Indigenous Practices Used in Epilepsy Management

Effective management of epilepsy should consequently be spiritual and religious because Zimbabweans in every respect are quite religious. Participants were asked to state the nature of indigenous practices which they use in management of epilepsy and Table 7.3 below gives a summary of the different modes highlighted by these participants.
Table 7.1: Indigenous practices that are used in epilepsy management

<table>
<thead>
<tr>
<th>What indigenous practices do you use?</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prayers</td>
<td>102</td>
<td>32%</td>
</tr>
<tr>
<td>Herbs</td>
<td>162</td>
<td>50%</td>
</tr>
<tr>
<td>Not Answered</td>
<td>48</td>
<td>18%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>312</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

The majority of respondents (50%) indicated that they have used herbs in epilepsy management. Some participants (32%) indicated they had used prayers in managing the epidemic. However, the biggest challenge with these herbs is that the majority of participants were not aware of the types of herbs that are used by traditional healers when during their treatment. This can be evidenced by one respondent who noted:

Some traditional healers came to our house and indicated they were going to do something to have me treated. I do not know what they were doing (Person living with epilepsy).

What it shows is that the beneficiaries are not exposed to the different types of herbs that are used to treat epilepsy. These herbs are only known to the traditional healers. Unlike the anti-epilepsy medication which is written down, these herbs are not written down. Eventually, people who are treated using these herbs cannot state the herbs that were used to treat them. I started by explaining prayers as a technology in epilepsy management.

7.3.1 Prayers

From the foregoing, it can be noted that many participants were Christians, which explains why they indicated they were into prayer warriors to try and do away with the demons or bad spirits as it were. Prayers are now unique in the Zimbabwean concept and they are built on an emerging indigenous understanding of Christianity which is based on the emergent African Pentecostal movement. Evidence gathered revealed that some people with epilepsy are getting treated at Johane Masowe, an indigenous apostle church that has been in existence for some time. Participants revealed that many people with epilepsy are also looking for divine intervention in these churches, United Family International (UFI) led by Prophet Makandiwa and Prophetic Healing Delivery (PHD) led by Prophet Magaya. Some are seeking divine intervention in these Pentecostal churches; Apostolic Faith Mission and ZAOGA churches.
Participants also revealed some people with epilepsy are going to the apostolic churches. Some participants indicated that the many people who are living with epilepsy where not only seeking divine intervention in churches, but this is taken as a complimentary to herbs. A follow up was made on prayers as a practice of epilepsy management and this family member had this to say:

I remember at one point my brother went into in attack. It was a vivid attack, and we had no choice but to pray. I am very confident that prayer was very useful because after the prayer, he returned to normalcy (Family Member)

This family member vividly recalls an incident when his brother went in any attack. She testifies that his brother returned to normalcy after these prayers. This participant is showing gratitude to God for saving her brother from these epileptic seizures. What it shows is that some people with epilepsy and their family members strongly believe in prayers. There are values which are emphasised in spirituality and these are faith, forgiveness, and sense of belonging, gratitude and love. According to Koening & McCullough (2001) spirituality is transcendence, some form of connectedness, values and purpose that may be shared by people with different ethnic, cultural, and religious backgrounds. But some participants had a different perception, for instance the following participants argued differently:

Maporofita, mafundisi kana vese z vemweya zvinobatsira kuti tigare tichiziva Mwari, kuti tigare tiri pamweya, kwete kuti ndanamatiirwa ndotorasa mapiritsi. Zvinobatsira spiritually, but epilepsy haiperene kuti wanamatiirwa (Prophets, pastors and everything that is spiritual helps to keep informed about God, so that that we remain in the spirit not to throw away bio-medication. It helps spiritually, but epilepsy cannot be cured by prayers) (Person with epilepsy)

We take medication, at the same time praying. We do not abandon medication. At church, we are encouraged not to abandon our medication (Person living with epilepsy)

Participants were not disputing the existence of God, but they were disputing the assertion that prayers can heal epilepsy. Some key informants; a medical doctor and a psychologist attributed beliefs that epilepsy can be treated through prayers to hallucinations of God’s voice. These key informants agreed that what affects people with epilepsy is that they may be having feelings of joy about God’s presence. The psychologist argued that some people with epilepsy abandon anti-epilepsy medication because they strongly believe in prayers because of the immense pleasure of God’s presence or hallucinations of God’s voice.
In a similar study of people with temporal lobe epilepsy, Trimble and Freeman (2006) examined religious experiences of people with epilepsy and religiosity and discovered that 22 participants expressed no interest in religion with 30 indicating they were voluntary regular church goers. From their findings, participants from the epileptic religious group were significantly likely to have had past episodes of the postictal psychosis and to have had bilateral cerebral dysfunction. Their study also revealed that between 0.4% and 3.1% of partial epilepsy patients suffered from ictal religious experiences, described by Davinsky & Lai (2008) as a type of ecstatic seizure, for example feelings of joy or pleasure. This includes immense pleasure of God’s presence, or hallucinations of God’s voice. Among those with ictal religious experiences, a predominance of patients with temporal lobe epilepsy were discovered. What it shows is that some people with epilepsy may suffer from these ictal religious experiences. Could it be the case with this participant below?

I have these bangles from Prophet Magaya. I got them a year ago and I think they work, but when I have these attacks I just have doubts about these bangles again. I have to wear them on my hand” (Person living with epilepsy).

Some people with epilepsy strongly believe their prophets are healing them. Some researchers may suggest that these are hallucinations, but since this disease has been attributed to evil spirits they have no choice but to take traditional medication to help in managing the condition. This is confirmed by Garcia-Santibanez & Sarva (2015) who had a handful of studies on beliefs towards prayers in epilepsy management. The researchers provided a case by Roberts & Guberman (1989) which had 50 patients with temporal lobe epilepsy. Ogata and Miyakwa (1998) in this study also agree that experiences of participants include a sense of presence of God as well as hallucinations of God.

What it shows is that the sense of presence of God is what makes people with epilepsy to think that prayers can heal epilepsy. As shown by some researchers above, hallucinations of God can also make someone to think prayers can treat epilepsy. However, Christian healers argued differently, “Prayers can be used to evict these demons” (Pastor). Christian healers agreed that prayers can heal epilepsy. They disagreed with the argument by some participants that people with epilepsy could simply be experiencing hallucinations from God. The Christian healers showed they are able to heal the disease through prayers and they indicated
they had helped some people with epilepsy through these prayers. A prophet, for instance indicated he had cured people with epilepsy with prayed water.

Indeed, Magiorkinis et al., (2010) agrees with this finding and states that epilepsy has been associated with an infliction or possession with the supernatural power, either god or demon even in the deeply distant cultures like the Greco-Roman, Islamic, Judeo-Christian, Hindu and Voodoo traditions. Temkin (1971) in Moselhy (2011) reports that the Greeks have referred epilepsy as a sacred disease and since then this disorder has been associated with mystics, prophets and diviners. What it shows is that there are strong beliefs that epilepsy can be treated through prayers. This can be evidenced by the number of people who indicated that they are using prayers to treat epilepsy. Some narratives below can confirm that prayers are being used as a stop gate measure to heal epilepsy:

I was taken to a prophet who was 100 years old or somewhere there. He made me drink some water after praying for the water. He said my seizures were influenced by evil spirits which came about when I was born (Person living with epilepsy).

I have tried everything, prayers included. There are people who give prayers in order to get better; I have gone to see them. I have tried everything and sometimes I feel better, but some say it’s some kind of psychological (Person living with epilepsy).

These participants believe in prayers. They have gone through these prayers and the first participant indicated that he had taken water after a prophet had prayed for it. The second participant indicated that he sometimes feels better after these prayers. However, the psychologist and the counsellor were of the view that spirituality is sometimes associated with the level of education of these participants. These key informants were of the view that the majority of people who believe in these prayers were less educated. Tedrus, Fonseca and Hoehr (2014) agree with this assertion, pointing out that spirituality in people with epilepsy is influenced by their level of education. What it implies is that those who are illiterate are biased towards spirituality and religion whereas the literate group may consider western concepts of epilepsy management. However, this finding contradicts Nyame and Biritwum (1997) who in a study on knowledge, attitude and practice of epilepsy in a literate population reported that more than one quarter of the literate urban people in Ghana attributed epilepsy to witchcraft or similar causes. They discovered that traditional beliefs and attitudes about epilepsy are still held firmly by the adult working population. In other words, both the literate
and the illiterate consider epilepsy to be something that is associated with witchcraft and evil spirits.

From the foregoing, it can be noted that participants have strong faith in prayers. Christian healers have also indicated that they are able to treat the disease. Karim et al., (1994) contend that faith healers believe their healing power comes directly from God and usually through ecstatic states or trance-contact with spirits. Truter (2007) claim faith healers proclaim to have been chosen by God through a revelation in a dream. What it shows is that faith healing is a calling from God, diagnosis and treatment flow from him. Christian healers also indicated that the services that they offer are essentially diagnostic and curative in nature. Participants highlighted that the faith healer may use a simple procedure of asking a patient to open the bible, and from this the practitioner is able to read the diagnosis from respective pages. In some cases, the healer may simply open the bible in front of the client or make diagnosis by just laying his hands on the holy bible. Similarly, Karim et al., (1994) agrees that healing is usually through prayers, laying hands on the patient or through holy water, ashes or herbs.

7.3.2 Herbs

Several participants reported they had used herbs to treat epilepsy. A follow-up was made on the herbs that are used in epilepsy management in Zimbabwe:

For the original epilepsy wherein if an individual is involved in convulsions in which he or she releases forth from his mouth, we use herb known as mupingangozi. This herb is used alongside a cup of boiled water. The patient is then given the boiled water mixed with mupingangozi. The patient then drops down and releases the forth. We then take a pigeon which takes the forth and fly away. When the bird flies away, it means an end to epilepsy. However, it is difficult to get this mupingangozi herb. This type of herb is very difficult to get. The herb is found in Mozambique and once the herb the drug is found there is no epilepsy in Zimbabwe (Herbalist).

Then the second type of epilepsy; if a person is involved in convulsions he releases saliva after being bewitched, we have small community roads which we use. I wake up in the morning before anyone has used that road and then collect grass in the road. I take the grass from both side of the road. After taking the grass I should not cross over. I then mix the grass with cold water. This is then given to the patient as he or she is biting a cooking spoon. By the time we remove the cooking spoon the water will be in the stomach. The forth then comes out from the stomach (Herbalist).
The herbalist reported that he was apprenticed to be a practicing herbalist for many years by his grandfather. He indicated he had been apprenticed to treat various ailments which include cancer, sugar diabetes and epilepsy. When I visited the herbalist, I observed several clients who had come for treatment; among them there were five people who wanted to be treated for epilepsy. The herbalist claimed to have mastered how to treat two different forms of epilepsy; the original epilepsy wherein if an individual is involved in convulsions he or she releases forth from his mouth and second type of epilepsy wherein a person is involved in convulsions releasing saliva after being bewitched. The herbalist in this case reported that he had been taught to use these powerful specimens and was now able to mix various ingredients and prepare mixtures that can be used to treat epilepsy. According to Karim et al., (1994), the herbalist student is taught how to select the best and most powerful specimens. Truter (2007) also state that later, the novice is sent to go and dig alone and bring the exhibits to the master for checking and approval. The student learns how to mix various ingredients and prepare a mixture. The novice also assists the herbalists in the administration of medicines and is also allowed to treat some patients according to the master’s instructions. There are other suggested treatments of epilepsy as evidenced by the statement below:

I use the roots of a Mufufu tree, which I mix with water. The extract is then drunk to treat epilepsy. Alternatively, I can use the roots of a Muvunga tree which is mixed with water. The extract is then taken by a patient to control the convulsions. We also make use of the chifumuro root which is tied on a fibre. Alternatively, it may be tied on a string that is prepared from a bark tree I identify as the diviner after having diagnosed the illness. This is tied on the patient’s neck or waist to expose the witchcraft. This, I normally do it on children (Herbalist).

This was the second herbalist, who claimed he use Mufufu tree mixed with water and Muvunga tree mixed with water. The herbalist reported that he was now specialising in the retail and wholesale of herbal drugs that he gathers; which include drugs for epilepsy treatment. He indicated he had a stand in Harare where his drugs are sold to customers and distribute some of his drugs to fellow healers.

Similarly, Staugard (1985) proclaims that the herbalist specialises in the retail and wholesale of herbal drugs that are gathered by him. He indicates that the herbalist may have a small shop or stand in the urban market where his preparations are sold to customers, or may travel around distributing his medicines to clients, and in some other cases to fellow healers. The
researcher observed some clients who had been referred by the spirit mediums, whereas some clients who had reported to him directly. This agrees with Truter’s (2007) observation when he asserts that clients who come to see herbalists are referred by the spirit medium, whereas others consult them directly. What it shows is that herbalists possess an extensive knowledge of traditional pharmacopoeia. Karim (1994) posited that their service is comprehensive and their expertise includes curative, preventive as well as prophylactic treatment. From my observations, some herbalists are now specialising in epilepsy and they have become renowned experts in this field. There are several practices that are used by herbalists as shown by a respondent who argued:

> Herbs are blended with chicken and after taking the medication you are not supposed to eat chicken (Family Elder).

> Your whole body is washed with chicken waste, and then you sleep over night with the chicken waste on your body. You are then made to chicken mixed with herbs. You must not eat chicken the whole of your life (Person living with epilepsy).

> I was given herbs that are mixed with the waste of a dog that has just been born (Person living with epilepsy).

> Malt is mixed with forth. It is then kept safely because it must be eaten by brown dove. When these birds eat this malt, the moment they fly away that marks the end of epilepsy (Family Elder).

> When you go in the bush, and see people who are having sexual intercourse try to get a root from a tree, and the first root that you come across will be mixed with the herb (Family Elder).

> You identify a place where the person had seizures for the first time, dig and take the first root of a tree and mix with porridge (Family Elder)

> I ate a lot of herbs, what I did not eat was my own human waste. At one time I even drank my own urine. My urine was mixed with a lot of herbs (Person living with epilepsy).

> When one is epileptic he or she is not supposed to eat some dairy products, such as milk and cheese (Herbalist).

> Those who use traditional medicine say, if one has not been burned or fallen in water, they have some medicine that they can give the person. But there are eggs that the person is supposed to bring out. If the eggs finish in his or her stomach the disease can be cure (Family Member).
These are all various types of herbs that are used in epilepsy management as gathered from research participants. In some cases, the chicken is blended with herbs and you are not supposed to eat chicken the whole of your life. Participants also reflected that a person with epilepsy may be washed with chicken waste, thereafter he eats a chicken mixed with herbs. Participants revealed that herbs are mixed with the waste of a dog that has just been born. Some participants revealed that roots from a place either identified as the first place where a person had seizures or where people are seen having sexual intercourse are mixed with herbs. In some cases, participants reported they had been made to drink their urine mixed with a lot of herbs. According to Baskind & Birbeck (2005), treatment in epilepsy is initiated after the first seizure and is usually incorporated with certain plants and animal products. What it shows is that there are herbalists proclaiming to be specialists in epilepsy management in Zimbabwe. Last & Chavhunduka (1986) posit that there are specialists in management of epilepsy. Gumede (1990) highlights these have become experts in their particular field and are in great demand beyond their local communities.

From the foregoing, it can be concluded that traditional herbs are used in epilepsy management. Maroyi (2013) reports traditional medicine has remained to be one of the most affordable and accessible sources of treatment within the primary healthcare system of resources for the poor Zimbabwe. From his analysis, the local people in Zimbabwe have a long history of using indigenous plants for medicinal purposes. This is true considering my findings in this study. Results clearly show that participants trust these indigenous medicines. However, despite the increasing acceptance of indigenous medicines for treatment, Maroyi (2013) observes that indigenous knowledge is not adequately documented. What it shows is that documentation of plants that are used in epilepsy management is needed so that the knowledge can be preserved and the utilised plants need to be conserved and used sustainably.

7.4 Effectiveness of Indigenous Practices in Epilepsy Management
Findings revealed so far have reflected that people with epilepsy trust prayers and herbs in management of epilepsy. It was also interesting to find out their perceptions on the effectiveness of these indigenous practices in epilepsy management. Results on Figure 7.1 below show that about 41.7% were of the opinion that the indigenous practices were very
helpful, with 33.7% indicating they were helpful. About 10.9% were of the opinion that they were somewhat helpful with only 13.8% showing that that they were not helpful at all.

**Figure 7.3 Evaluation of how helpful epilepsy management using these indigenous practices has been to participants**

From this evaluation, it can be deduced that participants have a positive perception towards indigenous practices of epilepsy management. Participants are convinced that indigenous practices are useful in epilepsy management. In a similar study, Mohammed and Babikir (2013) revealed that about 43.3% were convinced that spiritual or traditional treatment was effective in epilepsy management with 60% indicating there was no difference. A psychologist key informant argued that this can be attributed to the seriousness associated with the disease, and the perceived benefits associated with the disease. It was interesting to find out the effectiveness of indigenous practices based on the two religions; Christianity and African Tradition Religion. Results on Figure 7.2 below show that those who believe in the African Tradition Religion strongly believe in indigenous practices of epilepsy management as compared to their counterparts, those who believe in Christianity.
Both religions believe in indigenous practices of epilepsy management, but the majority of those who believe in African Tradition Religion strongly believe indigenous practices are very helpful as compared to those who believe in Christianity. But key informants agreed that the majority of people with epilepsy were using both herbs and prayers in epilepsy management. Karim et al., (1994) contend that faith healers believe their healing power comes directly from God and usually through ecstatic states or trance-contact with spirits, but sometimes it is a combination of both ancestral spirit and Christian Holy Spirit possession. It was thus interesting to find out how effective these different modes of epilepsy management are to research participants. Below, I carry out an analysis of these different modes of epilepsy management.

7.4.1 Effectiveness of prayers in epilepsy management

Figure 7.3 below shows the effectiveness of prayers in epilepsy management as perceived by participants. Results below show that the majority of participants (74.4%) believe prayers are effective in epilepsy management.
What it shows is that participants believe that prayers are indeed useful in helping people with epilepsy. As shown on Figure 7.3 above, participants reflected that prayers were valid in epilepsy management. Christian healers agreed that faith healing occupies a leading role in epilepsy management in the community. However, key informants agreed that faith healing integrates both Christian and traditional African beliefs. The key informants share the same view on the patient’s world and perceptions about the causes and treatment of epilepsy. The treatment of epilepsy using prayers has the same basic features and the approach is holistic. A counsellor noted that just like other traditional practitioners, Christian healers occupy the leader’s role amongst the local community. Staugard (1985) concludes that classifying Christian healers as traditional healers may not only be a pragmatic choice adopted to facilitate policy considerations of future cooperation, but is theoretically valid and based on shared basic features.

What was also interesting from these results was that there are some who believe in Christianity who have no faith in these prayers, and there are some in the African Tradition Region who have faith in these prayers. What it shows is that people with epilepsy are trying
anything in an endeavour to treat epilepsy. They are using both prayers and herbs as a strategy for epilepsy management. It was also interesting to find out perceptions of the community towards the effectiveness of herbs.

7.4.2 Effectiveness of herbs in epilepsy management

Results on figure 7.5 below show that the majority (75.6%) believe that herbs are effective in epilepsy management as compared to 24.4%.

Figure 7.6 Perceptions of participants on the effectiveness of herbs in epilepsy management

![Bar Chart](image)

What it shows is that people with epilepsy strongly believe in traditional medicines. Participants reflected that herbs were very effective in epilepsy management. Traditional healers explained that the community understands epilepsy from a traditional point of view; as such they opt for herbs in epilepsy management. Those in the medical fraternity agreed with the traditional healers that epilepsy is understood from a traditional perspective; as such it is difficult for people with epilepsy in Zimbabwe to stop taking herbs. Epilepsy, described as a mental condition by the western, is attributed to spirituality in African Traditional Practices (Chilopola et al., 1999; Birbeck, 2000; Munthali et al., 2013 and Diop et al. 2013;
Mutanana & Mutara, 2015). A psychologist highlighted that many people in African countries, Zimbabweans included, believe in African traditional practices and have consequently resorted to traditional and spiritual medicines. To this end, people with epilepsy make use of traditional and spiritual medicines as treatment for epilepsy.

Both religions Christianity and African Tradition Religion strongly believe in herbs. What it shows is that many people with epilepsy are using herbs in managing their condition. In interviews carried out, many families revealed that they are using herbs in epilepsy management. Participants reflected that these herbs were very effective as compared to prayers and anti-epilepsy medication. This could be attributed to the fact that the reaction to epilepsy in Zimbabwe is shaped by traditional indigenous beliefs and traditional treatment (Mpofu; 2001, 2003 & Mpofu et al., 2011). Some participants reported that they had been cured these traditional herbs. This can be evidenced with this participant below:

My parents say I was diagnosed to be epileptic when I was 6 years, my parents went to the herbalist and I was treated. I was taken back for EEG the results proved that I was ok. I have never taken any bio-medication since then. I am fine. The only sad thing is the herbalist is now dead” (Epileptic person).

It’s true; Charles (not real name) was treated when he was six years old. When the herbalist was doing her job, you could not understand what she was doing. You would just hear her saying; “it’s ok” thus I cannot really tell the herb that was used. (Family Member/ Mother)

I used to have three seizures per day. I then consulted a herbalist who gave me a herb which I drank. After taking this herb I stopped having these seizures, but I have not stopped taking anti-epilepsy medication. I believe these herbs are effective in treating epilepsy” (Person living with epilepsy).

I was treated with a chicken mixed with herbs. I was made to eat the whole chicken. After taking the herb, from 2011 to 2015 I did not get into an attack. I was instructed not eat a chicken the rest of my life, but when I decided to eat the chicken I then started to have these seizures. (Person living with epilepsy)
I was treated epilepsy when I was young. My parents tell me I used to have these seizures when I was young. I was taken to a person who treated me using herbs and I was treated. As I am speaking I am not experiencing any seizures (Person with epilepsy)

I have taken herbal medication, after taking it did not experience any fits for a year. But the fits have started again (Person with epilepsy)

These are all testimonies from participants who claim they were cured with traditional herbs. Key informants; traditional healers confirmed that herbs were very effective in epilepsy management. A counsellor and a medical doctor also agreed that these herbs may be effective. However, the challenge identified by these key informants was that these herbs are not written down like bio-medications. Researchers such as Chilopola et al., (1999), Birbeck (2000), Munthali et al., (2013), Diop et al., (2013), Mutanana & Mutara (2015) have described epilepsy as a mental condition attributed to spirituality in African Traditional Practices, as such herbs may be effective in epilepsy management. However, some participants had some reservations on the current herbs being used to treat epilepsy:

I have tried these herbal medicines but I was not cured. At times, you appear to have been cured but when the seizures come back they will be very powerful.” (Person living with epilepsy)

Long ago there were no hospitals, there was no epilepsy Support Foundation but people would be treated with these herbs. What is happening is that the herbalists are dead (Family Elder)

The herbalists are dead and the herbs were not documented. They would treat epilepsy and it’s only that we belittled them (Family Elder).

I want to believe in the mixture of herb and mal. There should be an herb that is used, but herbalists have half backed solutions (Counsellor).

A person who is treated with herbs and a person who is treated with bio-medications the results are the same (Counsellor).

These participants indicated they had not been treated with the herbs. One participant showed that initially the herbs appeared to have cured him, but when the seizures returned they were more powerful. Some participants believe a person treated with herbs and another one treated with bio-medications the results are the same. Family elders highlighted that these herbs were
not documented, and the drugs that were used long ago are no longer available or they are not known. Maroyi (2013) confirms that the local people in Zimbabwe have a long history of using traditional plants for medicinal purposes. However, despite the increasing acceptance of traditional medicines for treatment, Maroyi (2013) also agrees that those indigenous herbs are not adequately documented, which explains the challenge currently being faced by people with epilepsy in Zimbabwe.

7.4.3 Effectiveness of Pastors/Priests in epilepsy management

Results on Figure 7.6 below shows pastors and priests are regarded as useful in epilepsy management.

Figure 7.7 Effectiveness of pastors or priests in epilepsy management

A pastor highlighted that many people visit pastors or priests because apart from prayers, they are offered counselling services. Participants agreed they discuss religious or spiritual issues in the event of challenges like epilepsy. In this context it becomes necessary to consult a pastor or a priest. What it shows is that the spirituality of clients has understandably been on the increase, to such an extent that it has become a consideration for mental health practitioners, whether religious or not. Pastors have demonstrated a high degree of personal spiritual commitment because spirituality is personally relevant and clients value personal prayers. In his findings Bergin & Jensen (1990) observed that about 29% of clinical psychologists, psychiatrists, clinical social workers and family therapists expressed the belief that religious matters are important in treatment efforts of many clients. What it shows is that indeed pastors and priests are playing a major role in counselling people with epilepsy.
7.4.4 Effectiveness of diviners in epilepsy management

According to Campell (1998), the goal of the traditional healer in healing is establishing a balanced and harmless relationship between the afflicted patient and the spirits that may be causing the illness or problem. Results on Table 7.4 show that the majority (72.8%) are of the opinion that diviners are not effective in epilepsy management.

Table 7.2 Effectiveness of diviners in epilepsy management

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very effective</td>
<td>68</td>
<td>21.8</td>
</tr>
<tr>
<td>Not effective</td>
<td>227</td>
<td>72.8</td>
</tr>
<tr>
<td>Not answered</td>
<td>17</td>
<td>5.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>312</strong></td>
<td><strong>100.0</strong></td>
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</table>

Participants reflected that diviners were not effective in epilepsy management. They indicated that they would rather visit herbalists or pastors than to make use of diviners. This can be attributed to the fact that the majority of participants were Christians. A Pastor quoted this verse from the bible;

> There shall not be found among you any that makes his son or his daughter to pass through the fire, or uses divination, or an observer of times, or an enchanter, or a witch or a charmer, or a consulter with familiar spirits, or wizard, nor a necromancer. For all that do these things are an abomination unto the Lord (Deut 18: 10-12)

There are other participants who indicated they were not happy with services offered by these witch doctors as shown by this participant.

> What I don’t like are traditional healers who waste my time telling about non-existing issues. But I believe in herbs (Counsellor)

From my observations, diviners are failing to help people with epilepsy. The story of one participant speaks of wilderness experiences. Few months into her marriage she started experiencing epileptic seizures. As her condition worsened, she found herself in a critical condition. In addition to parting ways with her job as a teacher, and hard earned wealth in the credit of these diviners, her physical condition was deteriorating when she was exposed to
flames when she was experiencing seizures.

My story started when I got married, it was three months after the marriage when I was sitting with my husband. I just went blank and could not see anything. I would realize that I had chewed my tongue and my husband suggested going and seeing my aunt in Bindura. On arrival, my aunt suggested we go to a prophet, the prophet asked what was happening and my aunt explained and the prophet said I had been bewitched. The prophet said it was a goblin. The prophet asked when I got married and my aunt told him after which he said I was not supposed to get married, the problem emerged out of my marriage. The problem persisted as I continued experiencing seizures and we believed it was witch craft. My aunt then suggested we go and see my father who was a headmaster then. We then visited Tsikamutanda, who also said the cause of my misfortune was witch craft, and I was not supposed to get married. Some healing marks were placed on my body and I was also given some traditional medicines, some for drinking and some for bathing. As a form of payment, the traditional healer demanded cattle and gave us the guarantee that the sooner my problem would come to pass at first my father would give him one beast. I continued taking the medication as prescribed but nothing changed, instead my condition got worse. We then visited another traditional healer who also said the cause of my problem was a goblin (Person living with epilepsy).

This could be the reason why many people who are living with epilepsy have disregarded diviners. Participants reported that they did not have faith in services that are offered by diviners. A key informant, a traditional healer explained that the diviner intercedes between the afflicted and the world of the dead to make restitution. One herbalist also argued that a diviner is a person who is able to communicate with the spirits when he/she is in a state of possession. Similarly, Karim et al., (1994) has explained that a diviner is a person with specialty in divination within the supernatural context via the culturally accepted medium of the ancestral spirits. A diviner is at the top of hierarchy and has the greatest power, followed by the lesser spiritual entities, the ancestral spirits, living people, plants, animals and objects.

7.4.5 Effectiveness of clergy in epilepsy management

In a Christian church, the clergy is the entire class of religious people, from priests to pastors to bishops and beyond. If one has a sense that his or her life path lies in helping others to practice their faith, and then they qualify to go into clergy. According to study.com (2013) clergy professionals include spiritual leaders in the Catholic, Protestant Christian, Jewish and the Islamic religions. Careers in this clergy involve performing religious ceremonies like birth and coming of age rituals, funerals and weddings. Clergy professionals are sought for spiritual guidance and assistance. The clergymen promote spirituality, read from sacred texts, share religious insight and they also provide faith-based comfort to people. It was interesting
to have an insight on the perceptions of participants on the effectiveness of these clergymen in epilepsy management. Results on table 7.5 above below show that the majority (63.8%) believe that the clergy are effective in epilepsy management as compared to 22.4% who think they are not effective.

Table 7.3 showing results on the effectiveness of clergymen in epilepsy management

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very effective</td>
<td>199</td>
<td>63.8</td>
</tr>
<tr>
<td>Not effective</td>
<td>70</td>
<td>22.4</td>
</tr>
<tr>
<td>Not Answered</td>
<td>43</td>
<td>13.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>312</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Findings revealed that participants also have faith with the clergy man. The role of the clergy man includes presiding over specific rituals and teaching the religion doctrines. Similarly, Greeley (2004) believes the clergy are the main and important formal leaders within the religions.

7.5 Community Perceptions in Indigenous Practices

From the foregoing, it can be noted that the majority of participants are using indigenous practices in epilepsy management. Evidence gathered so far has revealed both participants in the Christianity religion and the African Tradition Religion have faith in traditional herbs. The only challenge is that traditional herbs are not documented, but as indicated above these herbs have been used since time immemorial. The next question that now needs to be answered is on perceptions of the community regarding these traditional practices of epilepsy management. Would they accept merging of indigenous practices and western practices? What are the advantages of bio-medication as compared to indigenous practices in management of epilepsy, if any? What are the advantages of indigenous practices as compared to western practices in epilepsy management? Perhaps there are some advantages of using both indigenous practices and western practices in management of epilepsy management in Zimbabwe. Answering these questions will help to explore the actual position of people with epilepsy in regard to indigenous practices of epilepsy management.

7.5.1 Perceptions on merging of indigenous practices and western medicine

Results on figure 7.7 below show the majority of participants (59.9%) accept that indigenous practices should be merged with bio-medication in epilepsy management.
What it shows is that participants agree with the perception that indigenous practices must merged with bio-medication in epilepsy management. When indigenous practices are merged together with bio-medication, it means they would be used as complimentary unlike a situation where they are used separately. Eventually, medical doctors will work hand in glove with indigenous practitioners in management of epilepsy. The Complementary and Alternative Medicines (CAM) subject thus becomes an issue of concern, especially as the study seeks to analyse community acceptance of indigenous practices in epilepsy management. What constitute complementary or alternative medicine vary. Key participants revealed that complementary are a non-mainstream practice that is used alongside conventional medicine. They highlighted that alternative on the other hand is a non-mainstream practice that is used in place of conventional medicine. It shows a difference between these two terms; complementary medicine is used together with conventional medicine whereas alternative medicine is not used together with conventional medicine.

This explains why UNIAIDS (2010) reports that the African Union declared the period 2001 to 2010 as the decade of African traditional medicine. This demonstrates Africa’s allegiance towards traditional medicines. A survey by WHO (2001) on the legal status of traditional and
complementary or alternative medicine has revealed that of the 44 African countries surveyed, about 61% had the legal statutes regarding traditional medicine. In other words, the traditional practice is now recognised by several governments and is used in prevention of physical and mental disorders, including epilepsy. As such, the indigenous practices must be merged with bio-medication in management of epilepsy.

7.5.2 Perceptions on advantages of bio-medication as compared to indigenous practices

Participants were asked to state their perceptions on the advantages of bio-medication as compared to indigenous practices in epilepsy management. This was an open-ended question and below is a summary of the advantages. Participants reflected that the advantages of using bio-medication was that there is no overdose (60%), medicines are monitored by doctors (60%) and hospitals keep records (15%).

Table 7.4: What are the advantages of using bio-medication as compared to indigenous practices?

<table>
<thead>
<tr>
<th>Advantages of using bio-medication</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitals keep records</td>
<td>50</td>
<td>15%</td>
</tr>
<tr>
<td>There is no overdose</td>
<td>60</td>
<td>19%</td>
</tr>
<tr>
<td>Medicines are monitored by doctors</td>
<td>60</td>
<td>19%</td>
</tr>
<tr>
<td>Not Answered</td>
<td>150</td>
<td>47%</td>
</tr>
<tr>
<td>Total</td>
<td>320</td>
<td>100%</td>
</tr>
</tbody>
</table>

Some participants indicated that in bio-medication, hospital cards are kept as compared to traditional healers. They also highlighted that there is no overdose and the medicines are closely monitored by doctors. Family members and key informants agreed with this finding:

These western medicines are very useful. We should not leave behind these western medicines. (Family Member)

Bio-medication is measured, unlike traditional medicines. (Family Member)

There are records to show how you are being managed (Family Member).

Modern medicines are monitored and the dosage is given accordingly (Counsellor).

Many anti-epilepsy medications that are on the market right now are able
to control seizures, something that could not be done may years ago. As such I urge epilepsy clients to take the medication and not to listen to what they are prophesized or told by traditional healers (Doctor).

One interesting thing about these anti-epilepsy medications is that they have become so advanced so much that patients are able to take one medication at a time. This is different from the old times when Doctors had to make a cocktail of medications in order to see a reduction in these seizures (Doctor).

One big advantage in these bio-medications is that they are much safer than traditional herbs. They are documented, and measured unlike traditional herbs (Counsellor).

Experimentations and testing that have been carried out have made us to know the side effects of these bio-medications ahead of time unlike traditional herbs. This lessons anxiety on the part of the client unlike when uses these traditional herbs (Doctor).

Some participants agreed that bio-medication is safer than traditional medicines. Medical practitioners suggested that indigenous practices expose people with epilepsy to some illness. They also reported shortcomings on traditional African medicine. For instance, knowledge is conveyed verbally which may result in the inevitable distortion of original information. What it shows is that the knowledge surrounding traditional medicine incorporates a number of harmful practices. Similarly, Baxendale (2012) agrees that unlike traditional medicines that are not subjected to scientific rigor, the standard test of bio-medication is randomised controlled trial (RCT) as well as double blind with a cross over design. But Al-safi (2007) contend that in spite of these reported and unreported complications in traditional practice, people continue to seek traditional healers regularly and confide in them with due respect and hold them in high regards.

7.5.3 Perceptions on advantages of indigenous practices as compared to bio-medication

Participants reported that traditional medicines are easily available and they protect them from witchcraft. Some reported that these medicines are provided locally and address the problem in hand.

Use of indigenous practices has its own advantages, as highlighted below:

Traditional medicines are available and easily accessible as a source of treatment in Zimbabwe (Family Elder).

Treatment is provided within the local community by offering treatment which
directly addresses cultural ideas of epilepsy causation (Family Elder).

Traditional medicines are used to protect people against witchcraft (Traditional Healer).

The traditional healers help in diagnosing causes of misfortune, such as epilepsy and death (Family Member).

The importance of traditional healers arises from the complex beliefs on the causes of epilepsy and this influences the interpretation of this disease and how it should be treated (Counsellor).

Traditional beliefs play a major role in the people choices of treatment. These people choose traditional treatment paths because they have a strong belief that traditional medicines work well (Herbalist).

The natural history of seizures and epilepsy clearly state epilepsy is a result of witchcraft or bewitchment, so you cannot run away from traditional medicines (Spiritual healer).

If the basis of these seizures is believed to be possession by evil spirits or witchcraft, then treatment must be spiritual and cannot be delivered in the hospital (Spiritual Healer).

These traditional healers do have a very strong influence on the local community. They play a role in reducing the stigmatisation attached to epilepsy in the community (Counsellor).

Traditional healers are preferred because they use a more holistic approach. They occasionally visit the family for history taking. You would find that even if the family does not have money to pay for the services, the traditional healer will treat the patient first and the family will thank him later. In the church, prayers are offered at zero charge (Nurse).

Traditional healers are trusted by the local community and they work within the local belief system on the causes and treatment of this epilepsy disease (Counsellor).

Participants reflected that traditional medicines are provided locally and they are much cheaper than bio-medication, for instance prayers. Some participants reported that payment is normally done as a way of thanking the herbalist, and is usually done in the form of a cow, that is if the patient has recovered. What it shows is that indigenous practices in the form of prayers and herbs are commonly used as a form of epilepsy management. These prayers and herbs are provided locally and one does not have to travel long distances to get treatment.

In the traditional African culture, one of the most venerated components is the significant
presence of traditional beliefs and use of traditional medicines. Zimbabweans believe in Christian healers and herbalists. It becomes necessary to take these practitioners into consideration. Participants reflected that people with epilepsy usually seek help from traditional healers first. They also indicated that people with epilepsy usually consult traditional healers before they visit the hospital. Similarly, Mpofu (2001) and Mpofu (2003) argue traditional healers and prophets (faith healers) are crucial at community level and they are the first port of call and often the last resort. In another study, Watts (1989) revealed that rural African people with epilepsy consider treatment of seizures to be the domain of traditional healers and they only attend hospital when they require treatment for burns suffered during fits. What it means is that traditional medicines are relevant in epilepsy management.

Family elders also rejected the western imposition of epilepsy medication. They argued that in Zimbabwe, even before the arrival of the western people, epilepsy was being cured and there is nothing strange about traditional herbs. In a similar study, Nhlanhla et al., (2016) rejected the imposition of western forms of knowledge such as mental health particularly because of the Western European idea of the individual rationality. Family elders agreed that the individual rationality is embedded in the dominant western philosophy. If one is diagnosed as epileptic, for instance, he/she has to consult elders.

Family elders reiterated that epilepsy management should be done at family level. This is done in the spirit of caring, sharing and participation as a family. Family members assist the person with epilepsy together, unlike the western philosophies where the individual has to do it alone. They explained that it could be the reason why the majorities are failing to get the right treatment because they are not consulting family elders. Broodryk (2012) agree with the Ubuntu philosophy suggested by family elders, an ancient African world-view based on primary values of intense humanness, caring, sharing, compassion that are associated with values which ensure happiness and a qualitative human community in the spirit of the family. The Ubuntu is basically about qualities such as empathy, warmth, understanding, interaction, communication, participation, harmony as well as a world-view of cooperation. The indigenous practices become relevant in epilepsy management as compared to western practices. The Ubuntu concept implies a collective personhood wherein an individual becomes a person through other people. The Ubuntu concept is a way of living which contributes positively towards the welfare of all members who make up the universe.
7.5.4 Perceptions on advantages of using both indigenous practices and bio-medication

There were some mixed feelings on the advantages of using both indigenous practices and bio-medication in management of epilepsy in Zimbabwe. Some felt it is the easiest way to go, whereas others felt there are some issues that need to be resolved in order to bring both parties together. The following are the perceptions of participants on the advantages of indigenous practices as compared to bio-medication.

I use both bio-medication and herbs. I normally take a long time before I have these seizures because I use both traditional and bio-medications. The challenge with many people is that they abandon bio-medication once they have started taking traditional medicines. (Person with epilepsy)

The problem is; the relationship between the mental health professionals and the clergy has not always been good. As such, I do not foresee any advantages of using both indigenous practices and bio-medication (Counsellor).

The challenge is; there is a long history of conflict between the religious and the mental health professionals which started off when Freud described religion as the universal obsession neurosis (Psychologist).

Many people have a strong belief in modern medicines, but all the same they think the evil spirits should be diagnosed as the cause of diseases. These spirits have to be removed first before medication is put at work. As such, the modern medicines and traditional practices have to work together (Nurse).

These traditional medicines have a role to play in epilepsy treatment when they are used together with bio-medications. For instance, the local healers can assist by identifying people with epilepsy in the community and refer them to the hospital. (Family Member)

Some medical practitioners believe that some traditional medicines have a true anticonvulsant effect and some others believe mixing of western anticonvulsants with these traditional medicines is more effective. So they should work together (Doctor).

Some traditional healers believe that once a patient has sustained some burns during a seizure he or she can no longer be treated with traditional medicine, as such that person is referred to the hospital for treatment (Counsellor).

Zimbabwe has limited medical resources, as such the collaboration between the community of medical professionals and the traditional community will provide the much needed access care to people with epilepsy (Doctor).

Participants could not agree on the advantages of using both western and indigenous practices in epilepsy management. However, there are some advantages which were noted by the
researcher. For instance, many people have a strong belief in modern medicines, but all the same they think the evil spirits should be diagnosed as the cause of diseases. These spirits have to be removed first before medication is put at work. To this end, the modern medicines and traditional practices have to work together. Mpofu (2000) agrees that a large percentage of Africans use both modern and traditional rehabilitation methods. Mpofu et al., (2011) further state that the majority of indigenous Africans seek metaphysical interpretation for disability of their loved ones and this is done through consulting traditional healer or attending faith-based organisations before a decision to seek modern rehabilitation services. What it shows is that traditional medicines have a role to play in epilepsy treatment when they are used together with bio-medications. For instance, the local healers can assist by identifying people with epilepsy in the community and refer them to the hospital. As such, services of both modern rehabilitation and traditional can be combined together. This clearly shows that the community has a positive attitude towards indigenous practices of epilepsy management.

Some medical practitioners believe that some indigenous medicines have a true anticonvulsant effect and some others believe mixing of western anticonvulsants with these traditional medicines is more effective. To this end, The US Department of Health and Human Services [HHS] (2014) recommends the development of culturally responsive clinical skills on the basis that they are vital in the effectiveness of behavioural health services. This department has described cultural competence as the ability to honour and respect the beliefs, languages, interpersonal styles and behaviours of individuals and families receiving services and the staff members providing such services. Participants agreed that culture is important in epilepsy management. What it shows is that cultural competence is dynamic, an on-going developmental process which require a long-term commitment that is achieved over time, meaning it would to the best advantage of Zimbabweans if these two sectors; western and traditional work together. Participants also agreed that people who offer psychological counselling to people with epilepsy should be competent in traditional African beliefs in causes and treatments of epilepsy. It was also reported that they should be equipped with counselling from an afro-centric perspective. In a similar study, Cross et al., (1989) has likened cultural competence to a set of behaviours, attitudes, and policies that enable a system, agency, or group of professionals to work effectively in cross-cultural situations.
7.6 Sustainability of Indigenous Practices in Epilepsy Management

Collier (2007) has argued that when one is doing development work, like developing indigenous practices in epilepsy management, an essential factor is to ensure the government and the civic society is in a position to secure the support of development activities. Petersen & Pedersen (2010) further posit that if the government is unable or uninterested in creating resources that support different development activities, then there is a little chance of activities to continue. In this study, it will be argued that the government of Zimbabwe should support the development of indigenous practices in sustainable management of epilepsy in Zimbabwe. The western medical doctors should work together with traditional medical doctors to ensure the sustainability of indigenous practices in epilepsy management. Should the following strategies be used for mainstreaming indigenous practices for the management of epilepsy in Zimbabwe in order to enhance sustainability of indigenous practices in epilepsy management?

7.6.1 Tolerance of the indigenous practitioners by medical doctors

The first question was on whether doctors tolerate indigenous practitioners to enhance the sustainability of indigenous practices in epilepsy management. Below, the results on table 7.7 show the majority of participants (60.9%) disagreed with the fact that medical doctors tolerate indigenous practices.

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<td>Yes</td>
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<td>No</td>
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<td>Total</td>
<td>312</td>
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Key participants, from both the traditional family and the medical family agreed that doctors must tolerate indigenous practices to enhance the sustainability of epilepsy management in Zimbabwe. Below are some verbatim quotes which support this assertion.

Traditional healers must be educated on the basics of epilepsy management and the medical community must be willing to work with them (Doctor)

The key to successful collaboration is developing a respectful partnership between traditional healers and the medical community. These traditional healers play a major role in the transition of people with epilepsy from the old spiritual understanding of epilepsy to the current neurobiological concept of the disease
What it shows is that Africans are always religious; as such the value of traditional counselling in epilepsy management is not debatable. Key informants agreed that a strong cultural consciousness or cultural-mindedness through which non-western practitioners will is needed to give up a habit of ignoring their own culture. Medical doctors need to realise they are Africans; as such they should put the interest of their people on the fore front. What it shows is that non-western practitioners must also pay attention to cultural factors that are involved in epilepsy management. Similarly, Yang (2012) and Adair (2006) observed that indigenisation of western practices is only possible if theories, concepts, methods, and tools used are sufficiently compatible with the psychological and behavioural phenomena that is structurally and functionally in the ecological, economic, social, cultural and historical contexts.

However, participants noted that the indigenisation process has to be carried out on the basis of already existing western practices. Western elements of this underpinning can never be completely eliminated or replaced by indigenous elements. The process of indigenisation can never be complete in its cultural footing as endogenous formation because of various reasons. Yang (2012) also observes that the process of indigenisation is also undertaken under continuous influence of Western new theories, concepts, methods and tools that are incessantly imported into non-Western societies. As agreed by medical doctors and mental health practitioners, many non-westerns countries make uses of English texts and journals as teaching materials and this affects the formation of indigenous practices in epilepsy management. This affects the indigenisation of traditional medicines in epilepsy management.

7.6.2 Funding of innovation on indigenous practices through research
The next question was on the feasibility of funding of innovation on practices through research as a strategy of sustaining indigenous practices in epilepsy management. Results on table 7.7 below show that the majority of participants (N=200, 64.1%) support the idea of introducing funding of innovation on practices through research.
Table 7.6: Should funding of innovation on practices through research be done?

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Key informants; a psychologist and a counsellor agreed that funding of innovation on practices through research will go a long way in enabling the sustainability of epilepsy management using indigenous practices in Zimbabwe. In China, Spencer and Jacobs (1999) claim that vigorous research has shown an appetite for the merger of traditional Chinese medicine with modern medicine at clinical level. Academic researchers and institutions are also becoming interested in the potential of integrating traditional medicine and modern medicine.

To successfully indigenise epilepsy management, these key informants agreed that it is necessary to carry out researches to ensure pure and genuine practices are spontaneously developed in Zimbabwe. However, Yang (2012) is of the opinion that non-Western countries have already lost their historical opportunity to develop pure indigenous practices. Key informants agreed that Zimbabweans, as non-western practitioners can strive to construct their indigenous practices with a sufficiently high degree of indigenousness and then be satisfied they are less perfect than western practices but still useful. But all the same, participants were of the view that Afro centric practices are better than Eurocentric practices because challenges are understood from the client’s perspectives. What it shows is that Zimbabweans need their practices because they are more functional and useful in understanding, explaining, and predicting local people’s minds and behaviours. They also help in solving local people’s personal and social problems. Yang (2000) suggests that indigenous practices can be developed and integrated with all biomedical practices to construct a balanced human psychology.

7.6.3 Training and education about indigenous practices

The researcher also enquired on the perceptions of participants towards training and education about indigenous practices as a strategy of sustaining indigenous practices in epilepsy management. Results on table 7.8 below show the majority of participants (73.7%)
agree to the assertion that training and education about indigenous practices is useful as a strategy of mainstreaming indigenous practices.

**Table 7.7: Should training and education about indigenous practices be carried out?**

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<td>73.7</td>
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<td>No</td>
<td>82</td>
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Participants agreed that this would help indigenous practitioners to appreciate the role of medical doctors in epilepsy in as much as the medical doctors would appreciate the role of indigenous practitioners. This is shown with the argument below.

Zimbabwe should adopt the Senegalese path in resolving this challenge. Neurologists in Senegal have offered workshops to traditional healers as an outreach programme to their knowledge about the disease. These workshops were started off in respect of the position that is played by local leaders in communities and the recognition that these healers are important partners in epilepsy management. Consequently, these traditional healers accepted western concepts in epilepsy management (Psychologist)

In the United States of America, similar Workshops on Alternative Medicine (1992) have been conducted and results have revealed a current interest in traditional and complimentary medicines in the health care industry, media, governmental agencies and the general public. What it means is that people in the country should make use of traditional and modern paradigms concurrently and this should create a need for appropriate and a smooth merger of the two medicines, particularly in the area of study, epilepsy management. Participants strongly believe this requires changes in training and training curricula, for both traditional medicine practitioners and western practitioners. They also opine that efficacy and safety traditional scientific remedies must be established in accordance with the same criteria used in modern medicine.

**7.6.4 Marketing and promotion of indigenous practices**

It was also important to understand perceptions of participants on marketing and promotion of indigenous practices as a strategy of sustaining indigenous practices in epilepsy management. Results in Table 7.9 above show the majority of participants (73.7%) agree with assertion that marketing and promotion of indigenous practices is relevant in enabling the sustainability of
epilepsy management in Zimbabwe.

**Table 7.8: Should marketing and promotion of indigenous practices be carried out?**

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Key participants agreed with this finding, and further highlighted that it was necessary to carry out awareness campaigns on epilepsy management using both indigenous and western practices. Below is a verbatim quote which supports this argument.

> Epilepsy Support Foundation Zimbabwe is more than willing to meet. I members of the society, from faith healers, traditional healers and even individuals in a discourse in which they can come together with an amalgamated approach towards improving the lives of those living with the condition despite the different definitions that they have towards epilepsy (Counsellor)

Key informants suggested use of the media outlets in marketing and promoting indigenous practices. What it shows is that television and radio should be used for broadcast message dissemination. Some participants suggested the print media, in light with Ipsos-Eureka and Winangali (2010) assertion that the use of posters and brochures is important for the overall campaign. Campaigns can be identified through print materials. Some participants argued use of elders in these promotions and marketing strategies. Elders are respected in the community; their advice is valued as well. This agrees with Smyle et al., (2005) finding against the Canadian and Aboriginal studies that have acknowledged the value of elders in message dissemination. Some were of the opinion that traditional healers need face to face communication in order for them to understand the value of medical students. A more cohesive community and more word-of-mouth approaches are important in reinforcing the importance of face-to-face communication in epilepsy management.

### 7.6.5 Advocacy of indigenous practices

The researcher also wanted find out perceptions of participants on advocacy of indigenous practices in sustaining indigenous practices in epilepsy management. Results on table 7.10 below shows the majority of participants (73.7%) are of the opinion that advocacy of
indigenous practices will help to boost the sustainability of epilepsy management in Zimbabwe.

Table 7.9: Should advocacy of indigenous practices be carried out?

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Key informants also agreed with advocacy, arguing that it will help the western world to appreciate the African culture. Below is a verbatim quote to support this finding.

Definitely we are going we are going to have a great indava with the various groups with their different definitions of what is epilepsy. We want to come up with a clear position in which it’s not detrimental or negative to the person with epilepsy (Psychologist).

Participants suggested strengthening of engagement with indigenous peoples worldwide. Epilepsy Support Foundation Zimbabwe team should take a leading role in relevant international events that promote discussions on challenges associated with indigenous practices in epilepsy management. These discussions should be done at national, regional and global levels. Participants support the attendance of Christian healers, diviners and herbalists whose voices are normally marginalised in epilepsy management. These events will give an opportunity to discuss the importance of traditional knowledge, sustainable livelihoods among some other key themes. According to FAO (2013), advocacy is a key strategy in promoting the rights and demands of indigenous peoples within the scope of its mandate. It is important to raise awareness among the public and other stakeholders. It lays the ground for a greater and an even more responsible engagement with indigenous peoples fostering development processes that respect self-determination, free, identity, informed consent, participation and inclusion.

7.7 Chapter Summary
In this chapter, I carried out an analysis on the indigenous practices that are used in epilepsy management. It was observed that the major practices that are used are prayers and herbs. The researchers carried out an analysis on the effectiveness of indigenous practices, and it was
observed that participants have high regard for prayers and herbs, but they disregarded divination. The researcher also carried out an analysis on community perceptions on indigenous practices and sustainability of indigenous practices. In the next chapter, the researcher takes a look at the summary, conclusion and recommendations of the study.
CHAPTER EIGHT: TOWARDS SUSTAINABLE EPILEPSY MANAGEMENT SYSTEM IN ZIMBABWE

8.1 Introduction
Findings in this study have revealed that participants are not using anti-epilepsy medication because they believe epilepsy is caused by evil spirits and bewitchment. In this study, it was also discovered that participants have faith in herbs and prayers as treatment methods, and the community has a positive perception towards indigenous practices of epilepsy management. I will now proceed to present a proposed model to assist in the sustainable management of epilepsy, the empirical and theoretical contributions of the study, summary and recommendations of the study.

8.2 Sustainable Epilepsy Management System in Zimbabwe
The final objective in this study was to explore strategies for mainstreaming indigenous treatment practices in relation to the development of sustainable epilepsy management in Zimbabwe. To this end, the researcher provided a detailed account of the model which is aimed at assisting people with epilepsy, based on the concerns and problems identified in epilepsy management. The content of this model was based on the analysis of the information obtained from people who are living with epilepsy, family members, Christian leaders, herbalists and diviners. Although this model was from a developmental work orientation, it can be used by any professional involved in epilepsy management, i.e. medical, psychological, counselling, and social work. Cohen et al., (2005) suggest that a model and a theory are used interchangeably as both are exploratory devices. However, a model is usually characterised by use of analogies that give visual or graphic representation of a particular phenomenon. De Vos & Strydom (2011), on the other hand, view a model as a device constructed when the concepts are put together. It is constructed from empirical findings and is an attempt to answer research questions. This model was based on synthesis of in-depth literature review, and empirical findings that confirmed indigenous practices used in epilepsy management in Zimbabwe. To this end, a fit-for-purpose model was developed to assist people with epilepsy and those affected to deal with western and traditional medications. Figure 8.1 below show provides a representation of the sustainable epilepsy management model that was developed to assist people with epilepsy.
Figure 8.1: The Sustainable Epilepsy Management Model

**Family and Community**
1. Education and training on both biomedical and indigenous practices
2. Supportive environment to people with epilepsy
3. Collaboration with doctors, indigenous practitioners and community leaders

**Indigenous Practices**
1. Recognition of indigenous practices e.g. spiritual counselling and herbs
2. Research and Development
3. Public Education
4. Advocacy
5. Marketing of indigenous practices
6. Promotion of indigenous practices
7. Political commitment

**Biomedical**
1. Ensure access to medication
2. Address shortage of equipment
3. Ensure adequate staff at public health centers
4. Training on indigenous practices
5. Psychological services
6. Integration of epilepsy in public

**Individual with epilepsy**
1. Education about epilepsy
2. Training about epilepsy
3. Employment
4. Reduced Stigmatisation
5. Emotional Wellbeing
6. Psychological

**Legal and Policy Frameworks that Support Epilepsy Management**
1. Supportive Legislation
2. Rights promotion
3. Referral System
4. Estimating size of problem
5. Continued Evaluation
8.2.1 Biomedical Practices

A major issue identified in this study was irregular supply of bio-medications. It is imperative that arrangements are put in place in order to ensure continuous supply of anti-epilepsy medication. These arrangements need to be put in place at district, provincial and national level. Public health policy-makers need to be involved in order to ensure modalities to facilitate drug supply are put in place. As part of the model, primary and secondary health workers must go under training in all aspects of diagnosis and management of epilepsy. These arrangements need to be put in place at district, provincial and national level. Public health policy-makers need to be involved in order to ensure modalities to facilitate drug supply are put in place. As part of the model, primary and secondary health workers must go under training in all aspects of diagnosis and management of epilepsy. These people must be trained on the knowledge, attitudes and practices of the community in epilepsy management. They should work hand in hand with indigenous practitioners in managing this condition. Establishing a team of local practitioners in each targeted area for epilepsy management is also critical in the conception of this model. Education on epilepsy management needs to be continued within the health sector. It would be tremendous if the subject of indigenous practices in epilepsy management is incorporated in the initial training prospectus of all health workers, psychologists, counsellors and social workers. Hospitals also need to ensure people with epilepsy are provided with psychological help.

Training materials targeting various groups, i.e. decision makers, professionals, people with epilepsy and their families, teachers, police and the general public need to be developed. The community needs adequate information about epilepsy in order to reduce the stigma that is related with the condition. The training material need to highlight that epilepsy is a treatable condition. The training material also need include the perceptions, knowledge and attitude of the Zimbabwean society towards epilepsy. The material should cover the cultural environment, collaboration between health workers and traditional leaders.

Last but not least, the epilepsy programme needs to be included in the primary health care national plans and should also be coordinated with other health programmes at government and community level. Major measures of primary prevention include awareness and taking action on increasing and improving prenatal consultation of mothers with epilepsy to assist them medically during delivery. It should also include highlighting and prevention of infectious diseases that affect the brain.
8.2.2 Indigenous Practices

The aim of reducing epilepsy needs to take into consideration the cultural environment of people who are living with epilepsy. Cultural aspects in relation to patients’ perceptions, attitudes and practices in relation to epilepsy must be considered in epilepsy management. Bio-medical doctors should put interests of Zimbabweans on the fore front. To successfully indigenise epilepsy management, it is necessary to carry out researches to ensure pure and genuine practices are spontaneously developed in Zimbabwe. Vigorous researches on indigenous practices need to be carried out in order to come up with a clear position on sustainable epilepsy management. Herbs have proved to be popular among people with epilepsy; as such studies need to be carried out on the effectiveness of these drugs.

The major problem identified in many resource-poor settings of Zimbabwe for the appropriate care of people who are living with epilepsy is the enormous treatment gap. This involves lack of provision of anti-epileptic medication and the diagnostic gap. Research findings show that the diagnostic gap is affected with local beliefs about the condition of epilepsy. The majority believe epilepsy is caused by evil spirits and witchcraft. The other notion held by the local people is that the condition is not treatable using conventional means; as such people are not taking anti-epilepsy medication. Awareness that epilepsy can be effectively treated should be increased at community level and should be part of the intervention in order to increase its success and penetration. It is also important that local traditions and beliefs are taken into account in setting up such interventions. Where indigenous forms of health delivery are in existence, it important to incorporate practitioners of such traditions rather than antagonising them. This will help to increase stability and credibility in management of epilepsy.

Use of the media outlets in marketing and promoting indigenous practices is encouraged in this model. Televisions, radios, print media can be used to market use of both indigenous practices and bio-medication. Herbs have proved to be dominant among people with epilepsy. Elders can also be used in these promotions and marketing strategies. Elders are respected in the community; their advice is valued as well. Traditional healers also need face to face communication in order for them to understand the value of medical students. A more cohesive community and more word-of-mouth approaches are important in reinforcing the importance of face-to-face communication.
A commitment to resources of epilepsy management must be gained from the government and health organisations. Political patronage needs to ensure epilepsy remains on top of the agenda. This will ensure regular supply of drugs. Every person with epilepsy who becomes seizure free becomes a potential social and economic contributor. It should also be noted that for epilepsy management to be sustainable, it needs to be included in the national health plan. Important aspects that should be considered are cultural beliefs, literacy, distance to modern healthcare facilities, and competing threats to the health care of people with epilepsy.

8.2.3 Family and Community
The involvement of family members, people with epilepsy and the community at large in this model is important in order to maintain a momentum which will facilitate the sustainability of epilepsy management. Findings have revealed that family members have some serious influence on the decision undertaken by people with epilepsy on whether to take or abandon bio-medication. An intervention of this magnitude can only be judged by assessing its impact on the quality of recipients whether they are surviving and thriving. To this end, sustainability is an obligation which needs to be built into this intervention, because its failure will have some serious repercussions on those who are suffering from the disease. Meetings with local stakeholders, i.e. family members, Christian healers, herbalists, diviners, and health workers and encouraging the creation of the local advocacy and support groups of people with epilepsy is an important part of this effort. Providing sustainability in epilepsy management is the only way to ensure reduction of economic and social burden that epilepsy imposes on people who are living with this condition.

8.2.4 Legal and Policy Frameworks that Support Epilepsy Management
The ultimate goal of the sustainable epilepsy management model is to incorporate the epilepsy health delivery into the existing or emerging national health programmes. Supportive legislation needs to be put in place to support the epilepsy management, just like the legislation has supported HIV and AIDS epidemic and cancer. The existence of the local lobby group for epilepsy through advocacy and support groups may help in mobilising the process.

An epistemological estimation in relation to the prevalence of active forms of convulsive epilepsy should be carried out using a case finding methodology. This will allow for a clear understanding of the scale of the problem in targeted areas. This exercise needs to be repeated
at the end of each intervention to allow for the estimation of any changes that may occur during the treatment gap. This process is very important because it allows for the measurement of outcomes of the attitude of the community towards indigenous practices and or bio-medication.

Health care workers initially do the identification of people suspected to be epileptic and the diagnosis and the management of epilepsy is normally done by physicians under the supervision of the neurologists. There is need to increase awareness of epilepsy in the community and local teachers must also be educated about epilepsy. This will help referral of people with epilepsy to the clinic and to dispel the myths that are associated with this condition. Traditional healers and leaders also need to be encouraged to refer any suspected cases of epilepsy to the hospital. It is also important to develop critical end-points to another level taking into account the local and the environmental issues. There is nothing bad for a health care worker to refer a person diagnosed to be epileptic to a local church leader or traditional healer if that is his/her wishes. A referral network from and to the next level of delivery also need to be put in place. It is important to come up with measures to assess the socio-economic outcomes which are appropriate for the local communities. These need to be developed in order to apply certain points of intervention. A full scale evaluation of this programme should be carried out before any planned expansion and at certain end-points. Continued monitoring of performance is required in order to address emerging issues.

8.2.5 Individual with Epilepsy

After incorporating these resources and activities, it is anticipated a sustainable epilepsy management system of epilepsy will be achieved. This will ensure a healthy and happy people with epilepsy. As highlighted earlier, a person with epilepsy who has been treated has the potential to contribute socially and economically. The outcomes anticipated include reduced stigmatisation, an emotional well-being, a psychological wellbeing and a physically wellbeing who is living with epilepsy. An earlier finding in chapter six reflected that the many people who are living with this condition are not employed. It is anticipated after implementing this model they will get employed.
8.3 Empirical and theoretical contributions of the study

This research study has made a number of empirical and theoretical contributions in the field of sustainable epilepsy management. These include understanding why some people with epilepsy are not taking anti-epilepsy medication, the nature of indigenous practices that are used in epilepsy management and community acceptance on these indigenous practices. These are presented below.

8.3.1 Why people with epilepsy are not on anti-epilepsy medication

This thesis provided important insights into reasons why some people with epilepsy are failing to take anti-epilepsy medication. In spite of the availability of anti-epilepsy medication, counselling and social help at some hospitals and community based organisations such as Epilepsy Support Foundation Zimbabwe, some people who are living with epilepsy continue to shun these services. The discussion below outlines how the following have contributed towards lower uptake of anti-epilepsy medication: knowledge, attitudes and perceptions about epilepsy, patients’ experiences with anti-epilepsy medication and the general side-effects associated with anti-epilepsy medication.

8.3.1.1 Contribution on perceptions, attitudes and knowledge about epilepsy

There are varying perceptions on the causes of epilepsy among Zimbabweans, but the majority strongly believes that epilepsy is caused by evil spirits, bewitchment and misfortunes that may be casted by a jealous family. Consequently, people some people with epilepsy seek help from Christian healers who have defined epilepsy as a punishment from God for previous sins committed. Some seek medical assistance from traditional healers, who understand epilepsy as something that is caused by ancestral spirits who may be unsettled and it may be a calling for the person with epilepsy to be a traditional healer. Very few attribute epilepsy as a psychological or medical problem, where epilepsy has been described as a chronic disorder in the brain which is characterised by recurrent seizures. Interestingly, some people in the medical profession also believe that epilepsy is caused by evil spirits, bewitchment or misfortunes that may be casted by a jealous family. This explains why some people are failing to take anti-epilepsy medication. They believe in the superstition attached to the disease and eventually, these people as families or as individuals are forced to make use of traditional practices of epilepsy management instead of anti-epilepsy medication.

8.3.1.1 Contribution on patients’ experiences with anti-epilepsy medication
There are more than 20 prescriptions of AEDs available and one’s option depends with age, lifestyle, and type of seizure and how often he/she has seizures (Epilepsy Scotland, 2008; FEDOMA, 2011; Cherney, 2016 and Epilepsy Foundation, 2017). In Zimbabwe, the commonly used drugs are Phenobarbital, Carbamazepine and Phenytoin (Dewa, 2012). However, findings revealed that some people with epilepsy are failing to be on anti-epilepsy medication because of shortage of drugs at clinics, hospitals and organisations such as Epilepsy Support Foundation Zimbabwe that offer medication, counselling and social services to people who are living with epilepsy. Some are failing to acquire these drugs because of the distances between their communities and hospitals, and eventually they are forced to use traditional practices in epilepsy management. Bharucha (2012) believes dimensions of medical, social, psychological and financial consequences of epilepsy are enormous and can result in discontinuation of anti-epilepsy medication. Some are failing to take these drugs because they are encouraged to stop this medication by their relatives, friends, Christian healers and traditional healers in order to pursue traditional practices of epilepsy management. For those that are taking anti-epilepsy medication, they think it is not helpful. They have been taking anti-epilepsy drugs for sometime and have concluded it doesn’t work and eventually they end up pursuing traditional practices of epilepsy management.

8.3.1.1 Contribution on side-effects associated with anti-epilepsy medication

The study also revealed some side effects associated with anti-epilepsy medication, e.g. feelings of tiredness, stomach upset, dizziness or blurred visions which usually happen in the first few weeks of taking seizure medicines, fatigue, nausea, urinary retention and sexual dysfunction among some others. Mitchel (2017) argues that people with epilepsy have read over these adverse effects of medications and there are frightening stories in the media and on the internet about the side effects of this medication. Mitchel (2017) is of the opinion that some people may be under the wrong impression regarding these drugs and express the fear that a medicine will make them retarded or cause developmental problems. Eventually, these fears are resulting in some people with epilepsy to avoid administering prescribed medications. These side effects have resulted in some people with epilepsy neglecting anti-epilepsy medication. To this end, the majority have now opted for the indigenous practices of epilepsy management.
8.3.2 Contribution towards an understanding on nature of indigenous practices used in epilepsy management

From the above discussion, it is now clear that some people with epilepsy are failing to take anti-epilepsy medication because of their negative attitude towards the bio-medication. What it means is that indigenous practices are at the heart of Zimbabweans who are living with epilepsy. This thesis made a contribution by examining the indigenous practices that are used by Zimbabweans in epilepsy management. There are two major practices that were identified in this thesis; prayers and herbs.

8.3.2.1 Prayers

Findings revealed that people with epilepsy are using prayers as a strategy for management of epilepsy. People with epilepsy are seeking help from indigenous churches such as Johane Masowe and emergent churches such as UFI, led by Prophet Makandiwa and PHD headed by Prophet Magaya. There are also some Pentecostal churches such as AFM Zimbabwe and ZAOGA that have been identified as potential healers of epilepsy in Zimbabwe. Prayers are needed because they cast away demons. Some participants have opted to seek help from pastors because they are also offered counselling services. However, some people have not abandoned anti-epilepsy drugs because of these prayers. Karim et al., (1994) contend that faith healers believe their healing power comes directly from God and usually through ecstatic states or trance-contact with spirits. People with epilepsy believe they are getting healed through prayers, laying hands or through holy water, or ashes.

8.3.2.2 Herbs

This has proved to be the most popular practice that is used by people with epilepsy in managing their condition. In this thesis, the researcher documented some of the herbs that are used in epilepsy management, though a further enquiry into their effectiveness is still needed. These herbs include *mupingangozi, mufufu, and mvungu* tree roots which are mixed with water. According to Baskind and Birbeck (2005), treatment in epilepsy is initiated after the first seizure and is usually incorporated with certain plants and animal products. The biggest challenge faced with people with epilepsy is that they do not know the types of plants that are incorporated as herbs. For instance, some simply know that herbs are mixed with chicken and one is not supposed to chicken the whole of his or her life. Some people with epilepsy are made to drink herbs mixed with urine; some are made to eat herbs mixed with the waste of dog that has just been born. This study revealed that these herbs are not written down, posing...
a threat to people who are living with epilepsy. There are herbalists proclaiming to be specialists in epilepsy management in Zimbabwe. Some of these herbalists have become experts in this particular field and are in great demand beyond their local communities. The biggest challenge is that unlike anti-epilepsy drugs, these herbs are not documented.

8.3.2.3 Effectiveness of indigenous practices in epilepsy management
These indigenous practices may not be documented; they may be dangerous, for instance taking urine or dog waste, but the Zimbabwean community has so much faith in these practices. Unlike anti-epilepsy medication, Zimbabweans have shown their allegiance to indigenous practices of epilepsy management. The community believes these practices are very helpful and from this study, it is clear the Zimbabwean community will use these practices to manage their condition. These traditional medicines have remained to be one of the most affordable and accessible sources of treatment within the primary healthcare system of resources for the poor Zimbabwe. The local people in Zimbabwe have a long history of using these traditional plants for medicinal purposes and this explains why they have a strong faith in them. However, in spite the increasing acceptance of traditional medicines for treatment, indigenous knowledge in epilepsy management is not adequately documented.

8.3.3 Community acceptance of indigenous practices of treating epilepsy in Zimbabwe
This study also contributed in understanding community acceptance in indigenous practices. From the above discussion, it can be noted that the community has paid its allegiance to indigenous practices of epilepsy management instead of bio-medication. From this study, it is now clear indigenous practices are being used either as a complimentary to anti-epilepsy medication or as an alternative to this medication. Because of that, the community accepts merging of indigenous practices and bio-medication in epilepsy management. Both methods have their own advantages and disadvantages and it can be safely argued that no treatment method is superior over the other.

8.3.3.1 Advantages of bio-medication
With bio-medication, the study revealed that drugs are monitored by doctors, there is no overdose and there are hospital cards. Experimentations and testing have been carried out to know the side effects of these medications ahead of time unlike traditional herbs. This lessons anxiety on the part of the client unlike when one uses these traditional herbs. Baxendale
(2012) agrees that unlike traditional medicines that are not subjected to scientific rigor, the standard test of western medication is randomised controlled trial (RCT) as well as double blind with a cross over design. To this end, bio-medication is safer than traditional practices. Clients are not exposed to dangerous practices like drinking own urine or the dog waste which may expose clients to some illness. Knowledge is conveyed verbally which may result in the inevitable distortion of original information. Addis (2002) also argues that the knowledge surrounding traditional medicine incorporates a number of harmful practices.

8.3.3.2 Advantages of indigenous practices
This study reflected that in spite of the reported and unreported complications in traditional practice, people seek traditional healers regularly and confide in them with due respect and hold them in high regards. Unlike anti-epilepsy medications, these drugs are available locally and they are cheaper. For instance, payment is normally done as a way of thanking the herbalist, and is usually done in the form of a cow, that is if the patient has recovered. Epilepsy management using indigenous practices incorporates the Ubuntu philosophy, described by Roodryk (2012) as an ancient African world-view based on primary values of intense humanness, caring, sharing, compassion that are associated with values which ensure happiness and a qualitative human community in the spirit of the family. The individual with epilepsy do not have to individualise the problem, but has to be assisted with the whole family.

8.3.3.3 Contribution on sustainability of indigenous practices in epilepsy management
The final question addressed by the researcher was on the sustainability of indigenous practices. The reality within the Zimbabwean community is that indigenous practices are effective; as such they have to be incorporated in epilepsy management. Developing indigenous practices in epilepsy management is a step in the right direction. The researcher is arguing that the government of Zimbabwe should support the development of indigenous practices in sustainable management of epilepsy. Bio-medical doctors should work together with traditional doctors to ensure the sustainability of indigenous practices in epilepsy management. The researcher discovered that funding will also go a long way in ensuring the sustainability of these indigenous practices. This study reflected that training and education about indigenous practices is a necessary component on workers in the health sector. Marketing and promotion of indigenous practices is another strategy identified and all members of the society, from faith healers, traditional healers and bio-medical doctors should
come together with an amalgamated approach towards improving the lives of those living with the condition despite the different definitions that they have towards epilepsy. A great indaba from various groups with their different definitions of what is epilepsy need to be arranged in order to come up with a clear position in which it’s not detrimental or negative to the person with epilepsy. Advocacy is a key strategy in promoting the rights and demands of indigenous peoples within the scope of this mandate. It is important to raise awareness among the public and other stakeholders about indigenous practices of epilepsy management. Advocacy lays the ground for a greater and an even more responsible engagement with indigenous peoples fostering development processes that respect self-determination, free, identity, informed consent, participation and inclusion.

8.4 Summary of Thesis
In Chapter one, the researcher gave a broad overview of the study. The background of the study was clearly stated, and the researcher also explained the purpose of the study. The statement of the problem was stated, and so were the objectives and research questions of the study. The researcher also highlighted the significance of the study, the limitations and delimitations of the study. In chapter two, the researcher provided a detailed account of the theoretical frameworks that support the research study. These theories, the Health Belief Model (HBM), the Human Agency Theory, Technological Acceptance Model (TAM) and the Sustainable Livelihoods Theory support the indigenous practices of epilepsy management. These theories provided a guideline for the study.

In chapter three, the researcher provided a detailed account related literature in an effort to understand epilepsy management at global, regional and national level. The researcher analysed perceptions of some tribes in Central and South America who still associate epilepsy with evil spirits and witchcraft. Literature was also reviewed on Asians too, who have disregarded the western concept of epilepsy of epilepsy management in spite of the substantial economic development and improvement in health services. A detailed account of related literature in Africa was provided, where the reaction to epilepsy has been described as being shaped by traditional beliefs surprisingly similar to each other. It is against this background that the researcher identified a knowledge gap on epilepsy management in Zimbabwe. Finally, the researcher analysed the general side-effects associated with the drugs, psychological, social and economic challenges associated with bio-medications.
In chapter four, the researcher provided a detailed literature review on the indigenous practices of epilepsy management. The researcher reviewed literature on spirituality and religiosity in epilepsy management, traditional approaches in epilepsy management, and the community acceptance in epilepsy management. The researcher also reviewed literature on the *Ubuntu* philosophy in epilepsy management, developing indigenous practices in epilepsy management and mainstreaming indigenous practices in epilepsy management. Chapter five, addressed the philosophical foundations of the study, the research design adopted and also provided the justification for the qualitative driven research study that was used. In this chapter the researcher also examined the target population, the sample and the sampling technique used in the study. The study finally carried an analysis on the research instruments, data collection methods, data presentation, interpretation and analysis and the ethics adopted in the study.

In chapter six, the researcher analysed the reason why people are not on anti-epilepsy medication, which was the first objective of the research study. The researcher carried an analysis on the perceptions, attitudes and knowledge of participants about epilepsy and patients experiences with bio-medication. Chapter seven provided an in depth analysis on the nature of indigenous practices that are used in epilepsy management. These included prayers, pastors, herbs, clergy and diviners. The researcher also analysed the various herbs that are used in epilepsy management, the effectiveness of these indigenous practices in epilepsy management, and community perceptions on indigenous practices. In chapter eight, the researcher presented his proposed model; the sustainable epilepsy management model. The researcher also presented his empirical and theoretical findings to the study. Based on the empirical findings, the researcher concludes that;

- People with epilepsy are not on anti-epilepsy medication because they strongly believe epilepsy is caused by witchcraft and evil spirits. They think the bio-medicine is not helpful in treating the disease. They are failing to take bio-medication because in some cases, it is in short supply. Friends, relatives and the community at large have also played a role in influencing people with epilepsy to abandon medication. There are also general side-effects associated with epilepsy that have forced them to abandon bio-medication.

- People with epilepsy have resorted to indigenous practices of epilepsy management. There are various modes of indigenous practices and these include prayers,
pastors/prophets, herbalists and the clergyman. From these different forms of traditional practices, traditional herbs are the most popular among people with epilepsy, followed by prayers. People with epilepsy are of the opinion that these traditional practices are very effective in epilepsy management,

- Medical practitioners are not cooperating with indigenous practitioners. This is in spite of the fact that the community has a positive perception towards these indigenous practices.

8.5 Recommendations
Based on these conclusions, the researcher makes recommendations for practice and future studies.

8.5.1 Recommendation for bio-medical doctors
Arrangements should be put in place to ensure continuous supply of anti-epilepsy medication by doctors. Bio-medical doctors have to make sure these arrangements are put in place at district, provincial and national level. Doctors must go under training in all aspects of diagnosis and management of epilepsy. These include the knowledge, attitudes and practices of the community in epilepsy management. They should work hand in hand with indigenous practitioners in managing this condition. Bio-medical doctors should educate people with epilepsy on the side effects that are associated with these drugs before they start taking them. Doctors also need to realise the importance of indigenous religion beliefs in epilepsy management. They should encourage the primary and secondary health staff to work hand in hand with indigenous practitioners. Apart from convincing people who are living with epilepsy to take modern medicine, they should tolerate non dangerous indigenous medicines, but should however insist on the necessity of not stopping to take bio-medication.

8.5.2 Recommendation for indigenous practitioners
Indigenous practitioners too, must be trained on bio-medication. Organisations such as Epilepsy Support Foundation should insist on training workshops and seminars on epilepsy management in Zimbabwe for these indigenous practitioners. This will allow indigenous practitioners to understand epilepsy from a western perspective. They will also understand the weaknesses and strengths of indigenous medicines in as much as doctors in bio-medication will understand the strengths and weaknesses of anti-epilepsy medication. Indigenous practitioners are also encouraged to work hand in hand with primary and
secondary health workers in managing this condition. Apart from convincing people with epilepsy to take indigenous medicines, they should tolerate bio-medication in epilepsy management. A recommendation is also made for organisations such Epilepsy Support Foundation Zimbabwe and the government of Zimbabwe to educate indigenous practitioners on the need of appropriate support and care programmes for people who are living with epilepsy in their communities.

8.5.3 Recommendation for people who are living with epilepsy, families and the community

People who are living with epilepsy are entitled to their rights in training, education and employment. Organisations such Epilepsy Support Foundation Zimbabwe are thus recommended to ensure empowerment of people living with epilepsy on life skills, vocational skills, self-management skills and knowledge and information that support communication networks. In order to promote education and public awareness, these programmes about epilepsy should also be directed at their families, their employers, health care workers, the teachers and the general public. The community needs to be educated about bio-medication, and the effectiveness of anti-epilepsy medication in epilepsy management. Awareness that epilepsy can be effectively treated should be increased at community level. It is imperative that arrangements are put in place in order to ensure continuous supply of anti-epilepsy medication. The involvement of family members, people with epilepsy and the community at large is important in order to maintain a momentum which will facilitate the sustainability of epilepsy management. Family members have some serious influence on the decision undertaken by people with epilepsy on whether to take or abandon bio-medication. Meetings with local stakeholders, i.e. family members, Christian healers, herbalists, diviners, and health workers are encouraged in order to ensure the sustainability of epilepsy management.

8.5.5 Recommendation for a multi-cultural approach in epilepsy management

Because many people will consult indigenous practitioners, a non-competitive relationship between bio-medication doctors and indigenous practitioners is encouraged. Sharing information and training of both parties would strengthen this collaboration. According to WHO (2004) field experiences have proved that working closely with the community, traditional healers and religious healers gives primary and secondary health workers a better opportunity to be accepted by the community and to modify any harmful practices. Local traditions and beliefs should be taken into account in epilepsy management. Medical practitioners should incorporate indigenous practitioners rather than antagonising them. As
such, a multi-cultural approach to epilepsy management is recommended. Medical practitioners and indigenous practitioners must work as a team to ensure sustainable management of epilepsy in Zimbabwe. Primary and secondary health workers must go under training in all aspects of management of epilepsy. These people must be trained on the knowledge, attitudes and practices of indigenous practices in epilepsy management. Indigenous practitioners too, must be trained on bio-medication. They should work hand in hand with primary and secondary health workers. Establishing a team of local practitioners in each targeted area for epilepsy management is also critical in managing this condition.

8.5.6 Recommendation for policy makers
Policy makers should incorporate the epilepsy health delivery into the existing or emerging national health programmes. Supportive legislation needs to be put in place to support the epilepsy management, just like the legislation has supported HIV and AIDS epidemic and cancer. Public health policy-makers need to be involved in order to ensure that modalities to facilitate drug supply are put in place. Education on epilepsy management needs to be continued within the health sector. Training materials targeting various groups, i.e. decision makers, professionals, people with epilepsy and their families, teachers, police and the general public need to be developed. The community needs adequate information about epilepsy in order to reduce the stigma that is related with the condition. The training material need to highlight that epilepsy is a treatable condition. The training material also need include the perceptions, knowledge and attitude of the Zimbabwean society towards epilepsy. The material should cover the cultural environment, collaboration between health workers and traditional leaders. A marketing and promotion initiative for indigenous practices is also recommended. This will enable various stakeholders to have an appreciation on the perceptions, attitude, and knowledge of Zimbabweans about epilepsy. This should also be supported with a policy on indigenous practices of epilepsy management is also recommended in Zimbabwe.

8.5.7 Recommendation for future study
There is need to expand this study to include challenges faced by people with epilepsy so that their issues can be broadly understood. With this understanding, appropriate interventions can be developed and modified to ensure improved livelihoods on part of people who are living with epilepsy. Due to the fact that the developed model was not pilot-tested within the scope of the study, it also becomes important to pilot test it in order to evaluate its effectiveness in sustainable management of epilepsy. Future studies should also investigate the effectiveness
of traditional herbs in epilepsy management. This would help to gauge if these traditional herbs make any difference in the lives of people with epilepsy. A study is also needed to investigate the role a multi-faceted team such as medical practitioners, indigenous practitioners, psychologists, counsellors and social workers should play in improving the lives of people living with epilepsy.

8.6 Chapter Summary
In this chapter, the researcher presented the model for sustainable management of epilepsy. The model requires an input from bio-medication, indigenous practitioners, the family and the community and policy makers. Implementation of this model will ensure less stigmatisation, well managed emotional and psychological challenges that will bring a physically wellbeing person with epilepsy. The researcher also presented the empirical and theoretical findings of the study. A summary of the whole projected was described, after which the conclusion of the study were noted down. Based on these conclusions, the researcher made recommendations to bio-medical doctors, indigenous practitioners, people who are living with epilepsy and their families, and policy makers. The study also recommended for a multi-cultural approach in epilepsy management and further research studies in epilepsy.
REFERENCES


WHO (2013). *Epilepsy in the WHO South-East Asian Region*. WHO.


APPENDIX 1

Dear respondent.

My name is Ngonidzashe Mutanana from the Centre of Development Studies at Chinhoyi University of Technology. I am carrying out a study on indigenous practices for sustainable management of epilepsy in Zimbabwe. As part of my research study, I am expected to collect information from identified participants of this study of which you are one of them. I have chosen you to participate because of your involvement in epilepsy management or your knowledge about the relationship between indigenous practices and epilepsy management. The information that you are going to provide will be kept confidential and your identity will not be provided to anyone. I wish to further reassure you that you will be protected from any kind of harm, be it physical, psychological or emotional. You are kindly requested to be open and honest in answering questions. You are also kindly requested to give your answers freely and provide information to the best of your ability. Confidentiality will be preserved at all cost by the researcher. The researcher will be extremely vigilant in respecting your rights and self-determination.

SECTION A: RESPONDENTS’ BIO-DATA

Please indicate your responses by putting an X in the appropriate box

1. Indicate your gender
   - Female
   - Male

2. Indicate your Age group in complete years

<table>
<thead>
<tr>
<th>Below 20</th>
<th>21-30</th>
<th>31-40</th>
<th>41-50</th>
<th>Above 50</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. What is your Religion?

<table>
<thead>
<tr>
<th>Religion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christianity</td>
</tr>
<tr>
<td>African Tradition Religion</td>
</tr>
<tr>
<td>Muslim</td>
</tr>
</tbody>
</table>

4. Can you state your nature of your employment

<table>
<thead>
<tr>
<th>Employment Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployed</td>
</tr>
<tr>
<td>Formally Employed</td>
</tr>
<tr>
<td>Informally employed</td>
</tr>
</tbody>
</table>

5. If you are formally employed, can you state your profession/type of work

…………………………………………………………………………………………………………………………………………………..

6. Can you state your gross monthly income

<table>
<thead>
<tr>
<th>Income Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below $200</td>
</tr>
<tr>
<td>Between $200 to $500</td>
</tr>
<tr>
<td>Between $500 to $1000</td>
</tr>
<tr>
<td>Above $1000,00</td>
</tr>
</tbody>
</table>

7. For how long you been or your child living with Epilepsy?

<table>
<thead>
<tr>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 6 months</td>
</tr>
<tr>
<td>6 to 12 months</td>
</tr>
<tr>
<td>12 to 36 months</td>
</tr>
<tr>
<td>36 to 60 months</td>
</tr>
<tr>
<td>Above 60 months</td>
</tr>
</tbody>
</table>

8. Is there any history of epilepsy in your family

<table>
<thead>
<tr>
<th>History</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
</tbody>
</table>

If yes, please explain……………………………………………………………………………………………………………………

…………………………………………………………………………………………………………………………………………………..

…………………………………………………………………………………………………………………………………………………..

SECTION B

An analysis of practices that are used in epilepsy management

9. What do you think are the causes of epilepsy?

…………………………………………………………………………………………………………………………………………………..

…………………………………………………………………………………………………………………………………………………..

…………………………………………………………………………………………………………………………………………………..
10. Do you use western anti-epilepsy medication for epilepsy management?

Yes  [ ]  No  [ ]

(a) If NO, explain………………………………………………………………………………
……………………………………………………………………………………………………
……………………………………………………………………………………………………
(b) If YES, do you understand how to take these western anti-epilepsy medications?

Yes  [ ]  No  [ ]

If yes explain, how you take these bio-medications
……………………………………………………………………………………………………
……………………………………………………………………………………………………
……………………………………………………………………………………………………
……………………………………………………………………………………………………

(c) If your answer to question ten (10) above is YES, please evaluate how helpful epilepsy management using bio-medicine has been to you.

<table>
<thead>
<tr>
<th>Not helpful at All</th>
<th>Somewhat helpful</th>
<th>Helpful</th>
<th>Very helpful</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

Explain your response………………………………………………………………………………
……………………………………………………………………………………………………
……………………………………………………………………………………………………

11. What are the side-effects associated with bio-medicine in epilepsy management that you have observed?
……………………………………………………………………………………………………
……………………………………………………………………………………………………
……………………………………………………………………………………………………

12. Do people with epilepsy use indigenous practices (e.g. prayers, herbs, traditional healers, etc.) to treat epilepsy?

Yes  [ ]  No  [ ]

13. Do you use indigenous practices (e.g. prayers, herbs, and traditional healers etc.) to treat epilepsy?
14. If **YES**, what indigenous practices do you use?

..................................................................................................................................................................................
..................................................................................................................................................................................
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..................................................................................................................................................................................
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15. If you have used indigenous practices, evaluate how helpful epilepsy management using these indigenous practices has been to you.

<table>
<thead>
<tr>
<th>Not helpful at all</th>
<th>Somewhat helpful</th>
<th>Helpful</th>
<th>Very Helpful</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

Please explain your response........................................................................................................................................
..................................................................................................................................................................................
..................................................................................................................................................................................
..................................................................................................................................................................................

16. How effective are the following practices effective in epilepsy management

(a) Prayers

Very effective

Not effective

(b) Herbalists

Very effective

Not effective

(c) Pastors/priests

Very effective

Not effective

(d) Witch doctors

Very effective

Not effective

(e) Clergy

Very effective

Not effective

17. Which other practices are considered to be useful in epilepsy management?

..................................................................................................................................................................................
..................................................................................................................................................................................
..................................................................................................................................................................................
..................................................................................................................................................................................

18. Would you accept merging of bio-medications and indigenous medication

Yes

No
19. What are the advantages of using bio-medications as compared to indigenous practices in management of epilepsy in Zimbabwe?

20. What are the advantages of using indigenous practices as compared to bio-medications in management of epilepsy in Zimbabwe?

21. What are the advantages of using both indigenous practices and bio-medications in management of epilepsy in Zimbabwe?

22. Do medical doctors tolerate indigenous practitioners?
   Yes [ ] No [ ]

23. Should the following strategies be used for mainstreaming indigenous practices for the management of epilepsy in Zimbabwe?
   (a) Tolerance of the indigenous practitioners by medical doctors.
       Yes [ ] No [ ]

   (b) Funding of innovation on indigenous practices through research.
       Yes [ ] No [ ]
(c) Training and education about indigenous practices.
Yes [ ] No [ ]
Explain

(d) Marketing and promotion of indigenous practices.
Yes [ ] No [ ]
Explain

(e) Advocacy of indigenous practices
Yes [ ] No [ ]
Explain

24. What other strategies do you think can be used for mainstreaming indigenous practices in management of epilepsy in Zimbabwe

25. Is there anything else that you would like to share about indigenous practices in epilepsy management in Zimbabwe?

THANK YOU FOR YOUR PARTICIPATION
APPENDIX 2

INTERVIEW GUIDE FOR PEOPLE WITH EPILEPSY

1. What do you think are the causes of epilepsy?
2. Do you use anti-epilepsy medication? Do you know how to use? Explain
3. How helpful is anti-epilepsy medication?
4. What are the side effects of anti-epilepsy medication that you have observed, if any?
5. Do people with epilepsy use indigenous practices (e.g. prayers, herbs, traditional healers, etc.) to treat epilepsy?
6. Do you use indigenous practices to treat epilepsy?
7. If yes, what indigenous practices do you use?
8. How helpful have been these indigenous practices in treating your condition?
9. How effective are the following practices in epilepsy management; prayers, herbalists, pastors, witch doctors?
10. Would you accept merging of bio-medication and indigenous practices?
11. What are the advantages of using bio-medication as compared to indigenous practices?
12. What are the advantages of using indigenous practices as compared to bio-medication?
13. What are the advantages of using both practices

THANK YOU VERY MUCH FOR YOUR TIME.
APPENDIX 3

QUESTIONS FOR FAMILY INTERVIEWS

1. Number of family members available.
2. Which religion do you belong to?
3. What do you think are the causes of epilepsy?
4. Do you use anti-epilepsy medication? Do you know how to use? Explain
5. How helpful is anti-epilepsy medication?
6. What are the side effects of anti-epilepsy medication that you have observed, if any?
7. Do people with epilepsy use indigenous practices (e.g. prayers, herbs, traditional healers, etc.) to treat epilepsy?
8. Do you use indigenous practices to treat epilepsy?
9. If yes, what indigenous practices do you use?
10. How helpful have been these indigenous practices in managing the condition?
11. How effective are the following practices in epilepsy management; prayers, herbalists, pastors, witch doctors?
12. Would you accept merging of bio-medication and indigenous practices?
13. What are the advantages of using bio-medication as compared to indigenous practices?
14. What are the advantages of using indigenous practices as compared to bio-medication?
15. What are the advantages of using both practices
APPENDIX 4
QUESTIONS FOR THE ELDERLY AND TRADITIONAL CULTURAL LEADERS

1. What comments can you make on indigenous practices in epilepsy management that are used in your area?
2. What relationships if any do think are in existence between these indigenous practices and epilepsy?
3. How do African traditional religion and spirituality help when one has epilepsy?
4. How do traditional or Christian healers assist when one has epilepsy?
5. How do these indigenous practices motivate people with epilepsy?
6. Make a comparison of members of different religions in terms of caring for people with epilepsy?
7. What do you think are the strength of these indigenous practices in the management of epilepsy in your community?
8. What as well do you think are the weaknesses of these indigenous practices in the management of epilepsy?
9. What are the perceptions of the community on indigenous practices of epilepsy management?
APPENDIX 5
QUESTIONS FOR DOCTORS, NURSES AND PSYCHOLOGISTS

1. What are the causes of epilepsy?
2. Can you make a comment on the side-effects associated with anti-epilepsy medication?
3. What are the advantages of using bio-medication as compared to indigenous practices?
4. Would you recommend your clients to use indigenous practices in epilepsy management?
5. What threats are posed by indigenous practices in the management of epilepsy, if any?
6. How do the African traditional belief systems affect community perceptions on epilepsy?
7. Can you make a comment on how you care on people with epilepsy who subscribe to indigenous practices?
8. What are the perceptions of the community on western practices of epilepsy management?
9. Can you comment on the suitability of mainstreaming indigenous practices and western practices in epilepsy management?
10. What is your opinion on the strategies that can be put in place in mainstreaming these indigenous practices in epilepsy management?
APPENDIX 6

QUESTIONS FOR TRADITIONAL HEALERS/CHRISTIAN HEALERS

1. From an African traditional point of view what are the causes of epilepsy?
2. Explain the practices that you use in curing epilepsy.
3. Would you recommend your clients to use bio-medication?
4. What role is played by religiosity and spirituality in treating epilepsy?
5. What advantages do people with epilepsy who subscribe to indigenous practices realize from your religion?
6. What threats are posed by western practices on the management of epilepsy?
7. What are the perceptions of people in your community on indigenous practices of epilepsy management?
8. Can you comment on the suitability of mainstreaming indigenous practices and western practices in epilepsy management?
9. What is your opinion on the strategies that can be put in place in mainstreaming these indigenous practices in epilepsy management?
APPENDIX 7

INFORMED CONSENT FORM

CHINHOYI UNIVERSITY OF TECHNOLOGY

Institute of Lifelong Learning and Development Studies

ZIMBABWE

Cell: +263773255572/+263712562728

Email: ngonidzashemtnn31@gmail.com

Dear Respondent.

My name is Ngonidzashe Mutanana from the Centre of Development Studies at Chinhoyi University of Technology in Mashonaland West, Zimbabwe. I am carrying out a study on the indigenous practices for sustainable management of epilepsy in Zimbabwe. As part of my research study, I am expected to collect information from identified participants of this study of which you are one of them. I have chosen you to participate because of your involvement in epilepsy management or your knowledge about the relationship between indigenous practices and epilepsy management. The information that you are going to provide will be kept confidential and your identity will not be provided to anyone. I wish to further reassure you that you will be protected from any kind of harm, be it physical, psychological or emotional. You are requested to be open and honest in answering questions. You are also requested to give your answers freely and provide information to the best of your ability. Confidentiality will be preserved at all cost the researcher. The researcher will be extremely vigilant in respecting your rights and self-determination.

You have the right to:

- Refuse to be interviewed
- Refuse to answer any question
- Not be interviewed during meal times

Yours faithfully

NGONIDZASHE MUTANANA

Researcher

Signature of respondent ……………………….. Date ………………………..