RÉPUBLIQUE DU CAMEROUN
Paix-Travail-Patrie
******
UNIVERSITÉ DE YAOUNDÉ I
******
CENTRE DE RECHERCHE ET DE FORMATION DOCTORALE EN SCIENCES HUMAINES, SOCIALES ET ÉDUCATIVES
******
UNITÉ DE RECHERCHE ET DE FORMATION DOCTORALE EN SCIENCES DE ÉDUCATIVES ET INGÉNIERIE ÉDUCATIVES
******
EDUCATION SPÉCIALISÉE

REPUBLIC OF CAMEROON
Peace-Work-Fatherland
******
THE UNIVERSITY OF YAOUNDE I
******
POST GRADUATE SCHOOL FOR HUMAN, SOCIAL AND EDUCATIONAL SCIENCES
******
DOCTORAL UNIT OF RESEARCH AND TRAINING IN SCIENCE OF EDUCATION AND EDUCATIONAL ENGINEERING
******
SPECIALIZED EDUCATION

THE EFFECTS OF ANXIETY ON BIPOLAR DISORDER IN OLDER PERSONS: THE CASE OF BIPOLAR OLDER PERSONS IN A GERIATRIC SITUATION IN THE YAOUNDE CENTRAL HOSPITAL

Thesis defended to obtain a Master's Degree in Special Education (EDS) on the 27th of July 2023.

Option**: Professional Psychologist in Mental Disabilities, Psychic Problems and Gerontology**

By

MBINKAR JENET NYUYDZEVENA

21V3703

B.A in Psychology

University of Yaoundé l

Supervisor

Dr. MBEH ADOLF TANYI

Jury		Grade	University
President	TSALA TSALA Jacques Philippe	Pr	University of Yaoundé I
Rapporteur	MBEH Adolf TANYI	CC	University of Yaoundé I
Membre	IGOUI MOUNANG Gilbert	CC	University of Yaoundé I

Academic year: 2022 -2023

CERTIFICATION

We the undersigned hereby certify that the thesis entitled: “The effects of anxiety on bipolar disorder in older persons, the case of the bipolar older persons in a Geriatric Situation in the Yaoundé District Hospital”, submitted to the department of Special Education, Faculty of Education in the University of Yaoundé I was carried by Mbinkar Jenet Nyuydzevena, matricle (21V3703) under our supervision. The work has been properly referenced and acknowledged.

The Dean **Head of Department**

Supervisor

Dr. Mbeh Adolf Tanyi.

DEDICATION

To

Mama Odilia Kidzeru and

Mbinkar Evelyne Bongazemo.

ACKNOWLEDGEMENT

I am a product of the input of many special individuals whom I have been privileged to meet as I walked through this academic path and so, this work would not have been effectively done without such magnificent assistance. I am specifically indebted to my supervisor Dr. Mbeh Adolf Tanyi for his relentless efforts in making this work a success. Your criticisms, insightful suggestions and corrections have greatly contributed to the realization of this work.

I am most appreciative to Dr. Stanley Fongod, Dr Ntsama Essomba Marie-Josiane, Dr. Igoui Mounang Gilbert, Dr. Isaie Federic Song, Dr Baninjel, Dr. Eyong Ayuk Joseph, Dr. Marie Ylimkak, Dr. Eric Branham Akuta, Mr Atayuk Bertrand and Mr Ako Egbe for their phenomenal contributions to get me through this course. I greatly acknowledge my incredible mums; Mama Odilia kidzeru and Mama AgborSangaya for their love, moral, financial support and accommodating hearts not leaving out my precious sister Orock Elizy Ebai and the amazing Foncham's family.

To wrap it up, I acknowledge my lovely brother and siters, nieces and nephews especially Sidonie, Brian, Bill, Tabe, Ruth and my treasured son Courage. I largely extend my gratitude to all my classmates and friends particularly Tetu Violet Enjeh, Wirnkar Gracious, Matsosteng Emilie, Ellah Esunge Veronique, Fai Judith Rifor, Otele Gaelle, Magaptche Alerte, Lukong Edson, Milla Stanley, Nkemi Julienne, Abanda Roland and Apafack Ndongmo Laure.

TABLE OF CONTENTS

LIST OF ABREVIATIONS

WHO: World Health Organization

APA: American Psychiatric Association's

DSM: Diagnostic and Statistical Manual of Mental Disorders

DV: Dependent Variable

IV: Independent Variable

AD: Anxiety Disorder

BD: Bipolar Disorder

LIC: Low Income Countries

HIC: High Income Countries

OCD: Obsessive Compulsive Disorder

PTSD: Post Traumatic Stress Disorder

CBT: Cognitive Behavioral Therapy

MBCT Mindfulness-based cognitive therapy

PD: Panic Disorder

FMRI: Functional Magnetic Resonance Imaging

PET: Positron Emission Tomography

GAD: Generalized Anxiety Disorder

SoP: Social Phobia

SP: Specific Phobia

LIST OF TABLES

LIST OF FIGURE

ABSTRACT

Bipolar disorder has its roots in psychology and psychopathology and there, Sigmund Freud wrote about manic depressive psychosis in around 1911which is now considered a historical precursor to bipolar disorder. He believed that this condition was caused by unresolved conflicts and unconscious psychological processes and could be treated through psychoanalysis. Authors like Jean Pierre Falret and Emil Kraepelin defined bipolar disorder as a mental illness characterized by alternating episodes of mania and depression with the tendency to recur in a cyclical pattern. In the domain of special education specifically in mental disabilities, we are focused on follow up and support strategies to enhance the mentally disabled to live and maximize their full potentials despite their disability situation. In this research work, the subject of bipolar is being expounded upon in relation to older persons in the domain of special education.

This research is therefore based on the observation that Bipolar Disorder hasn't been given much attention to as other mental disorders which affect elderly persons and this in turn complicates the follow up and support strategies of special educators to enhance the wellbeing of elderly persons. Observations made at the Geriatric Service of the Yaoundé Central hospital revealed that bipolar disorder is underdiagnosed and yet highly present in the elderly population in a geriatric situation and anxiety which is comorbidity to this mental illness tends to provoke devastating outcomes in the lives of the bipolar victims.

The study explored the relationship between anxiety and bipolar disorder in these elderly individuals and drawing on various theoretical frameworks which include the cognitive, neurobiological, the genetic and the disruption of circadian rhythms and extreme positive internal attributions in Bipolar Disorder. With this, a research question was brought out to guide the study which went thus: What influence does anxiety have on bipolar disorder in older people? With this question posed, the general research hypotheses used in this study was: anxiety has devastating influence on bipolar disorder in the older persons. To prove this our hypotheses, a qualitative method was used with an interview guide as a tool for data collection our sample population was composed of six participants and content analysis was used. The results obtained from testing the three specific hypothesis confirmed anxiety to have an extreme negative effect on older persons who are suffering from bipolar disorder. It is therefore vital for Medical professionals in the Yaoundé Central Hospital to give maximum attention for effective diagnosis of bipolar disorder in older persons so that special educators will be able to device effective and sustainable follow up and support strategies to enhance the wellbeing of these older persons living with bipolar disorder.

Key words: Anxiety, bipolar, disorder, older persons, Geriatrics.

RESUMÉ

Le trouble bipolaire a ses racines dans la psychologie et la psychopathologie et là, Sigmund Freud a écrit sur la psychose maniaco-dépressive vers 1911, qui est maintenant considérée comme un précurseur historique du trouble bipolaire. Il croyait que cette condition était causée par des conflits non résolus et des processus psychologiques inconscients et pouvait être traitée par la psychanalyse. Des auteurs comme Jean Pierre Falret et Emil Kraepelin ont défini le trouble bipolaire comme une maladie mentale caractérisée par une alternance d'épisodes de manie et de dépression avec la tendance à se reproduire selon un schéma cyclique. Dans le domaine de l'éducation spécialisée en particulier dans les handicaps mentaux, nous nous concentrons sur des stratégies de suivi et de soutien pour aider les handicapés mentaux à vivre et à maximiser leur plein potentiel malgré leur situation de handicap. Dans ce travail de recherche, le sujet de la bipolarité est exposé en relation avec les personnes âgées dans le champ de l'education specialisee.

Cette recherche est donc basée sur l'observation que le trouble bipolaire n'a pas reçu beaucoup d'attention comme d'autres troubles mentaux qui affectent les personnes âgées, ce qui complique à son tour les stratégies de suivi et de soutien des éducateurs spécialisés pour améliorer le bien-être des personnes âgées. Les observations faites au service gériatrique de l'hôpital centrale de Yaoundé ont révélé que le trouble bipolaire est sous-diagnostiqué et pourtant très présent dans la population âgée en situation gériatrique et que l'anxiété qui est la comorbidité de cette maladie mentale tend à provoquer des résultats dévastateurs dans la vie des victimes bipolaires. L'étude a exploré la relation entre l'anxiété et le trouble bipolaire chez ces personnes âgées et s'appuie sur divers cadres théoriques qui incluent le cognitif, neurobiologique, génétique et la perturbation des rythmes circadiens et des attributions internes extrêmement positives dans le trouble bipolaire. Avec cela, une question de recherche a été soulevée pour guider l'étude qui est allée comme suit: Quelle influence l'anxiété a-t-elle sur le trouble bipolaire chez les personnes âgées? Avec cette question posée, les hypothèses de recherche générales utilisées dans cette étude étaient: l'anxiété a une influence dévastatrice sur le trouble bipolaire chez les personnes âgées. Pour prouver nos hypothèses, une méthode qualitative a été utilisée avec un guide d'entrevue comme outil de collecte de données, notre échantillon de population était composé de six participants et une analyse du contenu a été utilisée. Les résultats obtenus en testant les trois hypothèses spécifiques ont confirmé que l'anxiété avait un effet extrêmement négatif sur les personnes âgées souffrant de trouble bipolaire. Il est donc vital pour les professionnels de la santé de l'hôpital central de Yaoundé d'accorder une attention maximale au diagnostic efficace du trouble bipolaire chez les personnes âgées tout en le dépistage des symptômes anxieux afin de permettre à l'éducateur spécialisé d'établir des stratégies de suivi et de soutien plus durables pour aider les personnes âgées à gérer leur niveau d'anxiété.

Mots-clés : Anxiété, trouble, bipolaire, personnes âgées, Gériatrie

CHAPTER ONE

INTRODUCTION

The global population is aging, and life expectancy is following an increasing trend. With an increased global growth rate of the elderly population (aged 60 years and older), the mental health issues of this group needs thoughtful attention (Murray & Michalak, 2011). As per the World Health Organization (WHO) report, the global elderly population is expected to double by 2050 from the baseline (Kerner, 2014) level reported in 2015. It is likely that by 2050, four out of every five elderly individuals will be located in low and middle-income countries of which Cameroon is part. Addressing mental health issues in these elderly persons is therefore of utmost importance thus, understanding the effects of anxiety on bipolar disorder in elderly persons is crucial for the development of effective treatment strategies and for improving the overall well-being of these persons (Njamnshi et al., 2015). In this research work, we will explore the impact of anxiety on bipolar disorder in elderly persons.

This part will help in giving the theoretical framework which will give us a better presentation of our work. This will also give a clear justification of our research which we have in hand and will be presenting.

1.1: CONTEXT AND JUSTIFICATION

1.1.1: Context

In the World today, many people are suffering from a common and disabling mental condition called Bipolar disorder. It is also known as manic-depressive illness and has been recognized and studied for centuries (Henry et al., 2003).

The earliest mentions of bipolar disorder in medical literature date back to Hippocrates (460-370 B.C.) He was the first to document two extreme moods: feeling extremely low (what we now call depression) and feeling extremely energized or excited (mania). Another Greek physician, Aretaeus of Cappadocia is credited with being the first to express the concept of a mood spectrum, with these extreme moods on each end. He was also the first to determine that melancholia and mania were associated with a problem in the brain. (Goodwin & Jamison, 2007). (Up until the mid-19th century, depression and mania were considered separate conditions with different symptoms. Around 1850, a French psychiatrist named (Jean-Pierre Falret 1794-1870) created a new and separate disorder encompassing both syndromes. He called it “folie circulaire,” in which someone had a continuous cycle of depression, mania, and varying intervals of times in between. By the turn of the

century, we see (Emil Kraepelin 1856-1926), another German psychiatrist who is considered the founder of modern psychiatry, as he unified all types of affective disorders into one condition called manic-depressive insanity. And despite some opposition, Kraepelin's theory was adopted -- for a time. Around 1980, experts in the American Psychiatric Association's (APA) Diagnostic and Statistical Manual of Mental Disorders (DSM) in its third revision named the depressive and manic episodes "bipolar" which mean "two poles," signifying the polar opposites of mania and depression.

Anxiety disorders have been recognized and described throughout human history, although the understanding and treatment of these conditions has evolved over time. In ancient times, anxiety was often seen as a result of spiritual or supernatural forces, and treatments included prayer, ritual, and other religious practices. Greek and Roman physicians also described anxiety symptoms, and the physician (Galen 129-200 AD) proposed that anxiety was caused by an imbalance of bodily fluids. The world's elderly population is growing rapidly, with an estimated 703 million people aged 65 or older in 2019, and this number is projected to reach 1.5 billion by 2050 (United Nations, 2019). Anxiety is a common co-occurring condition in individuals with bipolar disorder. It is estimated that up to 90% of individuals with bipolar disorder experience anxiety symptoms at some point in their lives (Simon et al., 2004). Anxiety can exacerbate the symptoms of bipolar disorder and make it more difficult to manage. It is therefore important for healthcare providers to screen for and address anxiety in individuals with bipolar disorder to improve their overall treatment outcomes.

In the DSM-5, bipolar disorder is categorized as two distinct types: bipolar I disorder and bipolar II disorder characterized by the presence of at least one manic or mixed episode, which may be followed by depressive episodes and the presence of at least one hypomanic episode (a less severe form of mania) and one major depressive episode respectively. The DSM-5 also recognizes other forms of bipolar disorder, including cyclothymic disorder (a milder form of bipolar disorder that involves periods of hypomania and depressive symptoms) and substance/medication-induced bipolar disorder (which occurs as a result of substance abuse or medication use). Overall, the DSM-5 reflects the evolving understanding of bipolar disorder as a complex and multifaceted condition that can present in a variety of ways. The relationship between bipolar disorder and anxiety is complex and not fully understood. Some researchers

suggest that anxiety may be an early symptom of bipolar disorder (Vieta & Colom, 2004). Others propose that anxiety may be a comorbid condition that exacerbates the symptoms of bipolar disorder (Simon, 2004). Regardless of the nature of the relationship, it is clear that addressing anxiety is an important part of treating bipolar disorder in the elderly persons who suffer from much other comorbidity due to old age. (Keller, 2006). A study conducted in Europe America and Asia, revealed that the presence of anxiety in elderly individuals with bipolar disorder was associated with more severe manic symptoms (Kampman, 2017). A study conducted in Europe America and Asia, revealed that the presence of anxiety in elderly individuals with bipolar disorder was associated with more severe manic symptoms (Kampman, 2017).

Coming to the African context, there is limited research on the prevalence of bipolar disorder. However, studies suggest that it is a significant public health concern (Jidong et al., 2023). The proportion of elderly people in Africa is lower than that in the Western regions, but it is fast increasing. According to the World Health Organization (WHO), the proportion of people aged 60 and over in Africa was 5% in 2015, and it is projected to reach 9% by 2050 (WHO, 2015).

While bipolar disorder has a long history in the world, its prevalence and impact in Africa, particularly in Cameroon, are still not well understood. The co-occurrence of anxiety further complicates the diagnosis and treatment of bipolar disorder. There is a lack of awareness and understanding of bipolar disorder in Cameroon, leading to under-diagnosis and inadequate treatment (Mvogo et al.,2018). The elderly population is estimated in Cameroon to be around 3% of the total population (World Bank, 2019), and this number is expected to increase in the coming years. The situation of elderly persons in Cameroon is complex, with many facing challenges such as poverty, social isolation, and limited access to healthcare. According to a report by Help Age International (2018), many older adults in Cameroon live in rural areas with limited access to healthcare facilities, which can make it difficult for them to receive necessary medical treatment.

In this study, we will be examining the effects of anxiety on bipolar in older persons. The conceptualization of anxiety in the current literature suggests that anxiety and bipolar disorder are separate, but co-occurring experiences. However, this thesis considers the possibility that Anxiety and Bipolar disorder are conceptualized as separate comorbid disorders and as well as

anxiety being an inherent feature of emotion dis-regulation in bipolar disorder that is why we are concerned about examining the effects thereof on bipolar elderly persons (Gant, 2014).

1.1.2: Justification

Older people are a vulnerable group of people with complex clinical needs as they are increasingly trapped by different forms of illnesses, disorders and disabilities. (Karim et al., 2005). The mental situation of elderly persons in the world, Africa, and Cameroon is a growing concern. As the elderly population increases, so does the prevalence of mental health issues such as depression, anxiety, bipolar and dementia. According to the World Health Organization (WHO), depression affects around 7% of the elderly population worldwide, while dementia affects around 5% (WHO, 2017).

The prevalence of mental health issues among the elderly in Africa is not well documented, but it is believed to be high due to factors such as poverty, social isolation, and limited access to healthcare. In Cameroon, there is a lack of mental health services for older adults, and many elderly people with mental health issues go undiagnosed and untreated. The elderly are mainly affected by problems related to poor health and lack of resources. In the national policy paper for the protection and promotion of older persons in Cameroon, the needs of the elderly assessed and presented in May 2009 with the support of the United Nations laid emphasis on the health and well-being of elderly persons (MINAS, 2019-2023).

Psychotic diseases such as bipolar and anxiety disorders and other related diseases, today affect approximately 12% of people aged over 70 and are the cause of rampant deaths in the elderly population. There are several knowledge gaps that exist in Cameroon regarding anxiety and bipolar disorder in elderly persons (Njamnshi et al.,2015). Bipolar and anxiety disorders are underdiagnosed in Cameroon. Thus, the statistics of elderly persons living with bipolar disorder in Cameroon is unfounded. There is a need for more research on the prevalence and impact of anxiety and bipolar disorder in elderly persons in Cameroon. While there is some evidence to suggest that these conditions are a significant problem in the country, there is a lack of comprehensive data on the subject (Njamnshi et al.,2015)

In this study, our focus is to show how anxiety impacts bipolar disorder in elderly persons and the role of special educators to better the situation of the victims. Studies have shown that with

an increase in the aging population, this mental illness (bipolar disorder) will equally rise and it's expedient to have a profound understanding of it in order to strategize for sustainable remedies (Sajatovic, 2006). There is a need to be clear about the effects of anxiety on bipolar disorder in older persons in Yaoundé- Cameroon. Old age in itself comes along with several pathologies and becomes a great call for concern when the pathology is under-diagnosed. However, majority of elderly persons have an adaptable life style which keeps them going but become highly problematic with the intrusion of psychic disorders like anxiety and bipolar disorder which can lead to risky and dangerous behaviors, reduce their quality of life, induce suicide and shorten their life span (Diana et al., 2020). That is why our major concern in this study is to understand the influence of anxiety on bipolar disorder which even though underdiagnosed is a rampant killer of the elderly population.

It is important to note that elderly populations are more vulnerable to the negative effects of anxiety due to age-related changes in the brain and body. Secondly, the prevalence of bipolar disorder and anxiety is likely to increase with age, making it a significant public health concern. The frequency and duration of mood episodes, and other symptoms, in bipolar disorder can worsen with age (Stacia, 2022). Thirdly, there may be cultural and social factors that influence the experience and expression of anxiety and bipolar disorder in the elderly population in Cameroon, which need to be explored to improve diagnosis and treatment (Ojagbemi et al., 2018). Finally, understanding the effects of anxiety on bipolar disorder in the elderly population can inform the development of tailored interventions that address the unique needs of this population.

Understanding the effects of anxiety on bipolar disorder in elderly persons is crucial for the development of effective treatment strategies and for improving the overall well-being of these individuals (Ahmad 2021). In this research work will be exploring the impact of anxiety on bipolar disorder in elderly persons.

1.2: FORMULATION AND POSITION OF PROBLEM

1.2.1: Theoretical Findings

The mental situation of elderly persons in the world, Africa, and Cameroon is a growing concern. As the elderly population increases, so does the prevalence of mental health issues such as

depression, anxiety, bipolar. According to the World Health Organization (WHO), depression affects around 7% of the elderly population worldwide, while dementia affects around 5% (WHO, 2017).

In Africa, the prevalence of mental health issues among the elderly is not well documented, but it is believed to be high due to factors such as poverty, social isolation, and limited access to healthcare (Negah et al., 2005; OJagbemi et al., 2018). In Cameroon, there is a lack of mental health services for older adults, and many elderly people with mental health issues go undiagnosed and untreated.

Anxiety and Bipolar disorder are two common mental health conditions that can have a significant impact on the quality of life of individuals. These conditions can be particularly challenging for elderly people who are more vulnerable to the negative effects of psychiatric disorders (Blackweel, 2014). While both anxiety and bipolar can occur independently, research suggests that the two conditions often co-occur particularly in elderly people (Kay, 2014). The effects of anxiety are particularly pronounced in older individuals. Anxiety exacerbate the symptoms of bipolar disorder leading to increased mood instability, decreased social functioning, decreased response to treatment increased risk of hospitalization and decreased overall quality of life (Henry et al., 2003).

While we all feel anxiety at some point in our lives, people with anxiety disorders will experience persistent symptoms of anxiety over many weeks and months. Anxiety and bipolar symptoms overlap, but anxiety symptoms that persist when depression and mania/hypomania are in remission point to an anxiety disorder and this has a grave impact on elderly people living with bipolar disorders (Sala et al., 2012). Anxiety experiences have been found to be highly prevalent in bipolar disorder (BD) and have been consistently associated with poorer outcomes. (Kay, 2014). Current research in this area has primarily focused on prevalence rates of anxiety disorders and their association to retrospective outcomes. There is a lack of research regarding the psychological processes which may underlie the relationship between anxiety and bipolar mood experiences and current psychological models of BD have generally omitted anxiety in their explanations of mood swings that is why our focus in this study is to trace the effects of anxiety on bipolar disorders on elderly persons (Kay, 2014).

Anxiety greatly influences someone's experience with bipolar depression, including the symptoms they experience and how they respond to treatment. (Pavlova et al., 2015). Both disorders worsen each other. Episodes of depression and anxiety are longer and more severe than when they occur on their own. The long-term outlook is worse, too, largely because it can be harder to treat comorbid anxiety and bipolar depression in the elderly persons. (Henry et al., 2003 ; Keller, 2006).

While it's generally agreed that older people with bipolar tend to have more depression than mania and that these depressive moods can arrive more frequently, much remains to understand about how bipolar operates in this age group. The polarity of BD appears to shift with older age, with increase in the amount of time experiencing depression, and consecutively less time spent in manic or mixed states (Ivan et al., 2021).

To synthesize the theoretical findings on the subject of the effects of anxiety on bipolar disorder in the elderly persons, it's agreeable with the sub-Saharan authors that there is a lack of awareness and understanding of mental health issues generally in Africa, which has led to stigma and discrimination against those who suffer from these conditions. This makes it difficult for elderly persons with anxiety or bipolar disorder to seek help or receive appropriate treatment. (Njamnshi et al, 2015).

1.2.2: Empirical Findings

Knowledge of the epidemiology and burden of bipolar disorder in Africa is unfortunately based mainly on studies from the USA and Europe (Oluyomi & Arinola 2016). Most research shows that bipolar and anxiety disorder is likely underdiagnosed in Black populations due in part to gaps in mental health care treatment and stigma about mental illness as seen in this article "Depression in Sub-Saharan Africa" (Ismail et al., (2022). In the Ibadan Study of Aging, emphasis were laid on healthcare policies in Sub-Saharan Africa (SSA) of which Cameroon is part for the need to deliberately prioritize the treatment of depression and other mental health problems in late-life in order to stem the neglect of older people's mental health in the region (Ojagbemi et al., 2020).

Given that the population surviving to old age in sub-Saharan Africa (SSA) is increasing rapidly in consonance with the rest of the world, healthcare policies in SSA need to deliberately prioritize the treatment of depression and other mental health problems in late-life in order to

stem the neglect of older people's mental health in the region. Mental health conditions rank among the leading causes of years lived with disability (Eaton 2011), and depression is the most common and disabling mental health condition after the age of 60 years (Whiteford, 2013). Late-life depression is associated with complex comorbidities and chronic course of symptoms and disability (Haigh, 2018 ; Ojagbemi, 2018). The disability-weight ascribed to late-life depression is set to increase in the coming few years (Whiteford, 2013), with some observational studies (Gureje, 2011) suggesting that compared with higher income countries (HICs), the disability-burden of late-life depression may be much higher in LMICs such as those in much of sub-Saharan Africa (SSA) and Cameroon in particular.

At policymaking level, it is clear that mother and child health issues and infectious diseases are the top priority in sub-Saharan Africa and non-communicable diseases (NCDs) and older people's issues are not really on the radar in Africa and Cameroon in particular. This is evident in the African union Health strategy (2016-2030) where their focus was limited just on the need to technically invest in health systems strengthening and specific social determinants of health through better inter-sectorial collaboration, drawing on recent African and global lessons learned. (African Health Strategy 2022)

Worries related to health and welfare are the main priorities of older persons in Cameroon but there exist lots of limitations to access mental health especially in the case of anxiety and bipolar disorder which are underdiagnosed. The non-recognition and Inadequate management of ageing pathologies is therefore a huge challenge. Mental health in Cameroon is almost just a phantom. The present knowledge of bipolar disorder and anxiety in Cameroon is limited due to a lack of comprehensive research on the subject. However, some studies suggest that these conditions are a significant problem in the country. BDs are historically under-researched compared to other mental health disorders, especially in Sub-Saharan Africa and Cameroon in paticular. It highlights the need for further studies assessing Cameroon's feasibility and acceptability of culturally adapted psychosocial interventions for patients with BDs (Jidong et al., 2023; OJagbemi et al., 2018).

A study published in the journal BMC Psychiatry in 2018 found that the prevalence of bipolar disorder in Cameroon was 0.6%. The study also found that many individuals with bipolar

disorder in Cameroon were not receiving appropriate treatment, due in part to a lack of access to mental health services (Njamnshi et al., 2015). Mental disorders have traditionally been stigmatized and misunderstood in many parts of Africa, including Cameroon. In some African cultures, mental illness has been attributed to supernatural causes or seen as a punishment for wrongdoing. This has contributed to a lack of understanding and acceptance of mental health issues, and has resulted in many individuals with mental disorders facing discrimination and social exclusion (Miller, 2012).

Dementia and Alzheimer are the degenerated forms of bipolar disorder. The history of bipolar disorder is associated with significantly higher risk of dementia in older persons (Breno et al., 1999). In other words, it is the neglect and lack of diagnosis and treatment of bipolar disorder that patients easily degenerate to suffer from dementia. A few studies have suggested that bipolar disorder could be a risk factor for developing dementia (Kessing & Andersen, 1970).

Keller (2006) explains that Comorbid conditions pose a serious risk to patients with bipolar disorder, but anxiety comorbidity poses a specific hazard due to the increased negative impact of anxiety on illness course and treatment. Anxiety comorbidity appears to be highly prevalent and is associated with intensified symptoms of bipolar disorder and additional comorbid disorders, resulting in a negative impact on the patient and on the course of the illness. Sajatovic (2006) corroborates this by stating that "the presence of comorbid anxiety is associated with more severe depressive symptoms, more chronic medical illness, greater functional impairment, and lower quality of life" These factors are therefore true in older patients with bipolar disorder.

1.2.3: Statement of Problem:

Mood disorders are common mental disabilities in Sub-Saharan African (SSA) that usually go undiagnosed and underreported. Western Authors like Ather (2016), Alexander & Allan (2020) on the subject of Bipolar disorder have focused so much on the neurological aspect of bipolar leaving out the psychological processes that have significant impact on elderly bipolar, while authors on mental health in sub-Saharan Africa particularly Nigeria, Congo, Ethiopia and those in Cameroon like Diana et al (2020), Mvogo et al, (2018) and Njamnshi et al (2015) emphasize on the lack of awareness of mental disorders, lack of psychiatrists, stigma and cultural barriers. This is indeed a great concern that must be looked upon. From observations made during an

internship at the Geriatric service in the Central district hospital in Yaoundé and the Jamot hospitals, the awareness of mental disorder is gradually gaining wider grounds as sensitization is fast taking roots. It was realized through that observation that the outstanding problem is not awareness as emphasized by other authors Mvogo et al., (2018) and Njamnshi et al., (2015) because these hospitals and their medical personnel are very much aware of the mental disorders that affect the older population

These medical personnel are very much aware about the different types of mental disorders that affect the elderly population like dementia, Alzheimer, Parkinson, schizophrenia and so on, but we observed that when it comes to bipolar disorder diagnosis, attention is not given to it and of which the prevalence of anxiety aggravates the situation. (Kay, 2014 ; Pavlova et al., 2015). That is why this study is focused on examining the extent to which anxiety affects bipolar disorder. But now, the problem of bipolar under-diagnosis in the Cameroon context and in the elderly population in particular is at stake (Jidong et al, 2023). Given that bipolar disorder is a mental disorder that is like a gate way to more degenerative disorders like dementia, it is important that attention should be given to it so as to reduce the risk and possibilities of mental degeneration of the elderly persons into dementia and psychosis (Kessing & Andersen, 1999 ; Thomas, 2022). Thus the problem that is brought out from this topic is the problem of under-diagnosis of bipolar disorder in elderly persons in a geriatric situation in the Cameroon context. (Mvogo et al., 2020).

1.3: RESEARCH OBJECTIVES

1.3.1: General Research Objectives

- Older persons are able to manage their anxiety levels thus reducing the prevalence rate of their bipolar disorders.

1.3.2: Specific Research Objectives

(i) To demonstrate that Obsessive compulsive disorder have a significant and devastating influence on bipolar in older persons

(ii) To demonstrate that Panic disorder has a significant and devastating influence on bipolar disorder in older persons

(iii)To demonstrate that Post traumatic disorder has a significant and devastating influence on bipolar disorder in older persons.

1.4: RESEACH QUESTIONS;

1.4.1: General Research Question

- What influence does anxiety have on bipolar disorder in elderly people?

1.4.2: Specific Research Questions

(i) What influence does obsessive compulsive disorder have on bipolar in older persons?

(ii) What influences does Panic disorder have on bipolar disorder in older persons?

(iii) What influence does post traumatic disorder have on bipolar disorder in older persons?

1.5: RESEARCH HYPOTHESIS

1.5.1: General Research Hypothesis

- Anxiety has devastating influence on bipolar disorder in the elderly persons.

1.5.2: Specific Research Hypothesis

(i) Obsessive compulsive disorder has a significant influence on bipolar in older persons.

(ii) Panic disorder has a significant influence on bipolar disorder in older persons.

(iii) Post traumatic disorder has a significant influence on bipolar disorder in older persons.

1.6: INTEREST OF THE STUDY

The results of this study or research will be of significant importance to Special Educators, medical personnel, Science and the society.

1.6.1: Educational Interest.

This research work will continue to enrich other existing literature in this domain and will serve as an added scientific resource that will challenge medical personnel to give attention to the

effective diagnosis and treatment of bipolar disorder and thus enhance the mental health of the elder population not just in Cameroon but for Africa and the globe. It will serve as a great tool for students and researchers in mental health and gerontology as new lines scientific findings are vital for the discovery of sustainable treatments.

1.6.2: Medical and Professional domain

The knowledge of the effects of anxiety on bipolar disorder in elderly persons is important to the medical field because it will help doctors and healthcare professionals to come up with effective diagnostic techniques that clear and specific for accurate diagnosis and treatment of elderly patients with bipolar disorder. It will equally provoke them to research and develop effective treatment plans that address both the bipolar disorder and anxiety symptoms.

This research work will serve as a great resource to geriatric psychiatry in Cameroon as the diagnosis of bipolar disorder will no longer be lightly taken. Thus, maximum attention will be given to address old age bipolar and thus gradually reduce the prevalence rate of mental health degeneration in the older population.

In science, this knowledge will contribute to further research and understanding of bipolar disorder and its associated anxiety symptoms in the elderly population. It will also lead to the development of new treatments and interventions that improve the quality of life for elderly individuals with bipolar disorder and anxiety. Medical personnel will be more apt and take into consideration the need for effective bipolar diagnosis and ensure for sustainable treatment.

1.6.3: Social interest

The family members of the elderly bipolar patients will be educated on how to psychologically handle the older bipolar patients in the family and create the conducive environment necessary to diminish the anxiety effects on them, thus facilitating their recovery process.

This is going to result to sustainable health, reduced mortality rate, increased quality of life and increased participation of the elderly population in the development of their communities.

1.7: DELIMITATIONS (SCOPE)

1.7.1: Geographical delimitation

This study was limited to the Center region in the Mfoundi Division; in the Yaoundé District Hospital. The study was actively carried out at the Geriatric service which happens to be one amongst other major departments in the Yaoundé District Hospital.

1.7.2: Thematic delimitation

The thematic of this study is centered on bipolar disorder and is focused just on bipolar 1 and bipolar II on the age group of 60years and above. The World Health Organization defines old age and elderly persons as from the age of 60years and above.

1.8: LIMITATIONS

In the course of carrying out this research, the researchers were faced with several challenges. These challenges however did not stop or prevent them from carrying out the research. Some of the prominent challenges faced were finance. As full time students living at the outskirts of the town, it was financially burdensome for us to have a consistent study of our participants given that the central hospital where research was conducted is quite distant from the residents of the researchers. Also, the difficulty to closely work with medical personnel and get the required details pertaining to the area of study as most of them were very stern and sometimes unwilling to give out the needed information. Shortage of time to carry out the research and report on it, the difficulty of finding our exact population which had to do with elderly persons in a geriatric situation diagnosed with bipolar disorder. Given that the subject of mental disorder is looked upon more from the cultural perspective in Cameroon, coming across elderly persons who have been medically diagnosed to be bipolar positive was a very tough task.

CHAPTER TWO

LITERATURE REVIEW

This chapter will focus on literature related to this topic such as anxiety, posttraumatic disorder, obsessive compulsive disorder, panic disorder, bipolar l, bipolar ll, mania, hypomania and depression. This chapter attempts the grounding of terms, concepts, assumptions and theories of this study in past or previous studies to establish and generalize its findings to a wider context. It consists of the conceptual framework, which discusses the courses inherent to major variables of this study. The theoretical frame work defines and explains the major theories employed in the study. The review of related literature attempts a study related works to carve out the contributions of this study. We are going to start by defining the major terms that are at the center of this study.

2.1 DEFINITION OF TERMS

- **Special Education**

Special Education is defined by the Individuals with Disabilities Education Act (IDEA) as "specially designed instruction, at no cost to parents, to meet the unique needs of a child with a disability" (U.S. Department of Education, 2017). According to Turnbull and Turnbull (2015), special education is a system of education that provides individualized instruction and support to persons at all ages with disabilities in order to help them reach their full potential.

Kauffman and Hallahan (2018) define special education as a set of services and supports that are provided to students with disabilities in order to help them access the general education curriculum and participate in school activities.

- **Mental disabilities**

According to the American Psychiatric Association (APA) (2013), mental disabilities, also known as intellectual disabilities, are characterized by significant limitations in intellectual functioning and adaptive behavior, which manifest during the developmental period.

In Africa, mental disabilities are often stigmatized and misunderstood. The African Journal of Disability (2018) notes that mental disabilities are often seen as a curse or punishment, rather than a medical condition requiring treatment and support.

- **Bipolar disorder**

The American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM-5) defines bipolar disorder as a group of disorders characterized by mood swings that range from depressive lows to manic highs. These disorders include bipolar I disorder, bipolar II disorder, and cyclothymic disorder. According to Merikangas and Swendsen (2018) bipolar disorder is a serious mental illness that is characterized by episodes of mania or hypomania, as well as episodes of depression.

In Africa, bipolar disorder has been defined as "a psychiatric illness characterized by recurrent episodes of mania and depression" (Adegbite, 2020). The World Health Organization (WHO) also recognizes bipolar disorder as a significant public health concern in Africa, with an estimated prevalence of 1-2% in the general population (WHO, 2016).

While in Cameroon, bipolar disorder has been defined as "a mood disorder characterized by episodes of mania, hypomania, and depression" (Njamnshi et al., 2015).

- **Anxiety disorder**

Different authors and organizations have defined anxiety disorder in various ways. The American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM-5) defines anxiety disorders as a group of disorders characterized by excessive fear or anxiety and related behavioral disturbances. These disorders include generalized anxiety disorder, panic disorder, specific phobia, social anxiety disorder, and others.

In Africa, anxiety disorder has been defined as "a condition of excessive and persistent worry, fear, or apprehension about everyday situations, events, or objects" (Adeosun, 2019). The World Health Organization (WHO) also recognizes anxiety disorders as a significant public health concern in Africa, with an estimated prevalence of 10-15% in the general population (WHO, 2016). Njunda (2020), defines anxiety disorder as "a state of excessive worry, fear, or apprehension about real or imagined future events or situations that are difficult to control or avoid" A study conducted in Cameroon found that the prevalence of anxiety disorder among university students was 25.5% (Njunda, 2020).

- **Older persons**

The World Health Organization (WHO) defines old age as "the period of life after 60 years of age" (WHO, 2015). The United Nations (UN) defines elderly persons as "persons aged 60 years or over" (UN, 2021).

According to the American Geriatrics Society (AGS) older adult are persons aged 65 years or older" (AGS, 2019). In India, the National Policy for Older Persons defines an elderly person as "a person who has attained the age of 60 years" (Government of India, 1999).

In Japan, the Ministry of Health, Labour and Welfare defines elderly persons as "persons aged 65 years or over" (Ministry of Health, Labour and Welfare, 2020).

The definition of old age varies in the African context depending on cultural and traditional beliefs. In Cameroon, the government recognizes individuals aged 60 and above as senior citizens (Republic of Cameroon, 2011).

- **Gerontology**

According to the World Health Organization (WHO) (2015), gerontology is the study of aging and its associated physical, social, and psychological changes. The Journal of Gerontology: Medical Sciences (2014) defines gerontology as the scientific study of aging and its impact on individuals and society.

The Encyclopedia of Gerontology and Population Aging (2019) describes gerontology as a multidisciplinary field that encompasses various disciplines, including biology, psychology, sociology, and economics, to study the aging process and its implications for individuals and society.

- **Geriatrics**

The American Geriatrics Society (AGS, 2014) defines geriatrics as the medical specialty that focuses on the care of older adults, including the prevention and treatment of age-related health problems.

Geriatrics is described by the Oxford Textbook of Geriatric Medicine (2017) as the branch of medicine that deals with the health and care of older people, including the prevention and management of age-related diseases and disabilities. The Merck Manual of Geriatrics (2018)

defines geriatrics as the medical specialty that focuses on the health and well-being of older adults, including the diagnosis, treatment, and management of age-related health problems.

2.2 CONCEPTUAL FRAMEWORK

The conceptual framework of a study is the system of concepts, assumptions, expectations, beliefs, and theories that support and informs the researcher (Casaave, 2015). To put this within its proper perspective, it was necessary to review the conceptualized studies by previous works. In this section, therefore, anxiety and bipolar as well as their types are stated. In addition, the following major variables of the study are reviewed: posttraumatic disorder, obsessive compulsive disorder, panic disorder, bipolar l, bipolar ll, mania, hypomania and depression.

2.2.1 Definition of Bipolar Disorder

The Diagnostic and Statistical Manual of Mental Disorders (DSM-5) defines bipolar disorder as a mental illness characterized by episodes of mania and depression that alternate or occur together. (APA, 2013) While Goodwin and Jamison (2007), bipolar disorder is a chronic and recurrent mood disorder that affects approximately 1-2% of the population worldwide. The disorder is characterized by episodes of mania, hypomania, and depression. According to Akiskal (2004) defines bipolar disorder as a complex mood disorder that involves recurrent episodes of mania and depression, as well as periods of mixed symptoms. The disorder is often associated with significant impairment in social, occupational, and other areas of functioning.

The definition by Ghaemi (2011) is highly considered in this research study. He describes bipolar disorder as a condition that involves extreme fluctuations in mood, energy, and activity levels. The disorder is often associated with significant impairments in cognition, emotion regulation, and social functioning.

2.2.2 Types of Bipolar disorder:

Bipolar disorder is a mental health condition that is characterized by significant shifts in a person's mood, energy, and concentration. While the average age of onset for bipolar disorder is 25 years, some people develop the condition much later in life (Lindsey, 2022). About one-quarter of all people with bipolar disorder are 60 years of age or older, and that number is

expected to grow by 2030. While the symptoms of bipolar disorder can vary with age, the frequency, severity, and overall impact of the disorder are generally different in older adults versus younger people (Elisha et al., 2023)

According to experts, bipolar disorder may speed up aging and contribute to cognitive decline. Older studies have found a link between bipolar disorder and cognitive decline, as well as an increased risk of dementia with each bipolar disorder episode. (Kessing & Andersen, 1999)

- **Mania and hypomania (Bipolar I)**

Mania and hypomania are two distinct types of episodes, but they have the same symptoms. Mania refers to a state of **abnormally and persistently elevated, expansive, or irritable mood**, often accompanied by excitement, overactivity, agitation, overoptimism, grandiosity, or impaired judgment. Symptoms of mania can include a sustained period of exaggerated, extreme, and sometimes dangerous behaviors.

Hypomania is a less severe form of mania, and **both are commonly part of bipolar disorder**. Hypomania is a condition in which you have a period of abnormally elevated, extreme changes in your mood or emotions, energy level or activity level.

- **Major depressive episode (bipolar II)**

The American Psychiatric Association (APA) defines a depressive episode as a period in one's life of at least two weeks, during which they exhibit the requisite symptoms of major depressive disorder (MDD). The APA's Diagnostic and Statistical Manual's fifth edition (DSM-V) states that a depressive episode must include a number of the below and other symptoms in order to meet the requirements for an official depressive episode diagnosis. The symptoms of MDD are diverse, and include the following;

An official MDD diagnosis can be given even after a single depressive episode has been recorded, in which case it would be considered a single-episode instance of MDD. An MDD diagnosis could also include more than one depressive episode, in which case it would be considered a recurrent episode case of MDD.

- **Cyclothymic Disorder**

Also called Cyclothymia, this mood disorder consists of numerous alternating periods of hypomanic and depressive symptoms.

Unlike bipolar I and II disorders, the highs and lows of cyclothymia are not severe enough to fit the full criteria for manic, hypomanic, or major depressive episodes. However, these symptoms must be present for at least half the time for a period of at least two years, with no symptom-free period for more than two months. It is important to note that our study is centered on bipolar l and ll

2.2.3 Bipolar disorder mood Episodes.

Old People with bipolar disorder may experience periods of unusually intense emotion, changes in energy and activity levels, and uncharacteristic behaviors. These distinct periods are called mood episodes. There are three main mood episodes that characterize bipolar disorders:[1]

- **Manic:**

During a manic episode, you may feel extremely energized and happy, or sometimes even unusually angry or irritable. You feel like you have extra energy to burn. This period generally needs to last at least one week to be diagnosed. Mania is a mental health condition characterized by periods of elevated or irritable mood, increased energy, and decreased need for sleep, among other symptoms. Mania can be a symptom of bipolar disorder, but can also occur in other conditions such as substance use disorders or certain medical conditions. According to the American Psychiatric Association (2013), mania is "a distinct period of abnormally and persistently elevated, expansive, or irritable mood and abnormally and persistently increased activity or energy, lasting at least 1 week and present most of the day, nearly every day."

In Europe, the World Health Organization (1992) defined mania as "a state characterized by an abnormally and persistently elevated, expansive or irritable mood, lasting at least one week and accompanied by at least three of the following symptoms: inflated self-esteem or grandiosity, decreased need for sleep, talkativeness, racing thoughts, distractibility, increased goal-directed activity or psychomotor agitation, and excessive involvement in pleasurable activities that have a

high potential for painful consequences." A study by Akena et al. (2015) in Uganda described mania as "a state of elevated or irritable mood with increased energy or activity levels, reduced need for sleep, and impaired judgment and insight."

- **Hypomanic:**

Less severe manic episodes are called hypomania. Hypomanic episodes only need to be present for four days for the diagnosis to be made. Hypomania is a mental health condition characterized by elevated or irritable mood, increased energy, and heightened creativity or productivity. It is a less severe form of mania, which is a symptom of bipolar disorder. Here are some definitions of hypomania from authors around the world**.** According to the APA (2013), hypomania is "a distinct period of abnormally and persistently elevated, expansive, or irritable mood and abnormally and persistently increased activity or energy lasting at least 4 consecutive days and present most of the day, nearly every day."

- **Depressive Episode:**

A major depressive episode is a period of at least two weeks during which you experience five or more depressive symptoms nearly every day and they impact your functioning. Depression is a mental health condition characterized by persistent feelings of sadness, hopelessness, and loss of interest or pleasure in activities. It can also include physical symptoms such as fatigue, changes in appetite or sleep patterns, and difficulty concentrating or making decisions. Here are some definitions of depression from authors around the world:

According to the APA (2013), depression is "a period of at least 2 weeks during which there is either depressed mood or the loss of interest or pleasure in nearly all activities, along with at least four additional symptoms of depression." The World Health Organization (1992) defined depression as "a mood state characterized by intense feelings of sadness, despair, helplessness, and worthlessness, accompanied by physical symptoms such as fatigue, changes in appetite, and sleep disturbances."

A review by de Sousa (2013) in Brazil defined depression as "a mood disorder characterized by persistent sadness, loss of interest or pleasure in activities, feelings of worthlessness or guilt, and physical symptoms such as fatigue and changes in appetite or sleep."

- **Mixed episode:**

Some people can even experience symptoms of depression and mania at the same time (or one right after the other). This is called a

2.2.4: Causes of Bipolar anxiety disorders in elderly persons

The exact cause of bipolar disorder is unknown. Experts believe there are a number of factors that work together to make a person more likely to develop it. These are thought to be a complex mix of physical, environmental and social factors.

- **Chemical imbalance in the brain;**

Bipolar disorder is widely believed to be the result of chemical imbalances in the brain.

The chemicals responsible for controlling the brain's functions are called neurotransmitters, and include noradrenaline, serotonin and dopamine. There's some evidence that if there's an imbalance in the levels of 1 or more neurotransmitters, a person may develop some symptoms of bipolar disorder.

For example, there's evidence that episodes of mania may occur when levels of noradrenaline are too high, and episodes of depression may be the result of noradrenaline levels becoming too low.

- **Genetics**

It's also thought bipolar disorder is linked to genetics, as it seems to run in families. The family members of a person with bipolar disorder have an increased risk of developing it themselves.

But no single gene is responsible for bipolar disorder. Instead, a number of genetic and environmental factors are thought to act as triggers.

- **Triggers**

A stressful circumstance or situation often triggers the symptoms of bipolar disorder.

Examples of stressful triggers include:

- The breakdown of a relationship
- physical, sexual or emotional abuse

- the death of a close family member or loved one

These types of life-altering events can cause episodes of depression at any time in a person's life.

Bipolar disorder may also be triggered by:

- physical illness
- sleep disturbances
- overwhelming problems in everyday life, such as problems with money, work or relationships

2.2.5: Diagnosis and symptomology of Bipolar disorders in elderly persons.

BD, previously known as 'manic depression', was first described by Kraepelin (1921) and is a mood disorder characterized by periods of extreme lows (depression) and extreme highs (hypomania / mania) in mood. According to the American Psychiatric Association's Diagnostic and Statistical Manual 5th edition (APA, 2013), to be characterized as a mood episode symptoms of depression must last for at least two weeks and interfere significantly with a person's normal functioning (see Table below). Episodes of elevated mood are defined as either mania or hypomania. Manic episodes typically last at least seven days and are marked by significant impairment in functioning, with or without psychosis.

Hypomanic episodes also indicate abnormally elevated mood which is out of character for an individual, but last a minimum of four days and do not interfere significantly with a person's usual functioning. Mixed states occur when symptoms of depression and mania are present simultaneously and result in significant impairment in functioning.

Individuals who experience episodes of mania with or without depression are classified as having bipolar I disorder (BD I). Individuals who experience hypomanic episodes with depressed episodes are diagnosed as having bipolar II disorder (BD II). Although individuals who experience mania do not have to experience depression to meet criteria for BDI, the majority of people will experience a lifetime depressed episode (Morgan et al., 2005).

Two additional bipolar subtypes are also defined in the DSM-5. Cyclothymic disorder is included and denotes the experience of numerous sub-threshold episodes of depression and hypomania within a two year period, with recovery from symptoms lasting a maximum of two months and where there is no evidence of a major depressed or manic episode within this time frame.

Table 1. Symptoms of depression, mania and hypomania as defined in the DSM-5 (Kay, 2014)

Depression: Five or more symptoms present in the same tw o week period and representing a change in usual functioning. At least one symptom is 1. or 2.	**Mania: A distinct period of seven days or more of abnormally elevated or irritable mood, with three or more additional symptoms present in the same time period. Symptoms do cause clinically significant impairment.**	**Hypomania: A distinct period of four days or more of abnormally elevated or irritable mood, with three or more additional symptoms present in the same time period. Symptoms do not cause clinically significant impairment.**
1. Depressed mood	1. Markedly elevated / irritable mood	1. Markedly elevated / irritable mood
2. Markedly diminished interest / pleasure	2. Mood change lasts at least seven days	2. Mood change lasts at least seven days
3. Unintentional weight loss or gain	3. Increased self-esteem / grandiosity	3. Increased self-esteem / grandiosity
4. Insomnia / hypersomnia	4. Decreased need for sleep	4. Decreased need for sleep
5. Psychomotor agitation / retardation	5. More talkative / pressure of speech	5. More talkative / pressure of speech
6. Significant fatigue/ loss of energy	/ 6. Flight of ideas / racing thoughts	/ 6. Flight of ideas / racing thoughts
7. Worthlessness / excessive guilt	7. Distractible	7. Distractible
8. Reduced concentration / indecisiveness	8. Increased goal directed activity / psychomotor agitation	8. Increased goal directed activity / psychomotor agitation
9. Recurrent thoughts of death, suicide plan or attempt	9. Excessive pleasurable risk-taking activities.	9. Excessive pleasurable risk-taking activities.
10. Clinically significant distress / impairment	10. Clinically significant impairment	10. Clinically significant impairment

- **Psychological Evaluation**

One study found that psychological evaluations can be useful in identifying the presence of bipolar disorder and distinguishing it from other mental health conditions (Fountoulakis et al., 2017). The evaluation may include a clinical interview, self-report questionnaires, and behavioral assessments. Another study found that psychological evaluations can also help in predicting the course of bipolar disorder and identifying risk factors for relapse (Yatham et al., 2018). This information can be used to develop personalized treatment plans that address the individual's specific needs and challenges.

During a psychological evaluation, a specialist asks if you have a family history of bipolar disorder, depression, or anxiety disorders. He or she asks about your symptoms when they started, how long they have lasted, how severe they are, whether they have occurred before, and, if so, how they were treated.

The specialist asks if you are using alcohol or drugs and if you are thinking about death or suicide. In addition, he or she may ask you to complete a questionnaire to clarify how your symptoms affect your life.

After the specialist assesses your symptoms and family history, he or she conducts a feedback session, during which you discuss the diagnosis and most appropriate treatment options.

2.2.6: Neurobiology and Brain Function in Elderly Persons with Bipolar disorder.

Brain-imaging studies, such as functional magnetic resonance imaging (FMRI) and positron emission tomography (PET), are helping scientists understand how the brain of an elderly person with bipolar disorder works (Soares & Mann, 1997a ; Soares & Mann, 1997b).

The results of some studies suggest that the brain of elderly persons with bipolar disorder may be different from brains of healthy people or people with other mental disorders. For example, one study using MRI found that the pattern of brain development in children with BPAD was similar to that in children with “multi-dimensional impairment,” a disorder that causes symptoms that overlap somewhat with BPAD and schizophrenia (Gogtay et al., 2007). This suggests that a common pattern of brain development may be linked to a general risk for unstable moods and may contribute to mood instability in a number of psychiatric illnesses.

Another study used functional brain imaging to examine the density of binding sites for norepinephrine, serotonin, and dopamine in the brains of elderly persons with bipolar disorder. Norepinephrine, serotonin, and dopamine are all brain chemicals known to be involved in mood regulation, stress responses and one's thinking abilities. (Zubieta et al., 2000). The study showed a higher density of binding sites for these brain chemicals in certain areas of the brain in persons with bipolar disorder, compared to the same areas of the brain in persons without bipolar disorders. This may mean that the brains of persons with these disorders might react more strongly, or in a different way to these crucial brain chemicals. In a longitudinal structural MRI study of bipolar disorder, Abé et al. reveal a reduction in volume of frontal cortex in patients who experience manic episodes, but not in those who remain well. The results suggest that frontal grey matter loss in bipolar disorder can be attributed to the occurrence of mania.

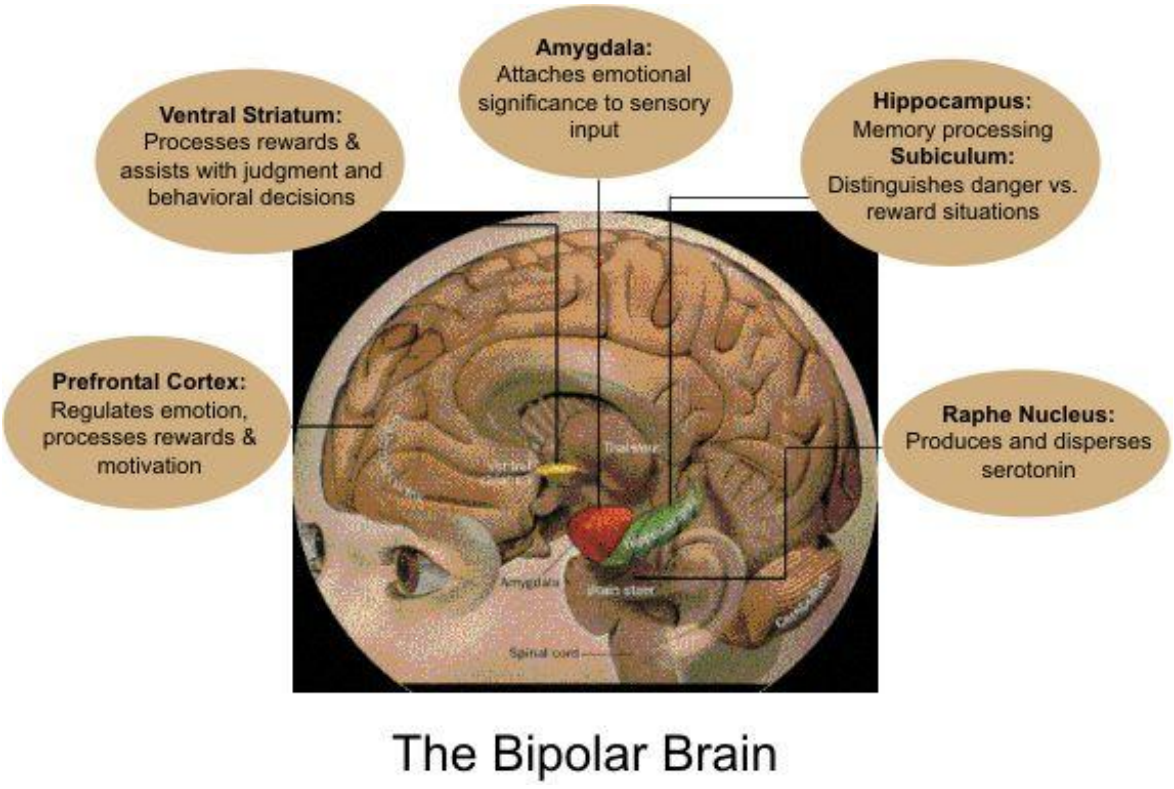


Fig 1: Various areas of the brain affected by bipolar disorder (Miklowitz & Johnson, 2009).

Bipolar disorder affects various areas of the brain, including the prefrontal cortex, amygdala, hippocampus, and striatum as represented in the above diagram. In elderly individuals with

bipolar disorder, these brain regions may show greater structural and functional changes, leading to cognitive impairment, emotional dysregulation, and increased risk of relapse. Anxiety disorders may further exacerbate these changes and contribute to poorer outcomes in this population.

Experts believe bipolar disorder is partly caused by an underlying problem with specific brain circuits and the functioning of brain chemicals called neurotransmitters. Three brain chemicals like norepinephrine, serotonin, and dopamine are involved in both brain and bodily functions. Norepinephrine and serotonin have been consistently linked to psychiatric mood disorders such as depression and bipolar disorder. Nerve pathways within areas of the brain that regulate pleasure and emotional reward are regulated by dopamine. Disruption of circuits that communicate using dopamine in other brain areas appears connected to psychosis and schizophrenia, a severe mental disorder characterized by distortions in reality and illogical thought patterns and behaviors. Imbalances of Serotonin, dopamine, norepinephrine which are the brain chemicals may prompt manic, depressive or hypomanic mood episodes. This is particularly the case when environmental triggers or other factors come into play.

- **Sleep influence by Bipolar Disorder**

The brain chemical serotonin is connected to many body functions such as sleep, wakefulness, eating, sexual activity, impulsivity, learning, and memory. Researchers believe that abnormal functioning of brain circuits that involve serotonin as a chemical messenger contributes to mood disorders. Some findings show that people with bipolar disorder have a genetic predisposition to sleep-wake cycle problems that may trigger symptoms of depression and mania. The problem for those with bipolar disorder, however, is that sleep loss may lead to a mood episode such as mania in some patients. Worrying about losing sleep can increase anxiety, thus worsening the bipolar mood disorder altogether. Aging diminishes sleep and this is worsened when an elderly person in question is affected by bipolar and anxiety disorder.

2.3 THEORETICAL REVIEW

Several studies have found a high incidence of anxiety disorders in older adults with bipolar disorder (Ibanez et al., 2018 ; Yang et al., 2018). Anxiety symptoms often precede the onset of bipolar disorder or worsen during manic or depressive episodes, interfering with the treatment

and outcome of the disorder (Shapero et al., 2019). Anxiety can exacerbate symptoms of mania and depression, compromising patients' daily functional capacity, recovery, and relapse prevention (Bourne et al., 2013). Anxiety is a common comorbidity in elderly individuals with bipolar disorder, and its effects on the course and treatment of the disorder have been explored within the theoretical frameworks of various psychoanalytic and cognitive-behavioral models. According to the cognitive-behavioral model, anxiety in bipolar disorder may exacerbate mood symptoms, increase the risk of relapse, and interfere with treatment adherence (Scott et al., 2006). This model posits that negative automatic thoughts and cognitive biases associated with anxiety can trigger manic or depressive episodes and those interventions targeting these cognitive processes can improve outcomes. In contrast, the psychoanalytic model views anxiety as a result of unconscious conflicts and defenses, which may be related to early experiences of loss, trauma, or attachment disruptions (Perry, 2014). This model suggests that addressing these underlying issues through psychodynamic therapy can reduce anxiety and improve overall functioning in elderly individuals with bipolar disorder. Other theoretical models have also been proposed to explain the relationship between anxiety and bipolar disorder in elderly individuals. For example, the stress-diathesis model suggests that anxiety may act as a stressor that triggers bipolar episodes in vulnerable individuals (Miklowitz & Johnson, 2009). The emotion regulation model proposes that difficulties in regulating emotions may underlie both anxiety and bipolar symptoms (Gruber et al., 2011). Despite these different theoretical perspectives, most studies agree that anxiety is associated with poorer outcomes in elderly individuals with bipolar disorder. For example, a study by Sajatovic et al. (2005) found that anxiety was a significant predictor of poor adherence to medication in this population. Another study by Kim et al. (2014) found that anxiety was associated with more severe depressive symptoms and worse quality of life in elderly individuals with bipolar disorder.

In Africa, a study conducted in Zimbabwe found that elderly individuals with bipolar disorder and comorbid anxiety had a poorer quality of life compared to those with bipolar disorder alone (Munetsi et al., 2018). The presence of anxiety symptoms was also associated with a higher frequency of hospitalization and a longer duration of hospital stay (Munetsi et al., 2018). Another study conducted in Nigeria found that greater anxiety severity was associated with worse cognitive functioning in elderly patients with bipolar disorder (Izegbu et al., 2018). These findings highlight the importance of screening for anxiety in elderly patients with bipolar

disorder in Africa. Clinicians should be aware that anxiety symptoms may exacerbate bipolar disorder symptoms and lead to poor treatment outcomes. Treatment interventions for anxiety in the elderly with bipolar disorder may include medication, psychotherapy, and lifestyle interventions such as exercise and relaxation techniques (Mwika et al., 2021). The comorbidity of anxiety in elderly individuals with bipolar disorder in Africa is an area that requires further research. Clinicians should be aware of the potential effects of anxiety on bipolar disorder in elderly patients and be proactive in screening for and treating this comorbidity. The overall literature suggests that anxiety symptoms are associated with decreased quality of life, increased functional impairment, and worse treatment outcomes among elderly people with bipolar disorder (Ibanez et al., 2018 ; Torres et al., 2015). Understanding the effects of anxiety on bipolar disorder in elderly individuals can help healthcare providers better tailor interventions and treatments to address these comorbidities.

2.4 EMPIRICAL REVIEW

BD is associated with high rates of other psychiatric disorders, one of the most common being co-occurring ADs, with up to 93% lifetime (McIntyre & Keck, 2006) and 32% current ADs (Otto, 2006) reported for individuals with BD. Anxiety in BD has been associated with poorer outcomes. The majority of current research has compared individuals with ADs to those without. Recent review highlighted that research in this area is largely descriptive and is heavily biased towards clinical outcome and prevalence rather than process or treatment (Hawke and Provencher, 2012). As such, little is known about anxiety in BD as an experience as opposed to a diagnostic category. Currently it is unclear how anxiety experiences may impact on important life domains, the temporal nature of the relationship between mood and anxiety symptoms, or whether the experience of anxiety is something which requires specific attention in terms of future research and treatment. Research has highlighted relatively early on that addressing anxiety as part of bipolar treatment may be key to treating BD successfully (Feske, 2000) and efforts have been made to develop and evaluate trans-diagnostic interventions.

Research which has found that anxiety occurs outside of bipolar mood episodes has been suggested as evidence that BD and anxiety are true comorbidities (Perugi, 2001). Cognitive and behavioural processes are implicated in the experience of depression, mania and anxiety, which have been suggested to differ qualitatively in content but ultimately are maintained, at least in

part, due to general dysfunctional cognitive styles and behavioral responses in older persons. (Segerstrom et al., 2000).

Bird, (2013) found that thought suppression, experiential avoidance and worry were equally predictive of depression and anxiety whether considered separately or as a single factor. More recently it has been proposed that anxiety and BD are trans-diagnostic features of the same condition, where anxiety is integral to the development and instability of mood which is characteristic of BD. This marks a return to earlier conceptualizations of 'manic depression', when anxiety was recognized as a specific symptom of BD, specifically relating to 'nervous energy' during mania and 'restless agitation' during depression (Diefendorf, 1907). There is a huge overlap of symptoms observed for individuals with ADs and BD. These include sleep disruption, irritability, anger and impulsivity (DSM-IV) which may indicate a shared etiology. Several of the same risk factors have been found to be associated with both anxiety and BD, including increased exposure to trauma in childhood and later life, greater neuroticism, low social support and lower economic status compared to individuals with no mental health difficulties (Lu, Mueser, Rosenberg, & Jankowski, 2008; Sugaya, Hasin, Olfson, Lin, Grant & Blanco, 2012), suggesting that BD and anxiety may be underpinned by at least some of the same psychological processes.

ADs are one of the most prevalent disorders reported in the general population and a recent meta-regression adjusting for methodological differences between studies estimated current global prevalence rates for ADs in the general population to be 7.3% (Alloy et al., 2012). Prevalence rates of ADs in BDI and II populations exceed this, with prevalence rates up to 52.8% for current ADs (Henry, Van den Bulke, Bellivier, Etain, Rouillon, & Leboyer, 2003; McElroy et al., 2001; Otto et al., 2006) and up to 92.9% for lifetime AD prevalence in large community-based surveys (Kessler, 1999; Merikangas et al., 2007; Sala, Goldstein, Morcillo, Liu, Castellanos & Blanco, 2012), although these findings are not universal (Sorvaniemi & Hintikka, 2005). Bipolar spectrum disorders including cyclothymia have also been found to be significantly associated with both full syndrome and sub-threshold ADs (Lewinsohn et al., 2012).

Similarly, individuals with primary ADs have been found to be at risk of manic or hypomanic episodes, with up to 58.8% of individuals found to meet clinical threshold criteria for lifetime

BD (Masi et al., 2007; Perugi & Akiskal, 2002 ; Sugaya et al., 2013 ; van den Berg et al., 2010) or cyclothymic disorder (Del Carlo et al., 2013). A synthesis of the bipolar literature found that ADs were the most prevalent psychiatric disorders in BD across studies, with an average of 71% of participants meeting criteria for any lifetime AD (Krishnan et al. 2005). This was in comparison to significantly lower mean prevalence rates for other axis I disorders across studies, such as substance use disorder (56%), alcohol abuse disorders (49%) and personality disorders (36%).

Average prevalence rates for specific ADs were also calculated and reported as 47% for SoP, 39% for PTSD, 11% for PD (with or w ithout Ago) and 10% for OCD (Krishnan et al., 2005). Geographical location appears to have little effect, with high AD 27 prevalence rates in BD reported in China, India, Canada, USA, Europe and Africa (Altindag et al., 2006 ; Altshuler et al., 2010; Chang et al., 2012 ; Das, 2013 ; Hawke et al. 2013; Zutshi et al., 2006). High anxiety rates have been found to persist across the life span for individuals with BD. Despite overall agreement within the current literature that prevalence of ADs in BD is high, there is a wide variation in the prevalence rates reported. Once again, this questions the reliability of the categorical diagnostic assessment of ADs. However, the majority of studies report high anxiety prevalence rates independent of the diagnostic measure used (Otto et al., 2004) and comparably high rates of ADs have been replicated across a number of clinical samples including inpatient (Das, 2013), outpatient (Otto et al. 2004) and community samples (Sala et al., 2012), and for individuals with BD assessed both during acute mood episodes (Frank et al., 2002; Gaudiano & Miller, 2005) and during periods of euthymia (Albert et al. 2008 ; Zutshi et al., 2006). Taking limitations of diagnostic research into account, at worst this does highlight the common occurrence of high levels of anxiety both in and out of mood episodes.

2.5 THEORIES OF BIPOLAR DISORDER

As we progress with this thesis, dominant models within the anxiety and bipolar literature are reviewed to evaluate the ability of these models to explain and account for the experience and impact of anxiety in BD in light of what is currently known about those experiences. The genetic, cognitive, neurobiological, Psychoanalytic, the kindle and Behavioral theories of bipolar disorder will be examined.

- **The neurobiological theory of Bipolar disorder**

Overview of Theory

The neurobiological theory of bipolar disorder is supported by researchers such as Husseini Manji, Ellen Leibenluft, and Mark Frye. This theory proposes that imbalances in neurotransmitters, particularly dopamine and serotonin, and abnormalities in brain structure and function contribute to the development of bipolar disorder. (Allan & Mario, 2020). Some of the key neurobiological factors implicated in bipolar disorder include:

- Neurotransmitters: Neurotransmitters are chemicals that transmit signals between neurons In the brain. Abnormalities in neurotransmitter levels, particularly dopamine, serotonin, and norepinephrine, have been associated with bipolar disorder (Allan & Mario, 2020).

- Brain Structure: Studies have shown that people with bipolar disorder have differences in brain structure compared to those without the condition. Specifically, there may be changes in the size and activity of certain brain regions, including the prefrontal cortex, amygdala, and hippocampus (Allan & Mario, 2020).

- Hormones: Hormones such as cortisol and thyroid hormones have been linked to bipolar disorder. High levels of cortisol, for example, can trigger manic episodes, while low levels can lead to depression (Allan & Mario, 2020).

- **Genetic Theory of Bipolar disorder**

Overview of Theory

The genetic theory of bipolar disorder is supported by numerous researchers, including Francis McMahon, Pamela Sklar, and John Kelsoe. This theory suggests that genetic factors play a significant role in the development of bipolar disorder, with heritability estimates ranging from 60-80%. Studies have identified several genes that may be involved in the disorder, although the exact genetic mechanisms are not yet fully understood. (Francis & Francis 2020). Studies have found that people with a family history of bipolar disorder are more likely to develop the condition themselves.

While no single gene has been identified as the cause of bipolar disorder, researchers believe that multiple genes may be involved. Variations in certain genes may increase a person's

susceptibility to developing bipolar disorder when triggered by environmental factors such as stress or substance abuse.

In conclusion, both neurobiological and genetic factors are thought to play a role in the development of bipolar disorder. While more research is needed to fully understand the underlying mechanisms, a better understanding of these factors may lead to more effective treatments and interventions for those living with bipolar disorder.

- **The behavioral inhibition system (BIS) / behavioral activation system (BAS) model of BD**

Overview of theory

This model suggests that individuals with bipolar disorder have an overactive behavioral activation system (BAS) and an underactive behavioral inhibition system (BIS), leading to a tendency towards impulsivity and reward-seeking behavior during manic episodes and withdrawal and avoidance during depressive episodes. This theory is supported by research showing that individuals with bipolar disorder often exhibit high levels of impulsivity and sensation-seeking behavior during manic episodes and social withdrawal during depressive episodes.

The BIS/BAS model was originally proposed by (Gray 1990) as a bio-psychological theory of personality which hypothesized that two basic motivational systems residing in the brain underlie all human behavior and emotion. The BIS is an aversive motivational system which is sensitive to cues associated with punishment, non-reward, novelty and failure.

The BIS is proposed to inhibit behavior which may lead to negative outcomes, resulting in avoidance and reduced goal-pursuit. (Gray 1987,1990) also hypothesized that BIS activation results in negative affect in response to relevant cues, including fear, anxiety, frustration and sadness. The BAS is an appetitive motivational system which is sensitive to reward-related stimuli, either internal, such as expectancies regarding goal attainment, or external, such as presence of a desired goal, and regulates approach and goal-seeking behavior (Alloy et al., 2012; Gray, 1982). BAS activation is proposed to result in positive affect, including happiness, elation and hope. Individual differences in sensitivity of the BIS and BAS have been proposed to underlie mood instability in mood disorders such as BD (Depue & lacono, 1989).

Treatment approaches based on this theory according to special educators may focus on regulating the BAS and BIS systems through cognitive-behavioral therapy, mindfulness-based interventions, and medication management. By helping individuals with bipolar disorder develop greater awareness and control over their thoughts and behaviors, these approaches may help reduce the frequency and severity of mood episodes.

- **Cognitive Theory of Bipolar disorder**

Overview of theory

The proponents of the cognitive theory of bipolar disorder include Aaron Beck, David Clark, and Steven Hollon. They suggest that negative thoughts and beliefs about oneself, the world, and the future can contribute to the development and maintenance of mood episodes in bipolar disorder. In Beck's original cognitive model (1967), he suggests that depressed mood states are accentuated by patterns of thinking that amplify mood shifts. Scott and his colleagues (2000) explored several aspects of the cognitive model simultaneously, including dysfunctional attitudes, positive and negative self-esteem, suicide, autobiographical memory and problem solving skills in the elderly. (Lisa, Jan, Sayeed & scott 2005) Specifically this model proposes that distortions in thinking accompany emotions such as depression and mania, which operate at surface level as automatic thoughts but which reflect underlying fixed beliefs and assumptions about one 's self, the world and others, known as 'schemas' (Beck, 1967). This theory suggests that individuals with bipolar disorder have certain cognitive biases and distortions that contribute to their mood swings.

For example, individuals with bipolar disorder may have a tendency to focus on negative events and interpret them in a negative way, leading to feelings of depression. These negative thoughts and beliefs can lead to changes in brain chemistry and structure and can trigger mood disturbances. On the other hand, during manic episodes, they may have an overly positive view of themselves and their abilities.

Special educators recommend cognitive therapy. it is a type of treatment that aims to address these cognitive biases and help individuals with bipolar disorder develop more balanced and adaptive ways of thinking. By challenging negative thoughts and beliefs, individuals can learn to better regulate their emotions and reduce the severity of their mood swings.

- **Disruption of circadian rhythms and extreme positive internal attributions in Bipolar Disorder**

Overview of theory

Circadian rhythms refer to an individual's natural daily pattern of behavioural and physiological processes over a 24-hour period and include sleep, appetite, alertness, body 69 temperature and hormones. Disturbance of sleep patterns is a core symptom of BD for both depression and mania (DSM-IV) and other observed clinical features such as seasonal patterns of relapse and daily mood fluctuations in BD indicate that circadian rhythms may be involved in mood instability (Jones, 2001; Levenson & Frank, 2011 ; Mansour et al., 2005). It has also been proposed that links between Interpersonal factors, environmental factors, medication and manic episodes may be mediated by the impact that these factors have on sleep patterns, which disrupts circadian rhythms. Reduced sleep has been linked to the onset of mania, whilst persistent reduced need for sleep is thought to exacerbate and maintain manic symptoms.

The disruption of circadian rhythms theory is supported by researchers such as Ellen Frank, Francesco Benedetti, and Michael Berk. The disruption of circadian rhythms theory suggests that irregular sleep patterns and disruptions to the body's natural sleep-wake cycle can contribute to the development and exacerbation of bipolar disorder. This theory is supported by research showing that individuals with bipolar disorder often experience disrupted sleep patterns and that treatments such as light therapy and regular sleep schedules can help manage symptoms.

The extreme positive internal attributions theory is supported by researchers such as Lauren Alloy, Lyn Yvonne Abramson, and June Gruber. The theory proposes that individuals with bipolar disorder have a tendency to make overly positive attributions for their experiences, leading to an overestimation of their abilities and an increased likelihood of engaging in risky behaviors during manic episodes. This theory is supported by research showing that individuals with bipolar disorder often exhibit high levels of self-esteem and grandiosity during manic episodes.

Overall, these theories highlight the complex interplay between genetic, environmental, and psychological factors in the development and management of bipolar disorder. A comprehensive treatment approach that addresses these multiple factors is proposed by special educators and it all centers around psycho-education strategies.

- **Kindling theory of Bipolar Disorder**

Overview of Theory

Propounded by Dr. Frederick Goodwin, a psychiatrist and former director of the National Institute of Mental Health suggests that repeated episodes of mood disturbance, such as mania or depression, can "kindle" or sensitize the brain to future episodes. According to (Demitri, Papolos & Janice 2006) Kindling can occur even with sub-threshold episodes of mood disturbance, and anxiety may be one of the factors that triggers these episodes. Dr. Robert M. Post of the U.S. National Institute of Mental Health (NIMH) is credited for first applying the kindling model to bipolar disorder. Demitri and Janice Papolos, in their book *The Bipolar Child*, describe this model as follows:

"... initial periods of cycling may begin with an environmental stressor, but if the cycles continue or occur unchecked, the brain becomes kindled or sensitized - pathways inside the central nervous system are reinforced so to speak - and future episodes of depression, hypomania, or mania will occur by themselves (independently of an outside stimulus), with greater and greater frequency." Thus, brain cells that have been involved in an episode are thought to be more likely to do so again, and more cells may become sensitized over time. The theory also holds that it's possible to stop the process through aggressive treatment.

- **The stress theory of bipolar disorder**

Overview of Theory

Dr. Robert Post, a psychiatrist and researcher at the National Institute of Mental Health is the proponent of this theory. The stress theory of bipolar disorder suggests that stressful life events or experiences can trigger mood episodes in individuals with a genetic predisposition to bipolar disorder (Robert, 2008). These stressors may include interpersonal conflicts, major life changes, or traumatic events.

According to this theory, stress can disrupt the balance of neurotransmitters in the brain, leading to mood swings and episodes of mania or depression. Additionally, stress can also impact sleep patterns, which can further exacerbate mood symptoms.

As special educators, we understand that not all individuals with bipolar disorder experience mood episodes in response to stress, so, this theory highlights the importance of stress

management and coping strategies as part of a comprehensive treatment plan for bipolar disorder (Robert, 2008). Strategies such as mindfulness, relaxation techniques, and cognitive-behavioral therapy can help elderly persons better manage stress and reduce the likelihood of mood episodes.

2.6 DEFINITION OF ANXIETY DISORDER

The Diagnostic and Statistical Manual of Mental Disorders (DSM-5) defines anxiety disorders as a group of mental disorders characterized by excessive fear or anxiety, avoidance behaviors, and physiological arousal. (APA, 2013). According to (Barlow 2002) defines anxiety as a future-oriented mood state characterized by apprehension, uncertainty, and fear (Kessler et al., 2005) looks at anxiety as a persistent and excessive fear or worry that is accompanied by physical symptoms such as restlessness, fatigue, and difficulty concentrating.

To (Bandelow et al. 2015) anxiety is a complex psychological and physiological response to perceived threats or stressors, which can manifest as a range of symptoms including fear, worry, and panic. While (Brosschot et al. 2010) define anxiety as a state of heightened physiological arousal that is triggered by perceived threats or stressors, and can lead to a range of negative emotional and behavioral responses. All these definitions are relevant to this research work.

Anxiety is common among elderly individuals and contributes to their morbidity and mortality. Anxiety is a common psychiatric condition in older people, at a prevalence up to 15% With a lifetime prevalence of 29%, anxiety usually presents initially during youth While very disabling in geriatric populations, it is rare to first emerge in late life.

2.7 TYPES OF ANXIETY THAT AFFECTS ELDERLY PERSONS

According to the National Institutes of Mental Health there are five major types of anxiety disorders

- **Obsessive-Compulsive Disorder (OCD)**

Obsessive-Compulsive Disorder, OCD, is an anxiety disorder and is characterized by recurrent, unwanted thoughts (obsessions) or repetitive behaviors (compulsions). Repetitive behaviors such as hand washing, counting, checking, or cleaning are often performed with the hope of

preventing obsessive thoughts or making them go away (Tchoumba et al., 2020). Performing these so-called "rituals," however, provides only temporary relief, and not performing them markedly increases anxiety.

Obsessive-compulsive disorder (OCD) is a mental health disorder characterized by intrusive and persistent thoughts (obsessions) that lead to repetitive behaviors (compulsions) aimed at reducing anxiety or preventing harm. According to the (American Psychiatric Association 2013), OCD can cause significant distress and impairment in daily functioning.

In Africa, research on OCD is limited, but some studies have been conducted. A study by (Koen et al. 2006) in South Africa found that the prevalence of OCD was 1.2% among a community sample of adults. Another study by (Makanjuola et al. 2017) in Nigeria found a prevalence of 1.5% among a sample of university students.

There is limited research on OCD in Cameroon. However, a study by (Tchoumba et al. 2020) found that the prevalence of OCD was 4.6% among a sample of patients seeking mental health services in a hospital in Yaoundé.

- **Panic Disorder**

Panic disorder is an anxiety disorder and is characterized by unexpected and repeated episodes of intense fear accompanied by physical symptoms that may include chest pain, heart palpitations, and shortness of breath, dizziness, or abdominal distress (Nardi, 2012)

Panic disorder is a mental health condition characterized by sudden and recurrent panic attacks, which are intense periods of fear and discomfort that peak within minutes. Panic attacks can be accompanied by physical symptoms such as sweating, trembling, and palpitations. The fear of having another panic attack can lead to avoidance behaviors and impairment in daily functioning.

According to the (American Psychiatric Association 2013), panic disorder is "characterized by recurrent unexpected panic attacks and persistent concern about having additional attacks or about the consequences of panic attacks, such as losing control, having a heart attack, or going crazy." The (World Health Organization 1992) defined panic disorder as "a discrete episode of intense fear or discomfort that starts abruptly and reaches a peak within 10 minutes, and is accompanied by at least four physical symptoms." A study by (Wongpakaran et al. 2015) in

Thailand defined panic disorder as "a condition in which the individual experiences recurrent unexpected panic attacks and develops persistent worry about future attacks, leading to significant distress and functional impairment."

Review by Nardi, (2012) in Brazil described panic disorder as "a chronic and disabling condition that affects individuals worldwide, with a prevalence ranging from 1% to 4% in the general population."

- **Post-Traumatic Stress Disorder (PTSD)**

Post-Traumatic Stress Disorder, PTSD, is an anxiety disorder that can develop after exposure to a terrifying event or ordeal in which grave physical harm occurred or was threatened. (Morina, 2014) Traumatic events that may trigger PTSD include violent personal assaults, natural or human-caused disasters, accidents, or military combat.

Post-traumatic stress disorder (PTSD) is a mental health disorder that can develop after experiencing or witnessing a traumatic event. According to the (American Psychiatric Association 2013), PTSD is characterized by symptoms such as re-experiencing the traumatic event through flashbacks or nightmares, avoidance of reminders of the event, negative changes in mood and cognition, and increased arousal and reactivity.

In Africa, PTSD has been studied in the context of various traumatic events such as war, political violence, and natural disasters. A study by (Seedat, 2004) in South Africa found that the prevalence of PTSD was higher among individuals who had experienced political violence compared to those who had not. Another study by (Morina, 2014) in Rwanda found that a significant proportion of survivors of the 1994 genocide met criteria for PTSD.

- **Social Phobia (or Social Anxiety Disorder)**

Social Phobia, or Social Anxiety Disorder, is an anxiety disorder characterized by overwhelming anxiety and excessive self-consciousness in everyday social situations. Social phobia can be limited to only one type of situation - such as a fear of speaking in formal or informal situations, or eating or drinking in front of others - or, in its most severe form, may be so broad that a person experiences symptoms almost anytime they are around other people. In this study, our focus is on some of the three anxiety disorders.

- **Generalized Anxiety Disorder**

Generalized Anxiety Disorder, GAD, is an anxiety disorder characterized by chronic anxiety, exaggerated worry and tension, even when there is little or nothing to provoke it.

Table 2. DSM-IV criteria for main ADs in BD in Elderly persons (Kay, 2014)

Anxiety Disorder	Key feature (DSM-IV)	Duration of symptoms
Panic Disorder (PD)	Recurrent and unexpected panic attacks; worry or concern about future attacks; behavior change	≥One month
Panic Disorder with Agoraphobia (PD_Ago)	Symptoms of PD; avoidance and fear of situations where panic attacks may occur	≥ One month
Agoraphobia (Ago)	Marked fear and avoidance of situations in which escape might be difficult or embarrassing	≥One month
Social Phobia (SoP)	Avoidance and fear of social situations due to concern regarding possible embarrassment or humiliation	≥ One month
Specific Phobia (SP)	Marked fear and avoidance of specific situations or objects	≥One month
Obsessive Compulsive Disorder (OCD	Obsessions: recurrent intrusive thoughts, images or impulses; Compulsions: recurrent repetitive behavior or mental acts with the aim of reducing distress or neutralizing obsessions	≥One month
Post-Traumatic Stress Disorder (PTSD	Persistent re-experience, distress and avoidance of stimuli associated with a past event which involved actual or threatened death or serious injury	≥ One month
Generalized AD (GAD	Chronic excessive, uncontrollable worry across a number of domains	More days than not for > 6 months

2.7.1 Causes of anxiety disorder in older persons.

Anxiety disorders are like other forms of mental illness. They don't come from personal weakness, character flaws or problems with upbringing. But researchers don't know exactly what causes anxiety disorders. They suspect a combination of factors plays a role:

- **Chemical imbalance:** Severe or long-lasting stress can change the chemical balance that controls your mood. Experiencing a lot of stress over a long period can lead to an anxiety disorder.
- **Environmental factors:** Experiencing a trauma might trigger an anxiety disorder, especially in someone who has inherited a higher risk to start.
- **Heredity:** Anxiety disorders tend to run in families. You may inherit them from one or both parents, like eye color.

2.8 MODELS OF ANXIETY

- **The Freudian Approach**

Freudian approach of anxiety, which he first introduced in the late 19th century, is based on the idea that anxiety results from unconscious conflicts between different parts of the mind. As a Psychoanalyst, Freud believed that anxiety is a signal that the ego, or the conscious mind, is being overwhelmed by unconscious impulses, leading to a sense of danger or panic (Freud, 1926). In terms of bipolar disorder in older persons, Freud's theory of anxiety may be relevant in that the manic or hypomanic episodes that characterize the disorder may be seen as an attempt by the ego to defend against underlying anxiety or depression. In other words, the manic or hypomanic episode may be seen as a defense mechanism against unconscious conflicts that are causing anxiety.

- **The Lacanian Approach**

Jacques Lacan was a psychoanalyst who developed his own theory of anxiety, which emphasizes the role of language and communication in the formation of the self. Lacan believed that anxiety arises from a fundamental lack of identity or sense of self, which is caused by the inconsistencies and contradictions in language and culture (Lacan, 1953). Lacan believed that anxiety is closely

linked to the experience of the "Other," or the sense of being observed or judged by others. In the case of bipolar disorder in elderly persons, anxiety may be related to social isolation or feelings of being disconnected from others, which can be common in aging.

- **Erickson's Perspective**

Erik Erikson's stage theory of psychosocial development includes a stage that addresses elderly persons. This stage is called "Integrity vs. Despair" and it typically occurs during late adulthood, from around age 65 onward (Kendra, 2022).

Despair in Erickson's stage of development can contribute to anxiety and bipolar disorder in elderly persons in several ways. First, individuals who experience despair may struggle with feelings of hopelessness and helplessness, which can increase the risk of developing anxiety and depression. This can be particularly true for elderly individuals who may be facing a variety of life changes and losses, such as retirement, illness, or the death of loved ones. Second, individuals who experience despair may also be more likely to engage in negative thought patterns, such as rumination and self-criticism (Kendra, 2022). These thought patterns can fuel anxiety and depression by reinforcing negative beliefs about oneself and the world.

Third, individuals who experience despair may be more likely to engage in behaviors that are harmful to their mental and physical health, such as substance abuse or social isolation. These behaviors can further exacerbate anxiety and bipolar disorder symptoms.

Finally, individuals who experience despair may be less likely to seek out appropriate treatment and support for their mental health concerns especially in a setting like Cameroon where mental disability is misconceived and lack of professionals in the medical sector to handle mental issues equally being a problem (Kendra, 2022). This can lead to a worsening of symptoms over time and can make it more difficult for individuals to achieve a sense of well-being and fulfillment. Erickson's approach is very comprehensive and integrative because it takes into account both psychological and environmental factors.

2.8.1 Aging and Mental Disability

The concept of aging can be defined as the process of growing older and experiencing changes in physical, cognitive, and social functioning. According to the World Health Organization (WHO),

aging is a "natural and inevitable process that begins at birth and continues throughout life" (WHO, 2018).

One important aspect of aging is the development of age-related diseases and conditions, such as Anxiety, Bipolar disorder, dementia, arthritis, and cardiovascular disease. Researchers have explored various factors that contribute to the development of these conditions, including genetics, lifestyle factors, and environmental exposures (Kirkland & Tchkonia, 2017). Another important aspect of aging is the impact on social functioning and relationships. As individuals age, they may experience changes in their social networks and support systems, which can have implications for their mental health and well-being (Berkman et al., 2000).

Over 20% of adults aged 60 and over suffer from a mental or neurological disorder (excluding headache disorders) and 6.6% of all disability (disability adjusted life years-DALYs) among people over 60 years is attributed to mental and neurological disorders. These disorders in older people account for 17.4% of Years Lived with Disability (YLDs). The most common mental and neurological disorders in this age group are dementia and depression, which affect approximately 5% and 7% of the world's older population, respectively. Anxiety disorders affect 3.8% of the older population, substance use problems affect almost 1% and around a quarter of deaths from self-harm are among people aged 60 or above (Kirkland & Tchkonia, 2017). Substance abuse problems among older people are often overlooked or misdiagnosed. Mental health problems are under-identified by health-care professionals and older people themselves, and the stigma surrounding these conditions makes people reluctant to seek help.

There may be multiple risk factors for mental health problems at any point in life. Older people may experience life stressors common to all people, but also stressors that are more common in later life, like a significant ongoing loss in capacities and a decline in functional ability. For example, older adults may experience reduced mobility, chronic pain, frailty or other health problems, for which they require some form of long-term care. In addition, older people are more likely to experience events such as bereavement, or a drop in socioeconomic status with retirement (Kirkland & Tchkonia, 2017). All of these stressors can result in isolation, loneliness or psychological distress in older people, for which they may require long-term care.

Mental health has an impact on physical health and vice versa. For example, older adults with physical health conditions such as heart disease have higher rates of depression than those who are healthy. Additionally, untreated depression in an older person with heart disease can negatively affect its outcome.

Mental health issues are difficult to diagnose. Not only are there many different types of mental diseases, but they frequently have common and overlapping symptoms. An elderly person who is suffering from a mental health issue deserves a proper diagnosis. Only when the condition is fully understood will they be able to get the treatment that they need and deserve.

2.8.2 Why is research on old age bipolar important?

Bipolar disorder affects humans at all ages of life but research on old age bipolar disorder is critical for improving our understanding of this condition and developing effective strategies as special educators to support older adults with this condition.

1. According to a study published in the American Journal of Geriatric Psychiatry, there is a growing need to understand the prevalence and clinical characteristics of bipolar disorder in older adults, as this population is often underrepresented in research studies (Sajatovic et al., 2015).

2. A review published in the Journal of Affective Disorders highlights the importance of identifying risk factors for bipolar disorder in older adults, as this can inform prevention and early intervention strategies (Patten & Kennedy, 2018).

3. A study published in the Journal of Clinical Psychiatry emphasizes the need for more research on the diagnosis and treatment of bipolar disorder in older adults, as this population may have unique clinical features and treatment needs compared to younger adults (Schouws et al., 2019).

4. According to a review published in the International Journal of Geriatric Psychiatry, research on effective interventions for improving the quality of life for older adults with bipolar disorder is critical, as this population may face unique challenges related to social support, comorbidities, and medication management (Sajatovic et al., 2017).

Overall, these references highlight the importance of researching on old age bipolar disorder for improving our understanding of this condition and developing effective strategies to support older adults with this condition.

2.8.3 Technics of follow up and support of older persons with bipolar disorder

Remember, each person is unique, and educators may modify and adapt strategies based on the individual's specific needs and preferences. Collaboration and communication between educators, healthcare professionals, and families are vital in ensuring comprehensive and effective support for older individuals with bipolar and anxiety disorders.

1. Individualized Education Plans (IEPs):

Special educators work with the individual, their family, and the healthcare team to develop an IEP tailored to their specific needs. This plan outlines their goals, accommodations, and support services required.

2. Regular Assessments:

Educators assess the individual's progress periodically through observations, interviews, and assessments to gauge their functioning level, identify any challenges, and track improvements over time. According to (Albertini and Farsi, 2019) the following is required.

- Regular and consistent communication with older individuals, their caregivers, and other professionals involved in their care to monitor progress and address any emerging needs. This can include phone calls, emails, or face-to-face meetings.

- Conduct periodic reviews of the Individualized Education Plan (IEP) to assess its effectiveness and make necessary adjustments.

- Collaborate with healthcare professionals to coordinate interventions and ensure that educational goals align with the individual's overall well-being.

3. Structured Environment: Creating a structured and predictable environment can help individuals with bipolar and anxiety disorders feel more secure. Educators may establish

consistent routines, provide visual schedules, and offer clear expectations to reduce stress and confusion.

4. Adapted Instruction: Special educators may use teaching techniques such as visual aids, hands-on activities, and simplified instructions to accommodate different learning styles and promote understanding and engagement.

5. Behavioral Support: Strategies like positive reinforcement, rewards systems, and behavior management techniques help individuals manage their emotions, reduce anxiety, reinforce positive behaviors, and discourage negative behaviors.

6. Social and Emotional Learning (SEL): Special educators incorporate SEL programs that focus on developing self-awareness, self-regulation, empathy, interpersonal skills, and decision-making abilities. These programs promote emotional well-being and social relationships.

7. Collaborative Approach: Special educators collaborate closely with mental health professionals, caregivers, and families to ensure holistic support for the individual. This can involve regular communication, sharing progress reports, and coordinating interventions.

8. Life Skills Training: Special educators help older individuals develop essential life skills necessary for their independence, such as time management, organizational skills, problem-solving, and coping strategies. According to (D'Amico and Albertini, 2017), it is expedient to;

- Involve older individuals actively in the monitoring process, encouraging self-reflection and self-evaluation of their progress.

- Focus on promoting independence and self-advocacy skills through teaching self-monitoring techniques and fostering decision-making abilities.

9. Assistive Technology: Utilizing assistive technology, such as mobile apps, reminder systems, and adaptive tools, can aid individuals in managing their symptoms, fostering self-care, and enhancing their overall functioning. According to (Stickels, 2020), it is important to:

- Establish a trusting and supportive relationship with the older individual, recognizing their unique strengths, needs, and preferences.

- Utilize technology-based communication tools to facilitate follow-up and support. This can include video calls, messaging apps, and online platforms that allow for continuous interaction and monitoring.

- Conduct regular assessments and evaluations to track progress, identify areas of improvement, and adjust instructional strategies as needed.

2.8.4 Measures used by special educators to reduce anxiety

While there are various measures that special educators can implement to reduce anxiety in older individuals, it's important to note that specific techniques may vary based on individual needs and preferences. Here are some measures proposed by different authors in the field:

1. According to (Mikkelsen, 2013), the following is required:

- Implement relaxation techniques such as deep breathing exercises, progressive muscle relaxation, or guided imagery to help individuals manage anxiety symptoms.

- Provide a calming and comfortable environment with minimal distractions.

- Promote self-care activities like exercise, mindfulness, and adequate sleep to reduce anxiety levels.

2. To (Rajan, 2015), it is important to:

- Use cognitive-behavioral therapy techniques to help older individuals identify and challenge negative thoughts and beliefs that contribute to anxiety.

- Teach and practice problem-solving skills to explore solutions and reduce feelings of helplessness.

- Establish regular routines and predictability to create a sense of safety and security.

3. For (Freire, 2018), special educators should ensure to:

- Encourage social participation and engagement in group activities to reduce feelings of isolation and enhance social support.

- Teach stress management techniques, such as assertiveness training and effective communication skills.

- Facilitate discussions and psycho-education sessions to increase understanding of anxiety symptoms and coping strategies.

4. According to (Kim and Cho, 2019), special educators should engage the following:

- Implement mindfulness-based interventions, such as meditation and mindfulness exercises, to help individuals focus on the present moment and reduce anxiety.

- Provide opportunities for creative expression through art therapy, music therapy, or journaling as a means of emotional release and self-expression.

- Foster a positive and supportive classroom environment, emphasizing empathy, understanding, and validation of individual experiences.

CHAPTER THREE

METHODOLOGY OF THE STUDY

All scientific research needs a justified method. This section involves the participants, instruments used, methods used in collecting data and procedures that were employed to arrive at the desired results (Lodico 2006). The methods and procedures that were employed to arrive at the choices of the aspect of the methodology presented above are presented in this chapter. It also explains the data analysis techniques that were used by the researcher to analyze and interpret data related to the independent and dependent variables of this study which are; research design, instrumentation, the validity of research instruments, reliability of research instrument and data collection procedures.

3.1 RECALL OF THE ELEMENTS OF THE PROBLEMATIC

3.1.1 Recall of Research Question

What influence does anxiety have on bipolar disorder in older people?

3.1.2 The General Hypothesis

According to Anapama (2018) the research process begins and ends with a research hypotheses because it is the core of the procedure of research and so as a consequence gives a relationship between the variables in the research process. So, given our point of focus which is our research, we bring out the general hypotheses as "Anxiety has devastating influence on bipolar disorder in the elderly persons."

It is constituted of two variables which are the independent variables (IV) and the dependent variable (DV)

According to Landshere (1969) the independent variable is the variable which relates the cause and the effect. Also called the experimentary variable, the stimulus variable or the active variable, it can be easily manipulated by the researcher so as to explain the phenomenon which has been observed.

In the research there is an independent variable which will act as a stimulus to the research. This variable will be easily used by the researcher to bring out the modalities which are as follows: Obsessive compulsive disorder, Panic disorder and Post traumatic disorder.

The General hypothesis of this study is: Anxiety has devastating influence on bipolar disorder in the older persons. This general hypothesis identifies two types of variables: an independent variable (IV) and a dependent variable (DV).

Independent variable (IV) of study is: Anxiety. It has three modalities which are:

Modality 1: Obsessive compulsive disorder

Indicator**:** Repetitive behavior and Aggressiveness

Center of interest**:** -Risky ventures, -Impulsive, -repeating words and actions

Modality 2: **Panic Disorder**

Indicator: Poor health with physical symptoms

Center of Interest: -Fear, -Palpitations, -Shortness of breath, -Insomnia, -Hypersomnia

Modality 3: **Post traumatic disorder**

Indicator: Memories of traumatic events.

Center of Interest: -Flash backs and reflections, -intrusive thoughts and images, -Self regulation problems, -Excessive fear.

The dependent variable (DV) of the study is Bipolar disorder. It has two modalities which are:

Modality 1: Bipolar l

Indicators: Mania

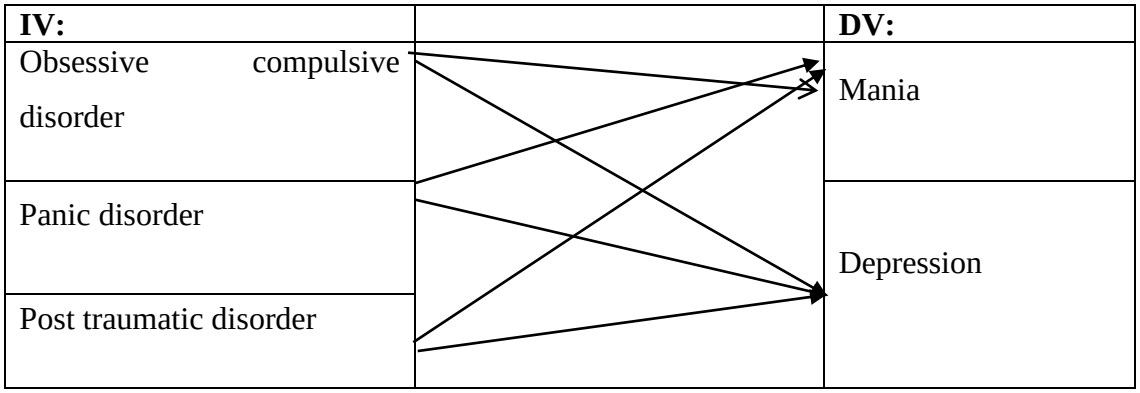
Center of Interest: -Increased hospitalization, -Diminished health and quality of life, -Severe symptoms

Modality 2: Bipolar ll

Indicators: Depression

Center of interest: -Suicidal ideation, -isolation

Table 3. Logical structure of the general hypothesis (GH).



From this logical structure of the general hypothesis, we derive the research hypotheses

3.1.3 Recall of Research Hypothesis

The research hypotheses here is the provisional answers which will be tested which can also be a prediction of the relationship between the variables. The research hypothesis is a tentative solution to a problem which exist according to Anapama, (2018) *" a hypothesis is a statement of the researcher's expectation or prediction about relationship among study variable. The researcher's question identifies the study concept and asks how the concept might be related. A hypotheses is the predicted answer"* given that it objective is to give a predictable answer so in this work we are going to state the specific hypotheses.

The research hypotheses are more concrete than the general hypothesis. They are proposals for answers to particular aspects of the general hypothesis in an easily measurable form, put forward to guide an investigation; they constitute in fact an operationalization of the general hypothesis.

As a result, three research hypotheses built from the modalities of the independent variable and maintaining the same formulation as the general hypothesis that we will summarize in a synoptic table below were formulated within the framework of this study.

Specific Research Hypothesis

RH1: Obsessive compulsive disorder has a significantly devastating influence on bipolar in older persons.

RH2: Panic disorder has a significantly devastating influence on bipolar disorder in older persons.

RH3: Post traumatic disorder has a significantly devastating influence on bipolar disorder in older persons.

Table 4: Synoptic Table of variables, modalities, indicators and indices of the General Hypothesis

General Hypothesis	Independent Variable	Modalities	Indicators	Center of Interest	Dependent Variable	Modalities	Indicators	Center of Interest
Anxiety has influence on bipolar disorder in the elderly persons.	Anxiety	RH 1 Obsessive compulsive disorder have influence on bipolar in older persons.	Repetitive behavior and Aggressiveness	-Risky ventures -Impulsive -repeating words and actions	Bipolar disorder	Bipolar l	Mania	-Increased hospitalization -Diminished health and quality of life -Severe symptoms
		RH2 Panic disorder has influence on bipolar disorder in older persons.	Poor health with physical symptoms	-Fear -Palpitations -Shortness of breath -Insomnia -Hypersomnia		Bipolar ll	Depression	-Suicidal ideation
		RH3 Post traumatic disorder has influence on bipolar disorder in older persons.	Memories of traumatic events.	-Flash backs and reflections -intrusive thoughts and images -Self regulation problems -Excessive fear				-isolation

3.1.4 Research design

Burns & Grove, (2003) defined a research design as a blueprint for conducting a study that may interfere with the validity of the findings. Amin (2005), defined a research design as all procedures selected by a researcher to aid in the understanding of a particular set of questions or hypothesis. A research design refers to the overall strategy that one may choose to integrate the different components of the study coherently and logically. This is done in order to ensure that one effectively addresses the print or the road map for the collection, measurement and analysis of data. According to Kothari (2004), the research design is a plan, a road map and a blueprint strategy of investigation conceived to obtain answers to research questions (Kothari, 2004) it is the heart of the research. This study is an exploratory study of a descriptive nature because it facilitates the link between the effects of anxiety on bipolar disorder in the elderly persons. With this design, the independent variable: Anxiety was examined and qualitative information was collected through interview guides over a purposive sampling to enable the researcher to explain its influence on the dependent variable: Bipolar disorder.

- **Research Area:**

The research was carried out in the Mfoundi Division precisely in the Geriatric service of the Yaoundé District hospital in Cameroon. The choice of this area was because the only Geriatric center in the country is present at the Yaoundé District hospital and the population of the study is the elderly population which ages from 60 and above. Also, some observations were made at the Jamot hospital which is a psychiatric hospital that handles mental disabilities and facilitate diagnosis but current and contextual information in relation to our targeted population was not available. So, we solely worked with the Geriatric service in the Yaoundé District hospital.

Population and sample

Under this heading, we will begin by presenting the study population before looking at the sample itself.

- **Study population**

The study population can be defined as a set of people or objects located in space or time, and on which the observations relate. It is therefore a gathering of all the cases which correspond

to a determined set of character considered. In the case that concerns us, the choice of our population is focused on all the elderly persons in the Yaoundé and Jamot hospitals who are admitted in a geriatric situation. Being difficult to have access to all this population, we found it necessary to split it into two in particular: the target population and the parent population.

- **Target population**

The target population is that which includes all the individuals meeting the general criteria of the study. The target population is a group of all the cases having common characteristics and from which the results will be generalized. Creswell (2012) defines a target population as groups of individuals with which common defining characteristics that the researcher can identify and study (Creswell, 2012). Amin (2005) defines the target population of study as the complete collection or universe of the entire element we are interested in a particular investigation.

Our target population is all the elderly persons from the age of 60 and above who are suffering from mental disorder.

- **Accessible population**

It is a subset of the target population, available to the researcher and from which the researcher can extract his sample. In this case, it concerns elderly persons from the age of 60 and above who are diagnosed with bipolar disorder and are admitted in the geriatric ward in the Yaoundé Central hospital.

- **Study sample**

The sample is a small representative group drawn from a large group called the "population". In terms of qualitative research, there is no precise rule concerning the size of the sample, because the latter will vary according to whether one wants to know, the object of the research. According to the author, in qualitative research, it is not so much the number of subjects that counts as the quality of the data collected. All the elderly persons suffering from mental disorder constitute our parent population. From this parent population, we chose all the elderly persons diagnosed with bipolar disorder who are admitted in the central hospital Yaoundé. So, the characteristics respect the objectives that we set ourselves at the start. Thus, our sample is composed of six (06) elderly persons admitted at the Geriatric ward in the central hospital Yaoundé.

- **Participant Selection Criteria**

- First, you had to be an elderly person from the age of 60 upwards

- Second, these elderly persons had to be admitted either in the Yaoundé central hospital hospital

- Third, these elderly persons must already be diagnosed with bipolar disorder

Table 5: Presentation of the study sample

No.	Attendees	Gender	Age	Region of origin	School level	Number of years diagnosed with bipolar
1	Case 1	Male	87	East	Elementary	11yrs
2	Case 2	Female	67	Center	License	1yr
3	Case 3	Female	72	Center	BAC	5yrs
4	Case 4	Male	76	West	BAC	3years
5	Case 5	Female	71	South West	BAC	8years
6	Case 6	Female	64	Center	Elementary	3-4years

Following the presentation of our sample, let's discuss the technique and the data collection instrument.

3.2: SAMPLE AND SAMPLING TECHNIQUES

According to Amin (2005), a sample is a portion of the population whose results can be generalized to the entire population. Sampling is the process of selecting elements from a population in such a way that the sample elements represented the population. Sampling means selecting a given number of subjects from a defined population.

Lodicao (2006) define a sample as a smaller group selected from a larger population that is representative of a larger population.

According to Kenton (2022), a sample refers to a smaller, manageable version of a larger group. It is a subset containing the characteristics of a larger population. Samples are used in statistical testing when the population size is too large for the test to include all possible members or

observers. A sample should represent the population as a whole and not reflect any bias towards a specific attribute.

In this study, the sampling technique used is the purposive sampling technique. Purposive sampling is a non-probability sampling technique where the researcher selects participants based on specific criteria or characteristics relevant to the research question or objective. This technique is also known as judgmental, selective, reasoning or subjective sampling.

According to Patton (2015), purposive sampling is useful when the researcher wants to study a specific population or subgroup that possesses unique characteristics or experiences. It is also appropriate when the sample size is small, and the researcher wants to ensure that all participants have relevant knowledge or expertise.

Miles & Huberman (1994) suggest that purposive sampling can be used to select participants who represent extreme or deviant cases, which can provide valuable insights into the research topic. They also highlight that purposive sampling can be useful in qualitative research, where the focus is on understanding the meaning and experiences of participants.

So given our research we are going to use a non-probability sampling given that we have some knowledge about our population. That is we know the characteristics of the population we are studying .the peculiar thing about this method of research is the fact that all the sample have equal chance of being selected to carry out studies on them. Given that we are in a qualitative and using a non-probability type of research, That is why in our research we are going to be using the reasoning sampling method which in this method here the sampling will be restrain we shall be carrying our research on (06) subject or cases.

3.3: RESEARCH AND DATA COLLECTION INSTRUMENTS

According to Aditage (2020), a research instrument is a tool used to obtain, measure and analyze data from subjects around the research topic. You need to decide the instrument to use based on the type of study you are conducting: quantitative, qualitative or mixed method. For instance, in this study, the qualitative method is used with semi-structured interview guides to collect the information from the respondents. The data collection process began with the development of an interview guide.

The interview guide is a support for the interviewer, which lists the themes that should be addressed during the discussion. It is defined as an "organized set of operator and indicator functions that structure the interviewer's listening and intervention activity" (Blanchet et al., 1992). It presents itself as "a restructuring of the conduct of the interview and the translation of the hypotheses (Blanchet et al., 1985). It provides a general framework for the conduct of the interview, an orderly exposition of the subjects or themes to be addressed and a suggestion of follow-up or in-depth techniques to be used. It is structured in parts: an introduction, the part identifying respondents, the part concerning the presentation of the framework and the parts concerning the themes relating to the research hypotheses.

In the semi-structured interview, the interview guide is established in the form of themes and indicators (sub-themes) that must be addressed by the interviewer during the interview, depending on the interlocutory dynamics (Catteeuw et al., 2001). This guide is available to the interviewer to enable him to follow the defined methodology, while observing appropriate behavior during the interview. However, it should be noted that the order in which the themes are mentioned, as well as the wording of the questions, may vary during the interview.

3.4: VALIDATION OF RESEARCH INSTRUMENTS

Validity is the extent to which an instrument measures what it is supposed to measure so as to produce accurate results (Parvaresh & Amin, 2005). So, the researcher needed to evaluate and know whether the instrument designed for this study was relevant in producing meaningful data. Validity also determined whether the respondents perceived the questionnaires in the same way the researcher intended. The instrument used for this research was constructed under the guidance of the supervisor. The instrument validation was done in two dimensions, face validity and content validity.

- **Face Validity:**

According to Bhandari (2022), face validity is about whether a test appears to measure what it is supposed to measure. This type of validity is concerned with whether a major seems relevant and appropriate for what it is accession at the surface.

- **Content Validity**

According to Parvaresh et Amin (2005), “Content validity is the extent to which the content of an instrument corresponds to the content of the theoretical concept it is designed to measure”. Bhandari (2022) defined it by asking the question “is the test fully representative of what it aims to measure”? The items took into consideration the independent variable Anxiety and the dependent variable bipolar disorder.

Reliability of instrument

According to Creswell (2014), reliability means that individual’s courses from an instrument should be free from scores of instrument error and consistent. According to Amin (2005), reliability is the degree to which an instrument consistently measures what it intends in measuring. A reliable instrument gives consistent results.

Data Administration and Collection

In order to prevent reports of negative implications and other hitches during the administration of the interview guides, authorization to carry out research was given by the authorities of the faculty of Education of the University of Yaoundé l. The researcher photocopied the authorization letter and handed it to the two hospitals (the Central hospital and the Jamot hospital) where interview guides were administered. The researcher administered the interview guide herself. It took the researcher two weeks to be able to administer the interview guides to the respondents because some were not constantly in the mood to have a conversation due to their health situations and the researcher had to patiently wait and find days that were more conducive for the respondents to cooperate. The researcher created an atmosphere of confidentiality and assured the respondents that whatever information they passed out was going to be used only for academic purposes.

3.5 QUALITATIVE TECHNIQUE OF DATA ANALYSIS

To analyze the qualitative data of this study, we used content analysis. By content analysis, we can understand a method that seeks to account for what the interviewees have said in the most objective and reliable way possible. For Berelson (1952), it is defined as “a research technique for the objective, systematic and quantitative description of the manifest content of

communication". In psychology and particularly in pathological and or clinical psychology, the objective is to analyze the survey material collected during observations, group interviews or individual interviews: behaviors, words, the gestures, what is not said and what is implied.

Bardin (1977), argues that "content analysis is a set of communication analysis techniques". For this author, the procedure generally includes the transformation of an oral discourse into text, then the construction of an analytical instrument to study the meaning of the remarks.

Content analysis of the study

The choice of a specific technique and the meaning of the interpretation is based both on the nature of the document, the questions that structure the research as well as on the epistemological foundations that drive the researcher. Furthermore, content analysis is a technique for processing pre-existing data by listing, classifying and quantifying features of a corpus.

As far as this study is concerned, we proceeded in three essential steps: the transcription of the data, the coding of the information and the processing of the data.

Before starting the analysis, the first step takes an inventory of the information collected and puts it in writing. This text (called verbatim) represents the raw data of the survey. Transcription organizes investigative material into a format that is readily accessible for analysis. Rather than directly processing audio or video recordings, it is preferable to put them down in writing to facilitate reading and to have a faithful record.

Qualitative data comes in the form of texts (words, sentences, expressions of language, or symbolic information (gestures, tone of voice, impressions, etc.). They may correspond to a transcript of an interview, to field observation notes, written documents of various kinds (stories, report, and answers to questions).

Ethical consideration

Given that in any research, ethical and deontological rules must be respected and announced to the respondents, before collecting the data, we explained to the participants who

were the subject of our study emphasizing on the anonymity of people surveyed in order to guarantee the results of our study. In addition, we have made the commitment to communicate the results of the investigation to them after the defense of this thesis.

What has just been said can also be summed up in certain fundamental principles that guided the relationship between the researchers and the participants. Referring to Van Der Maren (1999), we can identify three that have really been indispensable:

- ❖ Free and informed consent;
- ❖ Respect for the dignity of the subject;
- ❖ Respect for privacy and confidentiality.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF RESULTS

This chapter presents the research findings and analysis. The study investigates the effects of anxiety on bipolar disorder in older persons in the central hospital of Yaoundé. The data was collected through interview guides. Findings were presented to respond to the three specific objectives of this study. The study sort to provide answers to three objectives which are: (i) To demonstrate that Obsessive compulsive disorder have a significant and devastating influence on bipolar in older persons, (ii) To demonstrate that Panic disorder has a significant and devastating influence on bipolar disorder in older persons, (iii) To demonstrate that Post traumatic disorder has a significant and devastating influence on bipolar disorder in older persons.

4.1. DEMOGRAPHIC CHARACTERISTICS OF PARTICIPANTS

The demographic characteristics of this study include; gender, age, educational qualification, Region of origin and number of years diagnosed with bipolar disorder.

4.2 PRESENTATION AND ANALYSIS OF PARTICIPANTS RESPONSES.

Theme 1: Repetitive behavior and Aggressiveness

Sub-theme1: Tell me about risky ventures since you fell sick

Participation 1*:" I find myself always wanting to do the things I used to do when I was strong. Because I can't believe that I am on a wheel chair. So, when I take such ventures, I fall and this aggravates my health"*

Participation 2: *From the time that my sickness started aggravating, I always found myself trying to involve in energy-consuming activities. For example, I constantly insisted travelled from Yaoundé to my village to start planting plantain in one of the lands that I had. But before I knew it I had no strength to follow that up. before I got to my present age like 10 years back, when I receive my salary I want to invest it in what called projects even when I had not sat down and planned*

Participant 4: *Getting a driver for myself was very difficult for me to accept until I missed two pertinent accidents which aroused a lot of tension in. from that time, I no longer drive my car by myself and I am not even ready to touch the steering of my own car to drive.*

The history of these participants reveals that they were flourishing in health right to their mid-40s but as they aged on, health started degenerating coupled with the horrific experiences and the challenges that life has thrown on them, health has been in a continuous degeneration. Most of them testify they were doing extremely well but as life unfolded; their health quality started diminishing coupled with the influx of some health issues of which bipolar disorder happened to be part.

Risky ventures fall among the diagnostic criteria for bipolar disorder according to DSM-5 (American Psychiatric Association, 2013). Risky ventures for anyone are dangerous and extremely harmful to elderly persons not just in their mental and physical health but in their overall wellbeing. Risky ventures are signs of manic episodes in a bipolar patient. When the patient feels high energy, strength and power, he tends to undertake activities that can be detrimental to himself and his surroundings. The above participants are said to have involvement in one form of risky activity or the other and because they are already old, the consequences of their actions have an extreme negative impact in their health as the assumed energy failed them before they knew it.

Risky ventures in bipolar disorder refer to activities or behaviors that may pose a risk to the individual's mental or physical health. These may include engaging in high-risk activities such as extreme sports, substance abuse, or impulsive behavior. The above participants exhibit their risks in different forms. One is said to assume to have strength to engage in an agricultural project while the other thought he could still drive on the high way like he used to and others say they do engage in such activities and only get to remember that they never had strength for it when they experience adverse effects. These risky ventures are responsible for triggering manic or depressive episodes and this is why their bipolar symptoms are aggravated and subsequently more complications in their treatment and overall well-being.

Bipolar disorder on its own diminishes health and the outcomes are worsened with the co-comorbidity of anxiety. Anxiety exacerbates bipolar symptoms and hampers the effective treatment. This is especially true for elderly individuals who may have additional health concerns and decreased physical abilities.

Through observations made at the Geriatric service at the central hospital, it was clearly confirmed that manic and depressive episodes of bipolar were highly triggered through risky engagements originating from anxious states. A patient being worried of not being capable of doing what he used to do some years back and being afraid of losing his autonomy seeing himself on a wheel chair assumed a non-existent energy and strength and fighting to get up from the wheel chair and use his legs which were already dysfunctional fell in a horrific way and aggravated his health condition and sustained wounds. He felt some powerful energy and believed he could do what he used to do before but because of old age and other comorbidities, the energy couldn't carry him through. It resulted in a Major depressive phase and treatment was a very difficult goal for the medical personnel to attain. The bipolar symptoms were aggravated by anxiety which manifested through a risky venture and resulted to diminished health and hospitalization. If this patient wasn't suffering from anxiety as comorbidity to his bipolar, his condition won't have been this worsened because, comparing his former state before the anxiety trigger and himself after the anxiety trigger, it is very clear that his health is in deterioration. The increased number of weeks hospitalized and the wounds sustained were not formerly there. So, it is seen that risky ventures which stem from obsessive compulsive disorder has a significant effect on bipolar disorder.

Sub-thème2: how about Impulsiveness?

Participant 1: *The patient reluctantly nodded his head while the care giver (son) responded very impulsive. His voice must be heard in every discussion or any decision making. I feel that if I don't shout and impose on them, my authority as a chief will not be felt. .*

Participant 2: *About impulsiveness, yes let me be true to you my daughter, I have this attitude of always interrupting conversations which concern me and my children. I always want that my authority should be respected.*

Participant 5: *when I don't want to isolate myself, I must make sure that I am participating in everything that is happening around me especially in conversations. Yes, even if it doesn't concern me, I also have something to say.*

Participant 6: *I have been very aggressive to these ghosts that are disturbing me. (the daughter said) she has been very aggressive toward everyone around her since the time she started*

seeing ghosts. She is very impulsive and insistently always wants to be the only one heard especially during the conversation but in other moments, she behaves very silently and will not want to talk to everyone and you only see her shedding tears. but with the intense experience of ghosts, she hardly wants to be alone

Impulsiveness is the tendency to act on a whim or without considering the consequences of one's actions. It often involves acting quickly without thinking through the potential risks and benefits of a particular action. Impulsiveness can be a symptom of a mental health condition like bipolar disorder. In older persons, due to aging which on its own is prune to health crisis, impulsiveness is manifested in other forms and one of the predominant ways is through interruption of speeches and conversations. The above participants exhibit a common way of impulsiveness as it is recorded of each of them having the tendency of always disrupting conversations. One of the reasons for which their impulsiveness is manifested in this manner is because they are running out of physical energy and with their communication abilities still intact, energy tends to flow from that direction. A bipolar patient is prone to impulsiveness but symptoms become worsened with anxiety comorbidity.

Participant 1 being the head of a community is afraid of losing his authority, he uses the defense mechanism of impulsiveness to display his power and authority and because he is a victim of elderly bipolar, his symptoms are intensified and his bipolar episodes have increasingly become frequent than they were some few years back. His response to treatment is absolutely negative as symptoms are becoming more severe. Impulsivity as an indicator of obsessive compulsive disorder is clearly seen to have a significant negative impact on elderly bipolar disorder.

Participant 2 is very conscious of her rights and authority. She wants her respect at all cost. She raised her children and was very protective over them. She wants to have the final say over everything that has to do with her and her children because she wants to ensure that her authority and position in her family is not lost. She is not only obsessed about her own well-being but that of her children and anything connected to her. To her, constant interruptions of discussions and conversation are a way to ensure that everything goes right. She wants to exercise control because she doesn’t trust any other person’s opinion. Being bipolar positive, these impulsive actions are getting out of hand because she’s not only intruding on matters at the family level but in other eternal environments and on matters which are not connected to her. Her bipolar

symptoms are gradually becoming severe as she finds herself talking alone and it is a pointer to psychosis. This means that her health is in a stage of serious degeneration and there is need for thorough treatment before things get out of hand. It is therefore seen that impulsiveness which stems from obsessive compulsive disorder has a deteriorating influence on elderly bipolar.

Participant 5 has been in a victim of major depressive episodes and is tired of isolating himself. He uses impulsiveness has a mechanism to free himself from the shackles of isolation and in so doing, he's aggravating his health. His strategy for socialization is pathological because it has taken an impulsive trend. Interfering in people's businesses, interrupting conversations is not healthy for his environment and worst of all for his own health. Formerly, he never used to wander around but wandering and roaming around the quarter has become a new experience which is born from the impulsive attitude. He always wants to be in communication and this has exacerbated his bipolar symptoms and treatment is ineffective because impulsiveness worsens elderly bipolar.

Participant 6 has been oppressed by what she calls "ghosts". Her hallucinations which are a great terror to her have gotten her to be extremely impulsive and aggressive. She says, she has to retaliate against the oppressions from the ghost and this has result to unhealthy behavior towards her entourage and anyone who comes around her given that she is bipolar positive. She has become extremely impulsive and aggressive to her family and her treatment has to take further dimensions beyond what a normal bipolar disorder treatment should require. Its therefore evident that impulsivity has a significant influence on old age bipolar.

Sub-thème 3: What is your impression about Repeating words and gestures since you fell sick ?

Participant 1: *I don't repeat words but I know that I constantly crack my fingers when I am in tension and I struggle with gnashing of teeth especially when I am awake. When I feel tension, I find myself unconsciously grinding my teeth.*

Participant 2: *As months go by, I find myself increasing talking alone. I cannot lie to you. There are words that I like and that I cannot shut my mouth. I must keep saying them because they are good words. Even in my sleep I want to say them.*

Participant 6: *I repeat particular words and my reason is to defend myself from the ghost that wants to claim her life.*

Repetitive behaviours are a tendency to engage in the same action or behaviour repeatedly, often without a clear purpose or goal. Repetitive behaviours are symptom of the mental health condition known as obsessive compulsive disorder and it is a form of anxiety disorder which has a significant negative impact on elderly bipolar. Repetitive behaviours interferes in the daily functioning of elderly persons living with bipolar disorder and causes a lot of distress to them thereby aggravating their symptoms and degenerating their quality of life.

Participant 1 says he doesn't repeat words but gets to crack his fingers and gnashes his teeth when he is worried and when he feels tension. Cracking of fingers and gnashing of teeth are all gestures and when they are repeatedly done, it becomes pathological and thus a representation of repetitive behaviour. Gnashing of teeth, or bruxism, can be a symptom of anxiety disorder in elderly persons. Anxiety can cause tension in the jaw muscles, leading to grinding or clenching of the teeth. In some cases, bruxism may also exacerbate anxiety symptoms, creating a vicious cycle. Given that this participant is at the third category of older persons where his bones have become weak and his teeth no more firm because of old age, it is very detrimental and unhealthy for him because this has led to physical harm in the sense that he constantly needs an orthopaedic to relieve his arms and hands from cramps which are a result of persistent knuckle and finger cracking. And he constantly experience blood flow from his gums which have become very weak because of aging and persistent gnashing of teeth. His daily functioning is affected because his hands and arms are constantly used for an activity which serves no good purpose to either him or anyone around him and the pains from teeth gnashing makes feeding another challenge. His quality of life is increasingly diminishing and treatment is to yielding positive results at the moment. Repetitive behaviour is indeed is of great negative influence to elderly bipolar.

Participant 2 exhibits repetitive behaviour through words. She acknowledges that she has increasingly become addicted to some words which even in her sleep, she wants to still say them. This is detrimental to her daily functioning because communication with others is gradually loosing consistency and her entourage and other relations are seriously strained by this behaviour.

Participant 6 equally repeats particular words as a means of defence against the hallucination of ghosts which she says want to claim her life. Because she is bipolar positive, this word repetition has stretched beyond being addressed to the ghost but to everyone around her. This implies, the situation is becoming abnormal because she is no more conscious of who she's addressing those words to and that is why even when she is alone, you here her talking on a loud tone as though she's having a quarrel with someone. Her bipolar is taking another dimension and requires further examination from the medical personnel because symptoms are become more severe and her mixed states between mania and depression are becoming more frequent.

From the above three participants, it is It's very evident how repetitive behaviour has devastating influence on elderly bipolar.

Theme: 2 Poor health with physical symptoms

Sub-theme 1: I want you to tell me now about Fear since you fell sick

Participant 3: *I know everyone is going to die but I don't want to leave soon. I still have a lot I want to do.*

Participant 5: *The only fear that I have is when I remember the mysterious events that happened to my two sons who died.*

Participant 6: *From the time she became sick, the issue of fear worsens every day. i live her to go to the market for example. By the time I delay just a bit as I return, I will meet her lamenting, shading tears and lamenting why have I left alone to die. Why don't I see these people that want to kill her? She is so anxious and afraid of the ghost.*

Fear can have a negative impact on physical and mental health. When a person experiences fear, their body releases stress hormones such as cortisol and adrenaline, which can lead to increased heart rate, blood pressure, and muscle tension. Fear can also lead to unhealthy behaviors such as overeating, smoking, or alcohol abuse, which can further damage health.

Participant 3 is afraid of death. Given that her health is increasingly deteriorating, she doesn't want to die too soon because she has projects she wants to accomplish. This type of chronic fear

that is operational in her is not good for her bipolar state because it will aggravate her symptoms and lead to more complications which will have to stretch beyond her major depressive episodes.

Participant 4 finds himself in terror when he remembers the misfortunes that befell his sons. The presence of this fear in his life being a bipolar patient is not good because it will exacerbate his symptoms.

Participant 6 is suffering from chronic fear which is worsening her state as a bipolar patient. Her mixed state between mania and depression are on a rise. Her hospitalization rate has increased as compared to the past two years. It is important to note that over time, chronic fear and stress can weaken the immune system, making a person more susceptible to illnesses and diseases and it is worsened when the patient is bipolar positive. Fear as an element of panic disorder has a significant devastating effect on bipolar elderly persons.

Sub-theme 2 : some symptoms occur during sickness. Tell me about Palpitations according to your case

Participant 1: *I am hypertensive, Constant heart beats (palpitation), Kidney problems and Dysfunctional leg.*

Participant 3: *I have respiratory problems; I am equally hypertensive, arthritis and serious palpitations.*

Participant 5: *My blood pressure has become very high and I am increasingly becoming restless especially when I am experiencing palpitation. Chronic headaches.*

Palpitation is a sensation of rapid, fluttering, or pounding heartbeat. It can be caused by various factors such as anxiety, stress, caffeine, alcohol, and certain medications. From the above presentation, it is seen that all the three participants; participant 1, 3 and 5 respectively have hypertension and all experience palpitations. It is important to note that Palpitation and hypertension are related in that hypertension, or high blood pressure, can cause palpitation. When the blood pressure is elevated, the heart has to work harder to pump blood throughout the body. This can cause the heart to beat faster or irregularly, leading to palpitation. In some cases, palpitation may be a warning sign of hypertension, and individuals who experience palpitation

should have their blood pressure checked. Conversely, palpitation can also be a side effect of medications used to treat hypertension and bipolar disorder.

Palpitation is particularly disadvantageous for bipolar patients as it may trigger or worsen their mood swings. Bipolar disorder is characterized by episodes of depression and mania, and palpitation can exacerbate the symptoms of mania, leading to increased energy levels, impulsivity, and risk-taking behavior. Additionally, palpitation can cause anxiety and panic attacks in bipolar patients, which can further disrupt their emotional stability and daily functioning. Panic disorder indeed worsens bipolar disorder in elderly persons.

Sub-theme 3 : How about Shortness of breath ?

Participant 1: *When I face pressure, it becomes very often. But if issues are calm around me, the frequency is reduced.*

Participant 3*: yes yes, I experience this very often especially when I engage in activities which seem to take more of my energy.*

Participant 5: *When tension is too much around me, breathing becomes very difficult then I begin to feel like I am having air tight.*

Shortness of breath is a feeling of not being able to breathe deeply or get enough air into the lungs. It can be caused by a variety of factors, including physical exertion, anxiety, asthma, lung disease, or heart problems. For bipolar patients as it is the case with the participants above, shortness of breath is highly disadvantageous because it may trigger anxiety or panic attacks, which can worsen symptoms of bipolar disorder. Shortness of breath can also be a side effect of certain medications used to treat bipolar disorder, such as lithium or antipsychotics. In severe cases, shortness of breath can lead to hypoxia, a condition in which the body does not receive enough oxygen, which can cause damage to vital organs and tissues.

Participant 1 and 5 above experiences shortness of breath when there's tension around them while participant 3 experiences shortness of breath when she engages in energy consuming activities. These participants are all bipolar positive and given that shortness of breath might have different effects in their health, there is a major common effect that all of them suffer as a result of shortness of breath and this is tied to the fact that they all are suffering from bipolar. So,

undisputedly, their quality of life is at stake, their daily functioning is seriously hampered; their hospitalization sessions are bound to increase all because their bipolar symptoms have become severe and demands extreme attention. Shortness of breath is a canker to elderly bipolar disorder.

Sub-theme 4: What can you tell me about Insomnia since you fell sick?

Participant 1: *I don't sleep, except with the aid of peels. Sleep is very difficult whether by night or during the day.*

Participant 2: *My eyes are always dry most nights I cannot sleep continuously for one hour and even during the day if little sleep is coming, any noise no matter how little it is will wake me up*

Participant 4: *Most of the nights I am up. Some nights I manage to sleep a bit and during the day I can't even close my eyes.*

Insomnia is a sleep disorder characterized by difficulty falling asleep and staying asleep. It can be caused by a variety of factors, including stress and medication side effects, or medical conditions.

The participants above are all struggling with sleep issues. They all complain not to have sleep. Insomnia is of significant disadvantage to bipolar elderly persons because it worsens symptoms of mania or depression. Lack of sleep can trigger manic episodes, leading to increased energy, impulsivity, and risk-taking behaviors. Lack of sleep can also trigger depressive episodes, leading to feelings of sadness, hopelessness, and fatigue. Through an observation at the Geriatric service at the Yaoundé district hospital, the symptoms of bipolar patients that experienced insomnia became severe and treatment became more complicated for medical personnel.

Insomnia can also make it difficult for individuals with bipolar disorder to adhere to a regular sleep schedule, which is essential for maintaining mood stability. Disrupted sleep patterns can lead to circadian rhythm disturbances, which can exacerbate symptoms of bipolar disorder. (Jones, 2001; Levenson & Frank, 2011; Mansour, 2005).

Participant one lost his sleep many years back and only manages to sleep with the help of peels which in turn have adverse effects. Participant 2 struggles to have sleep and the little she gets is in very short intervals and she easily wakes up at the echoes of any least sound. The sleep cycle is

totally disrupted and this is absolutely unhealthy given that she is bipolar positive. Participant 4 seems to have a better sleep experience than the other two participants but yet her sleep is still problematic because it is not consistent.

Participants 1, 2 and 4 above respectively are negatively affected in their health condition because of insomnia.

Sub-theme 5: Can you now explain about Hypersomnia?

Participant 1: *My sleep has been normal throughout my life except for the past three years that I started having problems sleeping and now, I only sleep with the help of medication.*

Participant 5: *The only time I over slept was when I was administered drugs against sleeplessness. I never loved the experience and I stopped taking those medications and I'm still suffering from lack of sleep.*

Participant 6: *I don't have sleep but two years back, I use to sleep until they will wake me up. I was sleeping beyond the normal but now, I don't have sleep.*

Hypersomnia is a sleep disorder characterized by excessive daytime sleepiness, prolonged sleep duration, and difficulty waking up in the morning. It can be caused by a variety of factors, including medication side effects, medical conditions, and psychiatric disorders.

Hypersomnia is of significant disadvantage to bipolar patients as revealed from the above participants because it aggravates symptoms of depression. It is important to note that their hypersomnia is induced by medication and of which the sides effect hampers the treatment they are receiving for their bipolar condition. Also, excessive sleep can lead to feelings of lethargy, apathy, and social withdrawal. Hypersomnia can also disrupt the regular sleep schedule, leading to circadian rhythm disturbances and exacerbating symptoms of bipolar disorder. (Jones, 2001; Levenson & Frank, 2011; Mansour, 2005).

Theme 3: Memories of traumatic events

Sub-theme1: I would like to tell me about Flash backs and reflections concerning you since you fell sick

Participant 1: *My experiences are very painful. Whenever I see a Speer and a knife, it reminds me of a lot that I don't even want to talk about. These evil things I have seen in the past always reflect in my mind. The pain I have also received from my own children and some of my wives keep eating my mind*

Participant 3: *The incidents that led to the death of my two sons are very mystical and I don't like going to particular environments because I am reminded of the tragedies.*

Participant 4: *Flashes of the accidents I had some years back won't let me rest especially when I am in a car or in a taxi.*

Flashbacks and reflections are experiences in which a person recalls a past event or memory. These experiences are particularly distressing and disruptive to the daily lives of elderly persons with bipolar disorder.

Flashbacks may be triggered by certain stimuli, such as a sound or smell that remind the individual of a traumatic event. This can lead to intense emotions, such as fear, anxiety, or anger, and may even cause physical symptoms like sweating or increased heart rate.

Reflections, on the other hand, are more voluntary and involve actively thinking about past events or experiences. While reflections may not be as intense as flashbacks, they can still trigger strong emotions and affect mood and behavior.

The observation made from the above participants clearly present that flashbacks and reflections have a significant influence on bipolar disorder. They exacerbate symptoms of depression or mania, disrupt sleep patterns, and lead to social withdrawal or isolation.

Sub-theme 2 : Let us find about Intrusive thoughts and irritating images

Participant 1: *Very common. Many of them, yes very many of them. When I have to sleep a bit, I don't like the kinds of dreams I have.*

Participant 3: *The image of my son's accidents and images of an event t witnessed when an old friend of mine was pierced to death by his wife also, thoughts about my health have been disturbing me because I am tired of medication.*

Participant 6: *The thoughts about these ghosts that chase me and want to kill me are often flooding my mind.*

Intrusive thoughts are unwanted, distressing, and repetitive thoughts, images, or impulses that occur involuntarily and against a person's will. They can be disturbing or unsettling and often cause significant distress or anxiety. Intrusive thoughts can range from violent or aggressive thoughts to thoughts about taboo subjects or inappropriate behaviors. Irritating images, on the other hand, refer to visual representations or mental pictures that evoke annoyance, discomfort, or distress in an individual. These images can be related to various triggers and may be difficult to control or eliminate from one's mind.

Intrusive thoughts and irritating images lead to heightened anxiety levels in individuals with bipolar disorder and this is the case with the above participants. These distressing thoughts exacerbate existing anxiety symptoms, making it challenging for the person to manage their bipolar symptoms effectively.

Intrusive thoughts and irritating images trigger or worsen mood episodes in bipolar disorder. For example, if a person with bipolar disorder experiences intrusive thoughts of worthlessness or

self-harm during a depressive episode, it will intensify their feelings of sadness and hopelessness. Similarly, during a manic or hypomanic episode, intrusive thoughts contribute to increased agitation, irritability, or impulsivity.

The presence of intrusive thoughts and irritating images interfere with daily functioning and quality of life for elderly individuals with bipolar disorder. They find it challenging to concentrate, engage in social interactions, or complete routine tasks due to the distress caused by these thoughts and images.

In some cases, intrusive thoughts related to self-harm or suicidal ideation can pose a significant risk to elderly persons with bipolar disorder. It is very evident through the observations made

from the above participants that intrusive thoughts and irritating images are of significant influence to elderly bipolar disorder

Sub-theme3: How do you manage your Self-regulation problems

Participant 1: *Its very difficult given that I am surrounded by my own very family who cares less about me. I chose to always stay in my room. Because people always complain and throw slangs at me. But I must tell you that it is very difficult because when I am alone, I begin to think a lot and feel discouraged about life.*

Participant 3: *I chose to always stay in my room. Because people always complain about always be me .but it is very difficult because when I am alone, I begin to think a lot and feel discouraged about life.*

Participant 4: *I find it very difficult to control myself in many ways. I cannot make stable decisions; I frequently change my mind over things which I agreed.*

Self-regulation problems refer to difficulties in managing and controlling one's thoughts, emotions, behaviors, and physiological responses. These problems can manifest in various ways and can significantly impact individuals with bipolar disorder, including elderly persons. Here are some ways self-regulation problems can influence bipolar elderly persons:

Bipolar disorder is characterized by significant mood swings, and self-regulation problems can exacerbate these mood fluctuations. Difficulties in regulating emotions lead to more frequent and intense mood episodes, such as depressive episodes or manic/hypomanic episodes. Elderly individuals with bipolar disorder may find it challenging to stabilize their moods, leading to increased emotional distress and impaired functioning. Self-regulation problems can contribute to impulsive behaviors in bipolar elderly persons. They may struggle with impulse control and engage in risky activities without considering the potential consequences. This impulsivity can lead to financial difficulties, strained relationships, or even physical harm.

Sleep patterns can also be affected by self-regulatory problems and contribute to sleep disturbances in bipolar elderly persons. Difficulties in calming the mind, regulating emotions, or managing stress can lead to insomnia, hypersomnia (excessive sleep), or irregular sleep patterns.

Sleep disturbances, in turn, can further exacerbate mood instability and impact overall well-being.

Self-regulation problems therefore make it very challenging for elderly individuals to adhere to their prescribed medication schedule. They may struggle with remembering to take medications, organizing pill dosages, or following through with the recommended treatment plan. This can hinder the effectiveness of medication and increase the risk of relapse or worsening symptoms.

Theme 4: Mania

Sub-Theme1: What can you tell me about Increased hospitalization since you fell sick?

Participant 1: *The rate at which I have been hospitalized since I fell sick keeps increasing. Hospital has become my home.*

Participant 2: *From the time that I felt sick and started visiting the hospital, I was not constantly being hospitalised as compared to the past 7 years. Now, since this year started\ I have been hospitalised two times already how will it look by the end of the year.*

Participant 6: *The problem I have with hospitalization is that they keep me there for long. And it is also very expensive.*

Increased hospitalization refers to a higher frequency or duration of hospital stays for individuals with bipolar disorder. It's important to note that while hospitalizations can provide necessary acute care and crisis management for elderly persons with bipolar disorder, the ultimate goal of treatment for bipolar patients is to achieve stability and well-being outside of the hospital setting not on hospital beds. Observations made through the above participants reveal how discomforting they are with increase and prolonged hospitalizations.

Hospitalizations, especially when frequent or prolonged, can disrupt a bipolar patient's daily life and relationships. Being separated from family, friends, and work and other responsibilities can easily lead to feelings of isolation, stress, and frustration. The impact on relationships gets to vary, with some experiencing strain due to the ongoing challenges and disruptions caused by hospitalizations.

Frequent hospitalizations also impose a financial burden on bipolar patients and their families due to medical expenses, insurance coverage, and potential loss of income. The cost of hospital stays, medication, and follow-up care can accumulate over time and contribute to financial stress and hardship. An observation made at the geriatric service at the Yaoundé district hospital revealed that the cheapest amount of money paid for a community health room was 10,000frs per day and private rooms ranged from 15,000frs to 30,000frs per day. Many families were often entangled in overwhelming bills and this alone was a disruption to patient treatment. Anxiety influences are indeed grave on bipolar elderly persons as seen through increased hospitalizations.

Sub-Theme2 : Tell me about Diminished health and diminished quality of life concerning your case since you fell sick

Participant 1: *Everything is getting worse. I am even tied of these medications. They are not helping.*

Participant 5: *I am tired of taking drugs. How can I be taking mediations consisting for many years now and my health is this way? My condition is only getting worse as days go by.*

Participant 6: *I'm loosing strength every day. Can I say that I am really alive when I am taking medications now like food? I am not satisfied with what life has gradually become for me.*

Diminished health refers to a decline or impairment in physical or mental well-being, while diminished quality of life refers to a decrease in the overall satisfaction and enjoyment of life. Both of these factors can have a significant influence on elderly persons living with bipolar disorder.

The side effects of certain medications used to manage bipolar symptoms can impact physical health, leading to weight gain, metabolic changes, or other physical complications. Additionally, irregular sleep patterns, disrupted eating habits, and the overall stress of managing the disorder can contribute to decreased physical well-being. The health of the above participants is in a total decline and quality of life is negative.

Bipolar patients may be at a higher risk of developing co-occurring medical conditions, such as cardiovascular disease, diabetes, obesity, or substance abuse disorders. These conditions can

further diminish their health and quality of life, as they may require additional medical treatments, lifestyle modifications, and management strategies.

Anxiety effects on bipolar disorder disrupt social functioning and relationships. Mood fluctuations, irritability, impulsivity, or withdrawal during depressive episodes can strain personal relationships and social interactions. This can lead to social isolation, decreased support networks, and feelings of loneliness, which in turn diminishes overall quality of life.

Frequent episodes, persistent symptoms, and the challenges of managing the disorder can contribute to feelings of frustration, hopelessness, and reduced enjoyment in daily life.

Individuals may struggle with self-image, experience feelings of inadequacy or stigma, or have difficulty maintaining a consistent sense of self. These challenges can contribute to a diminished sense of purpose, confidence, and satisfaction in life.

Sub-Theme 3: I would like you to explain about severe symptoms that you have since you fell sick

Participant 1: *Sleeplessness, Increase irritability and impulsiveness and aggressiveness. Fear of losing my authority because of my sickness. Slow in memory and difficulty processing information with precision.*

Participant 2: *My heart palpitates almost all the time. Increase irritability and impulsiveness and aggressiveness. I noticed that I have become an angry person. I equally experience Racing thoughts.*

Participant 3: *I have been told several times by the people around me that I sometimes say things which don't make sense. Sometimes I find difficulties remembering where I kept something.*

Severe symptoms in bipolar disorder refer to intense and extreme manifestations of mood episodes, including severe depressive episodes or severe manic/hypomanic episodes. These severe symptoms can have a profound impact on older bipolar patients.

Severe Depressive Episodes liable to be experienced by the above participants are overwhelming feelings of sadness, hopelessness, and despair. These emotions are difficult to manage and significantly impact daily functioning and overall mood.

Severe depressive symptoms also lead to a loss of interest or pleasure in previously enjoyed activities. Hobbies, social interactions, and responsibilities may no longer hold any appeal or bring satisfaction. Severe depression can also manifest in physical symptoms such as changes in appetite, sleep disturbances, fatigue, and significant weight loss or gain.

On the other hand, severe Manic/Hypomanic Episodes will cause individuals to experience heightened states of euphoria, extreme irritability, or agitation. These intense emotions impact relationships, decision-making, and overall functioning.

Severe manic episodes lead to impulsive and reckless behaviors. Individuals may engage in excessive spending, risky sexual behavior, substance abuse, or other activities that have negative consequences. Severe manic episodes are equally accompanied by a decreased need for sleep. This leads to sleep deprivation, which further exacerbates symptoms and impairs cognitive functioning.

Rapid and racing thoughts are common during severe manic episodes. Individuals may have difficulty concentrating, experience a flood of ideas, and struggle to maintain coherent conversations or tasks. Anxiety therefore has a devastatingly significant effect on old age bipolarity.

Theme 5: Depression

Sub-Theme 1: What can you know tell me about suicidal ideation since you fell sick?

Participant 1*: I don't think that on a serious note but sometimes, with the pain from my own family I feel very discourage about life and sometimes prefer to rest forever.*

Participant 5: *What I can say about this is that I have been asking God why he took my two sons. I would have rather preferred to die in their place*

Participant 6: *I don't want to die now. Except for these ghosts that are trying to put me in the grave. They are always showing me coffins.*

Suicidal ideation refers to thoughts or contemplation of self-harm or suicide. It can range from fleeting thoughts to more persistent and intrusive ones. Suicidal ideation is a serious symptom even though not too common in elderly bipolar disorder it is important that it should be taken seriously and addressed promptly.

Elderly persons with bipolar disorder often experience intense anxiety, which can lead to suicidal ideation. Anxiety can cause overwhelming feelings of fear, panic, and distress, making it difficult for the person to cope with the symptoms of bipolar disorder.

Anxiety breeds hopelessness, and this feeling is intensified in elderly persons with bipolar disorder who have experienced the condition for a long time. They may feel like there is no end to the pain and discomfort they experience, leading to thoughts of suicide. This is the case of one of the participants above.

Overall, anxiety disorder can intensify the symptoms of bipolar disorder in elderly persons, including suicidal ideation, by heightening anxiety levels, causing feelings of hopelessness, exacerbating health-related stressors.

Sub-Theme 2: How about Isolation?

Participant 1: *I have been in this state for close to five years. I prefer to be alone. But as chief things have not been going the way they used to go before since. I'm considered to be worthless and so, if my own family too is despising me why shouldn't I be close to being by myself? But it's very difficult because I get to think a lot and regret a lot*

Participant 4: *my entourage despises me. They constantly complain that I disturb them. They don't seem to understand me and most at times, I prefer to be by myself.*

Participant 5: *interaction is far from me. I stay most of the time by myself. Everyone is impatient with me.*

Isolation refers to a state of being alone or socially disconnected, with limited or no meaningful social interactions or connections. It can have a significant impact on bipolar elderly persons, exacerbating their symptoms and affecting their overall well-being.

As anxiety levels increase in a bipolar elderly person, they may start to avoid situations and activities that trigger anxiety. Avoidance can lead to social isolation, as the individual withdraws from social interaction and stops participating in activities they previously enjoyed. Fear of judgment by others can make the individual avoid social interaction, leading to social isolation.

Elderly persons with bipolar disorder may face many health-related stressors, which can compound the anxiety they feel. The above participants have this experience. They may feel isolated and alone, particularly if they lack a support system or have difficulty connecting with others. This can lead to intense feelings of sadness and despair, increasing the risk of suicidal ideation.

The symptoms of anxiety includes excess sweating, shaking or rapid heartbeat, causing a bipolar victim to feel embarrassed or uncomfortable about their body's response to anxiety. This negative self-image can lead to social isolation. Anxiety is often accompanied by negative thoughts such as "I am not good enough" or "I will make a fool of myself." These negative thoughts reinforce avoidance behavior and can lead to social isolation. Anxiety and bipolar disorder can cause low energy levels, making it difficult for a bipolar elderly person to engage in social interactions and activities.

CONCLUSION AND RECOMMENDATIONS

The main objective was to examine the extent to which anxiety affects elder persons with bipolar disorder in the Yaoundé central hospital and possible recommendations to ameliorate their conditions. This chapter focuses on the interpretation and discussion of results or major findings with reference to the objectives, hypothesis of the study, recommendation based on the conclusions will be made to medical professionals, the elderly persons living with bipolar disorder, their care givers and some suggested areas for further research will also be proposed.

Conclusive analysis

In line with the research objectives, the following findings were substantiated;

To demonstrate that Obsessive compulsive disorder have a significant and devastating influence on bipolar disorder in older persons, a study by Sajatovic et al. (2005) found that 31% of older adults with BD also had comorbid OCD. Another study by Kessler et al. (2005) found that individuals with BD were more likely to have lifetime OCD compared to individuals without BD. Furthermore, a review by Hantouche and Akiskal (2005) suggests that OCD may be a subtype of BD, which they refer to as "bipolar spectrum disorder." They propose that OCD symptoms may represent a manifestation of the depressive phase of BD. By virtue of the results obtained from the different participants of this study with startling outcomes in their health as a result of anxiety commodity and the supportive perspectives of Authors like Sajatovic, Kesseler, Hantouche, Akiskal et al, we therefore conclude by the first hypothesis that obsessive compulsive disorder has a devastating influence on bipolar elderly persons.

To demonstrate that Panic disorder has a significant and devastating influence on bipolar disorder in older persons, Dr. Martha Sajatovic, a professor of psychiatry and behavioral sciences at Case Western Reserve University School of Medicine in her research found that panic disorder can exacerbate the symptoms of bipolar disorder in older adults, leading to more severe mood swings, increased anxiety, and a higher risk of suicide. Another author who has studied the relationship between panic disorder and bipolar disorder in older adults is Dr. Roger McIntyre, a professor of psychiatry and pharmacology at the University of Toronto which in his research has found that panic disorder is a common comorbidity in older adults with bipolar disorder, and that it can significantly impair their quality of life and ability to function. The results obtained from the participants of this study clearly reveal an outstanding negative influence of panic disorder in

elderly persons as they all are suffering from palpitation, hypertension and other cardiovascular diseases they by corroborating the view of authors like Dr. Matha & Roger Mcintyre and thus a conclusion on the second hypothesis is drawn confirming that panic disorder has a devastating influence on bipolar disorder in older persons.

To demonstrate that Post traumatic stress disorder has a significant and devastating influence on bipolar disorder in older persons, Dr. Mark Zimmerman, a professor of psychiatry and human behavior at Brown University In his research, has found that individuals with bipolar disorder who also have PTSD experience more severe mood episodes, greater functional impairment, and a higher risk of suicide. Another author who has explored the impact of PTSD on bipolar disorder in older adults is Dr. Nassir Ghaemi, a professor of psychiatry at Tufts University School of Medicine. In his research, he has found that individuals with both disorders may have a more chronic and treatment-resistant course of illness and that adequate treatment for both disorders is crucial for improving outcomes. The perspectives of authors like Dr. Mark and Nassir together with the results obtained from the participants of this study at the Geriatric ward in the Yaoundé District hospital in Cameroon clearly proves that Post traumatic stress disorder has a devastating influence on elderly bipolar disorder which is in conformity with the third hypothesis. The Stress theory suggests that stressful life events or experiences can trigger mood episodes in individuals with a genetic predisposition to bipolar disorder. Robert M, (2008) and the Kindle theory which states that repeated episodes of mood disturbance, such as mania or depression, can "kindle" or sensitize the brain to future episodes highly corroborates the third hypothesis and thus the conclusion that Post traumatic stress disorder has a significant and devastating influence on bipolar disorder in older persons.

RECOMMENDATIONS

1. Mental health professionals in the Yaoundé District hospital in Cameroon to give maximum attention to bipolar disorder in elderly persons and be well dedicated to patiently carry effective diagnosis of elderly persons who are suffering from this mental disability.

3. Caregivers should be trained to recognize anxiety symptoms in bipolar older persons so that they can provide appropriate support and help individuals manage their anxiety.

4. Treatment plans should be developed that consider both the bipolar and anxiety symptoms when dealing with bipolar older persons.

5. Medications used to treat bipolar disorder should be carefully chosen since some medications can exacerbate anxiety symptoms.

6. Cognitive-behavioral therapy (CBT) can be an effective treatment for anxiety in bipolar older persons. Medical professionals should consider referring individuals to a licensed therapist for CBT

7. Lifestyle factors, such as diet, exercise, and sleep, also impact bipolar and anxiety symptoms in older persons. Therefore, medical professionals should integrate lifestyle modifications as part of an overall treatment plan.

7. Bipolar older persons need to be educated about the potential impact that anxiety symptoms can have on their health. They should be encouraged to talk about their symptoms with their caregivers and healthcare providers to ensure appropriate treatment and management.

- **The Special Education and Mental Disability therapeutic approaches to reduce anxiety**

It is important for individuals with bipolar disorder to work with their healthcare provider to develop strategies for managing these experiences, such as cognitive-behavioral therapy or medication management.

Psychological interventions including CBT for individuals, groups and families have an evidence base in the treatment of depression, anxiety and BD individually (Barlow, Ellard, Hainsworth, Jones, & Fisher, 2005; El-Mallakh & Hollifield, 2008; Jones, Deville, Mayes, &. Lobban, 2011; Parikh, LeBlanc, & Ovanessian, 2010; Sasson, Chopra, Harrari, Amitai, & Zohar, 2003). Perhaps one of the key justifications for exploring anxietymood associations and treatments in BD is that whilst certain risk factors for worse outcomes are static, such as previous number of episodes and age of onset, anxiety symptoms can be targeted and potentially reduced at any time. Although there are still relatively few trials which have evaluated combined interventions, preliminary results are encouraging. Mindfulness-based cognitive therapy (MBCT) amongst other therapies has been found to be effective at preventing the increase of anxiety symptoms.

Psycho-education interventions will provide a forum in which individuals with anxiety and bipolar disorder together with their families learn about the impact of anxiety on bipolar disorder (Miklowitz,2002;NAMI,1996).Common topics in psycho-education which include understanding the physiology of bipolar disorder, understanding treatment options, recognizing the triggers and symptoms of relapse, building social support networks, and learning self-management skills and strategies(Miklowitz & Otto, 2006).The benefits of participating in psycho-education interventions include improvement in illness self-management and reduction in relapses and hospitalizations (Colom & Lam, 2005).In particular, self-management skills and strategies aid individuals with early identification of symptoms in seeking timely treatment of relapse and with prevention of future relapse (Frank, Gonzales, & Fagiolini, 2006)

CONTRIBUTION TO KNOWLEDGE

1. Identification of a research gap: The thesis identifies a research gap in the literature regarding mental disabilities and the effects of anxiety on bipolar disorder in elderly persons in Cameroon. The limited research in this area has created a gap in understanding the relationship between these two disorders within the population of Cameroon.

2. The thesis provides a comprehensive analysis of how anxiety affects bipolar disorder in elderly persons. The analysis synthesizes existing research and provides insights that can guide healthcare professionals in managing the symptoms of the two disorders. This thesis has helped to expose the mental canker eating up the elderly persons in Cameroon and awareness has been increased.

3. New insights into treatment: The thesis contributes to knowledge by providing new insights into the treatment of bipolar disorder with comorbid anxiety. The analysis suggests that treatment plans for bipolar disorder in elderly persons should consider both bipolar and anxiety symptoms.

4. Identification of risk factors: The thesis identifies risk factors that can exacerbate anxiety symptoms in bipolar elderly persons, including medication side effects and lifestyle factors.

5. Recommendations for healthcare professionals: The thesis suggests recommendations that healthcare professionals can use in managing bipolar disorder in elderly individuals with

comorbid anxiety. These recommendations can help medical professionals better assess and treat these disorders in older persons to improve their quality of life.

LIMITATION OF THE STUDY

The study was carried out precisely in the Yaoundé Central Hospital. The study therefore confined itself only to this sample leaving other hospitals untouched since geriatric services are not available in other hospitals. Also, since the literature on anxiety and bipolar disorder in elderly persons in the Yaoundé central hospital was scarce in Cameroon, the literature review was drawn from other African countries and some specific Countries of the World. The effects of anxiety on bipolar disorder in elderly persons with bipolar disorder in America, Europe and Asia differed from the effects observed in Africa because of many factors of which cultural barriers and financial burden are major amongst others. Despite these limitations, the focus of this study was not derailed.

SUGGESTED AREAS OF FURTHER RESEARCH

1. Further research should investigate the effective means by which bipolar disorder can be diagnosed and sustainably treated in the elderly population in the Cameroon context.

2. Further research should investigate the long-term outcomes of elderly persons with comorbid bipolar disorder and anxiety disorders. This research could assess the overall impact of the two disorders on health, longevity, and quality of life in elderly persons in Cameroon.

3. There is a need to further study treatment efficacy, optimize the treatment plans, and identify the most effective interventions for bipolar disorder with comorbid anxiety in older individuals. Further research could assess the benefits and risk of various treatment options, provide a better cost-benefit analysis, and identify the best mix of pharmacological and therapy interventions.

4. There is a need for further research on the biological mechanisms that underlie the relationship between bipolar disorder and anxiety disorders in elderly persons. This research would help to improve understanding of the pathophysiology of these conditions, improve diagnosis, and develop new treatment targets.

5. Future research could investigate the impact of various social support interventions such as support groups and cognitive-behavioral interventions on mood and anxiety symptoms, and quality of life in older individuals with bipolar disorder and anxiety.

6. There is a need to study the psychological impact of comorbid bipolar disorder and anxiety disorders in older persons in depth and how it affects their psychological well-being, coping skills and social functioning.

7. There is a need to investigate the means of improving medication compliance in elderly persons with comorbid bipolar disorder and anxiety disorder to ensure adequate and effective treatment.

REFERENCES

American Geriatrics Society Beers Criteria Update Expert Panel (2019). American Geriatrics Society 2019 Updated AGS Beers Criteria for Potentially Inappropriate Medication Use in Older Adults. *Journal of the American Geriatrics Society*, *67*(4), 674–694.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). American Psychiatric Publishing.

Angwafor, S., Tembi, T., Cyrille, N., Njamnshi, W. Y., Ngarka, L., & Njamnshi, A. (2021). Prevalence of depression amongst stroke survivors in two regional hospitals in Cameroon. *Journal of the Neurological Sciences*, *429*.

Babalola, S. O., Ogunyemi, A. O., & Sadiku, F. A. (2019). Mental Health and Psychological Well Being as Determinants of Leadership Styles of Political Office Holders in South West, Nigeria: Implication for Good Governance and Sustainable Development. *KIU Journal of Humanities*, *4*(3), 177-184.

Bandelow, B., Michaelis, S., & Wedekind, D. (2022). Treatment of anxiety disorders. *Dialogues in clinical neuroscience*, 19(2), 93-106.

Bardin, L. (1977). L'horoscope d'un magazine: une analyse de contenu. *Communication & Langages*, *34*(1), 79-93.

Barlow, D. H. (2004). *Anxiety and its disorders: The nature and treatment of anxiety and panic*. Guilford press.

Berelson, B. (1952). *Content analysis in communication research.* Free Press.

Bhandari, P. (2022). *What is Face Validity? Guide, Definition & Examples*. Scribbr.

Blanchet, A., Giami, A., Bézille, H., Florand, M. F., & Pagès, M. (1985). *L'entretien dans les sciences sociales: l'écoute, la parole et le sens*. Paris: Dunod, 1985.

Blanchet, A., Gotman, A., & Kaufmann, J. C. (1992). *L'Enquête et ses méthodes.* Éditions Nathan.

Bourne, D. G., Dennis, P. G., Uthicke, S., Soo, R. M., Tyson, G. W., & Webster, N. (2013). Coral reef invertebrate microbiomes correlate with the presence of photosymbionts. *The ISME Journal*, *7*(7), 1452-1458.

Brosschot, J. F., Gerin, W., & Thayer, J. F. (2006). The perseverative cognition hypothesis: A review of worry, prolonged stress-related physiological activation, and health. *Journal of psychosomatic research*, *60*(2), 113-124.

Cardoso, T., Bauer, I. E., Meyer, T. D., Kapczinski, F., & Soares, J. C. (2015). Neuroprogression and cognitive functioning in bipolar disorder: a systematic review. *Current psychiatry reports*, *17*, 1-24.

Catteeuw, M., Rouan, G., Fernandez, L., & Pedinielli, J. L. (2001). *Le Continuum qualitatif-quantitatif en psychologie clinique et psychopathologie : intérêts et problèmes de nouvelles méthodologies de recherche.* Université Paris-V.

Courel-Ibáñez, J., Cordero, J. C., Muñoz, D., Sánchez-Alcaraz, B. J., Grijota, F. J., & Robles, M. C. (2018). Fitness benefits of padel practice in middle-aged adult women. *Science & Sports*, *33*(5), 291-298.

Creswell, J. W. (2014). *A concise introduction to mixed methods research*. SAGE publications.

Diniz, B. S., Teixeira, A. L., Cao, F., Gildengers, A., Soares, J. C., Butters, M. A., & Reynolds III, C. F. (2017). History of bipolar disorder and the risk of dementia: a systematic review and meta-analysis. *The American Journal of Geriatric Psychiatry*, *25*(4), 357-362.

Djatche, J. M., Herrington, O. D., Nzebou, D., Galusha, D., Boum, Y., & Hassan, S. (2022). A cross-sectional analysis of mental health disorders in a mental health services-seeking population of children, adolescents, and young adults in the context of ongoing violence and displacement in northern Cameroon. *Comprehensive psychiatry*, *113*, 1-6.

Dunster, G. P., Swendsen, J., & Merikangas, K. R. (2021). Real-time mobile monitoring of bipolar disorder: a review of evidence and future directions. *Neuropsycho-pharmacology*, *46*(1), 197-208.

Elisha, I. M., Karras, J. E., & Ruck, M. D. (2023). Looking within: Elevating Black scholarly contributions to empirical approaches in developmental science. *American Psychologist*, *78*(4), 512.

Fountoulakis, K. N., Grunze, H., Vieta, E., Young, A., Yatham, L., Blier, P., & Moeller, H. J. (2017). The International College of Neuro-Psychopharmacology (CINP) treatment guidelines for bipolar disorder in adults (CINP-BD-2017), part 3: the clinical guidelines. *International Journal of Neuropsychopharmacology*, *20*(2), 180-195.

Fowler, S. A., Coleman, M. R. B., & Bogdan, W. K. (2019). The state of the special education profession survey report. *Teaching Exceptional Children*, *52*(1), 8-29.

Freud, S. (1936). Inhibitions, symptoms and anxiety. *The Psychoanalytic Quarterly*, *5*(1), 1-28.

Gant, K. (2014). *The nature and experience of anxiety in bipolar disorder*. Lancaster University Press.

Gogtay, N., Ordonez, A., Herman, D. H., Hayashi, K. M., Greenstein, D., Vaituzis, C., & Rapoport, J. L. (2007). Dynamic mapping of cortical development before and after the onset of pediatric bipolar illness. *Journal of Child Psychology and Psychiatry*, *48*(9), 852-862.

Goodwin, F. K., & Jamison, K. R. (1990). *Manic-depressive illness.* Oxford University Press.

Goodwin, F. K., & Jamison, K. R. (2007). *Manic-depressive illness: bipolar disorders and recurrent depression* (Vol. 2). Oxford university press.

Gotlib, I. H., & Hammen, C. L. (Eds.). (2008). *Handbook of depression*. Guilford Press.

Gruber, N. (2011). Warming up, turning sour, losing breath: ocean biogeochemistry under global change. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, *369*(1943), 1980-1996.

Gu, D., & Dupre, M. E. (Eds.). (2021). *Encyclopedia of gerontology and population aging*. Springer International Publishing.

Gwenambira-Mwika, C. P., Snapp, S. S., & Chikowo, R. (2021). Broadening farmer options through legume rotational and intercrop diversity in maize-based cropping systems of central Malawi. *Field Crops Research*, *270*, 108225.

Hawke, L. D., & Provencher, M. D. (2012). Early maladaptive schemas among patients diagnosed with bipolar disorder. *Journal of affective disorders*, *136*(3), 803-811.

Jaisoorya, T. S., Reddy, Y. J., Nair, B. S., Rani, A., Menon, P. G., Revamma, M. & Thennarasu, K. (2017). Prevalence and correlates of obsessive-compulsive disorder and subthreshold obsessive-compulsive disorder among college students in Kerala, India. *Indian journal of psychiatry*, *59*(1), 56.

Jidong, D. E., Husain, M. I., Ike, T. J., Husain, N., Taru, M. Y., Nnaemeka, N. C. & Murshed, M. (2023). Bipolar disorders in Nigeria: a mixed-methods study of patients, family caregivers, clinicians, and the community members' perspectives. *International Journal of Bipolar Disorders*, *11*(1), 1-9.

Kampman, O., Viikki, M., & Leinonen, E. (2017). Anxiety disorders and temperament—an update review. *Current psychiatry reports*, *19*, 1-8.

Kapczinski, F., Magalhães, P. V. S., Balanzá- Martinez, V., Dias, V. V., Frangou, S., Gama, C. S. & Berk, M. (2014). Staging systems in bipolar disorder: an International Society for Bipolar Disorders Task Force Report. *Acta psychiatrica scandinavica*, *130*(5), 354-363.

Kauffman, J. M., & Hallahan, D. P. (Eds.). (2011). *Handbook of special education*. Routledge.

Keller, M. B. (2006). Prevalence and impact of comorbid anxiety and bipolar disorder. *Journal of clinical Psychiatry*, *67*, 5-14.

Kendler, K. S., & Parnas, J. (Eds.). (2015). *Philosophical Issues in Psychiatry: The nature and sources of historical change. III*. Oxford University Press.

Kerner, B. (2014). Genetics of bipolar disorder. *The application of clinical genetics*, 33-42.

Kessler, R. C., Chiu, W. T., Demler, O., & Walters, E. E. (2005). Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of general psychiatry*, *62*(6), 617-627.

Kim, B., An, J., Jang, J. K., Lee, H. S., & Chang, I. S. (2014). New architecture for modulization of membraneless and single-chambered microbial fuel cell using a bipolar plate-electrode assembly (BEA). *Biosensors and Bioelectronics*, *59*, 28-34.

Kirkland, J. L., & Tchkonia, T. (2017). Cellular senescence: a translational perspective. *EBioMedicine*, *21*, 21-28.

Kraepelin, E. (1921). Ueber Entwurtzelung. *Zeitschrift für die gesamte Neurologie und Psychiatrie*.

Lacan, J. (1953). The function and field of speech and language in psychoanalysis. In *Ecrits: A selection* (A. Sheridan, Trans.; pp. 30–113).

Lacan, J., Sheridan, A., & Bowie, M. (2020). On a question preliminary to any possible treatment of psychosis. In *Ecrits: A selection* (pp. 198-249). Routledge.

Lee, S. Y., Kim, B., Kim, J. M., Yoon, J. S., & Lee, K. Y. (2019). The clinical characteristics of hypomania in bipolar disorder: A naturalistic study. *Journal of Affective Disorders*, 256, 413-419.

Leipzig, R. M., Sauvigné, K., Granville, L. J., Harper, G. M., Kirk, L. M., Levine, S. A., Mosqueda, L., Parks, S. M., Fernandez, H. M., & Busby-Whitehead, J. (2014). What is a geriatrician? American Geriatrics Society and Association of Directors of Geriatric Academic Programs end-of-training entrustable professional activities for geriatric medicine. *Journal of the American Geriatrics Society*, *62*(5), 924–929.

Mabrouk, A., Mbithi, G., Chongwo, E., Too, E., Sarki, A., Namuguzi, M. & Abubakar, A. (2022). Mental health interventions for adolescents in sub-Saharan Africa: A scoping review. *Frontiers in psychiatry*, *13*, 1-13.

Machado, S., Sancassiani, F., Paes, F., Rocha, N., Murillo-Rodriguez, E., & Nardi, A. E. (2017). Panic disorder and cardiovascular diseases: an overview. *International Review of Psychiatry*, *29*(5), 436-444.

Makanjuola, V. A., Esan, O., & Oladeji, B. D. (2017). Prevalence and correlates of obsessive-compulsive disorder symptoms among university students in southwestern Nigeria. *International Journal of Mental Health Systems*, 11(1), 38.

McIntyre, R. S., & Keck Jr, P. E. (2006). Comorbidity in bipolar disorder: clinical and research opportunities.

Miklowitz, D. J., & Johnson, S. L. (2009). Social and familial factors in the course of bipolar disorder: Basic processes and relevant interventions. *Clinical Psychology: Science and Practice*, *16*(2), 281-288.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. sage.

Ministry of Health, Labour and Welfare. (2020). *Annual report on the aging society*: 2020 (summary). Retrieved from https://www.mhlw.go.jp/english/database/dbhw/ageing/ARAS2020e.pdf

Mitchell, P. B., & Malhi, G. S. (2004). Bipolar depression: phenomenological overview and clinical characteristics. *Bipolar disorders*, *6*(6), 530-539.

Mondimore, F. M. (2014). *Bipolar disorder: A guide for patients and families*. Johns Hopkins University Press.

Morina, N., Akhtar, A., Barth, J., & Schnyder, U. (2014). Psychiatric disorders in survivors of war and genocide: The Rwandan experience. *International Review of Psychiatry*, 26(3), 295-299.

Munetsi, E., Simms, V., Dzapasi, L., Chapoterera, G., Goba, N., Gumunyu, T. & Chibanda, D. (2018). Trained lay health workers reduce common mental disorder symptoms of adults with suicidal ideation in Zimbabwe: a cohort study. *BMC public health*, *18*, 1-7.

Murray, G., Michalak, E. E., Levitt, A. J., & Johnson, S. L. (2011). Understanding the social impact of bipolar disorder: Process and outcomes of a Canadian national survey. *International Journal of Social Psychiatry*, 57(5), 537-550.

Mvogo, C. E., Toukam, L., Mapoure, Y. N., Njim, T., & Ntone, F. E. (2018). Bipolar disorder in Cameroon: a case report and review of the literature. *Journal of Medical Case Reports*, 12(1), 1-4

Nakimuli-Mpungu, E., Musisi, S., Katabira, E., Nachega, J., & Bass, J. (2011). Prevalence and factors associated with depressive disorders in an HIV+ rural patient population in southern Uganda. *Journal of affective disorders*, *135*(1-3), 160-167.

Ngum, P. A., Fon, P. N., Ngu, R. C., Verla, V. S., & Luma, H. N. (2017). Depression among HIV/AIDS patients on highly active antiretroviral therapy in the southwest regional hospitals of Cameroon: a cross-sectional study. *Neurology and therapy*, *6*, 103-114.

Njamnshi, A. K., Angwafor, S. A., Tabah, E. N., & Yepnjio, F. N. (2015). Prevalence of psychiatric morbidity at the neurology clinic in Yaoundé, Cameroon. *Journal of Neurology Research*, 5(6), 176-182.

Obadeji, A., Ogunlesi, A. O., & Adebowale, T. O. (2014). Prevalence and predictors of depression in people living with HIV/AIDS attending an outpatient clinic in Nigeria. *Iranian journal of psychiatry and behavioral sciences*, *8*(1), 26-33.

Okkels, N., Kristiansen, C. B., Munk-Jorgensen, P., & Sartorius, N. (2018). Urban mental health: challenges and perspectives. *Current opinion in psychiatry*, *31*(3), 258-264.

Otto, M. W., Perlman, C. A., Wernicke, R., Reese, H. E., Bauer, M. S., & Pollack, M. H. (2004). Posttraumatic stress disorder in patients with bipolar disorder: a review of prevalence, correlates, and treatment strategies. *Bipolar Disorders*, *6*(6), 470-479.

Parvaresh, A., & Amin, M. (2005). Job description and educational needs of different levels of environmental health graduates. *Iranian journal of medical education*, *5*(2), 63-71.

Patton, M. Q. (2014). *Qualitative research & evaluation methods: Integrating theory and practice*. Sage publications.

Physical Changes With Aging—Geriatrics. (2022). MSD Manual Professional Edition. Consulté 12 Janvier 202, à l'adresse https://www.msdmanuals.com/professional/geriatrics/approach-to-the-geriatric-patient/physical-changes-with-aging

Rajan, S. I., Mishra, U. S., Giridhar, G., Sathyanarayana, K. M., Kumar, S., James, K. S., & Alam, M. (2014). The national policy for older persons: Critical issues in implementation. *Population ageing in India*, 135-153.

Sajatovic, M., Blow, F. C., & Ignacio, R. V. (2006). Psychiatric comorbidity in older adults with bipolar disorder. *International Journal of Geriatric Psychiatry: A journal of the psychiatry of late life and allied sciences*, *21*(6), 582-587.

Sala, R., Goldstein, B. I., Morcillo, C., Liu, S. M., Castellanos, M., & Blanco, C. (2012). Course of comorbid anxiety disorders among adults with bipolar disorder in the US population. *Journal of psychiatric research*, *46*(7), 865-872.

Sarhan, A. L., & Saleh, M. (2022, March). Prevalence and Associated Factors of Obsessive-Compulsive Disorder During COVID-19 Pandemic: A Cross-Sectional Study. *International Conference on Business and Technology*, 495, 1376-1383.

Seedat, S., Nyamai, C., Njenga, F., Vythilingum, B., & Stein, D. J. (2004). Trauma exposure and post-traumatic stress symptoms in urban African schools: Survey in Cape Town and Nairobi. *The British Journal of Psychiatry*, *184*(2), 169-175.

Shapero, B. G., Farabaugh, A., Terechina, O., DeCross, S., Cheung, J. C., Fava, M., & Holt, D. J. (2019). Understanding the effects of emotional reactivity on depression and suicidal thoughts and behaviors: Moderating effects of childhood adversity and resilience. *Journal of affective disorders*, *245*, 419-427.

Simon, N. M., Otto, M. W., Wisniewski, S. R., Fossey, M., Sagduyu, K., Frank, E. & STEP-BD Investigators. (2004). Anxiety disorder comorbidity in bipolar disorder patients: data from the first 500 participants in the Systematic Treatment Enhancement Program for Bipolar Disorder (STEP-BD). *American Journal of Psychiatry*, *161*(12), 2222-2229.

Soares, J. C., & Mann, J. J. (1997a). The anatomy of mood disorders—review of structural neuroimaging studies. *Biological psychiatry*, *41*(1), 86-106.

Soares, J. C., & Mann, J. J. (1997b). The functional neuroanatomy of mood disorders. *Journal of psychiatric research*, *31*(4), 393-432.

Steve, C. (2020). *100 Ways to Motivate Yourself: Change Your Life Forever*. The Career Press.

Torres, I., Solé, B., Jiménez, E., Torrent, C., Reinares, M., Bonnin, C. D. M.,... & Vieta, E. (2017). Cognitive impairment in bipolar disorder: treatment and prevention strategies. *International Journal of Neuropsychopharmacology*, *20*(8), 670-680.

Turnbull, A., & Turnbull, R. (2015). *Exceptional lives: Special education in today's schools* (8th ed.). Pearson.

Vieta, E., & Colom, F. (2004). Prodromal symptoms prior to a manic/hypomanic episode in bipolar disorder: an international prospective study. *European Psychiatry*, 19(2), 81-85.

Wongpakaran, T., Wongpakaran, N., & Pinyopornpanish, M. (2015). Prevalence and correlates of panic disorder in adults with mental health problems in Thailand: A cross-sectional study. *BMC Psychiatry*, 15(1), 1-8.

World Health Organization. (1992). *The ICD-10 classification of mental and behavioural disorders:* Clinical descriptions and diagnostic guidelines. Geneva:

World Health Organization. (2011). *Mental health atlas 2011: Cameroon country profile.* Retrieved from https://www.who.int/mental_health/evidence/atlas/profiles-2011/cmr.pdf?ua=1

World Health Organization. (2013). *Mental Health of Older Adults: Fact Sheet*. Retrieved from https://www.who.int/news-room/fact-sheets/detail/mental-health-of-older-adults

World Health Organization. (2015). *WHO global strategy and action plan on ageing and health.* Retrieved from https://www.who.int/ageing/WHO-GSAP-2017.pdf?ua=1

World Health Organization. (2015). *World report on ageing and health*. WHO.

World Health Organization. (2016). *Mental health in Africa: challenges and opportunities*. WHO.

Wright, G. E. B., Niehaus, D. J. H., Koen, L., Drögemöller, B. I., & Warnich, L. (2011). Psychiatric genetics in South Africa: cutting a rough diamond. *African Journal of Psychiatry*, *14*(5), 355-366.

Yang, Y., Xie, P., Wu, K., Zheng, Y., Guo, Y., He, J. & Peng, H. (2018). Prevalence of childhood trauma and correlations between childhood trauma, suicidal ideation, and social support in patients with depression, bipolar disorder, and schizophrenia in southern China. *Journal of affective disorders*, *228*, 41-48.

Yatham, L. N., Kennedy, S. H., Parikh, S. V., Schaffer, A., Bond, D. J., Frey, B. N., & Berk, M. (2018). Canadian Network for Mood and Anxiety Treatments (CANMAT) and International Society for Bipolar Disorders (ISBD) 2018 guidelines for the management of patients with bipolar disorder. *Bipolar disorders*, *20*(2), 97-170.

Zubieta, J. K., Huguelet, P., Ohl, L. E., Koeppe, R. A., Kilbourn, M. R., Carr, J. M., & Frey, K. A. (2000). High vesicular monoamine transporter binding in asymptomatic bipolar I disorder: sex differences and cognitive correlates. *American Journal of Psychiatry*, *157*(10), 1619-1628.

APPENDICES

INTERVIEW GUIDE

Dear Sir/Madam, we are conducting a study as a part of our university research on; 'The effects of anxiety on bipolar disorder in the elderly persons". We kindly ask you to answer this interview guide in all sincerity and we assure you of the confidentiality of the information we will obtain from you, according to the code of the profession of educational psychologist.

0-Socio-demographic information of the participant

-Date and place of interview ……

-Time and start……..

-Age of respondent……

-Region of origin……

-Education level…….

-Profession…….

During this interview I would like to discuss with you certain events related to your illness. So, i will as fast as possible, go through a set of themes that I will propose to you. But in the meantime, tell me a little about yourself and your illness

…….....
.....
.....
.....
.....

0-Theme 0: Brief History of the participant

……
……
……
……
……
……

I would now like us to discuss the following themes that I will propose to you.

Theme 1: Repetitive behavior and Aggressiveness

Sub-theme1: Tell me about risky ventures since you fell sick

……
……
……
……
……
……

Sub-thème2: how about Impulsiveness?

……
……
……
……
……
……

Sub-thème 3: What is your impression about Repeating words and gestures since you fell sick ?

……
……
……
……
……

Theme :2 Poor health with physical symptoms

Sub-theme 1 : I want you to tell me now about Fear since you fell sick

……
……
……
……
……
……

Sub-theme 2 : some symptoms occure during sickness. Tell me about Palpitations according to your case

……
……
……
……

……
……..

Sub-theme3 : How about Shortness of breath ?

……
……
……
……
…….

Sub-theme4 : What can you tell me about Insomnia concerning you since you fell sick

……
……
……
……
……

Sub-theme5 : Can you now explain about Hypersomnia ?

……
……
……
……
……

Theme 3 : Memories of traumatic events

Sub-theme1 : I would like to know about Flash backs and reflections concerning you since you fell sick

……
……
……
…….....

Sub-theme2 : Let us find out about Intrusive thoughts and irritating images

……
……
……

……
……

Sub-theme3 : How do you manage your Self-regulation problems

……
……
……
……
……

Theme 4 : Mania

……
……
……
……
……

Sub-Theme1 : What can you tell me about Increased hospitalization concerning you since you fell sick ?

……
……
……
……

Sub-Theme2 : Tell me about Diminished health and diminished quality of life concerning your case since you fell sick

……
……
……
……

Sub-Theme3 : I would like you to explain Severe symptoms that do you have since you fell sick

……
……
……
……

Theme 5 : Depression

Sub-Theme1 : What can you now tell me about suicidal ideation since you fell sick ?

……
……
……
……
……..

Sub-Theme2 : How about Isolation ?

……
……
……
……

Thank you for your cooperation.

REPUBLIQUE DU CAMEROUN
Paix – Travail – Patrie
*****
UNIVERSITE DE YAOUNDE I
*****
FACULTE DES SCIENCES DE L'EDUCATION
*****
DEPARTEMENT D'EDUCATION SPECIALISEE

REPUBLIC OF CAMEROON
Peace – Work – Fatherland
*****
THE UNIVERSITY OF YAOUNDE I
*****
THE FACULTY OF EDUCATION
*****
DEPARTMENT OF SPECIALIZED EDUCATION

The Dean

N°_____/23/UYI/FSE/VDSSE

RESEARCH AUTHORISATION

I the undersigned, **Professor BELA Cyrille Bienvenu,** Dean of the Faculty of Education, University of Yaoundé I, hereby certify that **MBINKAR Jenet NYUYDZEVENA,** Matricule **21V3703,** is a student in Masters II in the Faculty of Education, Department: ***SPECIALIZED EDUCATION,*** Option: ***MENTAL HANDICAP.***

The concerned is carrying out a research work in view of preparing a Master's Degree, under the supervision of **Dr. MBEH Adolf TANYI.** Her work is titled ***« Bipolar Anxiety disorder and remediation in the elderly with schizophrenia ».***

I would be grateful if you provide her with every information that can be helpful in the realization of her research work.

This authorisation is to serve the concerned for whatever purpose it is intented for.

Done in Yaounde, the 05 JAN 2023

For the Dean, by order

UNIVERSITE DE YAOUNDE I – THE UNIVERSITY OF YAOUNDE I – FACULTE DES SCIENCES DE L'EDUCATION – THE FACULT OF EDUCATION – Le Vice-Doyen

DON[illegible] Etienne
[illegible]esseur

REPUBLIQUE DU CAMEROUN
Paix-Travail-Patrie

MINISTERE DE LA SANTE PUBLIQUE

SECRETARIAT GENERAL

DIRECTION DE L'HOPITAL CENTRAL DE YAOUNDE

UNITE ADMINISTRATIVE ET FINANCIERE

REPUBLIC OF CAMEROON
Peace-Work-Fatherland

MINISTRY OF PUBLIC HEALTH

SECRETARIAT GENERAL

DIRECTORATE OF CENTRAL HOSPITAL

ADMINISTRATIVE AND FINANCIAL UNIT

N°2023/ 013 /AR/MINSANTE/SG/DHCY/UAF

Yaoundé, le 30 JAN 2023

AUTORISATION DE RECHERCHE

Je soussigné, **Professeur Pierre Joseph FOUDA**, Directeur de l'Hôpital Central de Yaoundé, accorde une autorisation de recherche, sous la supervision du Dr NTSAMA ESSOMBA Marie-Josiane à **Mme MBINKAR JENET NYUYDZEVENA**, étudiante Master 2 en Handicap Mental à l'Université de Yaoundé I, sur le thème : « **Bipolar anxiety disorder and remediation in the elderly** ».

L'intéressée est tenue au strict respect du règlement intérieur de l'Hôpital Central de Yaoundé et s'engage à déposer un exemplaire dudit mémoire à la Direction dudit hôpital après correction.

En foi de quoi, la présente autorisation lui est délivrée pour servir et valoir ce que de droit. /-

REPUBLIQUE DU CAMEROUN
HOPITAL CENTRAL DE YAOUNDE
Le Directeur
MINISTERE DE LA SANTE PUBLIQUE

Le Directeur,

Pr Pierre Joseph FOUDA