UNIVERSITY OF GHANA

COLLEGE OF HUMANITIES

CHRONIC HEALTH CONDITIONS AND RISK OF SUICIDAL BEHAVIORS IN TWO HOSPITALS IN GHANA

BY

RACHEL ONOMAH

(10260389)

A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF DEGREE OF MASTER OF PHILOSOPHY IN SOCIAL PSYCHOLOGY

DEPARTMENT OF PSYCHOLOGY

JULY, 2019

DECLARATION

This is to confirm that this thesis is the final product and a true reflection of a research conducted by **Rachel Onomah** in pursuance of an award of MPhil. Degree in Social Psychology at the Department of Psychology, University of Ghana. This thesis was supervised by Prof. Joseph Osafo and Dr. Oppong Asante. This thesis has not been presented in whole or in part and the ideas of other persons used in this study have been duly acknowledged.

…… Date: 28/05/2020

Rachel Onomah

(Student)

This thesis has been submitted for examination with the approval of:

Date: 18/05/2020

Prof. Joseph Osafo

(Principal Supervisor)

…… Date: 21/05/2020

Dr. Kwaku Oppong Asante

(Co-supervisor)

DEDICATION

I dedicate this thesis work to the Almighty God for giving me strength, understanding and wisdom for its completion.

I am extremely grateful to my parents Mr. Fred Onomah Asamoah and Miss Valentina Nyadu Kumi for their untiring support and contribution towards my personal and academic development.

ACKNOWLEDGEMENTS

Special appreciation to my supervisors, Dr. Kwaku Oppong Asante and Prof. Joseph Osafo for their patience, contribution and support which came in varying forms such as corrections and making time to discuss important issues concerning this project work.

I am also grateful to my siblings (Emmanuel Onomah Asamoah, William Clifton Dankwa, Susana Onomah Asamoah and Yvonne Mensah for their support and encouragement.

A singular appreciation goes to Dr. Vincent Boima (Korle-Bu Teaching Hospital) for the very pertinent corrections and directions giving throughout my year of working on my thesis.

Finally, to my sister Yvonne Mensah, Police Frank and Officer Nanewotor of the Police Hospital, who helped in the data collection process, and to the Ghana Police Hospital and the Korle-Bu Teaching Hospital that permitted me to use their facilities, personnel and patients for this study. Again, to Osei Kwame Amoateng for his emotional support and encouragement. The immense contributions of Selorm Aboetaka, Kenneth Owusu Ansah, Duke Tetteh and Thomas Lawyer my colleagues are greatly acknowledged.

I will forever be grateful and pray for God's blessings in regaining everything lost in the process of helping me.

ABSTRACT

With the high incidence of suicide and its association with varying risk factors, which recently include chronic illness in other countries, it is imperative to examine this association as well in Ghana among chronically ill patients. This will help add to the rich knowledge gathered by researchers in the country in the areas of suicidality and chronicity. The study therefore focused on finding out if a relationship exists between chronic health conditions and risk of suicidal behaviors in Ghana. The study employed a sequential explanatory mixed-method. Nine participants were sampled from two Hospitals for the qualitative approach. Sixty-nine chronically ill patients were sampled to take part in the quantitative approach which utilized the Suicidal Behavior Questionnaire (SBQ-R), Medical Adherence Report Scale (MARS-5), Brief RCOPE and the World Health Organization Quality of Life (WHOQOL BREF) Scales. The result of the qualitative approach which was thematically analyzed, showed participants' personal conceptualization of chronic illnesses, experiences of chronic illness, adherence to medication, chronic conditions and suicidality, health services related challenges and varying coping methods including religion, information and social support. The quantitative study employed Independent t-Test, One-Way Analysis of Variance (ANOVA) and Multiple Regression in testing the study's hypothesis. The results show that patients with chronic health conditions were likely to attempt or idealize suicide (Younger Adults M=12.67, SD; Middle Adult M=4.15, SD=0.99; Older Adults M=4.37, SD=1.82). It was recommended that public health education be intensified by the MOH and health journalists. Also, a collaboration should exist between health workers (psychologists, social workers and mental health workers) in the treatment of chronically ill patients. In addition, there should be in-service training for health workers to enable them adequately address the challenges of chronic patients during treatment.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

ECT:	Ethics Committee for Humanities
WHO:	World Health Organization
CDC:	Center for Disease Control
GBD:	Global Burden of Diseases
CHC:	Chronic Health Conditions
CKD:	Chronic Kidney Disease
NCDs:	Non-Communicable Diseases
MOH:	Ministry of Health (Ghana)
PF:	Female Participant
PM:	Male Participant

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Each year close to 800,000 people die due to suicide and many more attempt it, thus making the number of people involved in suicide (bereavement or experience) run into millions (World Health Organization [WHO],2014).This number covers all levels of ages. Suicide occurs across the various age groups and is the second leading cause of death among 15-29year-oldsglobally. It is recorded as the 17th cause of death worldwide. An estimated 78% deaths by suicide occur in low income and middle-income countries like Ghana (WHO, 2014). According to statistics from the Center for Disease Control (CDC, 2014), suicide accounts for more deaths worldwide than homicide, AIDS, car accidents, and even war [CDC], 2014; [WHO], 2012). But in all, the attempt of suicide is more frequent than completed suicide(WHO, 2012, 2014).

Suicidal behaviors have been associated with a lot of issues, especially psychological and psychiatric. That is why suicide is seen as multifaceted; thus, suicidal behaviors are associated with various psychological conditions such as perceived burdensomeness and thwarted belongings defeat, entrapment, and low social support. Again, psychiatric problems such as bipolar, anxiety disorders, and depression, among others, have been associated with suicidal behaviors (Chen & Dilsaver, 1996; Hawgood & Leo, 2008; Sareen, et al., 2005).

Notwithstanding all these risk factors, several socio-cultural factors have also been implicated in suicidality. According to Danis, Ozmen, Tamam, and Ozkan, (2008), who investigated socio-cultural features and sex profile of individuals with serious suicide attempts in Southeastern Turkey, unemployment, and low level education, unfavorable events

before suicide, persistent unfavorable life, and on-going family violence were closely linked to suicidal behaviors but at different levels in males and female. Thus, in non-clinical samples, social issues and culture play a very important role in individual suicide behaviors. In fact, individuals who have financial challenges can be overburdened and stressed out, which can lead to them getting depressed and then be on a high risk level of suicide. From an extensive review of risks associated with suicidal behaviors in low and middle-income countries, suicidal behavior have been linked to loss of job and financial difficulties (de-Graft Aikins, 2005; de -Graft Aikins 2013).

The rapid evolution of non-communicable diseases (NCDs) has also become a global burden. Previously presumed to be a 'rich-country problem' and not worth the global attention, in recent times, has become an epidemic because of its spread to low-income countries. It has become our price for economic development, prosperity and major achievements in healthcare, which brings longer, but stressful lives(WHO,2017).These conditions grow and make individuals immobile ,increase pain and fatigue and makes it hard or impossible for one to work(WHO,2017).

In Ghana, the major NCDs are cardiovascular diseases, cancers, diabetes, chronic respiratory diseases and sickle cell disease. The lifelong medications patients have to take often cause various side effects, further reducing the quality of life of the individual(Ministry of Health ([MOH],2016).Recently, Chronic Kidney Diseases(CKD) has been on the increase and ranked 18th in the list of causes of total number of deaths worldwide according to the2010 Global Burden of Disease (GBD)study. The burden of the first four common diseases, NCDs is projected to increase due to age, rapid urbanization and unhealthy lifestyles. In the Greater Accra Region of Ghana, hypertension moved from fourth to become second to malaria as the leading cause of outpatient morbidity in 2007(Awuah, Anarfia, Agyemangb, Ogedegbe, &

de-Graft Aikins, 2014). The prevalence of adult diabetes in Ghana is about 9% (MOH, 2016).Also, stroke ranks among the top three causes of mortality and is probably the most important cause of disability in the Ghana (de-Graft Aikins,2007).Averagely, 12,000 kidney failure cases are detected among Ghanaian patients every year, which culminates into 10 percent of the general population (Ghanaweb, 2018).

A higher prevalence rate is recorded in the Greater Accra region, which exceeds the national one and even more than other populous cities in the country like Kumasi and Takoradi (Amoah, Owusu &Adjei, 2002).The treatment of these conditions has become very expensive, which makes patients with chronic diseases (diabetes) mostly rely on family members for financial support. Since it is expensive to treat (Bosu, 2010), in some cases this leads to family abandonment and social isolation because sometimes the family members themselves are constrained financially (de-Graft Atkins, 2005).

Recently, studies have linked suicide with many physical health conditions like chronic pain, heart disease, stroke, cancer, congestive heart failure, and asthma (Greist, Mundt, Gwaltney, Jefferson &Posner, 2010). Also, several chronic physical diseases are associated with an increased risk of both self-harm and suicide (Singhal, Ross, Seminog, Hawton & Goldacare, 2014). A current research conducted in the United States showed that patients with physical health conditions like back pain, sleep disorders and trauma are at risk of committing suicide (Ahmedani et al., 2017).

Suicide risk factors have been associated with mostly psychological factors (WHO, 2012), and less attention has been paid to the issue of the many people who die of suicide who did not record any psychological illness. Till date, only people who visit health centers with known primary risk factors (psychological) are targeted and treated for suicide

prevention and associated intervention programs (Ahmedani et al., 2017).A psychology autopsy report suggests that about 90% of suicidal deaths are associated with psychological risk factors (Ahmedani et al., 2017), leaving the rest unaccounted for.

In Africa, religion is a powerful tool that helps to curb suicidal behaviors(Osafo, Knizek, Akotia & Hjelmeland,2011).Religious persons also very much conform to important religious beliefs and practices which does not allow or permit suicidal behavior. Suicidal behavior is condemned by major religions such as Christianity, Islam, Judaism and Hinduism (Gearing &Lizardi 2009).

In Ghana, Osafo, Hjelmeland, Akotia, Knizek, (2013) found that the students' interpretation of suicide as constituting a breach of divine morality was influenced by their religious beliefs. Hence, adolescents with religiosity and social support as coping mechanisms in the healthy population are better able to disassociate themselves from suicide than those without such groundings.

Chronically ill patients are mostly put on a lot of medications or lifelong medications. Studies like Ahmedani et al. (2013), has suggested that some patients who die and are confirmed cases of suicide sometimes do that by taking wrong doses or overdose which result in suicide. It has also been suggested that diabetes patients who believe that they can personally engage in activities to alter the course of their illness are likely to adhere to their prescribed medication(Owiredua, Quarshie & Atorkey, 2018).However, the same study also revealed that patients who believe their diabetes has serious negative impacts on their lives and represent it with negative emotions are unlikely to adhere to their prescribed medication (Owiredua et al., 2018).The findings of this study suggest that having higher beliefs of negative illness consequence, the representation of the disease with negative emotions, and

the belief that one can alter the course of the disease through their own initiatives positively predicts medication adherence.

Consequently, with the limited research into the issue of religion and suicide, coupled with the complexities of chronic (physical) diseases, the association between chronicity and suicide in Ghana is worth studying. This study therefore investigated chronic health conditions and risks of suicide at the Korle Bu Teaching Hospital and the Police Hospital.

1.2 Statement of the Problem

Increasingly, suicide is becoming an uncontrollable issue in Ghana. With 1,556 people taking their lives yearly (Citifm online, 2012), suicide is a scary phenomenon that threatens our existence. Suicide is obviously a burdensome reality in Ghana (Kenizek, Akotia &Hjelmeland, 2011; Quashie, Osafo, Akotia & Peprah, 2015).With this statistic and the associated risk factors of suicide, which are mostly psychosocial, instead of the general biological factor of depression, more attention has to be given to research in this area in Ghana to help prevent it from escalating into an epidemic since it has already been categorized as a public health issue.

It has been suggested by existing research in the Ghanaian context that chronicity is on the ascendency and with associated challenges of finance, due to the inadequacies of our national health insurance (de-Graft Aikins et al., 2010; de-Graft Aikins et al., 2005) financing chronic conditions has become challenging. The dependence on family for financial support for chronically ill patients has caused a financial drain on families and can therefore be associated with family tensions and friction (de-Graft Aikins et al, 2005; de-Graft Aikins, 2013). This can also make adherence to medication very difficult, since it puts financial strain on the patient and family on getting medications and other forms of treatments for chronic

conditions. In instances where this happens, patients might skip taking their medications or treatments, which may cause their untimely death. When this friction caused by finances in families occurs, it can disturb the individual involved, which may lead to attempted suicide or suicide. This thus means that on-going family conflict is a risk for suicidal behaviors.

Evidently, in Ghanaian society, literature supports the fact that with all the psychosocial challenges that have been estimated as risk factors of suicide, religiosity and social support are good sources of coping (Osafo, Akotia, Andor-Arthur &Quashie, 2015).In African countries such as Ghana, Nigeria and Rwanda, and also many Islamic countries, all forms of suicidal behaviors are criminalized (Adinkrah, 2013;Khan &Syed, 2011;Musoni,2011a,2011b;Sareen&Trivedi,2009; Za'za 2011).When suicide happens, it dents the image of the person involved, his family, and friends. Nobody, especially in Ghana is happy to be associated with the stigma of suicide as indicated in various researches done on suicide in Ghana (Osafo et al., 2013).

Furthermore, it has been asserted that illnesses like Type 2 diabetes and other cardiovascular diseases are on the ascendancy in Ghana (de-Graft Aikins et al., 2010; 2013). Hence, it is prudent if researchers in the area of suicide turn their attention to studying the relation that exists between suicide and chronicity. Further, people diagnosed with diabetes are reported to have disequilibrium resulting from shock, when first diagnosed (Beeney, Bakry, &Dunn, 1996). This can make the possibility of suffering from a mental condition obvious (Akotia & Mate-Kole, 2015) and trigger the intent of committing suicide. Physical health (chronic) diseases must not be treated as a trivial issue, nor should it be brushed under the carpet.

The review of the literature so far shows that though a substantial amount of work has been done on suicide and its related risk factors in Ghana, none of these studies have focused

on exploring the lived experiences of people with chronic illnesses and their representation of the cause of their condition, experiences of chronicity, adherence to medication, chronicity and suicidality, coping, quality of life and health-related challenges.

This study sought to offer in-depth knowledge of risk factors associated with suicide to inform the planning of appropriate interventions which will help patients with Chronic Health conditions who report to the hospital in coping with both their ailments and risk of suicidal behaviors. Finally, the study provides the foundation for future psychological research regarding chronicity and the risk of suicide in Ghana and in the African context.

1.3 Objectives of Study

The main objective of this study is to examine the relationship between chronic health conditions and risk of suicidal behaviors in Ghana.

The specific objectives are:

1. To determine if patients with chronic health conditions at the outpatient department present with suicidal behavior (i.e. ideation, plan and attempt) than inpatients
2. To find out if age influences suicidal behavior in chronically-ill patients
3. To determine if religiosity, social support and quality of life influence suicidal behaviors in chronicity
4. To determine if medication adherence is a risk factor of suicide in chronically-ill patients

1.4Research Questions

The qualitative segment of the study was guided by the following questions

1. What are the experiences of patients living with chronic conditions?
2. How do patients with chronic conditions feel about their current condition?
3. How do patients with chronic condition sad here to their medications?
4. What are the coping mechanisms used by individuals with chronic conditions?

1.5Relevance of the study

This study to a large extent adds to theory and policy formulation in the clinical setting of caring for chronic patients. The study adds to the limited knowledge on chronic patients and their risk of suicide behaviors in Ghana. This is especially important since most suicide studies are skewed towards countries like the United States of America and other European countries. The study is also intended to influence policy formulation in the area of mental health, as espoused by international law (Article 12 of the International Covenant on Economic, Social and Cultural Rights, 1996, p. 4), of which Ghana is party to. This study also ignites debate to enable our policy makers inculcate mental health in physical health. Also, it helps foster the sharing of ideas within the discipline of psychology as it highlights the link between social psychology and clinical psychology.

Furthermore, with the high levels of chronicity of illnesses in Ghana, (de-Graft Aikins et al., 2010), and its linkage to suicidal behaviors in recent times (Ahmedani et al., 2013: Singhal, Seminog, Hawton & Goldacre, 2014), coupled with both psychological and psychiatric issues associated with suicidal behaviors. Therefore, further knowledge into the association between suicide and social influence will help practitioners holistically look at suicide as not only a psychiatric and clinical issue but also a social one and treat it as such. This would help plan formidable psychological interventions that would help treat these patients holistically.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter discusses the theoretical framework of the study, which takes into consideration a theory important to understanding the concept suicidal behaviors. Studies related to the current study were also reviewed based on literature from journals, reports, working papers and reference books .Further, the rational and hypotheses of the study were developed out of these literatures and then lastly, the terms used were operationally defined. The review of empirical studies was done along three lines; namely the global, African and national levels.

2.2 Theoretical Framework

In this section, a social psychological theory is related to the phenomenon under discussion and the three-step theory that explains suicide, its ideation and attempt. This will help to broaden our understanding of the relationship that exists between chronic health conditions and suicidal behaviors, the responsibility of social structures, and help that can be accorded individuals who find themselves in this situation.

2.2.1 The Ecological and Socio Ecological Theories of Bronfenbrenner

This research was located within the broad framework of the Ecological Theory of Bronfenbrenner 1979, 1986 & 1990. The theory is a social psychological theory that explains the different levels at which behaviors (suicidal behavior) of chronically ill people are influenced, through various systems (microsystem, mesosystem, exosystem and

macrosystem). This framework was employed to help in understanding why individuals with chronic health conditions would or would not attempt or idealize suicide.

Bronfenbrenner's (1979) model focuses on the nature of the interaction of people with their environment. Bronfenbrenner conceptualized development as a multifaceted phenomenon based on the interplay between personal, situational and socio-cultural factors (Oppong, 2015). The model proposes influences on development as a series of layers or ecological environments, which are in a nested arrangement of concentric structures and a social web; and also mutually interact and are contained in the nest. This implies that each layer has a resulting impact on the next layer. The innermost layer represents the individual, who is then surrounded by differing levels of environmental influences (Bronfenbrenner 1994). The individual is seen as living within a series of 5 interconnected systems or layers conceived as widening concentric circles labeled from the innermost to the outmost. That is the individual, microsystem, mesosystem, exosystem and macrosystems. According to Bronfenbrenner (1977), an individual's development can therefore be considered as an interaction between factors in their biological make-up, family/immediate environment and the broader community.

The model was further improved into the Socio-Ecological Model. In this model, development of the individual is described further against the fact that the individual's development is based on a multifaceted phenomenon that is nested and interdependent on one another (Bronfenbrenner, 1979). The model explains development and behavior as occurring in varying layers which are mutually interdependent. That is, each layer has an influence on the other. The innermost layer, which stands for the individual, is most influenced by the other levels which have engulfed the individual level (Bronfenbrenner, 1994). The levels that

are seen to engulf the individual level range from the individual, microsystem, mesosystem, exosystem to the macrosystem.

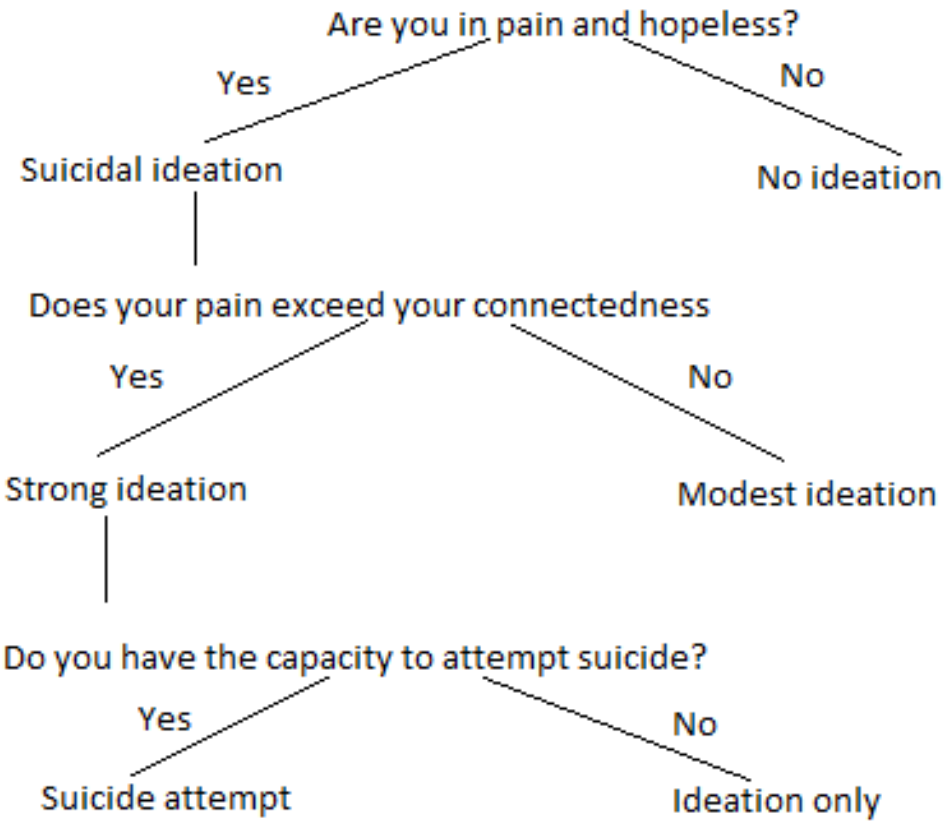
Individuals in the society are greatly influenced by the interactions that go on within the nested nature of the system. Various levels affect the behavior and development of the individual differently. Further, the individual's behavior and development also have an impact on others. Therefore, biological, family and the community factors can be the major sources of influence on an individual's development (Bronfenbrenner, 1977). In the study of behavior, the individual's close environment and the community at large is taken into consideration, in addition to the interplay among these factors.

Chronic patients' suicidal behavior can be seen as a consequence of the challenges emerging from the interplay of biological, psychological, developmental, psychiatric, and social factors; as well as the cultural, family or environmental forces at work. A robust and multidisciplinary model is required to establish a thorough understanding of chronic patients' risk of suicide. Suicidal behaviors in chronic patients can be seen as emerging from patients' interactions and interdependencies within hierarchically arranged , multiple-level ecological contexts. Therefore the ecological theory will best explain such behavior.

2.2.2The Three-Step Theory of Suicide

Klonsky and May (2015) have developed the three-step theory (3ST) of suicide to aid in improving our understanding and prediction of suicide, suicidal behavior, and suicide ideation. The principal constructs used in designing the 3ST are hopelessness, connectedness and suicide capacity. The three-step theory (3ST) is illustrated in Figure 2 below, with discussion thereafter:

Figure 1: The Three-Step Theory (3ST) of Suicide



Source: Klonsky and May (2015).

Step 1 Development of Suicidal Ideation

The 3ST argues that pain is the first step toward suicide ideation. Pain covers both physical, but mostly psychological and emotional pain. When pain characterizes someone's life, the person has a decreased desire to live, and might consider thoughts of suicide. Some factors which can cause pain are physical suffering (Ratcliffe, Enns, Belik & Sareen, 2008), social isolation (Durkheim, 1897), defeat and entrapment (O'Connor, 2011), negative perceptions (Baumeister, 1990), and other aversive thoughts, emotions, sensations, and experiences (Klonsky, May & Saffer, 2016). Pain alone will however not lead to suicidal ideation. Individuals who experience pain, and also believe and hope that their condition will

improve, will rather fight to attain a better future in which their pain would diminish than succumb to suicide. Consequently, pain coupled with hopelessness is what will lead to the onset of suicidal ideation. To this extent, someone suffering intense pain who feels hopeless regarding any improvement in his condition will consider suicide; making the pain and hopelessness to become the determining factors for suicide ideation. This assertion of pain and hopelessness as the causative factor for suicide ideation has been supported in the literature (May & Klonsky, 2013).

Step 2 Strong versus Moderate Ideation

After the presence of pain and hopelessness, the next step in the 3ST is the situation where pain becomes greater than connectedness. Connectedness in this context means connection to other people, to an interest, role, project, or a sense of purpose or meaning which grounds a person and makes him interested in continued living. If connectedness is greater than pain and hopelessness, a person would only experience moderate ideation e.g. sometimes I feel I am better off dead. When pain and hopelessness are present, and pain becomes stronger than connectedness, the individual will experience strong ideation (e.g. I would kill myself if I get the opportunity). Thus, connectedness protects against pain and hopelessness progressing to the point where they lead to suicidal ideation.

Step 3 Progression from Ideation to Attempts

The final step looks at the conditions which would give rise to suicide attempt. Joiner (2005) suggests that the critical factor in attempting to commit suicide relates to whether an individual possesses the capacity to make a suicide attempt; and this capacity operates in the form of fear of death. If, for example, an individual is experiencing strong ideation but is afraid of death, that person will not attempt suicide. Thus, people will only attempt suicide if they have acquired the capacity to overcome their fear of death. Joiner stresses on acquired

capability being developed and enhanced through painful experiences and provocative events which increase a person's tolerance for pain, injury and death. The 3ST theory takes Joiner's assertion further and proposes three variables enhancing suicide capacity; these being dispositional, acquired and practical variables. Thus, those with lower pain sensitivity will have a higher capacity to attempt suicide, and vice versa. Acquired variables refers to those experiences which make people become used to pain, injury and death, gradually increasing their capacity to attempt suicide. Finally, practical variables relate to those factors which make a suicide attempt easier. An example of a practical variable would be when someone has both the knowledge and the means, e.g. access to poison or guns, to attempt suicide. Practical variables would possibly explain the high suicide rates among anesthesiologists and other medical professionals (Swanson et al. 2003), who have both the knowledge and means; that is, access to drugs and knowledge on how to end life painlessly. To conclude, dispositional, acquired and practical variables enhance one's capacity to attempt suicide; with individuals having strong ideation only attempting suicide if they have the capacity to engage in such activity.

2.3 Review of Related Studies

This section reviews various studies which helped the researcher in clarifying the possible effects of the variables considered in this study and further helped in hypothesis formulation for the study.

2.3.1 Suicide, Attempted Suicide and Ideation

Suicide has been defined as death caused by self-directed injurious behavior with the intent to die; while suicide attempt has been defined as nonfatal, self-directed, potentially injurious behavior with the intent to die; and suicidal ideation defined as thinking about,

considering or planning suicide (CDC, 2015). Suicidal ideation, suicide attempt and suicide are considered a major health concern among young people worldwide (WHO, 2014). Thoughts of suicide (suicidal ideation) usually come before a suicide attempt, with as much as one-third of adolescent ideaters proceeding to trying to commit suicide (Nock et al., 2013).

Globally, suicide accounts for 1.4% of all deaths (WHO, 2014), with over 800,000 people dying from suicide annually (Klonsky et al., 2016). As at 2012, the global age-standardized death rate for suicide was 11.4 per 100,000, with the WHO projecting this rate to be consistently up until 2030 (WHO, 2013; 2014). CDC, (2013) has indicated that 12.5% of deaths of young people aged 0-24 years were caused by suicide. Not only is suicide a major public health challenge, but suicidal ideation and nonfatal suicide attempts as well. The global lifetime prevalence for suicidal ideation is approximately 9.2%, while that of suicide attempt is 2.7% (Nock et al., 2008). Suicide ideation as well as attempts are strong predictors of completed suicides, and can lead to negative outcomes like injury, hospitalization, and loss of one's freedom (due to being committed to a mental facility), and lead to a financial cost of billions of dollars to society (CDC, 2010; Nock et al., 2008; WHO, 2014). Suicide has been identified as the second leading cause of death for youths aged 15-29 years worldwide (WHO, 2014). Suicidal ideation has been estimated to be at a 10.24% to 26.72% prevalence among children and young people (Gabrielli et al., 2015; Harkess-Murphy, MacDonald & Ramsay, 2013; Taussig,Harpin &Maguire, 2014).

2.3.2 Socio-demographic correlates of suicide

Quite a number of sociodemographic correlates exist with regards to suicide. These correlates show that suicide rates differ across people and places (WHO, 2014). High income countries have higher suicide rates compared to low-and-middle income countries (12.7 as

against 11.2 per 100,000), though low to middle income countries account for more than 75% of suicides globally (WHO, 2014). In addition, men commit about three times more suicides than women, with this gender disparity being more pronounced in higher income countries compared to low-and-middle income ones (Nock et al., 2008; WHO, 1999; 2014). Age wise, suicide rates are highest in persons aged 70 years or older for both men and women, while being lower for children and young adults. That notwithstanding, it represents one of the highest types of deaths among young persons; being the second leading cause of death for persons aged 15-29 years, and the leading cause of death for those aged 15-19 years (Patton et al., 2009). In the same vein, nonfatal suicidal behavior or suicide attempts varies across region, age, sex and sexual orientation. To illustrate, lifetime suicidal ideation rates, as well as rates of suicide plans and suicide attempts are higher for females than males (Kessler et al., 1999; Nock et al., 2008, 2013), as well as being higher for adolescents than older people (Nock et al., 2008).

Several motivations have been identified for engaging in suicide attempts. Some of these motivations are escape, communication, changing one's environment, and dealing with an unbearable frame of mind (Brown et al., 2002; Chapman & Dixon-Gordon, 2007; Klonsky & May, 2013). Other motivations include what Shneidman (1993) calls psych ache (emotional or psychological pain), the need to escape or reduce aversive self-awareness (Baumeister, 1990), perceived burdensomeness and thwarted belongingness (Joiner, 2005), impulsivity (Simon et al., 2001), and interpersonal communication (Kreitman, 1977).

2.3.3 Suicidal Behavior in Ghana

In Ghana, a lot of work has been done on suicide and its related correlates. Doku, Osafo and Akotia, (2019) in their work on comparing the reasons for suicidality as reported

by attempt survivors with their family folk in Ghana found difficult romantic relationship versus difficult family relationships, family tensions versus under achievement ,diabolism versus difficult relationship, and difficult family relationship versus mental illness as the reasons why people attempt suicide. The study found financial problems, existential crisis and relationship crisis as risk factors of suicide.

Again, it has been found in Ghana that persons who attempt suicide report using personalized spiritual coping, social support and avoidance as coping resources after surviving suicide attempt (Doku , Osafo & Akotia, 2017). Also, Osafo, Akotia, Hjelmeland and Knizek (2017) identified various risks for suicidality. They showed psychological strain (life crisis) such as poverty, family conflict, and poor supervision, lack of parental abuse, educational stressors, and hopelessness as significant factors in suicidality more than psychiatric conditions such as depression.

Some sociological studies have also implicated psychosocial strains such as perceived infidelity, poverty, shame, the death of a child and threat of divorce in suicidality in the country (Osafo et al., 2017; Adinkrah, 2011a, 2011b, 2012, 2014).

2.3.4 Suicide and Reattempt

It has been found that individuals who attempt suicide often reattempt suicide again (Foster, Gillespie, McLelland & Patterson, 1997). In that regard, repetition has been found to be a predictor for successful completion of suicide (Hawton, 2000; Hultén et al., 2001). Repetition of suicide attempt has been found to be prevalent in the first year after the initial suicide attempt (Kerkhof,Arensman 1998; Nielsen, Wang & Brille-Brahe, 1990). The rate within a one-year window after an initial suicide has been found to range between 9% and 32% (Owens et al., 1994; Carter et al., 1999), with those occurring within six months varying

between 10% and 37% (Carter et al., 1999; Concoran, 1999). The high risk of repetition associated with suicide has led to the risk factors for repetition to be studied. These studies have found that some predictors exist for suicide reattempt within one year of the initial attempt. The predictors for re-attempt after a one-year period are being aged 24-54, being single/divorced/living alone, unemployed, lower social class, social isolation, being female, criminal record, experiencing physical violence, previous suicide attempt, cutting as the method for initial attempt, suicidal ideation, familial history of suicidal behavior, depression and hopelessness, personality disorder, alcohol/substance abuse, previous psychiatric treatment, referral for psychiatric treatment, use of psychotropic drugs, organic brain disorder, and chronic somatic complaints (Owens et al., 1994). Similar predictors have been identified for the six-moth repetition attempts (Carter et al., 1999; Scott et al., 1997).

2.3.5 Chronicity

Chronic Non-communicable diseases (NCDs) have been defined as diseases or conditions that occur in, or are known to affect, individuals over an extensive period of time and for which there are no known causative agents that are transmitted from one affected individual to another. The WHO defines the scope of NCDs to include cardiovascular diseases, mainly heart disease and stroke, cancers, chronic respiratory diseases, diabetes, others, such as mental disorders, vision and hearing impairment, oral diseases, bone and joint disorders and genetic disorders.

Diseases that cause an individual to have poor general health, disability, and or deaths which can mainly be associated with risk factors such as tobacco use, poor diet and physical inactivity, excessive alcohol consumption, uncontrolled high blood pressures and hyperlipidemia are referred to as chronic illness in the USA (CDC, 2014).According to

World Bank, (2006), diseases such as hypertension, stroke, diabetes and cancer can be referred to as chronic diseases. Most research done in this area have used the term physical health conditions and also chronic health conditions for the same or similar conditions (Ahmedani et al., 2017; Tinetti, Terri, Fried, Cynthia & Boyd, 2012). Also in Ghana, most of the conditions which are called physical health conditions are also referred to as chronic diseases (de-Graft Aikins et al., 2006).

2.3.6 Causes and Challenges associated with Chronicity

People associate chronicity to different causalities. The modes of treatment and prevention affect the way patients respond to the treatment given, and this has been suggested to be responsible for the type of preventive measure to take (de-Graft Aikins, Anum, Agyemang, Addo & Ogebegbe (2012)..

The study of chronic conditions has led to the understanding that CHCs are very much a drain on the finances of the affected individual, families, households and even communities. This psychosocial burden of finance can exacerbate and lead to family disruption and eventually diminish family support (de-Graft Aikins, Boynton & Atanga (2010). In Ghana, a study on rural-urban diabetes exposed the financial challenges faced by patients and their families. The study posited that the dependency on family members by patients who themselves where insecure caused family tensions and frictions, which in some cases led to family abandonment and social isolation (de-Graft Aikins, 2005).

An examination of illness action and scope for intervention found that chronic patients are burdened with physical challenges which in turn have psychological implications (coping with pain and its management, dealing with disruptive lives and identities and solid impact on mobility and productivity) (de-Graft Akins, 2003).Again, CHCs and their

treatment has been a challenge in Ghana for a long time. This issue exposes the shortfalls in the health system (Agyemang, Owusu- Dabo,de-Graft Aikins, Addo, Edusie, Nkum&Ogebegbe, 2012; de-Graft Aikins et al 2010).According to these studies, health professionals are not adequately trained in the diagnosis, treatment and management of CHCs. Also, health centers lack the appropriate equipment for even diagnosis, monitoring and treatment, and sometimes medications are either not accessible or are very costly. The Central Medical stores (CMS) in Ghana has been perceived as an inflexible institution and for that reason, medicines are not procured in their appropriate quantities; they are poorly distributed, run out of stock, and expire due to poor stock-taking, monitoring and evaluation (NHIA, 2015). This institution is the sole supplier of medicines to Health facilities in Ghana, especially the public health facilities.

2.3.7 Chronicity and Suicide

A case control study by Webb et al., (2012) on suicide risk in primary care patients with major physical diseases established relative risk across a range of physical diseases. It also associated the confounding effect of clinical depression and modification by sex and age and examined physical multi-morbidity too. The findings were that clinical depression is a strong confounder of increased suicide risk among physically-ill people. They also detected an independent elevation in risk linked with certain diagnoses, particularly, undetected psychological symptoms.

Further Singhal, et al., (2014) have also established an association between chronic physical patients' illnesses and self-harm and suicide. The study used a retrospective cohort study design in both hospital cases (patients) and mortality relying on data from health insurance operators. A more recent case-control study in the USA looked at major physical

health conditions and risk of suicide. The study included 2,674 individuals who died by suicide, between 2000 and 2013 along with 267,400 controls matched on year and location in 2016.Their findings were that several physical health conditions like back pain, traumatic brain damage etc., were all associated with suicide risks. Patients who had chronic conditions were also at significantly high risk for suicide. Suicide can simply be explained as taking one's life. Risk factors of suicide are not necessarily the causes of suicide, especially when the study is a cross-sectional one, but rather correlate (Frankline et al., 2017).

2.3.8 Religiosity as a Coping Mechanism

Spirituality pertains to human beings the world over (Oldnall, 1996). It is nondenominational and non-institutional, and applies to believers and nonbelievers alike (Baldacchino & Draper, 2001). Spirituality can be defined as "the experience of an integration of meaning and purpose in life through connectedness with self, others, art, music, literature, nature, or a power greater than oneself" (Burkhart & Solari-Twadell, 2001). Religion on the other hand, is an organized way of expressing spirituality for some individuals, mostly within a social setting and in a faith community (Gordon & Mitchell, 2004). It dwells on a shared belief system among a defined group of people and involves different significant practices (McEvoy, 2003).

Religion is now more widespread than has ever been in the past, with surveys depicting a considerable proportion of the world's population as possessing religious beliefs and practices which are important in their daily lives (Bonelli, Dew, Koening, Rosmarin & Vasegh, 2012). To illustrate this fact, the World Gallup Poll conducted a survey of representative populations of 143 countries and found 92% of residents in 32 developing

countries indicating religion as an indispensable component of their daily life (Crabtree & Pelham, 2009).

Religious and spiritual beliefs have been identified as an important coping and adapting mechanism to stressful life conditions (Bonelli, Dew, Koening, Rosmarin & Vasegh, 2012). Though several factors such as genetic, developmental and environmental factors exist which can lead to the onset and sustenance of depression, the inability to cope with life's stress has been noted to be a paramount underlying factor for depression (Auerbach, Abela, Zhu & Yao, 2010). Participation in religion has been associated with positive attributes like satisfaction with life and fulfillment, well-being, hope, optimism, and finding meaning and purpose in life; traits which deal with the negative emotions that give rise to depression and suicide (Bonelli et al., 2012).

Empirical evidence indicates that the rate of suicide varies across religions (Gearing and Lizardi, 2009), and the role of religiosity includes a number of mechanisms. Most religions have strong sanctions against suicide; thus, those individuals who report strong commitment to those religions would be less likely to resort to suicide. In addition to condoning suicide, involvement in organized religions provides the opportunity to develop an extended support network with congregation members and clergy, which has shown to be a protective factor against suicidality(Gearing & Lizardi, 2009 ; Gould et al.1996; Greening and Stoppelbein 2002; Koenig et al. 2001; Mann 2002).

Rhodes (2009) for instance, has indicated that African American women conventionally have lower rates of suicide than women of other races. This is attributable to higher levels of religiosity and spirituality among these African American women. Thus, there is a positive correlation between religiosity and spirituality on suicidal ideation, hopelessness and depression. A further research has suggested that, in Ghana, religiosity and

social support from relations have been a great source of coping and avoidance when it comes to suicidal behaviors (Osafo et al., 2015).

Again, religiosity has been found to have a positive relationship with quality of life among hemodialysis patients (Saffari et al., 2013). Similarly Wildes, Miller, de Majors and Ramirez (2008) opined that breast cancer patients who happened to have high religiosity and spirituality turn out to have higher levels of quality of life.

Failure in family life can especially predispose religious persons to depression because religion places great emphasis on family life; which would make religious people feel guilty and ultimately depressed, if they should fail in this aspect of life (Bonelli et al., 2012).Another study in Ghana exploring the influence of religious factors on attitudes towards suicidal behavior found that religion served as a prime prerequisite for survival and coping with life's crisis. Furthermore Osafo et al., (2014) found that the coping mechanisms of social support, religious faith, withdrawal and isolation were used in managing negative thoughts and feelings of suicide.

2.3.9 Social Support as a coping mechanism

Social support has also been known to be a coping mechanism against depression and suicide (Broadhead, Kaplan & James, 1983; Cohen, Underwood & Gottlieh, 2000). Strong support systems comprised of family and friends make it easier for people to deal with life's stressors (Bonelli et al., 2012), making it an important coping mechanism. The longitudinal Finnmark Studies conducted in 1987, 1990 and 1993 show social support to moderate stress' impact on mental health; a phenomenon which has come to be known as the buffering hypothesis (Olstad, Sexton & Sogaard, 2001). The buffering hypothesis argues that social support can buffer or protect against the negative effects of stress.

Another study showed that female college students whose mothers showed them less maternal care (affectionless and neglectful relationships) showed a four-fold increase in incidence of depressive symptoms (Hall, Peden, Rayens & Beebe, 2004). Greater social resources, defined as family and peer support, related to lesser depressive symptomology in undergraduate college students; and increased a student's capacity for adapting to college stressors (Saltzman & Holahan, 2002). Rayle and Chung (2007) also found that college students who felt their family and friends were supportive of them, and also felt they mattered to their friends and the college, suffered less stress compared to students who felt they received no support. Thus, social support is an important coping mechanism in dealing with stress as well as depression, and thoughts of suicide.

Adolescents who had strong connections with their families as well as received support from family were noted to have a lower risk of indulging in suicidal behavior (Kidd et al., 2006). Adolescents who attempted to commit suicide indicated their families as being stressful, unsupportive, highly conflicted and emotionally distant (Kuhlberg, Pena &Zayas, 2010). Generally, adolescents who exhibited suicidal behaviors felt less supported by their families and friends and felt a sense of hopelessness (Goldsmith, Pellmar, Kleinman, & Bunney et al., 2002; Willis, Coombs, Cockerham & Frison, 2002). Increasing social interactions probably as a way of enhancing behaviors during a crisis is prudent in preventing suicide (Osafo et al., 2011).

2.3.10 Adherence to Medication

Adherence according to Delamater (2006) is the active, voluntary and collaborative involvement of a patient in a mutually acceptable course of behavior to produce a therapeutic result. Quite a number of factors have been noted as influencing adherence to medication.

Some of these factors include the nature and duration of therapy, severity and frequency of health problems, side effects of medications, drug-drug interactions, comorbid conditions, costs of treatment, characteristics of health facilities, relationship between physicians and patients, socioeconomic situation of patients, and patients' views about the illness and therapy they're undergoing (Banerjee & Varma, 2013; Robiner, 2005).Persons with various forms of chronic health conditions are faced with high cost of medications, especially in hypertensive patients (Bulletin of health information, Ghana 1:18-22, 2001.). According to Buabeng, Matowe and Plunge-Rhule (2004), patients with hypertension cited unaffordable prices for hypertension drugs as well as side effects, as major reasons for non-compliance with medications and a 93% non-adherence to anti-hypertensive medications. Personality constructs of low internal Locus of Control (LoC) and high external LoC accounts for non-adherence to medication in hypertensive patients (Kretchy,Owusu-Daaku & Danquah, 2014).This is so because such patients are less likely to take responsibility for their illness and health behaviour.

Non-adherence to medication among patients suffering from depression has been observed to be a global clinical problem (Banerjee & Varma, 2013).Research again attests that patients' non-adherence to chronic disease medications increase their likelihood of suicidal behaviors. Karasouli, Latchford and Owens (2014) emphasized that patients with a stage 5 chronic kidney disease turn out to engage in suicidal behaviors by making plans or attempting to end their lives. These patients engage in these suicidal behaviors through their non-adherence to dialysis. More so, there have been some established linkages between non-adherence to chronic disease medications and depression. Huerta-Vieco et al. (2014) opined that patients with chronic renal disease who happened not to adhere to their medication have an increased likelihood of experiencing higher levels of depressive symptoms.

Studies have shown that suicidal behaviors are more common among diabetes mellitus patients than healthy or medically ill controls (Sarkar & Balhara, 2014). Interestingly, some diabetic patients sometimes take insulin overdose in an attempt to end their life. These diabetic patients happened to commit suicide due to the availability and accessibility of injectable insulin within the market (Russell, Stevens, & Stern, 2009). The use of subcutaneous or intravenous injection of insulin to some extent, causes hypoglycemia, thereby leading to death in severe cases or over longer periods (Sarkar & Balhara, 2014).

Research has zoned in on some of the reasons why patients do not adhere to taking their medicines. Some of the reasons found include forgetfulness, adverse effects of medicines, carelessness, travelling without medicines, cost of drugs, life-shattering events and being female (females play multiple roles, e.g. mother, wife, professional, caregiver, and others, which are demanding and tiring), (Nielsen et al., 2017; Banerjee & Varma, 2013).Attributions are sometimes made by hypertensive patients in Ghana to structural, cultural, gendered and psychological issues, which they explain as lack of money, fear of addiction and for the men, fear of negative effects of such medications on their sexual health as reasons for non-adherence and altering of medication regimes (Beune, Haafkens, Agyemang, Schuster & Willens, 2008).

In a systematic review of lay persons' perspectives in countries like United States, United Kingdom, Brazil, Sweden, Canada, Ghana, South Korea, Spain, Netherlands, Tanzania, Denmark, Finland, Iran, Israel, New Zealand and Thailand, non-adherence was noted to result from having insufficient money to pay for treatment, the cost of appointments, cost of healthy food; lack of health insurance, forgetfulness and being unable to find time to take drugs or see the doctor (Marshall, Wolfe & McKevitt,2012).

Poor access to medication and healthcare and poor medication adherence are some of the reasons given by participants for their low rate of BP control among hypertensive individuals in Ghana (Awuah et al., 2014). The study explained that Ghana's Health Insurance scheme offers an elusive care to its subscribers.

2.4 Rationale of the Current Study

Series of research conducted in this area to date, presents with few limitations. The few literatures reviewed in the area of chronic health and risk of suicide have been conducted using case control study, retrospective cohort study and also population studies (Singhal et al. 2014: Ahmedani et al. 2017 & Quin et al. 2012).Though these designs use very large populations and compare between different cohorts, recall of patients may be inaccurate and sometimes subject to biases. In cases where information was sought from relatives of dead patients and even records from health insurance operators, inaccuracies in record keeping and challenges in being able to accurately narrate the feelings of a dead person can be difficult. Therefore, using a design where living patients are interviewed and their lived experiences recorded and analyzed might be more prudent though time consuming. Exploring patients' subjective views on their risk of suicide will generate a lot of information.

2.5 Statement of Hypothesis

The study's hypotheses are outlined below:

1. Out-patients will experience less suicidal behavior than in-patients.
2. Younger adults will show higher levels of suicidal behaviors than middle-age and older adults.

3. There will be a significant negative relationship between religiosity and quality of life on suicidal behaviors among chronic patients.
4. Patients who adhere to medication will show less suicidal behaviors than patients who do not adhere to medication

2.6 Operational definition

1. Chronic health conditions: Diseases such as stroke, hypertension, diabetes and renal diseases.
2. Suicidal Behaviors: Behaviours intended at taking one's own life, including suicide ideation and attempt

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter outlines the methodology for the study. The setting and research design are described. Further discussion is undertaken on the sample size and sampling technique, measures for data collection and data analysis for both the qualitative and quantitative aspects of the study.

3.2 Research Setting

3.2.1 Korle-Bu Teaching Hospital:

Korle- Bu Teaching hospital which has evolved into a national referral center and the third largest hospital in Africa, registers admissions for both males and females suffering from hypertension, diabetes, sickle cell disease and other conditions, as well as deaths for these conditions. It also has a department for chronic care set up in 2013 to take care of chronically ill patients, especially diabetic and hypertensive patients. The outpatient department of chronic conditions (various clinics) and both the male and female medical wards were the settings of the research. The rationale for choosing Korle-Bu Teaching Hospital is that it is a referral center with a lot of reported cases from all parts of the country.

The Korle Bu Teaching Hospital has moved from an initial 192-bed capacity hospital to having over 2,000 beds, 21 clinical and diagnostic Departments/Units and three “Centers of Excellence”. Currently, it has over 4,000 medical and paramedical staff with an average daily attendance of 1,500 patients, about 250 of which are admitted. “Korle Bu” which in the Ga

parlance means 'the valley of the Korle lagoon', was established on October 9, 1923 as a General Hospital to address the health needs of the indigenous people but has grown into a referral and teaching hospital.

3.2.2 The Police Hospital

With the establishment of the Ghana Police Hospital in 1976 to provide quality health care to members of the Ghana Police Service, their families and criminal cases; the hospital has since expand edits infrastructure and services to cover the general population. In recent times (April 2012), it has established a dialysis center for the treatment of kidney diseases in the country. Also, with the Police Hospital now seeing more cases from the general public than its original mandate (Ghana Police Service, 2009), it has also become one of the referral centers in the country. Chronic illnesses like hypertension, rheumatism and joint pains are among the top cases treated at the hospital (GPS, 2009). It is appropriate this hospital is included in a study of this nature as well.

3.3 Research design

A mixed-method cross-sectional design which includes a qualitative and quantitative procedure was employed for the study. Tashakkori and Creswell (2007, p.4) stated that investigators in this type of research collect data, integrate the findings and draw inferences using both qualitative and quantitative methods in a single study. This type of research is mainly adopted to help each of the methods complement the other's weaknesses. A qualitative method was used initially to ascertain the subjective experiences of patients (Neuman, 2011); Ulin, Robinson, Tolley &McNeill, 2002), which then influenced the use of a quantitative method to supplement and confirm the data from the qualitative method

(Creswell & Plano-Clark, 2007). Results from a mixed method study are seen as very significant as they "enhance our beliefs that the results are valid and not a methodological artifact" (Bouchard, 1976, p.268).

Though there are limited studies in the area of suicide and chronic health diseases, the few that exist are predominantly limited in scope (they are either quantitative, qualitative, retrospective cohort studies, case control studies or psychological autopsies), or use already existing data from patients. As such, just a few have employed mixed methods (Singhal et al., 2014). In the social sciences, quantitative experiments unlike qualitative ones do not occur in the natural environment and therefore do not give respondents the chance to provide more details to questions asked (Carr, 1994). On the other hand, it can be argued that when you rely solely on the qualitative method, it can be time-consuming and costly. Besides, one major concern most researchers have raised regards the validity and reliability of qualitative data.

In the present study, the use of mixed methods was considered useful to answer the research questions. Considering the limitations in previous studies on suicide and chronic conditions especially in Ghana, the qualitative approach was deemed appropriate for study I. Specifically, the qualitative approach enabled the researcher develop exploratory questions and the feedback was helpful in the selection of instruments for the quantitative study. For instance, study I (qualitative) took into consideration the lived experiences of patients with chronic diseases. By using this approach, the experiences of these people were explored and factors that led patients to try attempting suicide or ideate about it were thoroughly examined. This helped in teasing out some themes for inclusion in the quantitative instruments.

A Quantitative method was adopted for study II. Measures for suicidal ideation and attempt, religiosity, quality of life and adherence to medication were selected, with medical

data collected from patients' records to confirm chronicity in patients. Study II helped the researcher to gather, analyze and interpret data, which aided in testing the study's hypotheses (Ponterotto & Grieger, 1999).

3.4 Study I: Qualitative Study

3.4.1 Participant selection and sample

Sixteen (16) patients with varying chronic conditions were originally sampled for interviewing; since according to Smith and Osborn (2007), 16 participants are adequate for qualitative studies. But due to the hard-to-reach nature of the sample, only nine (9) were successfully interviewed. A purposive sampling technique was employed to identify the patients with specific chronic conditions which were of interest to the study. Purposeful sampling usually involves identification and selection of people who have experience and knowledge in a particular area of interest (Creswell & Plano Clark, 2011). Therefore, patients with the conditions of interest were deemed appropriate to be selected, due to their experience and knowledge in the area. The Convenience sampling technique was used in selecting participants who met the inclusion criteria of the study. Further details about the participants used in the qualitative study are presented in Table 1 below:

Table 1: Demographic information of participants

	Age(yrs)	Gender	Marital Status	Number of Children	Educational Level	Religion
1.	18	Female	Single	None	Senior High	Christian
2.	73	Male	Single (Widower)	6	First Degree	Christian
3.	53	Male	Married	5	Elementary Level	Christian
4.	63	Male	Married	3	A 'Level	Christian
5.	56	Female	Married	3	O' Level	Christian
6.	22	Male	Single	None	Senior High	Christian
7.	44	Male	Married	2	O' Level	Christian
8.	46	Male	Married	5	O' Level	Christian
9.	45	Male	Married	6	First Degree	Christian

3.4.2 Interview schedule

In this study, a semi-structured interview schedule was employed during the collection of data. This schedule was employed for its ability to help the researcher acquire the in-depth individual experiences of participants. Participants are in this schedule were encouraged to keenly participate for a nice flow of the interview process (Ulin et al., 2002).

The interview schedule was developed based on literature review, the researcher's understanding of the issue, and the theoretical framework. This schedule was used to direct the interviewer, but further probes were done to acquire rich data from patients. It was made up of questions which focused on the experiences of patients living with chronic conditions, how patients with chronic conditions felt about their current conditions, how patients adhered

to their medications, and the coping mechanisms they employed in dealing with their conditions. This schedule is attached in the appendix.

3.4.3 Data collection and Procedures

Prior to the start of the study, approval was sought and given by the Psychology Department and the University of Ghana Ethics Board for the conduct of the research. Respondents were then selected and rapport established with them, after which the nature of the study was explained to them. After this was done, respondents signed a consent form prior to the conduct of interviews.

The interviews were conducted in secluded places away from the OPDs and with the in-patients, in resting arenas of the ward so that patients could have their privacy and express themselves comfortably. Patients were assured that the researcher was only interested in demographics like age, educational levels, marital status, number of children and religious affiliation. Hence, any other personal information was not needed for analysis and interpretation of results. Patients who did not want to be recorded had their interviews manually recorded. Participants were given the chance to ask questions before the conduct of the interview to clear all doubts. A team of medical and psychological expects were also on hand to address cases of distress.

The scientific integrity of the research was championed through honest conducting and reporting of research data. None of the research materials were falsified, neither was any of the reports of the research information manipulated. Issues like informed consent, freedom of withdrawal, anonymity and confidentiality were also ensured according to the APA (2002) Ethical Code. Participants were provided with information on eminent risks associated with the research, so that participants could make informed choices. Though participants were

asked to sign the consent forms, they were still free to withdraw if they so wished during the course of the research.

3.4.4 Data Analysis- Thematic Analysis

The qualitative analysis was done using Thematic Analysis (Braun &Clarke, 2006). This procedure was used to identify patterns in themes from the interview to help analyze the experiences in the qualitative study. The description of patterns makes it a distinctive feature from the other types of qualitative analysis. Coding was done on issues deemed important by the researcher based on the literature and aim of the research. These codes were interpreted by the researcher and other experts which allowed for flexibility (Braun & Clarke, 2006). Again, thematic analysis helped in uncovering overt life experiences of suicidal behavior in patients and gave meaning to the experiences of chronically-ill patients (Smith & Osborne, 2003).

The following steps espoused by Braun and Clark (2006) for thematic analysis were employed:

Firstly, careful attention was paid to listening to the interviews individually and transcribing them verbatim. A second party also listened to help check for reliability and internal consistency.

After the acquaintance with the data, codes were generated by writing notes on the texts in order to identify various patterns. All codes were grouped into potential themes.

All themes were then reviewed in order to have a coherent pattern which followed a sequential order that made for easy reading and understanding. The reviewed themes were defined and named into a convincing data map. There was the need to identify essence in the themes by defining and refining what fact of the data it captured. Additionally, paraphrasing

was undertaken to make meaning of the data and to pinpoint unique issues arose. Themes and sub-themes were identified as part of the refinement process.

Reporting was then undertaken, where the findings were written into "a concise, coherent, logical, non-repetitive, and interesting account of the story the data tells – within and across themes." (Braun & Clarke, 2006 p.23).

3.4.5 Trustworthiness of Qualitative Findings

In the qualitative result presentation, trustworthiness is very key. To attain this, procedures like the one suggested by Shenton (2004) were considered. These very important yardsticks of a true qualitative research; credibility, transferability, dependability and confirm ability were ensured. Due to the sensitivity of the participants involved, both manual and audio recordings of the thoughts, feelings and experiences of participants were done according to the preferred choice of the particular participant. Particularly at the Police Hospital, some participants who were officers were not so comfortable with the audio recordings, so the manual recoding was done. Afterwards, their recordings, especially the written ones were read to them for confirmation of their thoughts, feelings and experiences and validation. The researcher probed further on questions so as to get very comprehensive feedback from participants.

Different forms of engagement occurred between the researcher and the supervisors until conclusions were drawn on the analysis. The levels of agreement and disagreements on the analysis and interpretations were achieved as the supervisor carefully went through codes, themes and subthemes generated by the researcher. Consensus was reached by modifying some codes, themes and subthemes. To ensure credibility, colleagues and seniors of the researcher were given the opportunity to critique the qualitative work.

To also ensure transferability, an all-inclusive presentation of the occurrences was done to allow for comparison between similar works conducted under similar situations. Again, information about the population and sample size, data collection procedures, and period of data collection were captured. The confirm ability of the research was also attained by the correct capturing of the subjective experiences of suicidal behaviors into themes instead of presenting it in conjectural assumptions.

3.5 Study II – Quantitative Study

3.5.1 Research design

A quantitative approach was employed in the quest for objectivity of results. A cross-sectional approach was used, where a sample was selected from the general population at all times (Shaughnessy, Zechmeister& Zechmeister, 2012). In view of the fact that the research was descriptive; in that it looked at suicidal behaviors in a particular population and further examined its relationship with other demographic characteristic, the cross sectional approach was appropriate as postulated by Shaughnessy, Zechmeister and Zechmeister (2012). A convenient non-probability sampling technique was used due to the hard to get nature of participant (very ill and immobile). This technique was used to sample participants from the OPDs, male and female wards of Korle-bu Teaching Hospital and the Police Hospital in Accra. The cost-effectiveness and convenient nature of this sampling method informed its use (Huysamen, 1994). A sample of 100 participants was targeted, however, 69 actually took part in the research. According to the formula generated by Tabachink and Fidell (2001p. 117), a sample size of 69 is very appropriate. Tabachink and Fidell (2001) indicated that when computing for the sample size required for multiple regression analysis, a formula ($N \geq 50 + 8m$) is required. With this formula, m= number of predictor variables. From the current study, the number of independent variables were two (2). Based on the formula, the required sample

size should be equal or more 66.Therefore, a sample size of 69 is appropriate for regression analysis. Participants involved in the study included patients with varying chronic diseases with ages between 18- 84 years. Majority were renal out-patients. Males comprised 80% of the number while females constituted the remaining 20%.

3.5.2 Sampling strategy and research participants

Due to the hard-to-get nature of the population for the quantitative study, it was appropriate to use a convenient non-probability sampling technique. Thus, not all chronically ill patients and conditions were included. A further Convenient Sampling technique was used to help select participants who met the inclusion criteria of the researcher. This technique was chosen because the researcher aimed at recruiting only patients with specific Chronic Health conditions (CHC) (stroke, diabetes, renal disease, and hypertension) and particular characteristics. Participants were adults of 18 years and above and had been diagnosed with any of the CHCs and were on treatment for about three months and above. Participants recruited were those who could read and write the English Language. Purposive sampling technique was preferred to a convenience sampling technique, since the research is not to generalize the results of the findings. The research team collected data from the two settings of the research.

3.5.3 Research Measures/Instruments

In terms of demographic information, certain personal information was collected from patients who participated in the study. This information covered their age, religion, educational background, marital status and number of children. Age was categorized into young adults (18-29), middle adults (30-44) and older adults (45+) in line with Coryell, Fiedorowicz, Solomon & Endicott (2009) on suicide risk assessment. No modifications were made to the questionnaires used as the items were considered appropriate for the setting.

Medical History

This section of the questionnaire collected information on participants' health. It included clinical diagnosis of patients, co-morbid condition, family history, the period of the condition, and patients' status, among others. This information was taken mostly from patients' folders. It enabled the researcher to confirm the chronicity of patients' illnesses.

Religiosity

This construct was measured with the Brief RCOPE which is a 14- item scale that measured both positive and negative patterns of religious coping methods. It offered an effective, theoretically meaningful way to integrate religious dimensions into models and studies of stress, coping and health. The questionnaire is self –rated and contains 7 items each pertaining to positive and negative religious coping. The questions were rated on a four-point Likert scale from 0-3; 0=not at all, 1=somewhat, 2=quite a bit and 3=a great deal. Pargament, Smith, Koenig and Perez, (1998), report a Cronbach alpha of .80 as evidence of its reliability. When this instrument was used in a pilot study, it recorded a reliability of .773 Cronbach Alpha while the main study produced a Cronbach Alpha of .95.

Suicidal Behavior Questionnaire (SBQ-R)

Suicidal Behavior Questionnaire Revised (SBQ-R) is a 4- item scale that assesses the ideation and attempt of suicide behavior. Osman, Bagge, Gutierrez, Konick, Kopper and Barrios (2001), in their study found a Cronbach's $\alpha = .88$. A reliability of .771 Cronbach alpha was attained during the piloting process. Reliability in the current study was .85.

Adherence to Medication

A validated Medical Adherence Report Scale (MARS-5), which measures patients' adherence to medication was used. Patients were instructed to show the frequency (always, often, sometimes, rarely or never) in which they did not adhere to medication in any of the

five components expressing non-adherence. Scores for each of the five items were combined to give a total score ranging from 5 to 25, with higher score indicating higher levels of adherence. Back, Sundell, Horne, Lande and Mardby (2012) recorded a Cronbach's α = .66, and also a Cronbach's α =.86 is reported by Owiredua, Quarshie, and Atorkey (2018).A Cronbach alpha value of .845 was found for the pilot for this study.

Quality of Life

The World Health Organization Quality of Life (WHOQOL BREF) Scale, measures the quality of life of individuals assessing various domains of life. Its Cronbach Alpha has been estimated at .70 by Skevington, Lofty, O'Connell, (2003). During piloting, a Cronbach Alpha of 8.25 was realized. In the actual study, an Alpha of .88 was realized.

3.5.4 Pilot study

Theinstruments were piloted before the main work to ascertain the appropriateness of the questions to be used (van Teijlingen, Rennie, Hundley & Graham, 2001).This is mostly done as groundwork for major studies (Beck & Hungler, 2001).The pilot study was conducted at the same Hospitals used in the study. Data from the pilot study was not added to that collected from the main study for analysis. This was because the researcher conducted the pilot study to determine the suitability of the questionnaires for usage in our setting.

With a convenience sample of 15 chronically ill patients, the pilot was conducted to find out the appropriateness of the questions, comprehension and the procedure for collection of data. After analysis of the data, most of the findings supported those of the qualitative study. The instrument was found to be appropriate, easy to comprehend and relevant to the study hypothesis.

The findings of the pilot were supportive of the reliability of the instruments if used in a comparably larger sample size. A reliability of .773 Cronbach alpha was obtained on the

Brief RCOPE, .771 Cronbach alpha for Suicidal Behavior Questionnaire (SBQ-R), Medical Adherence Report Scale (MARS-5) (.845 Cronbach alpha),and the World Health Organization Quality of Life (WHOQOL BREF) Scale reported a Cronbach alpha of 8.25. There were no modifications of the instruments for the actual study.

3.5.5 Data collection and procedure

Approval was sought and given by the Psychology Department and the University of Ghana Ethics Board for the conduct of the quantitative study as well. Respondents were then selected with rapport established with them. The nature of the research was explained to participants. The researcher and the team (trained to administer questionnaires) were introduced to staff on duty at the male and female wards and the out- patients' departments at the different hospitals.

Provision was made for clinical psychologists and social welfare workers, in the event of any negative consequences occurring. Respondents who had ideations were referred to the clinical psychologist. Participants were recruited and informed of the objectives of the research. After this was done, the consent form was signed and questionnaires completed. Participants were informed of their right to voluntarily participate and withdraw at will. Anonymity was ensured during data collection. The questionnaires were administered in the English Language. Patients who participated were given call credit worth Two Ghana cedis as compensation for participating voluntarily.

3.5.6 Data Analysis

The Statistical Package for Social Sciences (SPSS version 21) was used to analyze the quantitative data. Specifically, independent t-test, one-way ANOVA and multiple regression were employed in testing the hypothesis of the study.

3.6 Ethical Considerations

American Psychological Association (APA) ethical guidelines was strictly adhered to throughout the study. The researcher observed principles of informed consent, confidentiality, anonymity and voluntary participation.

CHAPTER FOUR

RESULTS

4.1 Introduction

The study was conducted to examine chronic conditions and risk of suicidal behaviors among patients at Korle Bu Teaching Hospital and Police Hospital. This chapter presents the results of both the quantitative and qualitative phases of the study. The qualitative findings precedes that of the quantitative study

4.2 Study I: Qualitative Result

The qualitative study primarily was to discover how chronic health conditions impact patients' suicidal behaviors. Analysis of the qualitative data revealed six main themes underpinning the experiences of the participants. These are conceptualization of chronic disease; experiences of chronic illness; adherence related experiences; chronic condition and suicidality; health services related challenges and coping mechanism. All interviews were conducted using the English Language. Some respondents however, in answering questions, gave some responses in the Akan Language. Responses in the Akan dialect were translated and subsequently analyzed. A summary of these themes, their sub-themes and narratives are presented in Table 2 below.

Table 2: Summary of emerging themes and subthemes

Major themes	Sub-themes	Illustrative narratives
Conceptualization of chronic conditions	1. Developmental Changes 2. Genetic Conditions 3. Diabolical Manipulation	*…sometimes I think "sɛɛ…obi na a yɛ me saa' (sometimes I think someone is spiritually causing my sickness). Someone can cause it ooooo. Because in my job people do that. (PM 8, Age 46, Diabetes)*
Experiences of Chronic illness	1. Cost related stress 2. Treatment related stress 3. Biographical disruption	*The main difficulties? Walk….ing. I have to go and work so that I can continue my education. I asked the doctor, he said that he will discharge me but up till now! Because I can't walk, I am still here. (Sobbing).*
Adherence related experiences	1. Cost of treatment 2. Side effect of medications 3. Fatalistic ideology	*… When, it is getting to weekend, hmmm…. (Red eyes) I begin to cry, because I am thinking of how to get GH₵ 500.00 Ghana Cedis for dialysis the next week. It is not easy ooo.*
Chronic condition and suicidality	1. Loss of meaning 2. Feared loss of virility 3. Chronicity and related issues of condition	*I tried jumping from a roof top once, when I first saw that I had the BP, Hmmm…I was just worried I was going to be taking this medicine for life and I hear it will affect me too…you understand? (Smiles)…I mean my thing (Pointing to his manhood)*
Health services related challenges	1. Health insurance 2. Poor health worker attitudes	*Errrrmm… the doctors and nurses, hmm… you know it is not always good but you can't complain. I have decided I don't have to worry about them to compound issues for me. I tune*

		myself to suite their mood anytime I come. It is only by the grace of God that I'm still alive. **(PF 5, Age 56, Renal Failure)**
Coping mechanisms	1. Religiosity 2. Information about condition 3. Social support	*God is my strength, my sister, I have learnt not to worry. He keeps me healthy. If it's time to die I will die.* **(PF 5, Age 56, Renal Failure)**

Source: Field Work (2019)

4.2.1 Conceptualization of chronic Condition

Patients' first experience shared was on the cause of their illness. During their narrations, the 'conceptualization of chronic condition' was noticed as a major theme with three sub themes namely *developmental changes, genetic conditions and diabolical manipulations*.

Developmental changes

Findings from the study show that patients attribute the cause of their condition to changes that occur in the biological development of a person. The narrative below explains how a participant thinks growth automatically causes an individual to have some organ failures:

> *I will say it's my age. Everybody has a threshold age. When you are about 15years, your kidney is perfect. At about 50, your kidney level drops and when you get to 60… it comes to stage 4 and becomes weak… (PM 2 Age 73, Renal Failure)*

Genetic conditions

This participant on the other hand attributed the cause of her condition to genetic pre-disposition resulting from having a sickle cell gene.

> *….You know as for me, they said it is the sickle cell condition that has caused it. You know I am sickle cell positive and they say it has made my kidney weak. (PF 5, Age 56, Renal Failure)*

Diabolical manipulations.

From this narrative, these participant expressed fear of spiritual manipulation by other competitors in his field of work (electrical works and carpentry respectively).

> *…sometimes I think "s333…obi na a y3 me saa' (someone is spiritually causing my sickness). Someone can cause it ooooo. Because it is common in my kind of work. (PM 8, Age 46,)*

A second (PM 3) participant who is also an artisan also confirmed this practice in in their trade as expressed by (PM 8).

> *I don't know. You know in this our work, people can give you sickness. Hmmm…me I don't know, I'm just praying I get well. (PM 3, Age 53, Diabetes)*

> *There is a strong cultural anxiety about anti-life forces in Ghana (Onyinah, 2012) and how someone's life could be 'destroyed' by using black magic. This belief has been highlighted by Pentecostal churches in recent time in Ghana (*Asamoah-Gyadu, 2015). *This is what the participant is referring to in the text as someone "can give you sickness". (PM 3, Age 53, Diabetes)*

.

4.2.2 Experiences of Chronic illness

This major theme addresses the experiences of patients with chronic conditions. Generally, the participants reported some unique stressful conditions which were associated with being chronically ill. These are analyzed under three main sub-themes: *cost related stress, treatment related stress* and *biographical disruption.*

Cost-related stress

The findings from the study showed that, patients with chronic conditions are mostly stressed out from the cost of treating their medical conditions from the fees they have to pay, to the transportation cost of reaching the hospital as illustrated in the narratives below:

> ***...****when I worked for 33years continuous, when I came on pension, I was given Four thousand Ghana cedis. If I tell you how much I receive a month, you will be surprised. It cannot even pay my electricity bills how much more dialysis. And the cost of dialysis is Errrrmm… 200….. Errrrmm 250 per a section and I have to come twice a week. My transportation and food and add drugs, my pension money is all… gone. At this age, no elderly person in this country should pay for dialysis…So, GH₵10.00, GH₵100.00 benevolence from people is what is keeping us. Transportation too from where I stay to Korle-bu is GH₵110.00 because I can't go by "trotro", (i.e., public transport) but taxi. Sometimes, if my condition is bad! They have to wait for me and take all… his daily sales from me.* **(PM2, Age73, Renal Failure)**
>
> *… My problem now is how I will pay my bills when I'm discharged. All the money I had on me about GH₵300.00 is finished. What I rely on is small monies people give me when they visit. Can you imagine I still have to provide for my family because my wife is unemployed? Yes ….but it doesn't cover anything. A lot of the things, I have*

to buy. Even what you just put down (pointing to a cotton wool), is GH₵ 20.00, a day. I have to buy, so I need help. **(PM8, Male, Age 46, Diabetes)**

Treatment Related Stress

Another source of unique stress was related to difficulties patients endured in their quest for treatment. Patients at the Renal Clinic lamented about faulty machines, unavailability of treatment kits and sometimes inexperience of some health professionals.

…*The difficulties come in assessing health care. Sometimes you come and some machines are not working so you have to wait. Yes, the place is small and now a lot of people are coming. Hmmm… I just pray to God to help us.* ***(PF 5, Age 56, Renal Failure)***

….You have asked a very pertinent question. I will say NO! I will explain why, I told you that I had this illness in 2004. They fitted a Fistula for me at '37 Military Hospital' and I have carried for 15 years plus, I've never had a problem. I came in here 'Korle- Bu Teaching Hospital' and they have spoilt it. Sometimes I come, there are no 'lines'. Look, for the past one month I have been coming up and down and they say they have no' lines'. Now my Fistula is faulty, I'm sitting here trying to get one to be fitted for me. So for that one … that question "deɛ" it's not the best (frowned face). **(PM2, Age73, Renal Failure)**

Biographical Disruption

This theme addresses the disruption of the life course of participants ranging from inability to work to inability to work. This is expressed in the quotes below:

Oh … I worry, I worry but what can I do? It has already happened. What pains me is that, all the things I used to do when I wasn't sick, now I can't do them again. The challenge is that, I can't go to work as I used to. **(PM 3, Age 53, stroke)**

The only thing is that, the pain is too much and the doctor told me that's how it is.It will go by itself. The problem now is the pain, my work, now. I was exporting fish, shrimps….now the business has slowed down just because, of the condition of my health. Oooh…. they are doing it but not what I would. **(PM 4, Age 53, stroke, diabetes & hypertension).**

Adherence to Medication

Three patients admitted having difficulties in taking their medications and adhering to all other forms of treatments and diet regimes. Some reported the difficulties they faced in paying for their treatments and others also spoke about how these regimes and treatments burden them. Consequently, they sometimes stopped treatment/medication to see if death will occur.

Participant 7, confirmed some renal patients die due to non-attendance to the clinic for dialysis.

Cost of Treatment

… When, it is getting to weekend, hmmm…. (Red eyes) I begin to cry, because I am thinking of how to get GH₵ 500.00 Ghana Cedis for dialysis the next week. It is not easy ooo. Yes, I try to eat all they say I should eat, like coconut oil, kontomire, errrr, that green leave, Hmm…sister it's not easy…sometimes you feel tired of all these things, one person, don't do this, don't do that. Sometimes you get tired or because of money you can't come. A lot of us die because of this, you come to clinic and they will

say this person is dead because he or she didn't come for dialysis. **(PM 7, Male, Age 44, Renal Disease)**

Side Effects of Medication

Some patients reported not adhering to medications because of the rumored and actual side effects of the medication. Participant 8 complained of weakness and Participant 7 lamented about the discomfort created by medical gadgets and its permanency.

It's not easy ooo…. (Picks interviewer's hand to touch his fistula on his arm).You see, this thing is always vibrating. You can't sleep on your arm and it's supposed to be there for the rest of your life. It so uncomfortable...Hmm. **(PM7, Age44, Renal Disease)**

…I was just worried I was going to be taking this medicine for life and I hear it will affect me too…you understand? (Smiles)…I mean my thing (Pointing to his manhood).And at that time, my first wife too had divorced me who will marry me? **(PM 9, Age 45, 2year, Hypertension)**

Fatalism

Participant 9, on the other hand expressed the willingness and readiness to die and does not see the need for medication if it will not cure the condition but only manage. He sees death to be inevitable.

Oh yes! Now that I am here, everything they give me I take. But you see, if I'm working, I sometimes forget and I even think that it's not necessary when it will not cure the disease, why not stop and let whatever will happen, happen. After all as an officer 'all die be die'. **(PM 9, Age 45, Hypertension)**

Chronic Condition and Suicidality

The theme addresses participants' suicidal behavior following their chronic conditions. It analyses some of the suicidogenic factors embedded in the chronic conditions of patients under three sub-themes: *loss of meaning*, *feared loss of virility*, and *chronicity and related issues.*

Loss of meaning

One patient reported that his suicidal behavior appears to be driven by four main issues: first the disclosure of a renal failure, second is the fear related to the suffering he would be exposed to, third, he is incapacitated to take care of his children and fourth, his wife has abandoned him. All of these point to the fact that the patient appears to have lost his sense of meaning in life. This is expressed in the narrative below:

> *Honestly (with a smile), my sister, you know, when they told me I have kidney failure, when I went home, (head bowed) I took poison to die. Oooooh….! Yes! If I die then I will not suffer again. They talked to me and I stopped but sometimes, I wish I die" k3 k3". Just look at how I look now. I'm weak now, no work. What is my dignity? I can't even take care of my children. My wife is gone. Hmm… that day, it was God who let my father see me. Like, ooooo…by now, I would be gone and all this suffering will not be there. (Tearing eyes)***(P M7, Age 44years, Renal Disease,)***

Feared loss of virility

> *I tried jumping from a roof top once, when I first saw that I had the BP, Hmmm…I was just worried I was going to be taking this medicine for life and I hear it will affect me too…you understand? (Smiles)…I mean my thing (Pointing to his*

manhood).And at that time, my first wife too had divorced me who will marry me? **(PM 9, Age 45, 2year, Hypertension)**

These same patients confirmed not attempting suicide when they did not have the conditions. Therefore, it can be explained that, chronicity is a reason for contemplating suicide:

(Smiling) I never think of that, that time, I was fine (laughing) me, I have money because I work so I was just chilling so how should I think of killing myself? **(PM 7, Age44, Renal Disease)**

*Me? (Smiles and shakes head) "Na wiase y3 me d3 papa" (I used to enjoyed life), all I was doing was chilling, chilling, even my wife' koraa', I didn't mind her. Me, kill myself? Ah sister.***(PM 8, Age 46, Diabetes,)**

The 'Chronicity' and Related Issues of the Condition

Three patients confirmed through their narrations, that their chronic conditions made them feel suicidal. One of them expressed the thought to die following the belief that her condition is incurable.

Hmmm…sometimes. My sister I have been thinking ooo…it's just God. If I think of all the pain, money and the up and downs, then I keep asking why I'm I worrying myself when they say it will not go. **(PM 7, Age 44, Renal Disease)**

However, this patient felt suicidal following an incapacity resulting from his chronic condition:

(Smiles) Oh… yes..! Even three days ago, I was trying to push my walker to visit the gents. But on my way coming, I fell. Lying down for more than hour because I can't walk and it was late. Everyone was asleep. I call help, help, help, no body helped, so I

> *stopped. Then a lady came but she couldn't carry me so she called a man to carry me to my bed. In fact that night, I wished I died, I wish I just die and leave this world. Hmm… (Smiles) They say it is not good to kill yourself. They say it is not good for Christians to do that. I know I don't have to do that and God will help me.* **(PM 8, Male, Age 46, Diabetes,).**

For another patient, he has felt suicidal because he believes the distress experienced in his past marriage created the chronic condition. The complex interrelationship between marital distress and his health is a bother. He seems to draw an active link between unstable marriage and poor health. This patient seems to express suicidal thoughts from the combined burden of chronicity and marital distress:

> *When I think about divorce, I just feel like just dying .Hmm…you don't understand, do you know that my first wife left me and is now married to another officer? How would you have felt if it were you? Hmmm.. If this one also goes, hmmm…there will be trouble. And all this sickness started just when she left.***(PM 9, Age 45, Hypertension)**

Health Services Related Challenges

Some participants reported problems with their health services, which were analyzed to examine the systematic level of negative experiences that chronic clients faced. They included first health insurance challenges and second, poor health worker attitudes.

Health insurance challenges

Two patients (End Stage Diabetes and Renal) and another with very high cost of treatment also complained about the ineffectiveness of the national health insurance scheme. Patient 2 admonished administrators and government to look at including the treatment of these chronic conditions in the scheme.

> *Since I came here, its friends who have been helping me. Some will say; have this or that. That's what I use to pay my dept. My problem now is how I will pay my bills when I'm discharged. I still give money even as I'm here, you know, my wife is not working. Yes ….but it doesn't cover anything. A lot of the things, I have to buy. Even what you just put down (pointing to a cotton wool), a day twenty Ghana. I have to buy, so I need help.* **(PM 8, Age 46, Diabetes)**

> *(Smiles & shakes his head)……. Insurance, in Ghana? Even when I worked for 33years continuous, when I came on pension, I was given Four thousand Ghana cedis. If I tell you how much I receive a month, you will open your mouth. It cannot even pay my electricity bills how much more dialysis. And dialysis you come and its Errrrmm… 200….. Errrrmm 250 per a section and I have to come twice a week. My transportation and food and add drugs my pension money is all… gone. At this age, no elderly person in this country should pay for dialysis. Friends who are abroad say, all that you need is to take your card & establish that you are old they will look after you because, you have served… the state. So you are the social scientist these are the things that you young ones should start pressing for. You may not think about it but you get old and realize that, the whole system … the politicians are just milking … (looks stressed) us! When they do four years of politicking they just, take over 800 million exgracia (stressed) because he is a politicians and you as a common worker, you suffer. Unless you work in a big company, bank, Prof, but the civil servant?*

> *Forget. And they are hoping that after 70years all you hear is, "he is gone" So… me… if you ask me such question I will take the opportunity to say what I shouldn't say. Friends, family, church!? Sometimes some churches don't do anything. They will ask you to pay your tithe. I'm afraid, I'm being very blunt. Some churches insists that, you pay your tithes. For instance as I'm here, somebody has come to give me GH₵200.00, I should go and pay tithes on it. And I need … money for the dialysis, they don't care. I have been sick for some time now (voice raised) none! Of my church members has ever visited me. That's the country we are in. Everybody is thinking about himself, his pocket.* **(PM 2, Age 73, Renal Failure)**

Poor Health Worker Attitudes.

Some participants also reported poor health worker attitudes including misplaced folder, disrespect, and poor caring attitudes. Patients narrated the various challenges that occurred especially when it came to their care during treatment by nurses and sometimes doctors. In a particular setting, patient care & satisfaction was not a source of stress but was in the other. The narratives from patients indicated that patients sometimes get frustrated as a result of the kind of care given. Narratives from the following patients confirm this:

> *As for the Doctors, I will say yes, but the nurses… they don't have patience. You know it and you are asking me (eyebrows raise and pointing at interviewer). Sometimes your file… that you are looking for, becomes a problem. But I will say YES &NO, it's not all the nurses that are difficult. Some of them as soon as they see you, they will say Oh… "Masa woaba?" sit down and let me get your file. But those who are not good… hmm… So me sometimes I don't give my file to them again. Ah! I carry my file away, previously it was not allowed but now they allow us to carry our files home.*

Today my file is here (open his bag)… it's here, it's in my bag. **(PM 2, Age 73, Renal Failure)**

Hmmm…., me I'm an officer so if my people are not doing well, I will say. . In fact, most of them are not professional. You will be in bed and calling, but they will pretend not to have heard you. Some of them anytime they check my BP, its high. Just because they are very annoying. Not just professionals. **(PM 9, Age 45 Hypertension)**

Coping

Participants expressed three major ways of coping with their chronic conditions; first through religiosity, second through information about the condition and third, social support. For instance, a patient coping through religiosity said:

My first answer tells you that, I don't. I accept God's design. The only thing I do is to pray for God's change to lift me out from where I am now to heal me. Why should I think of going to harm myself? For what? I can't take my life, I didn't bring myself to this world, somebody did and He is the only person who can take my life, why should I think of killing myself ? If am gone I'm gone, I don't think about that. **(PM2, Age 73years, Renal Failure)**

I keep wondering so when will this end. I cry most of the time but I always say why am crying. If I cry it means that, I am not strong. I always tell myself that tears is a sign of weakness and I'm not someone who is weak. I think I should get back on my feet; God is in control. My tears will mean that, God has abandoned me and He has no power I shouldn't make God feel bad, so I stop (smiling with almost tearing eyes). As I said, God, it's God, hmmmm…. **(PF 1, Age 18, Renal Disease)**

Information about condition

With the knowledge about the condition, this patient is well informed about its chronicity and hasembraced it which helped him cope:

> *… So if you ask me what caused it, I will say it's my age. Everybody has a threshold age. When you are about 15years, your kidney is perfect. At about 50 your kidney level drops and when you get to 60… it comes to stage 4 and becomes weak. That's the way I understood it I believe in God, that's all.* **(PM 2, Age 73, Renal Failure)**

Social Support

The findings from the studyindicated various forms of social support systems that helped patients to cope. These include family, friends, and health insurance and some benevolent organizations.

The narratives by patients indicated that there were several forms of support systems that played very important roles in their treatment and health. Most patients who had very strong support systems were very optimistic of good health and had no ideation and/or attempts of suicide. The few who had support systems but the nature of the condition draining the source of support system, were among those patients who were contemplating suicide. Participants 1, 3 and 4 narrated they cared for themselves but when the need arose, their families, specifically the children and fathers, helped. All these patients were Out-Patients with mild forms of conditions.

> *Oh! … I drive. So I take care of myself. No family member or friend. Now that I am here, one of my children is driving my car.* **(PM 3, Male, Age 53, Hypertension)**

> *I Work so I always use the money I get from the job. I sell … I sell edible and inedible things. I work at err…. Market. I don't get help from church. My father helps me, but*

his salary is not enough for me and for my siblings' education. That is why I work. **(PF 1, Age 18years, SHS, Renal Disease)**

Patient 4 indicated he gets help from friends and his family too, and so he doesn't feel any pressures on finances.

I have good family that they are supporting me, my children are supporting me. Because I was a good person when I was not sick, so friends also come, they tell me do you have problem? I say no, no, no… **(PM 4, Age 53, stroke, diabetes& hypertension)**

From the narration of Patient 7, it can be deduced that when the source of support is over-burdened and not forth coming, frustration sets in, which can lead to thoughts of suicidal behaviors.

It is my father who has been taking care of me ooooo, with his pension money ooooo. As for the insurance, it is not covering the dialysis, you have to pay. Errrrmm. Not really. One ooooo…it is my pensioner father ooooo. Hmm…he has been helping me with that his small pension money. Ahaa…you know, sometimes too some group come here and they help those who don't have the money. But that one is not all the time. Even that one when you are lucky you get. **(PM 7, Age 44, Renal Disease)**

Though as Ghanaians we claim to be very religious with a large Christian population, very little support comes from churches, as explained by Patient 2 below:

…church!? Sometimes some churches don't do anything. They will ask you to pay your tithe. I'm afraid, I'm being very blunt. Some churches insists that, you pay your tithes. For instance as I'm here, somebody has come to give me GH₵200.00, I should go and pay tithes on it. And I need … money for the dialysis, they don't care. I have

been sick for some time now (voice raised) none! Of my church members has ever visited me. That's the country we are in. Everybody is thinking about himself, his pocket. **(PM 2, Age 73, Renal Failure)**

4.3 Study II: Quantitative Results

Hypotheses Testing

4.3.1 Hypothesis 1:

Out-patients will experience less suicidal behavior than inpatients.

Table 3: Summary of the Independent t test comparing in and out patients on suicide

	Patient Status	*N*	*M*	*SD*	*df*	*t*	*p*
Suicide	In Patients	14	14.86	4.28	67	8.982	.000
	Out Patients	55	4.36	1.80			

Source: Field Work (2019)

The results from table 3 show that the mean difference between in patients and out patients on suicidal behavior was statistically significant [t (69) = 8.982, p< .05]. Therefore, the hypothesis that out patients will experience less suicidal behavior than inpatients was supported.

4.3.2 Hypothesis 2:

Younger adults will show higher levels of suicidal behaviors than middle adults and older adults.

Table 4: Summary on one-way ANOVA test comparing younger, middle and older adults on suicide

Age	*N*	*M*	*SD*	*df*	*F*	*P*
Younger Adults	18	12.67	5.83	2	43.012	<.001
Middle Adults	13	4.15	.99	66		
Older Adults	38	4.37	1.82	68		

Source: Field Work (2019)

There was a statistical significant difference between groups as determined by one-way ANOVA [F (2, 66) = 43.012, p< .001]. A Tukey post hoc test further revealed that younger adults (M = 12.67, $S.D$ = 5.83, p<.001) had higher levels of suicide than both middle adults (M = 4.15, $S.D$ = .99) and Older adults (M = 4.37, $S.D$ = 1.82). Hence, the hypothesis that "younger adults will show higher levels of suicidal behaviors than middle adults and older adults" was supported.

4.3.3 Hypothesis 3:

There will be a significant negative relationship between religiosity and quality of life on suicidal behaviors among chronic patients.

Table 5: Summary of standard multiple regression for religiosity and quality of life as predictors of suicidal behaviors

Variable	*B*	*SE*	*β*	*t*	*P*
	20.505	.75		27.334	<.001
Religiosity	-.362	.03	-.778	-11.939	<.001
Quality of Life	-.031	.01	-.196	-3.006	.004

Note. F= 192.582, R^2 = .854
Source: Field Work (2019)

Prior to conducting the regression analysis, a suicidal behavior was found to have positive relationship with religiosity (r = .90, p<0.01) and quality of life (r = .79, p <0.01). A multiple regression analysis of the relationship between relationship between religiosity and quality of life on suicidal behaviors among chronic patients revealed a significant regression model [F (2, 66) = 16.501, p< .001, R^2 = .854]. Religiosity and quality of life made a significant contribution (85.4%) in explaining the variance in suicide. Hence, religiosity (β = -.778, p < .01) and quality of life (β = -.196, p < .01) significantly predicted suicide. The hypothesis that "there will be a significant negative relationship between religiosity and quality of life on suicidal behaviors among chronic patients" was supported.

4.3.4 Hypothesis 4:

Patients who adhere to medication will show less suicidal behaviors than patients who do not adhere to medication.

Table 6: Summary of the independent t test comparing medication compliance on suicide

	Compliance with Medication	*N*	*M*	*SD*	*df*	*t*	*p*
Suicide	Yes	54	4.67	2.82	67	-5.913	.<001
	No	15	13.07	5.30			

Source: Field Work (2019)

The results from table 6 show that the mean difference between in patients and out patients was statistically significant [t (16.26) = -5.91, p< .001]. Therefore, the hypothesis that patients who adhere to medication will show less suicidal behaviors than patients who do not adhere to medication was also supported.

CHAPTER FIVE

DISCUSSION, RECOMMENDATIONS AND CONCLUSION

5.1 Introduction

The study aimed at finding out the relationship that exists between chronic health conditions and suicide. Owing to the stated aim of the study, qualitative and quantitative findings were generated and are discussed below. Relevant factors, theories and related study were the lines along which the findings were discussed. Limitations and recommendations for future research are also presented in this chapter. Finally, the issues captured in this study are highlighted in the conclusion of this chapter.

Both issues of divergence and convergence were addressed in both the qualitative and quantitative studies. Findings from both studies found the extent of relationship between patients with chronic health conditions and suicide. Further, the qualitative study gave deeper explanations to the forms of social support, coping skills that influenced suicidality in chronic patients and the exact behavior of suicide patients experienced. The qualitative study brings a near novel form of coping referred to as ‘information about condition’ which has not been identified by most researchers as a coping mechanism for suicidal behaviors.

5.2 Discussion

5.2.1 Out-patients, in-patients and suicidal behaviors of Chronic Patients

A striking similarity is identified in the quantitative and qualitative studies. The qualitative findings can be said to explain why hypothesis one (out-patients will experience less suicidal behavior than in-patients) was supported. In the qualitative study, patients who have strong social support (friends and families) systems in most instances experience less suicidal behaviors. This is because from the data, patients who are chronically ill, are mostly

incapacitated, they are not able to do meaningful work to cater for themselves, therefore as their savings dwindle and the burden of treatment increases, patients become overburdened and emotionally weak. Those who have strong social support systems**,** are able to dwell on their social support systems for either finances or encouragement. Coping becomes less stressful to them (Olstad & Sogaard, 2001).This confirms the buffering hypothesis which argues that social support can buffer or protect against the negative effects of stresses. Social support has also been enumerated as a very good coping mechanism in the avoidance of suicidal behaviors (Osafo et al., 2015) and also used in managing negative thoughts and feelings of suicide. This can explains why in the quantitative study, hypothesis one which stated that outpatients will experience less suicidal behavior than inpatients was supported.

Arguably, patients who are home, mostly experience less severe cases of their illness and also experience more social support (family and friends) than those in the wards. But in the study settings, patients in the wards did not have the luxury of family or friends around them. In instances that relatives and friends are permitted, it is only for few minutes or to perform nursing duties for their relatives because of inadequacies in the health system. Connectedness is a strong way of coping in persons who are in pain and feel hopeless (Klonsky & May, 2015).

5.2.2 Younger adults, middle adults and older adults and suicidal behaviors

It was again hypothesized that younger adults will show higher levels of suicidal behaviors than middle adults and older adults. In this instance, the hypothesis was supported. The findings of the current study are consistent with Nock et al., 2008, study that discovered that lifetime suicidal ideation rates, as well as rates of suicide plans and suicide attempts are higher for adolescents than older people. This is in contrast with the results from the qualitative study. In the qualitative study, the ages of participants who wanted to attempt or

idealize suicide were rather middle adults. In their narrations they attributed the reasons for their attempts or idealization of suicide to them as being burdened by their children, wives and in some instances divorce threats from spouses.

The reason for most of them being younger adults in the quantitative study, may be due to the fact that, in the study, younger adults had less to hold on to when it comes to things that may let them think of suicide. But the qualitative results suggests otherwise. Mostly, when young adults are faced with life crises, they are quick to look for means of escape which include nonfatal suicide behaviors. In instances where young people are faced with challenges that come with chronic health conditions, they are overly burdened and sometimes have challenges with communicating their feelings with others and try suicide attempts as means of escape. But contrary to other studies, suicide rates, that is the completion of suicide, is highest in persons aged 70 years or older for both men and women being lower for children and young adults (Nock et al., 2008; WHO, 1999; 2014). As found in the qualitative study, which might explain the results of the quantitative study, coping mechanisms like religiosity and social support experience by these older patients could be the reasons why suicide behavior (attempt and ideations) are less.

5.2.3 Religiosity, quality of life and suicidal behaviors among chronic patients

In the quantitative study, it was hypothesized that there will be a significant negative relationship between religiosity and quality of life of suicidal behaviors among chronic patients. This hypothesis was supported since the result indicate a significant negative relationship between quality of life and religiosity and quality of life of patients and suicide. Bronfenbrenner, 1977, 1979, suggests that at the exosystem level of his theory, individuals can be influence by their social setting; religious institutions, health services and welfare services in their communities. When all these institutions function effectively, individuals

with chronic conditions will have very positive influence on their chronic condition/s. These institutions can influence a patient positively depending on the individual's level of involvement. For instance if one is fully involved in religious activities, he/she would be influenced by the tenets of their faith and will not have course to think of suicidal behaviors.

Again, if all welfare, health services are functioning appropriately, the hypothesis formulated would definitely be supported because, the patients will not experience varying degrees of challenges associated with chronicity which will force them into ideations and attempt of suicide. This finding from the current study is consistent with Osafo, Akotia, Andoh-Arthur & Quarshie (2015), which posits that suicidal individuals in Ghana were motivated by taunting, hopelessness, and partner's infidelity. But these individuals coped through social support from relations, religious faith and use of avoidance.

From the current study, it can be seen that persons who have strong social support and religious faith are able to overcome the varying challenges associated with chronic illness and not complete their ideations and attempt of suicide. This is made clearer in the qualitative study where participants confirmed having ideations and some even attempting suicide. But where they did not complete, it was because of their strong social support and religiosity. Social support and religiosity will help persons with varying forms of chronicity have quality of life. That is, in instances where patients are cared for, loved, their needs provided and above all have strong religious faith and such persons will have score high on the quality of life scale and then confirms the finding from this study as confirmed in the study.

5.2.4 Adherence to medication and suicidal behavior

The last hypothesis stated that patients who adhered to medication will show less suicidal behaviors than patients who do not adhere to medication. This hypothesis again was supported. The scale of adherence to medication measured patients' consistency in taking

medications and taking the required dose of medication. Therefore, with the hypothesis being supported, it means Patients who were consistent in taking and taking the required dosages were not suicidal.

In that these patients did not intentionally or unintentionally skip their medication intake as a way of being suicidal because of the burden of their chronicity. This finding is consistent with findings from (Karasouli, Latchford and Owens (2014), that explains that patients on dialysis turn out to engage in suicidal behaviors by making plans or attempting to end their lives by engaging in suicidal behaviors through their non-adherence to dialysis. In contrast to other studies (Beune et al, 2008; Marshall, Wolfe & McKevitt, 2012), persons do not adhere to medication not necessarily because of suicide but because of other challenges or difficulties and uncertainties of taking medications for life. Someone in pain who believes and hopes that his condition will improve will rather fight to attain a better future in which his pain is diminished than succumb to suicide. Consequently, pain coupled with hopelessness is what will lead to the onset of suicidal ideation (Klonsky & May, 2015). If the individual with chronic health condition, in pain is not hopeless, due to religiosity and quality of life, then such a patients is not likely to commit suicide.

This finding is similar and consistent with the themes of adherence generated from the qualitative study as narrated by participants. In the analyses, it was detected that participants complained about the cost of their treatment (medications) being the reasons why some do not adhere to their medications. Sometimes, as reported, this is done consciously because patients say they are tied of all the strict diet, medication regimes, and inadequacies in providing treatment and medications, then the cost of the medications which also come with a lot of financial burden. This findings from this study is in accordance with the literature of (Banerjee & Varma, 2013; Robiner, 2005) who confirmed that varying issues including cost

of treatment amount to reasons why chronic patients do not adhere to their medications. This theory is again confirmed by (Marshall, Wolfe & McKevitt, 2012), who also have associated chronicity and non-adherence to varying issues including insufficient money to pay for treatment, cost of appointment, healthy food and others.

Others associated their non-adherence to the varying side effects they experience from their medications .While some thought taking hypertensive drugs could weaken them and make them unable to work effectively, others also associated the taking of these medications to impotence in men as speculated by lay persons and consistent with works done by (Beune, Haafkens, Agyemang, Schuster & Willens, 2008) . They found that hypertensive patients attribute their non-adherence in Ghana to structural, cultural, gender and psychological issues (lack of money, fear of addiction and fear of impotence by men) , as reasons for non-adherence and altering of medication regimes.

A patient had experience with the chronicity of illness makes him very fatalistic. That is feeling of despair, hopelessness and powerlessness because his condition was going to be chronic. Because of the chronicity he feels no need for medications since even the medications would not change the condition. In this case the participant had no fear of death whatever form it came, therefore was not taking the medication nor adhering to them. This intentional non adherence to medication as was the case in this study can lead to the death of patients which can be classified as unintentional and therefore suicidal. These behaviors are very dangerous in treatment of chronic conditions because they have been associated with suicidal behaviors by studies such as that of Karasouli, Latchford and Owens (2014), which posits that patients' non-adherence to chronic disease medications increase their likelihood of suicidal behaviors.

5.2.5 Chronic Conditions and Suicidality

Data analyzed from the qualitative study, confirmed patients dealing with chronic conditions are prone to attempting suicide or its ideation. From the analysis of data, chronicity and its related challenges put a lot of strain on patients. This makes them have loss of meaning, feared loss of virility, and then others related other issues of chronicity to the reasons why they either attempted suicide or idealized it. These subthemes were derived from the major theme.

Participants confirmed that the diagnosis of their conditions made them experience feeling loss of meaning to their life. Thus, the near permanency of the condition was going to mean they will lose their jobs, leading to poor finances which will make it difficult to take care of their children and then in some instances their wives leaving them. This feeling of loss of meaning makes participants find solace is dying, which would end it all.

Once again, narratives from the data confirmed feared virility by a participant who was going to be on anti- hypertensive drugs. The study found and confirmed other studies, that in Ghana, men on anti-hypertensive drugs do not adhere to their medications because of the fear of the loss of their manhood as speculated. In this instance, this participant felt, ‘not human’ when he loses his manhood because of medications and he equates it to being dead. Therefore, this participant attempted suicide to end it all than live with virility.

Incurability, incapacity and the complex interrelationship between marital distress and health are all related issues of chronicity which was found to be reasons why patients with chronic conditions could attempt and idealize suicide. First, a participant could not phantom having to cope with all the’ ups and downs’ that is, the challenges and difficulties. This thought alone is very stressful to patients.

Second, participant felt suicidal when he thinks of how he 'man' could not get up from falling at the hospital and it had to take a women to call for help. He feels it's dehumanizing and better off dead.

Third, the complex interrelationship between marital distress and health is a bother. This participant seems to draw an active link between unstable marriage and poor health. He attributes his chronic condition to his divorce and the thought of going through similar circumstance, seems to breed suicidal thoughts from the combined burden of chronicity and marital distress (Singhal, et al., 2014; Ahmedani et al., 2017). This present outcome is also consistent with (de-Graft Aikins, Boynton & Atanga 2010; de-Graft Aikins, 2003), who also found chronicity to be associated with challenges of finances, dealing with disruptive lives, solid impact on mobility and productivity.

Again, looking at the demographics of the participants, out of the 9 participants; 4 of them asserted to either attempting or idealizing suicide. Of these number, only 1 participant was female, with the other 3 participants being males. Looking through the narratives vigorously, the female and 1 male had suicide ideation while the 2 males were involved in the attempt of suicide. This is inconsistent with the assertion in some literature that lifetime suicidal ideation rates, as well as rates of suicide plans and suicide attempts are higher for females than males (Kessler et al. 1999; Nock et al. 2008, 2013).

These behaviors (ideation and attempt) have been largely associated to completed suicide situation that needs urgent attention. Men commit about three times more suicide than women, with this gender disparity being more pronounced in higher income countries compared to low and middle income ones (Nock et al., 2008; WHO, 1999; 2014).

Still into the demographics, the literature posits that in Ghana 9.1% of fatal and non-fatal cases of suicide between 2006 and 2008 included adolescents, (Adinkrah, 2012). This is

contrary to the findings in this study. The adolescent who was 19years, in this instant, was still hopeful of her condition and didn't think suicide was the option. This could be attributed to her strong religious faith and expectations and aspirations in life.

5.2.6 Health Services Related Challenges

The fifth theme is about the challenges patients associated with health services. Findings from the study indicates two sub- themes generated. They encompass health insurance and poor worker attitudes. Compounding issues for patients are challenges emanating from the systems in the society. This can also be explained under the exosystem layer in the centric circle of the ecological model. Patients are confronted with an ineffective health insurance system which is found within an institution in the society. These systems include; Workplace, religious institutions, health institutions and welfare institutions in the community. Here, patients complained bitterly about the poor state of the national health insurance where a lot of their treatments are not catered for by the scheme especially patients with renal failures. In this case participants face a lot of financial challenges and have to rely on families and benevolences from NGOs, and friends (de-Graft Aikins, et al., 2010). These account to the financial tensions, strain and increased burdensomeness which has in one way or another has been associated with suicide (Osafo, et al., 2017). This indicates that life changes has to be taken into consideration when it comes to patients' care and treatment of chronic conditions.

All participants appealed to leaders in their narratives to help make the National Health Insurance more effective in reference to its coverage and the conditions it covers especially the renal patients. Participants at the renal clinics who attributed their conditions to age, feel that the aged must be cared for by the nation, considering their contribution and service to the development of the nation.

Furthermore, the theme of health services challenges, which is an age old issue of worker attitude (health) came up. Majority of participants attributed their stresses and challenges to the attitudes of health workers especially nurses. Patients who are burdened by various challenges as explained in the various themes and sub-themes enumerated above, instead of having professional care from health workers, they rather face maltreatments which in turn compound their challenges and stresses. This confirms the systemic failures in the health system (Agyemang et al., 2012; de-Graft Aikins et al., 2010). According to these studies, health professionals are not adequately trained in diagnosis, management and also lack appropriate knowledge and skills in the treatment of CHCs. This can confirm the mal-treatment reported of health workers. This shows a clear case of systemic level deficiency which influences individual's behavior as explained by Bronfenbrenner (1979). Because the environment is seen as a nested structure including the hospital where the individual interact, behavior can be formed based on issues and situations that go on in there.

Therefore, with health services and worker attitude, the behaviors of patients which has been seen to be tilted in the direction of suicidal behaviors can be fueled. Issues of health insurance and poor worker attitude towards these already fragile patients compound the issues emanating as a result of patients' chronicity in this study.

5.3 Limitations of the Study

This study has some possible limitations. The most pressing issue that challenged this study was the hard to get nature of the population. This was the reason for the small sample size for the qualitative study and this could affect the ability to generalize the findings to a large population .Also, the study should have considered potential variables like the biological make-up or psychological factors like anxiety, stress and or depression as risk factors for suicide in chronically patients as has been asserted by a lot of studies. With the

qualitative data as well, it was found after data collection that almost all participants were of the Christian religion. This could possibly skew the findings of the study regarding religion since atheists and people of other religious faiths were not captured in the study.

5.4 Suggestions for future studies

A comparison between chronically ill patients and that of a healthy population could be considered in future research. This would enrich results from data collected. In addition, the population and sample size should be expanded. In so doing the study would increase the degree to which the results could be generalized to a large population of Ghanaians living with chronicity. With this, interventions could reach a large population to benefit from their treatment. Again, in looking at religiosity, the sampling should be purposive so that the data will cover all the religious sects in the country.

Furthermore, the determination of consistency in responses could be enhanced if interested researchers use a longitudinal approach to examine if the deterioration of one's health could inform patients' decision of attempting suicide or its ideation. Finally psychological factors like stress, anxiety and depression should be examined to see if they are risk factors of suicide. These variables could be considered as mediating variables in suicide attempts and ideation in chronically ill patients.

5.5 Recommendation for Practice

Attribution can be made to chronic conditions as being risk factors of suicide in Ghana. These risk factors are largely found in the exosystem that are beyond the individual patient. A couple of recommendations can be made based on the outcome of this study for prevention and risk reduction programs.

Since majority of the risk factors are institutional, the Ministry of Health(Ghana) should give in-service training to health workers on the challenges that chronic patients face so that in

caring for, and nursing them, health workers would be cautious not to increase the stresses that patients face in other to limit their risk of suicidal behaviors. Again, intensifying public education on chronic health conditions is also necessary. Individuals should be cautious since the diseases are mostly life style conditions and can be prevented.

Similarly, Psychologists, social workers, and other mental health workers who provide services for crisis must intensify their collaborative work in the various hospitals if they already exist or be instituted if not, to help enhance treatment and care of chronic conditions.

Finally, the upsurge in the incidence of suicide in the country in recent times demands intense public education on suicide. Health sector journalists should be educated on the findings of the study so as to do frequent reportage on the high incidence of chronic conditions and its association with suicide and the need to prevent lifestyles that lead to chronic conditions.

5.6 Conclusion

With suicide becoming an uncontrollable issue in Ghana and 1,556 people taking their lives yearly (Citifm online 2012), suicide is a scary phenomenon that threatens our existence. These are obviously staggering statistics of the situation of the burden and reality of the phenomenon of suicide in Ghana (Kenizek, Akotia & Hjelmeland, 2011; Quashie, Osafo, Akotia & Peprah 2015). In an attempt to address the issue of chronicity and suicide, it is important to understand and take into consideration the interplay of chronic conditions and the challenges that come with it to fuel the risk of suicide. Consequently, it is important for stakeholders including the Ministry of Health and Ghana Health service to be informed about the issue of chronicity and its associated risk of suicide. Increase in the numbers of crisis control service providers in our health centers and regularizing their activity is vital in the quest to help minimize the incidence of both chronic conditions and suicide.

REFERENCES

Adinkrah, M. (2011).Epidemiologic characteristics of suicidal behavior in contemporary Ghana. Crisis: *Journal of Crisis; Intervention and Suicide. 32*(1), *31-36.*Retrieved from https://econtent.hogrefe.com/doi/abs/10.1027/0227-5910/a000056?journalCode=cri

Adinkrah, M. (2011).Patterns of female suicidal behavior in Ghana. *Psychological Report* 109(2), 649-662. Retrieved from https://journals.sagepub.com/doi/abs/10.2466/09.12.13.17.pr0.109.5.649-662

Adinkrah, M. (2012). Better dead than dishonored: Masculinity and male suicidal behavior in contemporary Ghana. *Social Science & Medicine*, *74*(4), 474-481.Retrieved fromhttps://www.sciencedirect.com/science/article/abs/pii/S0277953610007471

Adinkrah, M. (2013).Criminal prosecution of suicide attempt survivors in Ghana. *International Journal of Offender Therapy and Comparative Criminology*, 57, (12)1477-1497.Retrieved from https://www.sciencedirect.com/science/article/abs/pii/S0277953610007471

Adinkrah, M. (2016).Anti-suicide laws in nine African countries: Criminalization,prosecution and penalization. *African Journal of Criminology and Justice Studies*, *9* (1), 279-292.

Agyemang, C., Attah-Adjepong G., Owusu- Dabo, E;, de-Graft-Aikins A., Addo J., Edusei A. K., Nkum B. C., Ogedegbe G. (2012). Stroke in Ashanti Region of Ghana: An urgent need for action. *Ghana Medical Journal*, *46*(2):12-17.Retrieved from https.//www.ajol.info/index.php/gmj/article/view/88733.

Ahmedani, B. K., Peterson, E. L., Hu, Y., Rossom, R. C., Lynch, F., Lu, C. Y., & Williams, L. K. (2017). Major physical health conditions and risk of suicide. *American Journal of Preventive Medicine*. 53(3) 308-315.https://www.sciencedirect.com/science/article/abs/pii/S0749379717302222

Aikins, A. D. G. (2003). Living with diabetes in rural and urban Ghana: A critical social psychological examination of illness action and scope for intervention. *Journal of Health Psychology*, *8*(5), 557-572.

Aziz Yasan, Ramazan Danis, Lut Tamam, Sehmus Ozmen, and Mustafa Ozkan (2008). Socio-cultural features and sex profile of the individuals with serious suicide attempts in Southeastern Turkey: A one-year survey. *Suicide and Life-Threatening Behavior*, *38*, (4), 467-480.

de-Graft Aikins A. (2005). Healer shopping in Africa: new evidence from rural-urban qualitative study of Ghanaian diabetes experiences. *BMJ (Clinical research ed.)*, *331*(7519), 737. https://doi.org/10.1136/bmj.331.7519.737

Aikins, A. D. G. (2006). Reframing applied disease stigma research: A multilevel analysis of diabetes stigma in Ghana. *Journal of Community & Applied Social Psychology*, *16*(6), 426-441.

Aikins, A. D. G., Boynton, P., & Atanga, L. L. (2010). Developing effective chronic disease interventions in Africa: insights from Ghana and Cameroon. *Globalization and health*, *6*(1), 6.

Amoah, A. G. (2003). Sociodemographic variations in obesity among Ghanaian adults. *Public health nutrition*, *6*(8), 751-757.

Akotia, C. & Mate –Korle, C. C. (2014). *Contemporary psychology: Readings from Ghana.* Ghana: Digi books Ghana Ltd.

American Psychological Association. (2002). Ethical principles of psychologists and code of conduct. *American Psychologist, 57*(12), 1063-1073.Retrieved from https://ci.nii.ac.jp/naid/30013578017/

Amoah, A. G. (2003). Sociodemographic variations in obesity among Ghanaian adults. *Public Health Nutrition*, *6*(8), 751-757.

Asare-Doku, W., Osafo J., & Akotia, C. S. (2017). The experiences of attempt survivor families and how they cope after a suicide attempt in Ghana: A qualitative study. *BMC psychiatry*, **17,** 178 (2017). https://doi.org/10.1186/s12888-017-1336-9

Auerbach, R. P., Abela, J. R., Zhu, X., & Yao, S. (2010). Understanding the role of coping in the development of depressive symptoms: Symptom specificity, gender differences, and cross-cultural applicability. *British Journal of Clinical Psychology*, *49*(4), 547-561.

Awuah, R. B., Anarfi, J. K., Agyemang, C., Ogedegbe, G., & Aikins, A. D. G. (2014). Prevalence, awareness, treatment and control of hypertension in urban poor communities in Accra, Ghana. *Journal of Hypertension*, *32*(6), 1203-1210.

Ayyash-Abdo, H. (2002). Adolescent suicide: An ecological approach. *Psychology in the Schools*, *39*(4), 459-475.

Baldacchino, D., & Draper, P. (2001). Spiritual coping strategies: A review of the nursing research literature. *Journal of Advanced Nursing*, *34*(6), 833-841.

Banerjee S., and Varma RP. (2013). Factors affecting non-adherence among patients diagnosed with unipolar in a psychiatric department of a tertiary hospital in Kolkata, India. *Depression Research and Treatment*, https://www.hindawi.com/journals/drt/2013/809542/

Baumeister, R. F. (1990). Suicide as escape from self. *Psychological Review*, *97*(1), 90.

Beeney, L. J., Bakry, A. A., & Dunn, S. M. (1996). Patient psychological and information needs when the diagnosis is diabetes. *Patient Education and Counseling*, *29*(1), 109-116.

Beune, E. J. A. J., Haafkens, J. A., Agyemang, C., Schuster, J. S., Willems, D. L.(2008). How Ghanaian, African-Surinamese and Dutch patients perceive and manage antihypertensive drug treatment: a qualitative study. *Journal of Hypertension*,*26* (4), 648-656. Retrieved from How Ghanaian, _African_Surinamese_and_Dutch.8.aspx

Bosu, K.W., (2010). *Epidemic of Hypertension in Ghana: A systemic review. BMC Public Health*, 10. 418. Retrieved from https://bmcpublichealth.biomedcentral.com/articles/ 10.1186 /1471-2458-10-418

Bouchard Jr, T. J. (1976). Unobtrusive measures: An Inventory of uses. *Sociological Methods & Research*, *4*(3), 267-300.

Boyatzis, R. E (1998), *Transforming qualitative information: Thematic analysis and code development*. London, New Delhi: International Educational and Professional Publishers. Thousand Oaks.

Bonelli R., Dew R.E., Koenig H.G., David H., Rosmarin& Vasegh S., (2012):*Religious and Spiritual Factors in Depression: Review and Integration of Research.* Retrieved from https://www.hindawi.com/journals/drt/2012/962860/

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77-101.

Broadhead, W. E., Kaplan, B. H., James, S. A., Wagner, E. H., Schoenbach, V. J., Grimson, R., & Gehlbach, S. H. (1983). The epidemiologic evidence for a relationship between social support and health. *American Journal of epidemiology*, *117*(5), 521-537.

Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American Psychologist, 32 (7),* 513–531. Retrieved from https:// psycnet.apa.org/ record/1978-06857-001

Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Harvard University Press. Cambridge, MA.

Bronfenbrenner, U. (1994). *Ecological models of human development*. In T. Husten & T. N. Postlethwaite (2nd ed.), International Encyclopedia of Education. New York, NY: Elsevier Science.

Brown, M. Z., Comtois, K. A., & Linehan, M. M. (2002). Reasons for suicide attempts and non-suicidal self-injury in women with borderline personality disorder. *Journal of Abnormal Psychology*, *111*(1), 198.

Buabeng, K. O., Matowe L., & Plange-Rhule J. (2004). Unaffordable drug prices: the major cause of non-compliance with hypertension medication in Ghana. ***J Pharm Pharmaceut Sci,7*(3),*350-352. Retrieved from https://pdfs.semanticscholar.org/c9eb/4e64de485ac27f56fd81b7e04c8854b1f21d.pdf***

Burkhart, L., & Solari-Twadell, A. (2001). Spirituality and religiousness: Differentiating the diagnoses through a review of the nursing literature. *International Journal of Nursing Terminologies and Classifications*, *12*(2), 45-54.

Carr, L. T. (1994). The strengths and weaknesses of quantitative and qualitative research: What method for nursing? *Journal of Advanced Nursing*, *20*(4), 716-721.

Carter, G. L., Ball, K., Carter, N. T., Whyte, I. M., Dawson, A. H., Carr, V. J., & Fryer, J. (1999). Repetition of deliberate self-poisoning in an Australian hospital-treated population. *Medical Journal of Australia*, *170*(7), 307-311.

Carver S.C., Scheier, Micheal F., Weintraub, Jagdish K. (1989). Assessing coping strategies: A theoretically based Approach. *Journal of Personality & Social Psychology*, *56*(2), 267-283.

Chang, B. H., Noonan, A. E., & Tennstedt, S. L. (1998). The role of religion/spirituality in coping with caregiving for disabled elders. *The Gerontologist*, *38*(4), 463-470.

Chapman, A. L., & Dixon-Gordon, K. L. (2007). Emotional antecedents and consequences of deliberate self-harm and suicide attempts. *Suicide and Life-Threatening Behavior*, *37*(5), 543-552.

Chen, Y. W., & Dilsaver, S. C. (1996). Lifetime rates of suicide attempts among subjects with bipolar and unipolar disorders relative to subjects with other Axis I disorders. *Biological Psychiatry*, *39*(10), 896-899.

Chronis-Tuscano, A., Molina, B. S., Pelham, W. E., Applegate, B., Dahlke, A., Overmyer, M., & Lahey, B. B. (2010). Very early predictors of adolescent depression and suicide attempts in children with attention-deficit/hyperactivity disorder. *Archives of General Psychiatry, 67*(10), 1044-1051.

Cohen, S., Underwood, L. G., & Gottlieb, B. H. (Eds.). (2000). *Social support measurement and intervention: A guide for health and social scientists*. Oxford University Press.

Concoran, T. (1999). Making the most of professional development. *Curriculum Review*, *38*(5), 1-4.

Coryell, W., Fiedorowicz, J., Solomon, D., & Endicott, J. (2009). Age transitions in the course of bipolar I disorder. *Psychological medicine*, *39*(8), 1247–1252. Retrieved from https://www.cambridge.org/core/journals/psychological-medicine/article/age-transitions-in-the-course-of-bipolar-i-disorder/F2DD9F5E7EDB719BBE48C23D823B137C

Crabtree, S., & Pelham, B. (2009). *What Alabamians and Iranians have in common: A global perspective on Americans' religiosity offers a few surprises.*Retrieved from https://news.gallup.com/poll/114211/alabamians-iranians-common.aspx

Creswell J. W. (2012). *Educational research: Planning, conducting and evaluating quantitative and qualitative research.* Boston: Pearson Education.

Creswell, J. W., & Plano Clark V. L. (2011). *Designing and conducting mixed methods research (2nd Eds.)*. Thousand Oaks, CA: Sage.

Creswell, J. W., Klassen, A. C., Plano Clark, V. L., & Smith, K. C. (2011). Best practices formixed methods research in the health sciences. *Bethesda (Maryland): National Institutes of Health, 2013*, 541-545.

Creswell, J.W. (2005). *Educational research: Planning, conducting and evaluating quantitative and qualitative approaches to research, (3rd ed.).* New Jersey: Pearson Education.

de-Graft, A., (2003). Living with diabetes in rural and urban Ghana: A critical social psychological examination of illness action and scope for intervention. *Journal of Health Psychology*, 8(5).557-72.

de-Graft, A. (2005).A healer-shopping in Africa: New evidence from a rural-urban qualitative study. *British Medical Journal*, 331,737.

de-Graft, A. (2006). Reframing applied disease stigma research: A multilevel analysis of diabetes stigma in Ghana. *Journal of Community &Applied Social Psychology*, *16*(6), 426-441.

de-Graft, A. (2013). The socio-cultural and socio-economic context of Africa's chronic disease burden. *Multidisciplinary Perspectives*, 124-136.

de-Graft, A., Boynton, P., & Atanga, L. L. (2007). Developing effective chronic disease interventions in Africa: insights from Ghana and Cameroon. *Globalization and Health*, *6*(1), 6.

de-Graft, A.,Boynton and Atanga, (2010). *Developing effective chronic disease prevention in Africa: Insight from Ghana and Cameroon.*

de Graft Aikins A., Anum A., Agyemang C., Addo J., & Ogedegbe O. (2012). Lay representations of chronic diseases in Ghana: Implications for primary prevention. *Ghana Medical Journal*, *46*(2), 59-68.

De Leo D., Burgis S., Bertolote J. M., Kerkhof A. J., & Bille-Brahe U. (2006). Definitions of suicidal behavior: Lessons learned from the WHO/EURO Multi-center Study.*Crisis*, *27*(1), 4 15. https://econtent.hogrefe.com/doi/abs/10.1027/0227-5910.27.1.4

Delamater, A. M. (2006). Improving patient adherence. *Clinical Diabetes*, *24*(2), 71-77.

Doku W., Osafo J. & Akotia C.S. The experiences of attempt survivor families and how they cope after a suicide attempt in Ghana: a qualitative study. *BMC Psychiatry***17,** 178 (2017).Retrieved from https://bmcpsychiatry.biomedcentral.com/articles/10.1186/s12888-017-1336-9

Asare-Doku, W., Osafo, J. & Akotia, C.S. Comparing the reasons for suicide from attempt survivors and their families in Ghana. *BMC Public Health***19,** 412 (2019). https://doi.org/10.1186/s12889-019-6743-z

Durkheim, (1988). Excerpt from Robert Alun Jones. Emile Durkheim: *An Introduction to four*

Major works. Pp.82-114. Bevely Hills, CA: Saga Publications.

Fiedorowicz, J. G., Solomon, D. A., Endicott, J., Leon, A. C., Li, C., Rice, J. P., & Coryell, W. H. (2009). Manic/hypomanic symptom burden predicts cardiovascular mortality with bipolar disorder in the collaborative depression study. *Psychosomatic Medicine*, *71*(6), 598.

Foster, T., Gillespie, K., McLelland, R., & Patterson, C. (1999). Risk factors for suicide independent of DSM–III–R Axis I disorder: Case–control psychological autopsy study in Northern Ireland. *The British Journal of Psychiatry*, *175*(2), 175-179.

Franklin, J. C., Ribeiro, J. D., Fox, K. R., Bentley, K. H., Kleiman, E. M., Huang, X.,& Nock, M. K. (2017). Risk factors for suicidal thoughts and behaviors: a meta-analysis of 50 years of research. *Psychological Bulletin*, *143*(2), 187.

Gabrielli, J., Hambrick, E. P., Tunno, A. M., Jackson, Y., Spangler, A., & Kanine, R. M. (2015). longitudinal assessment of self-harm statements of youth in foster care: Rates, reporters, and related factors. *Child Psychiatry & Human Development*, *46*(6), 893-902.

Gearing R. E., & Lizardi D. (2009). Religion and suicide. *Journal of Religion and health*, 48, 332–341. Retrieved from https://link.springer.com/article/10.1007/s10943-008-9181-2

Greening L. & Stoppelbein L. (2002). Religiosity, attributional style, and social support as Psychosocial buffers for African American and white adolescent's perceive risk for suicide. Suicide and Life-Threatening Behavior, 32(4), 404–417. https://onlinelibrary.wiley.com/doi/abs/10.1521/suli.32.4.404.22333

George, D., & Mallery, M. (2003). *Using SPSS for windows step by step: A simple guide and reference* (4th ed.). Boston: Allyn & Bacon.

Goldsmith, S. K., Pellmar, T. C., Kleinman, A. M., & Bunney, W. E. (2002). *Reducing suicide: A national imperative*. National Academies Press.

Gordon, T., & Mitchell, D. (2004). A competency model for the assessment and delivery of spiritual care. *Palliative Medicine*, *18*(7), 646-651.

Gould, M. S., Fisher, P., Parides, M., Flory, M., & Shaffer, D. (1996). Psychosocial risk factors of child and adolescent completed suicide. *Archives of General Psychiatry*, *53*(12), 1155-1162.

Greist, J. H., Mundt, J. C., Gwaltney, C. J., Jefferson, J. W., & Posner, K. (2014). Predictive value of baseline electronic Columbia–Suicide Severity Rating Scale (eC–SSRS)

assessments for identifying risk of prospective reports of suicidal behavior during research participation. *Innovations in Clinical Neuroscience, 11*(9-10), 23.

Hall, L. A., Peden, A. R., Rayens, M. K., & Beebe, L. H. (2004). Parental bonding: A key factor for mental health of college women. *Issues in Mental Health Nursing*, *25*(3), 277-292.

Hammermeister Jon, Flint, Matt, El-Alayli, Amani, Ridnour, Heather, Peterson and Margaret (2005). Gender differences in spiritual wellbeing: Are females more spiritually- well than males? *American Journal of Health Studies, 20 (*1/2), 80-84.

Harkess-Murphy, E., MacDonald, J., & Ramsay, J. (2013). Self-harm and psychosocial characteristics of looked after and looked after and accommodated young people. *Psychology, Health & Medicine*, *18*(3), 289-299.

Hawgood J., & De Leo D. (2008). Anxiety disorders and suicidal behavior: an update. *Current Opinion in Psychiatry*, *21*(1), 51-64.

Hawton K. (2000). Sex and suicide: Gender differences in suicidal behavior. *The British Journal of Psychiatry*, *177*(6), 484-485.

Hjelmeland H., Akotia C. S., Owens V., Knizek BL., Nordvik H., Schroeder R., & Kinyanda E. (2008). Self-reported suicidal behavior and attitudes toward suicide and suicide prevention among psychology students in Ghana, Uganda, and Norway. *Crisis*, *29*(1), 20-31.https://www.ncbi.nlm.nih.gov/pubmed/18389642

Huerta-Vieco, M. P., Perez-Garcia, R., Albalate, M., de Seuera, P., Ortega, M., Puerta, M., Corchete, E. & Alcaza, R. (2014). Psychosocial factors and adherence to drug treatment in patients on chronic haemodialysis. *Nefrlogia*, *34*(6), 737-742

Hulten, A., Jiang, G. X., Wasserman, D., Hawton, K., Hjelmeland, H., De Leo, D., & Schmidtke, A. (2001). Repetition of attempted suicide among teenagers in Europe:

frequency, timing and risk factors. *European Child & Adolescent Psychiatry*, *10*(3), 161-169.

Huysamen, G. K. (1994). *Methodology for the social and behavioral sciences.* Pretoria: Southern Book Publishers.

Jordan, J. R. (2001). Is suicide bereavement different? A reassessment of the literature. *Suicide and Life-Threatening Behavior*, *31*(1), 91-102.

Joiner Jr. T. E.,Sachs –Ericsson N. J.,LaRicka R., Wingate L. R., Brown J. S., Anestis, M. D., Selby, E. A., (2006).Childhood physical and sexual abuse and lifetime number of suicide attempts:A persistent and theoretically important relationship. *Behaviour Research and Therapy*, *45*(3), 539-547. Retrieved from https://www.sciencedirect.com/science/article/abs/pii/S0005796706000982

Kaplan, M. S., McFarland, B. H., Huguet, N., & Newsom, J. T. (2007). Physical illness, functional limitations, and suicide risk: A population-based study. *American Journal of Orthopsychiatry*, *77*(1), 56-60.

Karasouli, E., Latchford, G. & Owens, D. (2014). The impact of chronic illness in suicidality: A qualitative exploration. *Health Psychology and Behavioral Medicine*, *2*(1), 899-908. https://www.tandfonline.com/doi/full/10.1080/21642850.2014.940954

Kerkhof A. J. F. M., Arensman, E., (1998). *Repetition of attempted suicide: Results from the WHO/EURO multi centre study on parasuicide, repetition-prediction parth. 1998;* Proceedings from 7th European Symposium on Suicide, Ghent.

Kessler, R. C., Borges, G., & Walters, E. E. (1999). Prevalence of and risk factors for lifetime suicide attempts in the national comorbidity survey. *Archives of General Psychiatry. 56:*617–626.

Khan, M. M., & Syed, E. U. (2011). *Suicide in Asia: Epidemiology, risk factors, and prevention*. In O'Connor, R. C., Platt, S., & Gordon, J. (Eds). International Handbook of Suicide Prevention (pp. 487-506). Malden, MA: John Wiley & Sons.

Kidd, S., Henrich, C. C., Brookmeyer, K. A., Davidson, L., King, R. A., & Shahar, G. (2006). The social context of adolescent suicide attempts: Interactive effects of parent, peer, and school social relations. *Suicide and Life-Threatening Behavior*, *36*(4), 386-395.

Klonsky E.D.& May A.M. (2015). The three-step theory (3ST): A new theory of suicide rooted in the 'ideation –to-Accra' framework. International Journal of Cognitive Therapy: *Recent. Advances in Suicide Research:Mediators and Moderators ofRiskand Resilience*,8(2), 114-129. Retrieved from https://guilfordjournals.com/doi/abs/10.1521/ijct.2015.8.2.114

Klonsky, E. D., May, A. M., & Saffer, B. Y. (2016). Suicide, suicide attempts, and suicidal ideation. *Annual Review of Clinical Psychology*, *12*, 307-330.

Kreitman, N. (1977). *Parasuicide.*London: John Wiley & Sons.

Kretchy, I. A., Owusu-Daaku, F. T., & Danquah, S. (2014). Locus of control and anti-hypertensive medication adherence in Ghana. *The Pan African Medical Journal*,

Kuhlberg, J. A., Peña, J. B., & Zayas, L. H. (2010). Familism, parent-adolescent conflict, self-esteem, internalizing behaviors and suicide attempts among adolescent Latinas. *Child Psychiatry & Human Development*, *41*(4), 425-440.

Lazarus, R.S. &Folkman, S.(1984). *Stress Appraisal and Coping.* Springer Publishing Company.

Leenaars, A. A. (2004). *Psychotherapy with suicidal people: A person-centered approach.* London:John Wiley & Sons.

Lester, D., & Akande, A. (1994). Attitudes about suicide among the Yoruba of Nigeria. *The Journal of Social Psychology*, *134*(6), 851-853.

Levin, K. A. (2006). Study design III: Cross-sectional studies. *Evidence-Based Dentistry*, *7*(1), 24.

Mann, J. J. (2002). A current perspective of suicide and attempted suicide. *Annals of Internal Medicine*, *136*(4), 302-311.

Marshall, I.J., Wolfe, C.D.,& McKevitt, C. (2012). "Lay perspectives on hypertension and drug adherence: Systematic review of qualitative research." *British Medical Journal of Clinical Research* 345: 3953-3959.

Musoni, Edwin (2011a). *Rwanda: Suicide attempt to be decriminalized*. The New Times publishers.

Musoni, Edwin, (2011b). Suicide attempt criminal—Rwandan senate. Retrieved 1/5/2014 from http://allafrica.com/stories/201105030213.html

Mattis, J. S., Fontenot, D. L., Hatcher-Kay, C. A., Grayman, N. A., & Beale, R. L. (2004). Religiosity, optimism, and pessimism among African Americans. *Journal of Black Psychology*, *30*(2), 187-207.Retrieved from https://journals.sagepub.com/doi/abs/10.1177/0095798403260730

McEvoy, M. (2003). Culture & spirituality as an integrated concept in pediatric care. *The American Journal of Maternal/Child Nursing*, *28*(1), 39-43.

Neuman, L. (2011). *Social research methods: Qualitative and quantitative approaches (7th Eds.).* New York: Pearson International.

Nielsen, B., Wang, A. G., & Brille-Brahe, U. (1990). Attempted suicide in Denmark. IV. A five-year follow-up. *Acta Psychiatrica Scandinavica*, *81*(3), 250-254.

Nielsen, J. Ø., Shrestha, A. D., Neupane, D., & Kallestrup, P. (2017). Non-adherence to anti-hypertensive medication in low-and middle-income countries: A systematic review and meta-analysis of 92443 subjects. *Journal of Human Hypertension*, *31*(1), 14.

Nii-Boye Quarshie, E., Osafo, J., Akotia, C. S., & Peprah, J. (2015). Adolescent suicide in Ghana: A content analysis of media reports. *International Journal of Qualitative Studies on Health and Well-Being*, *10*(1), 27682.

Nock M.K., Borges, G., Evelyn J., Bromet, Cha C.B., Kessler R. C., Lee S., (2008). Suicide and suicidal behavior. *Epidemiologic Reviews, (30)* 1, 133-154. Retrieved from https://academic.oup.com/epirev/article/30/1/133/621357

Nock, M. K., Deming, C. A., Fullerton, C. S., Gilman, S. E., Goldenberg, M., Kessler, R. C., & Stanley, B. (2013). Suicide among soldiers: A review of psychosocial risk and protective factors. *Psychiatry: Interpersonal & Biological Processes*, *76*(2), 97-125.

O'Connor, R. C. (2011). Towards an integrated motivational-volitional model of suicidal behavior. *International handbook of suicide prevention: Research, Policy and Practice*, *1*, 181-98.

Oldnall, A. (1996). A critical analysis of nursing: meeting the spiritual needs of patients. *Journal of Advanced Nursing*, *23*(1), 138-144.

Olstad, R., Sexton, H., & Søgaard, A. J. (2001). The finnmark study. A prospective population study of the social support buffer hypothesis, specific stressors and mental distress. *Social Psychiatry and Psychiatric Epidemiology*, *36*(12), 582-589.

Oppong Asante, K., & Meyer-Weitz, A. (2015). Using reflective poems to describe the lived experiences of street children and adolescents in Ghana. *International Journal of Adolescence and Youth*, *20*(2), 148-150.

Osafo, J., Hjelmeland, H., Akotia, C. S., & Knizek, B. L. (2011). The meanings of suicidal behavior to psychology students in Ghana: A qualitative approach. *Transcultural Psychiatry, 48*(5), 643-659.

Osafo, J., Knizek, B. L., Akotia, C. S., & Hjelmeland, H. (2013). Influence of religious factors on attitudes towards suicidal behavior in Ghana. *Journal of Religion and Health*, *52*(2), 488-504.

Osafo, J., Akotia, C. S., Andoh-Arthur, J., Andor-Arthur J.,& Quarshie, E. N. B. (2015). Attempted suicide in Ghana: Motivation, stigma, and coping. *Death Studies*, *39*(5), 274-280.

Joseph Osafo, Charity S. Akotia, Heidi Hjelmeland & Birthe L. Knizek (2017). From Condemnation to understanding: Views on suicidal behavior in Ghana in transition,

Osafo, J., Akotia, C. S., Quarshie, E. N.-B., Boakye, K. E., & Andoh-Arthur, J. (2017). Police Views of Suicidal Persons and the Law Criminalizing Attempted Suicide in Ghana: A Qualitative Study With Policy Implications. *SAGE Open*. Retrieved from https://journals.sagepub.com/doi/full/10.1177/2158244017731803

Osman A., Bagge C. L., Gutierrez P. M., Konick L. C., Kopper B. A., & Barrios F. X. (2001). The Suicidal Behaviors Questionnaire-Revised (SBQ-R): Validation with clinical and nonclinical samples. *Assessment*, *8*(4), 443-454.https://journals.sagepub.com/doi/abs/10.1177/107319110100800409.

Owens, D., Dennis, M., Read, S., & Davis, N. (1994). Outcome of deliberate self-poisoning: an examination of risk factors for repetition. *The British Journal of Psychiatry*, *165*(6), 797-801.

Owiredua, C., Quarshie, E. N. B., & Atorkey, P. (2018). Living with diabetes: An exploratory study of illness representation and medication adherence in Ghana. *Cogent Medicine*, *5*(1), 1463599.

Pargament, K. I., Smith, B. W., Koenig, H. G., & Perez, L. (1998). Patterns of positive and negative religious coping with major life stressors. *Journal for the Scientific Study of Religion*, 710-724.

Patton, G. C., Coffey, C., Sawyer, S. M., Viner, R. M., Haller, D. M., Bose, K., & Mathers, C. D. (2009). Global patterns of mortality in young people: A systematic analysis of population health data. *The Lancet*, *374*(9693), 881-892.

Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed). Thousand Oaks, CA: Sage.

Ponterotto J.G., & Grieger I. (1999). *Merging qualitative perspectives in a research identity. In MKopala & L.A. Suzuki (Eds.), Using qualitative methods in psychology (pp.46-62).Thousand Oaks*. CA. US; Sage Publications. Inc.

Quarshie, E. N., Osafo, J., Akotia, C. S., & Preprah, J. (2015). Adolescent suicide in Ghana: a content analysis of media reports. *International journal of qualitative studies on health and well-being*, retrieved fromhttps://www.tandfonline.com /doi/full /10.3402 /qhw.v10.27682

Ratcliffe, G. E., Enns, M. W., Belik, S. L., & Sareen, J. (2008). Chronic pain conditions and suicidal ideation and suicide attempts: an epidemiologic perspective. *The Clinical Journal of Pain*, *24*(3), 204-210.

Rayle, A. D., & Chung, K. Y. (2007). Revisiting first-year college students' mattering: Social support, academic stress, and the mattering experience. *Journal of College Student Retention: Research, Theory & Practice*, *9*(1), 21-37.

Rhodes, M. N. (2009). *Religiosity and spirituality as coping strategies among suicidal African American women* (Unpublished master's thesis). Clark Atlanta University, Atlanta, Georgia.

Rhodes, P. J. (2009). State and religion in Athenian inscriptions. *Greece & Rome*, *56*(1), 1-13.

Robiner, W. N. (2005). Enhancing adherence in clinical research. *Contemporary Clinical Trials*, *26*(1), 59-77.

Russell, K. S., Stevens, J. R., & Stern, T. A. (2009). Insulin overdose among patients with diabetes: A readily available means of suicide. *Primary Care Companion to the Journal of Clinical Psychiatry*, *11*(5), 258.

Saffari, M., Pakpour, A. H., Naderi, M. K., Koenig, H. G., Baldacchino, D. R., & Piper, C. N. (2013). Spiritual coping, religiosity and quality of life: A study on Muslim patients undergoing haemodialysis. *Nephrology*, *18*(4), 269-275.

Sakinofsky, I. (2000). Repetition of suicidal behavior. *The International Handbook of Suicide and Attempted Suicide*, 385-404.

Saltzman, K. M., & Holahan, C. J. (2002). Social support, self-efficacy, and depressive symptoms: An integrative model. *Journal of Social and Clinical Psychology*, *21*(3), 309-322.

Sareen, H., & Trivedi, J. K. (2009). Legal implications of suicide problems specific to South Asia. *Delhi Psychiatry Journal*, *12*, 121-125.

Sareen, J., Cox, B. J., Afifi, T. O., de Graaf, R., Asmundson, G. J., Ten Have, M., & Stein, M. B. (2005). Anxiety disorders and risk for suicidal ideation and suicide attempts: A

population-based longitudinal study of adults. *Archives of General Psychiatry*, *62*(11), 1249-1257.

Sarkar, S. & Balhara, Y. P. S. (2014). Diabetes mellitus and suicide. *Indian Journal of Endocrinology and Metabolism, 18*(4), 468-474.

Schlebusch, L., Burrows, S., & Vawda, N. (2009). *Suicide prevention and religious traditions on the African continent*. In D. Wasserman & C. Wasserman (Eds.), Oxford textbook of Suicidology and suicide prevention. A global perspective (pp. 63-69). Oxford, Uk: Oxford University Press:

Shaughnessy, J. J., Zechmeister, E. B., & Zechmeister, J. S. (2012). *Research methods in psychology, (9th Eds.).* New York: McGraw Hill

Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information, 22*(2), 63-75.

Shneidman, E.S. (1993). Commentary: Suicide as psychache. *Journal of Nervous and Mental Disease*. *181*(3), 145–147. https://psycnet.apa.org/record/1993-29809-001

Silverman, D. (2011). *Qualitative research* (3rd Eds.). London, UK: Sage Publications

Silverman, D. (2013). *Doing qualitative research (4th Eds.)*. London: Sage.

Simon, T. R., Swann, A. C., Powell, K. E., Potter, L. B., Kresnow, M. J., & O'Carroll, P. W. (2001). Characteristics of impulsive suicide attempts and attempters. *Suicide and Life-Threatening Behavior*, *32*(1), 49-59.

Singhal, A., Ross, J., Seminog, O., Hawton, K., & Goldacre, M. J. (2014). Risk of self-harm and suicide in people with specific psychiatric and physical disorders: comparisons between disorders using English national record linkage. *Journal of the Royal Society of Medicine, 107*(5), 194-204.

Skevington, L. (2004). O'Connell (2004) Skevington SM, Lofty M, O'Connell KA. The World Health Organization's WHOQOL-BREF quality of life assessment: psychometric properties and results of the international field trials. A Report of the WHOQOL Group. *Quality of Life Research*, *13*(2), 299-310.

Smith, J. A., & Osborn, M. (2003). Interpretative phenomenological analysis. In J. A. Smith (Ed.), *Qualitative psychology: A practical guide to research methods* (pp. 51-80). London: Sage.

Swanson W.F., (2008).Research in Nondomestic Species: Experiences in Reproductive Physiology Research for Conservation of Endangered Felids.ILAR Journal,

44 (4)307-311, retrieved fromhttps://academic.oup.com/ilarjournal/article/44/4/307/769186

Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics.* Allyn & Bacon/Pearson Education.

Tashakkori, A, & Creswell, J. W. (2007). Editorial: The new era of mixed methods. *Journal of Mixed Method Research,1,*3-7.

Taussig, H. N., Harpin, S. B., & Maguire, S. A. (2014). Suicidality among preadolescent maltreated children in foster care. *Child Maltreatment*, *19*(1), 17-26.

Tinetti, M. E., Fried, T. R., & Boyd, C. M. (2012). Designing health care for the most common chronic condition-multimorbidity. *Jama*, *307*(23), 2493-2494.

Ulin, P. R. (2002). *Qualitative methods: A field guide for applied research in sexual and reproductive health*. Family Health International.

Van Teijlingen, E. Rennie, A. M.,Hundeley,V.,& Graham,W.(2001).The importance of conducting and reporting pilot studies :The example the Scottish Birth Survey. *Journal for Advance Nursing, 34,289-295.*

Webb, R. T., Kontopantellis E., Doran, T., Qin, P., Creed, D.,& Kapur, N. (2012). Suicide risk in primary care patients with major physical diseases: a case-control study. *Archives of General Psychiatry, 69*(3), 256-264.

Wildes, K. A., Miller, A. R., de Majors, S. S.,& Ramirez, A.G (2008). The religiosity/spirituality of Latina breast cancer survivors and influence on health-related quality of life. *Journal of the Psychological, Social and Behavioral Dimensions of Cancer, 18*(8), 831-840.

Wildes, K. A., Miller, A. R., de Majors, S. S. M., & Ramirez, A. G. (2009). The religiosity/spirituality of Latina breast cancer survivors and influence on health-related quality of life. *Psycho-Oncology: Journal of the Psychological, Social and Behavioral Dimensions of Cancer*, *18*(8), 831-840.

Willis, L. A., Coombs, D. W., Cockerham, W. C., & Frison, S. L. (2002). Ready to die: A postmodern interpretation of the increase of African-American adolescent male suicide. *Social Science & Medicine*, *55*(6), 907-920

World Health Organization. (2012).*Public health action for the prevention of suicide: A framework.* Geneva, Switzerland: Author.

World Health Organization. (2013).*Mental health action plan 2013-2020.*Geneva,Switzerland: Author.

World Health Organization. (2014).*Preventing suicide:A global imperative.* Geneva, Switzerland: Author.

Yasan, A., Danis, R., Tamam, L., Ozmen, S., & Ozkan, M. (2008). Socio-cultural features and sex profile of the individuals with serious suicide attempts in southeastern Turkey: A one-year survey. *Suicide and Life-Threatening Behavior*, *38*(4), 467-480.

Za'za, Bassam. (2011, May 17). *Suicide punishable under UAE law: Individuals who attempt to kill themselves are treated as suspects.*Retrieved 12/18/2013 from http://gulfnews.com/news/gulf/uae/crime/suicide-punishable-under-uae-law-1.808785

APPENDIX A

INTERVIEW GUIDE

This interview is intended to help gather rich information about your experiences as a chronically ill patient. Be informed that answers you provide won't be regarded as either wrong or right. Therefore, we expect you to feel relaxed in answering these questions and in any manner of way you deem fit. If you are not comfortable answering these questions, you can decide not to answer. During the interview, you can also ask me anything if you so wishto. Thank you for accepting to participate in this study.

DEMOGRAPHIC INFORMATION: I would like to know more about you

1.How old are you?

2.What is your level of education?

3. Are you married?

4. How long have you had this condition(s)?

5. What has been your greatest source of support?

CKD EPIDEMIOLOGICAL PROFILE (CLINICAL INFORMATION)

1.What date did you first see the symptom of this disease?

2. What date did you report to the hospital?

3. What date did you first report at Korle-bu Teaching Hospital?

4. Do you take your medications regularly?

5.After diagnosis, have you again been diagnosed with other diseases/disease?

6.Does any member of your family have any of the conditions or condition you have been diagnosed with?

7. For how long have you had this disease?

3. Do you have health insurance?

4.Since the diagnosis, which people have been of immersed help to you?

SUICIDAL ATTEMPT

1.Have you ever thought of killing yourself since you were diagnosed?

2.How often have you thought of killing yourself in the past year and how often(number)

3.Do you think you will attempt suicide someday?

APPENDIX B

RESEARCH QUESTIONNAIRE

UNIVERSITY OF GHANA, LEGON

DEPARTMENT OF PSYCHOLOGY

Dear Respondent,

I am a final year Postgraduate Student of the University of Ghana, Legon pursuing an MPhil in Social Psychology under the supervision of Dr. Oppong Kweku Asante and Dr. Joseph Osafo,

As part of the requirement for the award of the degree, am undertaking a study on **Chronic Health Conditions and Risks of Suicidal Behavior in Ghana (Korle-Bu Hospital)**. The researcher seeks to understand the *relationship that exists between chronically ill patients and risk of suicide in Ghana.*Results are purposely for academic use and also to help influence policies.Your participation in this study is entirely voluntary. Any information you provide would be treated with the highest confidentiality and used for academic purposes only. It would be greatly appreciated if you could spend some time to complete this questionnaire.

SECTION A: DEMOGRAPHIC DATA

Identification: ……

Age: ……

Gender Male [ ] Female [ ]

Marital Status : Married [ ] Single [ ] Devoiced [ ].

Number of Children (If any) : ……

Educational level : Primary [ ] JHS [ ] Senior High [ ] Tertiary [ ]

Religion : Christian [ ] Islamic [ ] African Traditional Religion [ ]

Other [ ]. Please specify ……

SECTION B

This section asks you to tell us a bit about your medical history.

Clinical diagnosis in Patients folder	1: Hypertension [ ] 2: Diabetes Mellitus [ ] 3: Renal Disease[ ] 4: Stroke [ ] 5: Others [ ]
Compliancewithmedication if Yesto1or No 2 above	Yes: 1[ ] No: 2[ ]
Family History Hypertension [ ]	Kidney Disease [ ] Diabetes Mellitus [ ] Sickle Cell [ ] Others [ ]
Period of Condition [ ]	3 Months-1year [ ] 2-6years 7-11years [ ] 12 and above [ ]
Health Insurance Inactive [ ]	Private [ ] Public [ ] Active [ ]
Patient Status patient [ ]	In patient [ ] Out
Type of Social support	Family [ ] Friends [ ] Church [ ] None [ ]

SECTION C

These items deal with ways you've been coping with the stress in your life since you were diagnosed with this illness. Obviously, different people deal with things in different ways, but I'm interested in how you've tried to deal with it. Each item says something about a particular way of coping. I want to know to what extent you've been doing what the item says. How much or how frequently. With the following response choices, try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can.

1 = I haven't been doing this at all
2 = I've been doing this a little bit
3 = I've been doing this a medium amount
4 = I've been doing this a lot

1	I've been turning to work or other activities to take my mind off things	1	2	3	4
2	I've been concentrating my efforts on doing something about the situation I'm in	1	2	3	4
3	I've been saying to myself "this isn't real.".	1	2	3	4
4	I've been using alcohol or other drugs to make myself feel better	1	2	3	4
5	I've been getting emotional support from others.	1	2	3	4
6	I've been giving up trying to deal with it.	1	2	3	4
7	I've been taking action to try to make the situation better.	1	2	3	4
8	I've been refusing to believe that it has happened	1	2	3	4
9	I've been saying things to let my unpleasant feelings escape	1	2	3	4
10	I've been getting help and advice from other people.	1	2	3	4
11	I've been using alcohol or other drugs to help me get through it	1	2	3	4
12	I've been trying to see it in a different light, to make it seem more positive	1	2	3	4
13	I've been criticizing myself.	1	2	3	4
14	I've been trying to come up with a strategy about what to do	1	2	3	4
15	I've been getting comfort and understanding from someone	1	2	3	4
16	I've been giving up the attempt to cope	1	2	3	4
17	I've been looking for something good in what is happening.	1	2	3	4
18	I've been making jokes about it.	1	2	3	4

19	I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.	1	2	3	4
20	I've been accepting the reality of the fact that it has happened.	1	2	3	4
21	I've been expressing my negative feelings	1	2	3	4
22	I've been trying to find comfort in my religion or spiritual beliefs.	1	2	3	4
23	I've been trying to get advice or help from other people about what to do	1	2	3	4
24	I've been learning to live with it	1	2	3	4
25	I've been thinking hard about what steps to take	1	2	3	4
26	I've been blaming myself for things that happened	1	2	3	4
27	I've been praying or meditating	1	2	3	4
28	I've been making fun of the situation	1	2	3	4

SECTION D

This is a 14-item instrument used for assessing religious coping. The questionnaire is self-rated and contains 7 items each pertaining to positive and negative religious coping. Each of the questions is rated on a four-point Likert rated scale from 0 to 3; **0=not at all, 1=somewhat, 2=quite a bit and 3= a great deal.** The questionnaire has been derived from a more elaborate questionnaire assessing religious coping comprehensively.

	0	1	2	3
Looked for a stronger connection with God				
Sought God's love and care				
Sought help from God in letting go of my anger				
Tried to put my plans into action together with God				
Tried to see how God might be trying to strengthen me in this situation				
Asked forgiveness for my sins				
Focused on religion to stop worrying about my problems				
Wondered whether God had abandoned me				
Felt punished by God for my lack of devotion				
Wondered what I did for God to punish me				
Questioned God's love for ne				
Wondered whether my church had abandoned me				
Decided the devil made this happen				
Questioned the power of God				

SECTION E

Instruction: Please circle the number beside the statement or phrase that best applies to you.

1. Have you ever thought about or attempted to kill yourself? (***Circle only one***)

   1 = Never

   2 = It was just a brief passing thought

   3a = I have had a plan at least once to kill myself but did not try to do it

   3b = I have had a plan at least once to kill myself and really wanted to die

   4a = I have attempted to kill myself but did not want to die

   4b = I have attempted to kill myself and really hoped to die

2. How often have you thought about killing yourself in the past year? (***Circle only one***)

   1=Never 2=Rarely (1 time) 3 = Sometimes (2 times)

   4=Often (3-4 times) 5=Very Often (5 or more times)

3. Have you ever told someone that you were going to commit suicide, or that you might do it? (***Circle only one***)

   1=No

   2a=Yes, at one time, but did not really want to die

   2b= Yes, at one time, and really wanted to do it

   3a=Yes, more than once, but not want to do it

   3b=Yes, more than once, and really wanted to do it

4. How likely is it that you will attempt suicide someday? (***Circle only one***)

   0=Never 3=Unlikely 6=Very Likely

   1=No change at all 4=Likely

   2=Rather Unlikely 5=Rather Likely

Now I want to ask you some questions about how you use your medications the Physicians have prescribed for the treatment of your current condition. Please be honest as possible. There are no right or wrong answers.

		Never	Rarely	sometimes	Often	Always
1	I forget to take my medicines					
2	I alter the dose of my medicines					
3	I stop my medicines for a while					
4	I miss out on a dose of the medicine					
5	I take less medicine than instructed					

Please read each question, assess your feelings, and circle the number on the scale for each question that gives the best answer for you.

		Very poor	Poor	Neither poor nor good	Good	Very good
1(G1)	How would you rate your quality of life?	1	2	3	4	5

		Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
2(G4)	How satisfied are you with your health?	1	2	3	4	5

The following questions ask about **how much** you have experienced certain things in the last two weeks.

		Not at all	A little	A moderate amount	Very much	An extreme amount
3(F1.4)	To what extent do you feel that physical pain prevents you from doing what you need to do?	1	2	3	4	5
4(F11.3)	How much do you need any medical treatment to function in your daily life?	1	2	3	4	5
5(F4.1)	How much do you enjoy life?	1	2	3	4	5
6(F24.2)	To what extent do you feel your life to be meaningful?	1	2	3	4	5

		Not at all	A little	A moderate amount	Very much	Extremely
7(F5.3)	How well are you able to concentrate?	1	2	3	4	5
8(F16.1)	How safe do you feel in your daily life?	1	2	3	4	5
9(F22.1)	How healthy is your physical environment?	1	2	3	4	5

The following questions ask about **how completely** you experience or were able to do certain things in the last two weeks.

		Not at all	A little	Moderately	Mostly	Completely
10(F2.1)	Do you have enough energy for everyday life?	1	2	3	4	5
11(F7.1)	Are you able to accept your body appearance?	1	2	3	4	5
12(F18.1)	Have you enough money to meet your needs?	1	2	3	4	5
13(F20.1)	How available to you is the information that you need in your day-to-day life?	1	2	3	4	5
14(F21.1)	To what extent do you have the opportunity for leisure activities?	1	2	3	4	5

		Very poor	Poor	Neither poor nor good	Good	Very good
15(F9.1))	How well are you able to get around?	1	2	3	4	5

The following questions ask you to say how **good or satisfied** you have felt about various aspects of your life over the last two weeks.

		Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
16(F3.3)	How satisfied are you with your sleep?	1	2	3	4	5
17(F10.3)	How satisfied are you with your ability to perform your daily living activities?	1	2	3	4	5
18(F12.4)	How satisfied are you with your capacity for work?	1	2	3	4	5
19(F6.3)	How satisfied are	1	2	3	4	5

	you with yourself?					
20(F13.3)	How satisfied are you with your personal relationships?	1	2	3	4	5
21(F15.3)	How satisfied are you with your sex life?	1	2	3	4	5
22(F14.4)	How satisfied are you with the support you get from your friends?	1	2	3	4	5
23F(17.3)	How satisfied are you with the conditions of your living place?	1	2	3	4	5
24(F19.3)	How satisfied are you with your access to health service?	1	2	3	4	5
25(F23.3)	How satisfied are you with your transport?	1	2	3	4	5

The following questions refers to how often you have felt or experienced certain things in the last two weeks.

		Never	Seldom	Quite often	Very often	Always
26(F8.1)	How often do you have negative feelings such as blue mood, despair, anxiety depression?	1	2	3	4	5

APPENDIX C

ETHICAL CLEARANCE

UNIVERSITY OF GHANA
ETHICS COMMITTEE FOR THE HUMANITIES (ECH)
P. O. Box LG 74, Legon, Accra, Ghana

My Ref. No.....

1st November, 2017

Ms. Rachel Onomah
Department of Psychology
University of Ghana
Legon

Dear Ms. Onomah,

ECH 052/17-18: CHRONIC HEALTH CONDITIONS AND RISKS OF SUICIDAL BEHAVIOUR IN TWO HOSPITALS IN GHANA

This is to advise you that the above reference study has been presented to the Ethics Committee for the Humanities for a full board review and the following actions taken subject to the conditions and explanation provided below:

Expiry Date:	31/05/18
On Agenda for:	Initial Submission
Date of Submission:	18/09/17
ECH Action:	Approved
Reporting:	Quarterly

UG/ISSER/ECH VALID UNTIL 31 MAY 2018 APPROVED DOCUMENT

Please accept my congratulations.

Yours Sincerely,

Rev. Prof. J. O. Y. Mante
ECH Chair

CC: Dr. Maxwell Asumeng, Department of Psychology, University of Ghana.

Tel: +233-303933866 Email: ech@ug.edu.gh | ech@isser.edu.gh