LOGOTHERAPY AND COGNITIVE BEHAVIOURAL THERAPY IN THE TREATMENT OF DEPRESSIVE DISORDER AMONG STIGMATISED PEOPLE LIVING WITH HIV/AIDS IN OYO STATE, NIGERIA

BY

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CERTIFICATION

I certify that this research work was carried out under my supervision by **Onome Forstina ADELOWO (131718)** in the Department of Counselling and Human Development Studies, Faculty of Education, University of Ibadan.

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DEDICATION

This thesis is dedicated to the Almighty God for His faithfulness, grace and mercies that saw me through the period of this program. I derived my strength and inspiration from Him to pursue this program despite all odds and challenges.

The thesis is also dedicated to my dearest husband, **Dr Olawale Olufemi Adelowo** for his support, guidance and encouragement through this program and to my three Musketeers: **Oluwafifunmi, Oluwatamilore** and **Oluwasemiloore** for their understanding and encouragement.

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ABSTRACT

Depressive Disorder (DD) is a psychological maladjustment characterised by persistently depressed mood or loss of interest in activities which causes significant impairment in daily life. Impaired mental health like DD is commonly found among stigmatised People Living With HIV/AIDS (PLWHA). Reports have revealed that stigmatised PLWHA in Oyo State experience DD. Previous studies on the treatment of DD among PLWHA concentrated more on pharmacological interventions than psychotherapeutic interventions such as Logotherapy and Cognitive Behavioural Therapy (CBT). This study, therefore, was designed to determine the effects of Logotherapy and CBT on DD among stigmatised PLWHA in Oyo State, Nigeria. The moderating effects of Socio-economic Status (SeS) and gender were also examined.

The study was anchored to the Cognitive Model, while the mixed methods design (QUAN + Qual) was adopted. Three HIV facilities where PLWHA were receiving anti-retroviral treatment in Oyo State were purposively selected. Fifty PLWHA receiving treatment in each of the facilities were screened with Berger Stigmatisation (α=0.80) and Hospital Anxiety and Depression (α=0.78) scales to identify those experiencing stigmatisation and depressive symptoms. The participants who scored high against the threshold of 8 and 40, respectively in the scales were selected and exposed to Logotherapy (n=20), CBT (n=20) over eight weeks with a control (n=20) group. The instruments used were SeS Scale (α=0.86) and Beck Depression Inventory (α=0.70). Focused group discussions (FGD) were held in four sessions. Quantitative data were analysed using descriptive statistics and Analysis of covariance at $\alpha_{0.05}$, while qualitative data were content-analysed.

The participants' age was 40.60 ± 2.57 years and 85% were female. There was a significant main effect of treatments in the reduction of DD ($F_{(2;42)}$ = 31.55; partial $\tilde{\eta}^2$ = 0.60). The participants exposed to CBT had more reduced DD ($\bar{x}$=2.29) than those in Logotherapy ($\bar{x}$=2.45) and control ($\bar{x}$=11.75) groups. There was a significant main effect of SeS in reducing DD among study participants ($F_{(2;42)}$ = 31.55; partial $\tilde{\eta}^2$ = 0.22). The participants with moderate SeS (3.93) in the CBT group had more reduced DD than their counterparts with high (4.83) and low (8.59) SeS, respectively. There was significant interaction effect of treatments and SeS in the reduction of DD among study participants ($F_{(2;42)}$ = 3.64; partial $\tilde{\eta}^2$ = 0.257), in favour of participants with moderate (3.94) SeS in the CBT group. There was no significant main effect of gender. Similarly, the interaction effect of gender and treatment, the two-way interaction effects of gender and SeS, and three-way interaction effects of treatment, gender and SeS were not significant. Fear of living with the disease and daily drug intake are common themes associated with depression. Excessive thinking, sadness, loss of weight, and inability to work are also additional symptoms of depression.

Logotherapy and cognitive behavioural therapy effectively reduced depressive disorder among stigmatised people living with HIV/AIDS in Oyo State, Nigeria, while cognitive behavioural therapy was more effective. Clinical and counselling psychologists should incorporate both therapies in the treatment of depressive disorder among stigmatised people living with HIV/AIDS with consideration to socioeconomic status.

Keywords: Cognitive behavioural therapy, Logotherapy, Stigmatised people living with HIV/AIDS, Depressive symptoms

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LIST OF ABBREVIATIONS AND ACRONYMS

AAI	Accelerated access initiative
AIDS	Acquired immunodeficiency syndrome
ANCOVA	Analysis of Covariance
ART	Antiretroviral therapy
APA	America Psychiatric Association
BD	Bipolar depression
BDI	Beck depression inventory
CBT	Cognitive behavioural therapy
CCMC	Cincinnati Children's Medical Centre
DDs	Depressive disorders
DS	Depressive symptoms
DSM-V	Diagnostic and Statistical Manual of Mental Disorders-v
FBOs	Faith based organisations
FGD	Focused group discussion
GBD	Global Burden of Disease
GFATM	Global Fund to Fight AIDS, TB and Malaria
HAART	Highly Active Retroviral Therapy
HADS	Hospital Anxiety and Depression Scale
HARP	Highly Active Retroviral Prevention
HEAP	HIV/AIDS Emergency Action Plan
HIV	Human Immunodeficiency Virus
IAVI	International AIDS Vaccine Initiative
ICD	International Classification of Disease,10th edition
LMIC	Low- and Middle- Income Country

LT	Logotherapy
MeDD	Melancholic Depressive disorder
MDD	Major Depressive Disorder
NACA	National Agency for AIDS Control
NAT	Negative Automatic Thought
NRTI	Nucleoside Reverse Transcriptase Inhibitors
NNRIT	Non-Nucleoside Reverse Transcriptase Inhibitors
NSF	National Strategic Framework
NSFP	National Strategic Framework and Plan
PD	Psychotic Disorder
PEPFAR	Presidential Emergency Plan for AIDS Relief
PDD	Persistent Depressive Disorder
PLWHA	People Living with HIV/AIDS
PMTCT	Prevention of Mother- to Child-Transmission
PPD	Post-Partum Depression
PTSD	Post-Traumatic Stress Disorder
RDD	Recurrent Depressive Disorder
SAD	Seasonal Affective Disorder
SES	Socioeconomic Status
SSA	Sub-Saharan Africa
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNICEF	United Nations International Children and Emergency Fund
WFMH	World Federation of Mental Health
WHO	World Health Organization
YLD	Years Lived with Disability

ZDV	Zidovudine

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

1.2 Depressive Disorder

Depressive disorder, also known as depression is a common mental disorder characterised by a complex assortment of symptoms which include feelings of sad, irritable and empty feelings (depressed mood), loss of interest in activities, poor concentration, feelings of tiredness, hopelessness, guilt or low self-worth, disrupted sleep, changes in appetite and thoughts of suicide occurring over a long period of time (WHO, 2023). This complex psychiatric condition is associated with distressing symptoms that impact a person's emotions, thoughts, and ability to carry out daily tasks, such as eating, sleeping, and working, for a minimum of two weeks (National Institute of Mental Health, 2016). The WHO (2012) described depression as a chronic mental disorder characterised by mood changes, dysfunctional thoughts and behaviour as well as physical health challenges. Though common, depression is a severe disease that robs a person of the potential to enjoy life and reduce the potential to undertake even the simplest daily tasks. Depressive disorder is a serious medical and mental ailment which interferes with an individual’s daily life and causes severe impairment both in daily living and occupational functioning of the sufferer and those around them.

The association of depressive disorder with significant morbidity, disability, increased medical comorbidity and mortality makes it a significant and growing global public health challenge (Saveanu and Nemeroff, 2012). According to the WHO, about 322 million people globally (4.4%) are living with depression with the highest prevalence (5.9%) occurring among females in Africa (WHO, 2017). These statistics is not only disturbing; it also shows that there is a higher occurrence of depression among females.

Recent data from the Global Burden of Disease (GBD, 2015) study showed that about 7,079,815 (about 3.9% of the population) Nigerians are depressed with a total health loss of about 7.5% Years Lived with Disability (YLD). Currently, depression is the

primary cause of non-fatal health impairment, according to the WHO's 2017 report. It is also the third biggest contributor to the Global Burden of Disease (GBD), accounting for approximately 4.3% of the total number of disability-adjusted life years (Pattanayak and Sagar, 2014). Existing data indicate that about 10-15% of people experience major depression in their lifetime and about 5% suffer from major depression in a single year (Üstün, Ayuso-Mateos, Chatterji, Mathers and Murray, 2004). If current trends are left unchecked, it is projected that depression will contribute the most to the GBD by the year 2030. Unfortunately, however, depressive disorder have received very little therapeutic attention with effective treatment available to fewer than 25% of depressed individuals (Debjit, Sampath, Shweta, Shravan and Amit, 2012).

Depression develops from a complex interaction of social, psychological and biological factors (WHO, 2023) including adverse and stressful occurrences like early loss of parents, loss of a spouse, marital distress, divorce or breakup, unemployment, poverty, marginalisation, socioeconomic adversities, caring for a chronically ill person in the family, and psychological factors such as faulty or distorted cognitions, negative view of self, the environment, or the future, chronic and/or incurable diseases such as cancer and Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS) (Pattanayak and Sagar, 2014). Comorbid depression is among the commonest neuro-psychiatric conditions associated with HIV/AIDS.

1.3 HIV/AIDS

HIV/AIDS has continued to be a devastating and deadly disease that affects millions of people worldwide since its first report in 1980. Globally, the epidemic has negatively impacted the health, social welfare, employment and the criminal justice sectors (Awofala and Ogundele, 2018). According to information provided by the global HIV/AIDS observatory, HIV has affected over 75.7 million individuals since the early 1980s when the disease was initially discovered. This includes 36.2 million adults and 1.8 million children under the age of 15 (UNAIDS, 2020). At the end of 2019, about 38 million worldwide were living with the virus (UNAIDS, 2020). These include 1.7 million people who were newly infected in 2018, translating to about 5,000 new infections daily. The report further confirmed that 5,500 women in the 15-24 years age bracket are infected with HIV/AIDS weekly (UNAIDS, 2020). Further, about 32.7 million deaths attributable to the infection has been recorded since the beginning of the

outbreak with 690,000 of those deaths recorded in 2019 alone (UNAIDS, 2020). As at 2018, about 68.7% (25.7 million) of the global population of people living with HIV/AIDS (PLWHA) were resident on the African continent making the continent the one bearing the greatest burden of the epidemic (WHO, 2019).

In 2017, the population of PLWHA in Nigeria stands at around 3.1 million children and adults (UNAIDS, 2017) with a national prevalence of 3.4% (Awofala and Ogundele, 2018). According to NACA (2017), an estimated 200,000 among the total population of PLWHA in Nigeria are resident in Oyo State. However, the national prevalence rate among patients in the 15-49 years age bracket reduced to 1.5% in 2018 with the number of infected women doubling that of men of the same age bracket (UNAIDS, 2019). It is important to report that the validity of the 2017 national prevalence rate of 3. 4% has been questioned by many because it was determined using data from seroprevalence studies among antenatal clinic attendees without taking cognisance of the general population outside of the antenatal clinic. The most recent statistics however put the total number of PLWHA in Nigeria at 1. 9 million people accounting for two third of all new infections in Sub-Sahara Africa (UNAIDS, 2020).

Even though Nigeria has a relatively low prevalence rate of HIV, its large population size makes it the second country most affected by the HIV epidemic behind South Africa. Additionally, Nigeria has one of the highest rates of new HIV infections in SSA (NACA, 2017). According to the UNAIDS (2014), 9% of all PLWHA globally are resident in Nigeria with about 210,000 new infections among children and adults in 2017 (UNAIDS, 2017). Unfortunately, it has been estimated that greater than 50% of HIV-infected people in Nigeria are not aware of their seropositive status due to poor HIV testing and counselling services and fear of stigmatisation which prevent many people from going for voluntary testing (Oleribe, Aliyu and Taylor-Robinson, 2018).

Among the challenges faced by PLWHA, stigma and discrimination remain the most important and constitute significant impediment to the efforts to curtail the rampaging epidemic. The term "stigma" refers to a strong and damaging social label that discredits and tarnishes an individual's reputation, leading to a significant shift in how they perceive themselves and are perceived by others (Alonso and Reynolds, 1995). It has been described as an extremely damaging characteristic that causes an individual or group to be seen as tainted, devalued and less than a complete person instead of a

complete, whole or normal one (Goffmann, 1963). The UNAIDS (2014) defined HIV-related stigma as the unfavourable thoughts, emotions, and opinions towards individuals living with HIV/AIDS, groups associated with them (like their families and caregivers), and other groups that are at risk of HIV infection. It is also defined as discounting, discrediting and discrimination against those living with or those perceived to be infected with HIV (Herek, 1999). Stigmatisation of HIV/AIDS patients is associated with the feelings of prejudice, stereotyped perceptions, discrimination or social devaluation of the infection, activities associated with the infection and PLWHA (Earnshaw and Chaudoir, 2009).

Discriminatory and negative attitudes against PLWHA are expressed in various ways which can include hatred, rejection, abandonment, isolation and abuse which has the overall effect of making life miserable and meaningless for PLWHA. This poses a significant challenge to the worldwide effort to combat HIV/AIDS, as it creates an environment of concealment and quietness driven by lack of knowledge and the apprehension of being targeted (Famoroti, Fernandes and Chima, 2013). HIV/AIDS-associated stigmatisation is a complex issue associated with blame, shame, disgrace and societal unacceptability (Mbonye, Nakamanya, King, Seeley, Birungi and Jaffar, 2013). It stems from attitudes and beliefs that make people to reject, avoid and fear HIV-positive individuals. Through stigmatisation, the society creates an unnecessary discrimination against, and reproach of PLWHA through the acts of banning, restrictions, enforcement of controls, marginalising tagging, stereotyping, separating, abating, and exercising dominance over people that live with HIV/AIDS (Link, Yang, Phelan, and Collins, 2004).

Stigma-induced discrimination against PLWHA is widespread in the Nigerian society. In a recent study, 67% of a cohort of PLWHA in Abuja Municipal Council, Nigeria experienced various forms of stigma and discrimination (Oduenyi, Ugwa, Ojukwu and Ojukwu-Ajasigwe, 2019). The UNAIDS similarly reported that 21% of PLWHA in Nigeria faced challenges accessing general and reproductive health services as a result of their HIV-positive status (UNAIDS, 2016). Similarly, 46.8% of respondents in a study will not buy vegetable from shopkeepers living with HIV/AIDS (UNAIDS, 2017). However, other recent studies found low incidence (4-15%) of stigmatising attitudes and behaviours among service providers engaged in prevention of mother to child transfer

(PMTCT) programme currently running in 38 primary healthcare centres in Lagos Nigeria (Ehiri, Alaofè, Yesufu, Balogun, Iwelunmor, Kram, Lott and Olayinka, 2019).

The problem of stigma and discrimination related to HIV/AIDS is widespread and affects various aspects of society, such as religious institutions, healthcare workers, and healthcare facilities. This presents a significant obstacle to overcoming the epidemic. According to Chinwe (2005), stigma and discrimination against PLWHA in Nigeria often manifest in form of rejection characterised by unwillingness to share toilet facilities, eateries and recreation facilities with PLWHA, termination of appointments or threat of dismissal upon disclosure of status, alteration of duties schedule, denial of promotions or termination of insurance schemes. In addition, females infected with HIV are commonly labelled as wayward or promiscuous and the disease regarded as a punishment for their wayward lifestyle. Stigmatisation and discrimination associated with HIV/AIDS often impose significant psychological burden on PLWHA (WHO, 2008) as they confront the harsh reality of a positive diagnosed and the associated difficulties including the prospects of a reduced life span, complex treatment routines, and loss of social and family support (Zhang, Li, Liu, Zhou, Shen and Chen, 2018). These psychological and social-physiological burdens could manifest in form of anxiety and depression.

Along with the burden of living with HIV, PLWHA often face a range of additional challenges which increases their vulnerability to comorbid depressive disorder (Remien, Stirratt, Nguyen, Robbins, Pala and Mellins, 2019). These challenges can be related to socio-demographic factors, individual biology, neighbourhood and local environmental factors, social structures, and related social stigmas. Structural challenges which increase the risk of developing comorbid depression among PLWHA, especially in resources poor settings, include poverty, illiteracy or low education, unstable housing and food insecurity (Tsai, Bangsberg, Frongillo, Hunt, Muzoora, Martin and Wieser, 2012) which contribute to poor HIV/AIDS health outcomes. Biological factors contributing to poorer physical and mental health outcomes among PLWHA include the high incidence of comorbid infections including tuberculosis and hepatitis as well as chronic immune system depression. Further, many PLWHA experience violence and threats to their safety in many local communities which compound the psychological burden associated with their status. According to Curry, Latkin and Davy-Rothwell (2008), neighbourhood violence precipitates psychological distress which most of the

times lead to depressive disorder. The psychological trauma associated with the aforementioned structural, neighbourhood and biological factors is often compounded by the intersecting social stigma often experienced by PLWHA in many societies. PLWHA experience perceived, internalised and enacted stigma that negatively affect their mental health. The attendant psychological trauma experienced by PLWHA is further exacerbated by the stigmatisation of psychiatric illness in the society, and among patients and healthcare practitioners (Bogart, Wagner, Galvan, Landrine, Klein and Sticklor, 2011). This is further complicated by factors such as low economic status, poor educational background and inadequate social support (Bhat, Babu and Abhishekh, 2013), additional factors which can fast-track the development of depression among PLWHA in developing countries.

Due to its chronic nature and associated stigmatisation, PLWHA often suffer serious and sustained emotional and psychological distress (Kaneez, 2017) which predispose them to depression as a comorbidity with HIV/IDS. Currently, an estimated at 40-42% of PLWHA worldwide are suffering from comorbid depression (Nanni, Caruso, Mitchell, Meggiolaro and Grassi, 2015). This is twice as much as the prevalence of depression in the overall population (WHO, 2008). In Nigeria, the frequency of depression among PLWHA is about five times more than that in the healthy population (Chikezie, Otakpor, Kuteyi and James, 2013). Furthermore, Aguocha, Uwakwe, Duru, Diwe, Aguochia, Enwere and Olose (2015), and Okwaraji, Onyebueke and Nduanya (2019) reported regional differences in the prevalence depression among PLWHA in Nigeria. According to a recent study involving 720 individuals who attended an HIV clinic in a tertiary hospital in Nsukka, located in the southeastern region of Nigeria, the occurrence of mild, moderate, and severe depression was reported as 28.1%, 12.6%, and 2.8%, respectively (Okwaraji, Onyebueke and Nduanya, 2019). Similar rates (33.3% and 39.1%, respectively) were reported in three hospitals in Enugu (Iwudibia and Brown, 2014), and Imo (Aguocha, Uwakwe, Duru, Diwe, Aguochia, Enwere and Olose, 2015) also in South East Nigeria. In North Central, a higher prevalence of 56.7% was reported by Shittu, Issa, Olanrewaju, Mahmoud, Odeigah, Salami and Aderibigbe (2013), while the reported prevalence among study participants in Benin in the South-south was 29.3%, among which 14.7%, 12% and 13% of the cases were mild, moderate and severe depressions, respectively (Chikezie, Otakpor, Kuteyi and James, 2013).

According to Meade and Sikkema (2005), depression can heighten the vulnerability to contracting HIV infection and can also be a consequence of having HIV infection. Some of the factors that could contribute to depression among PLWHA are coincidence of other infections, the challenges of coping with the burden imposed by the disease and death, neurological changes arising from HIV-related infections of the nervous system, reactions to social stigma, impaired sexual health, side effects of antiretroviral drugs, changes in body image, inability to get marital partners, marital crises resulting from positive HIV diagnosis, stress, substance abuse, loss of job, disability and social avoidance (Bhatia and Munjal, 2014).

Currently, depressive disorder has been recognised as an important impediment in the fight against the rampaging scourge of HIV/AIDS. Apart from its debilitating effects on HIV/AIDS patients, depression also increases the risk of transmission of the infection through increased predisposition of PLWHA to high-risk behaviours which can increase the risk of acquiring the disease and other infections. Thus, depression has important effects on HIV-related health behaviour and other illnesses associated with HIV as well as HIV/AIDS related death (Avants, Margolin, Warburton, Hawkins and Shi 2001).

Despite this, there existed very little empirical study of depression among PLWHA in developing countries where the most-at-risk subjects commonly reside and which currently is the epicentre of the epidemic (Tran, Ho, Ho, Latkin, Phan, Ha, Vu, Ying and Zhang, 2019). Thus, more studies are urgently needed to understand the demographic and contextual factors necessary for the establishment of cost-effective interventions within those settings where the level of social judgement often exacerbate the burden of depression among PLWHA. The prevalence and effective methods of managing comorbid depression among adolescents in sub-Saharan Africa also need to be investigated.

Depression is believed to be underdiagnosed and undertreated among PLWHA in developing countries (Thai, Jones, Harris and Heard, 2016) where only 7-21% of patients receive medical care (Chisholm, Sweeeny and Sheehan, 2016). This is because the management of HIV/AIDS currently lays too much emphasis on the somatic aspects of the disease at the expense of the psychological manifestations (L'akoa, Noubiap, Fang, Ntone and Kuaban, 2013). Further, according to Parcesepe, Bernard, Agler, Ross, Yotebieng, Bass, Kwobah, Adedimeji, Goulet and Althoff (2018), the acute shortage of

metal health practitioners in sub-Saharan Africa has created a substantial gap in the treatment of comorbid mental health conditions among PLWHA in this region. Other factors contributing to this gap in provision of mental health care for PLWHA in Africa include time constraints within healthcare facilities for both HIV and primary care, inadequate training for clinicians on mental health issues, limited culturally appropriate screening and diagnostic tools for mental health disorders, insufficient resources, inadequate integration of mental health services into HIV care, and the social stigma surrounding mental health issues in sub-Saharan Africa.

Advantages derivable from treating depressive disorder among PLWHA include improvement of symptoms of depression, increased adherence to ART and consequent slowing of the spread of the infection and improved standard of life (Kang, Delzell, Chhabra and Oberdorfer, 2015). According to Wolff, Ruben and Wolff (2010), successful treatment of depression among PLWHA can improved the standard of life, better adherence to treatment, reduction in high-risk behaviour and suicidal thought. There is thus an urgent need for the treatment of depression among PLWHA.

Depressive disorder is usually treated using pharmacological interventions (antidepressants) and psychotherapies or their combination (Crepaz, Passin and Herbst, 2008). Antidepressants act by correcting the chemical imbalance in the brain that led to the onset of depressive disorder. Depressive disorder is currently treated using the following classes of antidepressants: Cyclic antidepressants, selective serotonin reuptake inhibitors, serotonin-norepinepherine reuptake inhibitors and monoamine oxidase inhibitors. However, these drugs have been known to have unpleasant side effects in a substantial portion of PLWHA (Olatunji, Mimiaga, O'Cleirigh and Safren, 2006). Adverse effects associated with pharmacological interventions among HIV patients include: Possible interactions between antiretroviral drugs and antidepressant drugs (Arseniou, Arvaniti and Samakouri, 2014), headache, nausea, flatulence, insomnia, agitation, anxiety, weight loss or anorexia, weight gain, sexual dysfunction, dry mouth, involuntary movement of the legs, constipation, urine retention, blurred vision, dry eyes, sweating confusion, hypotension, seizures, mania, increased blood pressure, dizziness (Olatunji, Mimiaga, O'Cleirigh and Safren, 2006).

The unpleasant side effects of pharmacological interventions experienced by patients of depressive disorder (including PLWHA) has necessitated the use of psychological

interventions (psychotherapies) in its treatment among PLWHA. Studies have shown that psychological interventions are well suited to address the psychological difficulties experienced by PLWHA, reducing depressive symptoms and improving the standard of life (Adina, Martin, Sandabi and Disiye, 2017). Different psychotherapeutic interventions previously used in the management of depressive disorder among HIV/AIDS patients include CBT, mindfulness-based therapy, supportive psychotherapy, inter-personal psychotherapy (Adina et al., 2017; Luoto, Lindholm, Paavonen, Koivukangas, Lassila, Leinonen and Kampman, 2018), and psychodynamic therapy (PDT) (Xie, Wang, Chen, Lin, Chen, Pan and Wang, 2015).

However, information is scarce on the use of psychotherapeutic interventions for the management of depressive disorder among PLWHA in Nigeria. According to Cuijpers, Karyotaki, Reijnders, Purgato and Barbui (2018), most psychotherapies for the management of depression were developed in advanced countries, with little known about their efficacy in the management of depression in an LMIC such as Nigeria. Although a comparative analysis by the same authors showed that psychotherapeutic interventions in LMIC had better outcomes compared to high income countries, they pointed out that the contextual difference within the two settings made a definite conclusion difficult because it is not very clear whether the care-as-usual control groups used in the LMIC setting received any form of intervention as their counterpart in the high-income countries. There is thus a compelling need to investigating the efficacy of psychotherapies in the management of depression in LMIC settings such as Nigeria.

Further, standard psychotherapies are usually delivered in 12 to 20 sessions which are too intensive for reliable implementation in primary care settings such as prevalent in many developing countries due to time and resource constraints (Nieuwsma, Trivedi, McDuffie, Kronish, Benjamin and Williams, 2012). For this reason, there is currently an upsurge of research interest on the use of short-term psychotherapeutic interventions in the management of depression. However, while many studies have found no statistically significant difference between brief and standard session psychotherapies as reported in a review by Cuijpers, van Straten, van Schaik, and Andersoon (2009), at least a study (Shapiro, Barkham, Rees, Hardy, Reynolds and Startup, 1994) reported that 16 sessions of psychotherapy were more efficacious than 8 sessions of psychotherapy in patients with severe depression. There is thus a need for more studies into the relative efficacy of brief versus standard duration psychotherapeutic treatment for depression.

In addition, psychotherapeutic treatments as developed in high income countries are usually delivered in theoretical classes packaged for specific disorders over a long period of time by well-trained mental health professionals. The need to develop relatively simpler treatment protocols suitable for delivery by different categories of care providers who are often saddled with the responsibility of administering psychotherapies in primary care centres in developing countries (Singla, Khort, Murray, Anand, Chorpita and Patel, 2017). Blending existing primary and community care for PLWHA with mental health care is referred to as the task-shifting approach. This approach has the dual advantage of addressing mental health at the community level and additionally creates the opportunity of addressing the discrimination and stigma usually associated with psychiatric disorders in these settings (Wright, Common, Kauye and Chiwandira, 2014). This study is therefore, designed to examine the efficacy of CBT and logotherapy in the treatment of depressive disorder in stigmatised PLWHA selected from HAART treatment centres in Oyo State, Nigeria.

The term logotherapy was derived from the word "logos (translated as "meaning" in Greek) and therapy which is defined as treatment of a particular ailment. Logotherapy which literarily mean healing through meaning (Costello, 2016), was developed by Victor Frankl, an Austrian neurologist and psychiatrist around 1930s. The theories he developed were significantly impacted by his own encounters with agony and bereavement while being held in Nazi concentration camps, as well as his quest for purpose and significance during those challenging times.

Logotherapy is based on the belief that the pursuit of purpose is a fundamental aspect of human nature, and that the most dominant and compelling driving force in a person's life is the quest for meaning (Frankl, 2004). The assumption behind this therapy is that the most important reason driving human existence is the search for meaning. It posits further that the search for meaning is the biggest question as well as the greatest stressor and source of anxiety in the life of every individual (Faramarzi and Bavali, 2017). Victor Frankl stressed the grandness of the conscious desire (will) to search for meaning, and the fact that loss of such conscious desire can lead to hopelessness, boredom, depression and despondency (Frankl, 2006). According to him, when the search for meaning is frustrated, one can experience a feeling of emptiness, hopelessness or despair. Therefore, according to him, people should avoid unnecessary suffering in

the quest for meaning because it is possible to find meaning when suffering becomes unavoidable.

According to Frankl (2006), dealing with death, freedom, isolation and meaninglessness is usually a motivating factor for humans to create purpose and meaning in their lives. Consequently, he proposed three principles in logotherapy; the first principle says that even in the most hopeless situations, life still has meaning. The second tenet asserts that the yearning for purpose is the most significant motivation for any person, while the third principle declares that individuals have the freedom to choose their attitude when faced with unavoidable adversity, such as illness (Frankl, 1951). In other words, even though individuals cannot control the circumstance surrounding their lives, they can control their attitude and responses to those circumstances. He recommended that in situations where individuals feel that they have no hope, they should endeavour to find purpose in their lives by focusing on creative, experiential, and attitudinal values.

According to Sarte (1957) and Stevenson (1987), finding meaning in specific situations of life is a conscious activity with each individual creating rather than discovering meaning in life. Many PLWHA are frequently predisposed to feelings of meaninglessness and poor standard of life because of their perceived poor health status. Thus, PLWHA are likely to benefit from psychotherapeutic treatments that are based on search for meaning to improve standard of life such as logotherapy. However, very few studies have used logotherapy in alleviating depressive symptoms among PLWHA in Nigeria.

Logotherapy is effective in the treatment of issues that are existential in nature being specifically efficacious in the treatment of depression among people suffering from substance abuse, anxiety, post-traumatic stress disorder as well as incurable diseases such as cancer (Asagba, 2016; Putri and Welly, 2021). However, it has been argued that logotherapy as created by the Austrian psychiatrist is Eurocentric in its view of human nature and responsibility, and that Victor Frankl's devotion to, and faith in God was partly instrumental to his coping with and surviving his imprisonment in the Nazi concentration camp (Smith, 2012). Further, existential psychotherapies such as logotherapy requires at least a moderate degree of intelligence to understand its abstract components and patients who are unable to thinking in the abstract may find it difficult to appreciate and assimilate the philosophical ideals required for the progression towards

wellness. It is also difficult to measure some of the abstract perceptions underpinning logotherapy and the amount of meaning an individual ascribes to a wide variety of life events (Smith, 2012). Vontress (2008) however pointed out that its existential nature makes it appropriate for a variety of cultures around the world because all human beings face the existential dilemmas of meaninglessness and isolation irrespective of their culture or religious inclination. This makes a clear case for studies that will apply logotherapy in different cultural contexts outside of Europe such as Nigeria. Additional investigation is also necessary to examine how the effectiveness of logotherapy for individuals dealing with depression is influenced by their educational background.

CBT is a psychotherapeutic intervention the deals with how the thoughts, feelings and behaviour interacts to guide the actions of an individual. In CBT, individuals are assisted to understand their thoughts, emotion and behaviours and how this can influence their health by paying close attention to existential situations. Established in the 1960s by Aaron Becks, CBT is a well-defined, short-term, psychological intervention for managing depression oriented towards the present challenges faced by an individual. Its main objective is the need to solve the current problems via a modification of dysfunctional thinking and behaviour (Beck, 1964). Changing human thought patterns, conscious and unconscious beliefs, attitudes and behaviours with the ultimate aim of helping people come to terms with challenges thus enabling them strive towards meeting set goals is a major aim of CBT. An important assumption of CBT is that people's thought about a particular situation is largely influenced by how they feel about that situation or their perception of the situation. Therefore, it is how a situation is interpreted, rather than the situation itself that results in emotional distress (Beck, 1964). According to Beck, patients can therefore be trained through CBT to recognise, challenge and alter what they think, believe and assume about distressing emotions as well as their attitude and behavioural reactions to challenges. Thus, people can discover during emotional distress that paying careful attention to the way they think about a problem can aggravate emotional and psychological problems (Cuijpers, Berking, Anderson, Quigley, Kleiboer and Dobson, 2013).

Usually, depressed people have distorted view and understanding of events which often lead to abnormal and deformed thinking (Beck, 1978) which can physically manifest as self-reproach, brashness, absolute thinking, and catastrophising. According to him, dysfunctional thoughts are natural and occurs automatically and are usually accepted as

the truth rather than a distortion of the true situation. Therefore, negative automatic thoughts are challenged with reality and positive thinking in CBT to bring about their modification, a step that could ultimately reduce emotional distress and allow emotionally distressed individuals to function normally. In principle, the ultimate objective of CBT is self-therapy through an understanding of current thoughts and behaviour, as well as providing patients of depression with tools to help with modification of abnormal thoughts and behaviour.

The efficacy of CBT in addressing depression and anxiety, bipolar disorder, substance abuse, insomnia, personality disorders, depression associated with Parkinson's disease and HIV/AIDS (Jayasvasti and colleagues, 2011; Xie, Wang, Chen, Lin, Chen, Pan and Wang, 2014; Chiang, Tsai, Liu, Lin, Chiu, and Chou, 2017; Ayidh, Alhassani, Ayed, Hadadi, Alqahtani and Abdelgadir, 2018; Jalali, Hashemi and Hasani, 2018; Schiller, Söderström, Lekander, Rajaleid, and Kecklund, 2018; Villabø, Narayanan, Compton, Kendall and Neumer, 2018).

Gender is one of the moderating variables in this study. According to Steifens, Skaog and Norton (2000), the prevalence of depression among women is twice as much as the prevalence in men. Further, what activates depression in women is also different from that of men. While women usually show internalising symptoms, men present with externalised symptoms (Bartels, Cacioppo, van Beijsterveldt and Boomsma, 2013). Kendler and Gardner (2014) reported for example that female dizygotic twins are more sensitive to interpersonal factors compared to their male cohorts who are more sensitive to factors associated with external career and life goals. This higher predisposition of females to depressive symptoms can be related to hormonal fluctuations associated with female physiology and body functions as well as non-biological issues such as domestic abuse, poverty, family-, spouses- and community-associated stigma and discrimination, impaired potential to seek care, child care problems, as well as emotional and mental health issues (Joseph and Bhatti, 2004).

Socioeconomic status (SES) is another moderating variable in this study. SES refers to the social standing and class occupied by an individual in the society as it relates to income, occupation and education. A previous study has established that SES is one of the strong determinants of the commitment of PLWHA to treatment and maintenance of good quality lifestyle (Joy, Druyt, Brandson, Lima, Rustad, McPhil and Hogg, 2008).

PLWHA of low SES have a higher likelihood of delaying the initiation of treatment as well as commitment to ART than those of high SES, thus reducing the possibility of surviving the trauma of an HIV infection. Despite the fact that ART drugs are free, PLWHA of low SES are usually challenged financially, making the required payment for the necessary tests to determine their viral load and CD4 counts difficult. As a result, they tend to neglect their treatment by staying away from their health care providers. This leads to them becoming virally unsuppressed giving room to high viral load, low CD4 count and other co-occurring infections that could possibly lead to complete treatment failure.

1.4 Statement of the Problem

HIV/AIDS is a deadly and incurable disease which has ravaged the lives of over 77.3 million people worldwide and has led to more than 35 million deaths globally since the beginning of the outbreak. HIV/AIDS usually place a serious psychological burden on PLWHA due to the overwhelming emotional burden of the incurable nature of the disease; the attendant effect of the daily dose of antiretroviral therapy; the financial burden associated with treatment and care; stigmatisation and discrimination by family members, friends, religious bodies, health care providers, co-workers and the society at large. These conditions, in addition to co-occurring opportunistic infections and fear of imminent death ultimately trigger depressive symptoms among PLWHA; if depression is not treated, individuals may experience feelings of sadness, hopelessness, and guilt, lose interest in activities, have difficulty concentrating, lose their appetite, struggle to sleep, have low self-esteem, and may even contemplate suicide.

Further, co-morbid depression that is not attended to or not properly treated in HIV/AIDS patients could have a disabling effect on the HIV-infected individual by impairing economic productivity, work life activities and social roles, loss of relationships, poorer health outcomes both in children and adults, increased accidents and deficits with problem solving (Abas, Ali, Nakimuli-Mpungu and Chibanda, 2014). Other negative effects of depression include a reduction in CD4 T-cells count with its attendant negative effect on the development of HIV infection and increased risk of mortality associated with increased viral load (Arseniou, Arvanti and Samakouri, 2014). Depressed HIV/AIDS patients also have an increased likelihood of engaging in substance abuse, sharing of injection and risky sexual behaviour. Such risky behaviour

will increase the likelihood of HIV transmission within the population through poor adherence to ART.

Untreated depression could also lead to poor adherence to ART which could in turn result in development and spread of resistant strains of HIV and treatment failure from high viral load and low CD4 count, reduction in overall standard of life and poor cognitive functioning. Other effects of untreated depression include loss of productivity, increase in cost of medical care and increased suicide rate. The effects of depression enumerated above underscore the grandness of periodic screening and monitoring HIV/AIDS patients for symptoms of depression during treatment of the disease.

However, despite the widespread occurrence of comorbid depression among PLWHA in Sub-Saharan Africa (SSA), and its potential contribution to the spread of HIV/AIDS, comorbid depression among PLWHA has been underdiagnosed and undertreated among PLWHA in low resource settings such as Nigeria. This is as a result of many factors previously enumerated in this study, the most important of which is the fact that treatment of psychological disorders is not well integrated into primary care which forms the mainstay of HIV/AIDS treatment in Nigeria. In addition, treatment of depression using psychotherapies is still relatively new in developing countries such as Nigeria. To date, the efficacy of psychotherapy in the management of depression among PLWHA has been minimally investigated in Nigeria. This is especially true for those psychotherapies targeted at changing dysfunctional thought patterns associated with depression among PLWHA and ultimately reassure them that they can still find meaning in life and thus achieve their goals. This study therefore seeks to employ logotherapy and CBT in the treatment of depressive symptoms among stigmatized PLWHA in Oyo State, Nigeria.

1.5 Purpose of the Study

The purpose of this research is to assess the effectiveness of logotherapy and CBT in treating depressive symptoms in PLWHA who are also experiencing stigma, in Oyo State, Nigeria.

The primary objectives of this research are as follows:

1. To investigate the main effect of treatments (logotherapy and CBT) on depressive disorder among stigmatised PLWHA in the treatment facilities.

2. To investigate the main effect of gender on depressive disorder among stigmatised PLWHA in the treatment facilities.
3. To investigate the main effect of socioeconomic status on depressive disorder among stigmatised PLWHA in the treatment facilities.
4. To investigate the interaction effect of treatments (logotherapy and CBT) and gender on depressive disorder among stigmatised PLWHA in the treatment facilities.
5. To examine the interaction effect of treatments (logotherapy and CBT) and socioeconomic status on depressive disorder among stigmatised PLWHA in the treatment facilities.
6. To investigate the interaction effects of the two moderating variables (gender and socioeconomic status) on depressive disorder among stigmatised PLWHA in the treatment facilities.
7. To investigate the interaction effect of treatments (logotherapy and CBT) and the moderating variables (gender and socioeconomic status) on depressive disorder among stigmatised PLWHA in the treatment facilities.

1.6 Hypotheses

The following hypotheses were tested at $\alpha_{0.05}$

1. There is no significant main effect of treatments on depressive disorder among stigmatised PLWHA.
2. There is no significant main effect of gender on depressive disorder among stigmatised PLWHA.
3. There is no significant main effect of SES on depressive disorder among stigmatised PLWHA.
4. There is no significant interaction effect of treatment and gender on depressive disorder among stigmatised PLWHA.
5. There is no significant interaction effect of treatment and SES on depressive disorder among stigmatised PLWHA.
6. There is no significant interaction effect of gender and socioeconomic status on depressive disorder among stigmatised PLWHA.
7. There is no significant interaction effect of treatment, gender and socioeconomic status on depressive disorder among stigmatised PLWHA.

1.7 Significance of the Study

The findings of this study will be highly beneficial for the following stakeholders. These include Stigmatised PLWHA, Counselling Psychologists, Healthcare Practitioners, Children of PLWHA, Policy Makers, Government Officials and NGOs

The study will benefit stigmatised PLWHA by assisting them to change their negative thoughts, attitudes and behaviour towards their condition and reassuring them that irrespective of their HIV status, they can still live a meaningful life and also achieve their goals. Apart from helping them in identifying and challenging their distorted thinking, the study will help in redirecting their attention from the sickness to more meaningful or positive things as well as modifying their attitude positively towards their situation.

To the counselling psychologists, the study will provide intervention tools that can be used or adapted to alleviate the symptoms of depression among PLWHA.

To healthcare practitioners to be able to identify patients and ensure they are well treated.

The study will also be of immense benefit to children of PLWHA on how to cope with the psychological burden of providing care and support for their parents.

The study will also be significant for policymakers, government officials, and non-governmental organisations as they develop and implement policies that effectively prevent the epidemic from spreading and manage both the infection and the co-occurring depression in PLWHA.

Additionally, the findings will also provide baseline information to future researchers who may want to explore the effect of other psychotherapies in the management of depressive disorder among stigmatised PLWHA in an LMIC setting.

1.8 Scope of the Study

This study examined the efficiency of logotherapy and CBT in treating depressive disorder among stigmatised adult PLWHA selected from three facilities (Clinics) where PLWHA (18 years and above) receive ART in Oyo State, Nigeria. The selected study facilities are Adeoyo State Hospital, Yemetu, Ibadan, Our Lady’s Catholic Hospital, Oluyoro, Ibadan and the State Hospital, Oyo.

1.9 Operational Definition of Terms

The concepts listed below which are used in the study are defined as follows:

Depressive disorder - this refers to a chronic psychological disorder that reflects a sad or irritable mood exceeding normal sadness or grief for at least two weeks experienced by stigmatised PLWHA.

Logotherapy- it is a psychotherapeutic intervention that assist depressed individuals living with HIV/AIDS to persist without giving up or the potential of depressed HIV/AIDS individuals to endure without losing hope in the face of an incurable disease and still find meaning and purpose in life.

CBT- it is a psychotherapy that is aimed at assisting depressed PLWHA in identifying and challenging cognitive distortion about themselves, the world and the future.

Gender- this refers to difference in sex (that is, male or female) of stigmatized PLWHA that are suffering from depression.

Socioeconomic status- this is the social standing or class of stigmatized PLWHA that are depressed in terms of their income, education and occupation.

Stigmatisation- is the process of reproaching PLWHA through the act of labelling, stereotyping, diminishing and discrimination.

CHAPTER TWO
LITERATURE REVIEW

2.1 Theoretical review of literature

The theoretical and empirical background information underpinning this research based on reports from previous studies is presented in this chapter.

2.1.1 Concept of depressive disorder

The WHO (2017), defined depressive disorder as psychological disorders involving feelings of sadness, a lack of enjoyment or interest in activities, feelings of guilt or low self-esteem, difficulty sleeping, a loss of appetite, fatigue, an inability to focus, thoughts of suicide, and anxiety. These symptoms usually persist for at least two weeks or more disrupting an individual's mood and impacts negatively on their psychosocial and occupational functioning. When the symptoms become chronic or recurrent it can significantly impair the optimal functioning of an individual and their potential to manage everyday tasks. More dangerous is the fact that depression is responsible for most suicide deaths. According to WHO (2012), about 1 million people commit suicide annually which by implication mean that 3000 people die of suicide every day. The Oxford English Dictionary additionally define depression as a mental condition that is associated with severe feeling of despondency and failure, normally accompanied by low energy and lack of interest in life.

According to the American Psychiatric Association (APA, 2013), as stipulated in Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM-V), depressive disorder is a devastating disease associated with at least one episode of depression which persists for at least two weeks and is characterised by mood swings, lack of interest in pleasurable activities, changes in cognition as well as vegetative symptoms. As described in the DSM-V, the peak of depressive disorders occurs when the depressed mood and disinterest lasts up to two weeks and is accompanied by a minimum of four out of the following manifestations: appetite or weight changes, sleeplessness or excessive sleeping, reduced control and coordination of muscular activities, feelings of worthlessness or self-reproach, problems focusing or making decisions and persistent ideas about dying or ending one's life.

According to the DSM-IV, depressive disorder can be classified as: single major depressive disorder, recurrent major depressive disorder, dysthymia or depressive disorder not specified, the International Classification of Disease, 10th edition (ICD-10), classified depressive disorders or depressive episode into mild, moderate or severe forms accompanied with symptoms including low mood, fatigue, diminished pleasure in previously enjoyable activities, difficulty in concentration and decision making. In addition, the depressed individual may also suffer low self-esteem, reduced self-confidence, guilty feelings and low self-worth, sleeplessness, retardation in psychomotor activities, feelings of agitations, reduction in appetite, mood swings and loss of libido. Basically, the definitions of these various groups are done in accordance to the symptoms manifested. For mild episodes, the individual may have difficulty in executing ordinary task and social activities without any interference in his/her daily functioning, however, for those manifesting severe depressive episode, they usually find it difficult carrying out their daily task or at times to a very little extent. Therefore, it is the number and how severe the symptoms are that will determine the categorization of depression into mild, moderate or severe depression (World Federation of Mental Health (WFMH), 2008). Depressive disorder is usually sporadic and is characterised by abatement periods that can be full or partial (Kenedy, Foy, Sherazy, McDonough and McKeon, 2007; McClintock, Husain, Wisniewski, Nierenberg, Stewart, Trivedi, Cook, Morris, Warden and Rush, 2011). When in full remission, the individual functions optimally with low chances of relapse, however, when in partial remission, the individual experience some symptoms such as sleeplessness, lower concentration, and difficulty in making decisions as well as low moods which are described as ongoing or residual symptoms.

According to a recent report by WHO (2015), depression is the most persistent and complicated mental disorder with a lifetime and annual prevalence rates of 14 to 17% and 4-8%, respectively (WHO, 2012). The prevalence of depression varies across age, gender and region affecting children, adolescents, adults and the elderly with no age limit. The estimated global prevalence of depression is about 4.4 % with the lowest rate (2.6 %) occurring among males in the Western Pacific region and the highest rate (5.9 %) among females in Africa. Furthermore, on a global scale, depression is more prevalent in women (5.1%) than men (3.6%). When using age as a parameter, the prevalence was at its peak among older adults between the ages of 55-74 years with a

prevalence rate of 7.5% and 5.5% respectively among females and males in this age category. When ranked using Years Lived with Disability (YLD), among all mental health disorders depressive disorders accounted for 7.5% of all YLD and is the single highest contributor to the number of years lost to non-fatal health conditions.

Currently, depression is ranked in the fourth position among causes of disability worldwide. It is estimated that it will occupy the second position among the global cause of disability by the year 2020. The Global Burden of Disease (GBD) report (2015), puts the global population of people presently living with depressive disorder at about 322 million with a percentage increase of 18.4% between 2005 and 2015. The report also identified depression as the major cause of suicide deaths (about 800,000 deaths yearly) worldwide. Additionally, depression is currently considered the third most significant cause of the worldwide disease burden, representing 4.3% of the total years of healthy life lost to illness and disability. However, by 2030, depression is predicted to surpass all other diseases and become the primary contributor to the global disease burden (Üstün, Ayuso-Mateos, Chatterji, Mathers and Murray, 2004; Thirunavukarasu and Thirunavukarasu, 2010).

Published literature has also revealed an early onset of depression today compared to what obtains in the past. For example, a study in Cincinnati Children's Medical Centre (2010), reported that the prevalence of depression among children is about 2.8% compared to 5.7% among adolescents. Further, Giadino and Benton (2014) discovered that depression that starts early in life usually persist, reoccur and continues until adulthood. The study also revealed that depression in adolescent usually lead to more severe illnesses in adulthood which may coexist with other mental and physical illnesses such as anxiety, disruptive behaviours, substance abuse and diabetes. However, despite the health impact and adverse effects of depressive disorders as well as its high prevalence rate, people suffering from this disorder only seek help and care during depressive episodes but they discontinue treatment upon recovering until they relapse into depression again. Furthermore, most individuals suffering from depression do not seek care and treatment due to financial challenges, social stigma and inadequate trained health professionals. The poor management of depressive disorders is attributable to several factors including patients' unwillingness to seek and adhere to treatment due to stigmatization, inadequate dosages and duration of antidepressant therapy, and the paucity of information about depression as well as ways of treatment (Segal, Whitney

and Lam (2001). Other factors include failure to recommend the right psychotherapy, inadequate contact with mental health practitioners and more importantly the near absence of monitoring and treatment adherence despite the high relapse rate.

Suicide is the worst outcome of depression as individuals suffering from this disorder usually believe that death is preferable to coping or living with their current challenges or predicaments. Previous studies have estimated that when compared with the general population, individuals with depressive disorder are four times at risk of suicide (Hawton, Saunders, Topiwala and Haw, 2013; Hawton, Casañas, Comabella, Haw and Saunders, 2013). Holmstrand, Bogren, Mattisson and Bradvik, (2015), Isometsä, (2014) and Nordentoft Mortensen and Pedersen (2011) also noted that suicide risk among depressed individuals is as high as 20-fold in comparison with those that are not depressed. This could be as a result of factors such as family history, feelings of hopelessness, previous suicide attempts, other illnesses that coexist with depression (especially anxiety) and substance abuse that works together to produce effects that range from suicide ideation to completed suicide.

2.1.1.1 Symptoms of depressive disorder

According to DSM-V, symptoms associated with depressive disorder include depressed mood lasting for most part of the day manifesting as sadness, emptiness and hopelessness occurring daily for a minimum of two weeks, or being weighed down or dejected and feelings of discouragement lasting for a long period of time. People suffering from depressive disorders also suffer from partial or completely diminished pleasure in activities previously enjoyed and nonchalance towards things that are previously a source of excitement. Related to this, some individuals experience a significant level of reduction in sexual desire and activity. Depressed individuals also experience a change in appetite which may either increase or reduce with some individuals displaying low appetite for food and others eating more than they normally do leading to either weight loss or weight gain.

Other symptoms of depression include insomnia or hypersomnia which could manifest either in form of excessive sleeping or difficulty in sleeping. Insomnia can take various forms such as middle insomnia which involves waking up during the night and being unable to fall sleep again after waking up, terminal insomnia in which the individual may be waking up too early as well as finding it difficult to return to sleep or initial

insomnia (difficulty falling asleep). Individuals experiencing hypersomnia may experience long duration of sleeping episodes at night or excessive sleeping during the day. Depressed patients may also experience psychomotor agitation or retardation which can make the person to experience feelings of agitations such as continuous shaking of hands or legs, not wanting to sit down or hold things, and continuous rubbing of their skin or clothes. In other instances, the individual may experience retardation in thinking, talking or movement, an unusually slow, or no response at all to questions observable by others. Patients of depression also experience reduced energy or feelings of fatigue which makes the person gets tired easily without doing much work. Reduced energy and fatigue will also lead to a reduction in the efficiency with which tasks are accomplished or lack of energy to carry out certain tasks.

Depression is also characterised by feelings of guilt or worthlessness, unrealistic negative evaluation of one's worth and preoccupation with insignificant past failures. In addition, depressed individuals usually misinterpret neutral or non-relevant issues as evidence pointing to personal deficiencies borne out of an exaggerated acceptance of responsibility for unfavourable events. Moreover, depressed individuals are usually over absorbed with guilt feelings and self-blaming about past events that led to their depressed state, unnecessarily ruminate about past failures and have feelings of worthlessness and low self-esteem. People suffering from depressive disorders also have difficulty in thinking and making decisions characterized with impairment in thinking, lack of concentration as well as difficulty in making important decisions. Directly related to this, the individual may be easily distracted and also finds it difficult remembering things. Among the elderly, this is often misinterpreted as early signs of dementia.

Suicidal thought or ideation is the most extreme symptom associated with depression. At this stage, there is complete loss of will to live or willingness to persist in facing challenges accompanied with the ideation of self-harm and suicide. Suicide-prone individuals could take some drastic decisions such as writing their final will, paying off their debts, acquiring materials that they will use to commit the act (rope or guns) and might have as well chosen the location and the time to commit the suicide. Most often than not, the motivations for suicide may include the desire to give up fighting in a hopeless situation, an intense desire to put an end to an irreversible painful emotional state, intense sadness about life or the desire not to be a burden to others. Depressed individuals also experience feelings of anxiety which makes the individual worry

irrationally, preoccupied with disturbing thoughts, difficulty in relaxation, tense feelings and fear that something bad might happen.

2.1.1.2 Types of depressive disorder

Based on ICD-10 and DSM-IV, DD can be classified as mild, moderate and severe depending on the number, type and severity of symptoms present and level of functional impairment. Those suffering from mild depressive episodes have two or three of the above listed symptoms which can be distressing in intensity but do not lead to social and functional impairment. Moderate depressive episode is usually characterized by four or more symptoms and the individual may find it difficult to continue with normal tasks. However, in a severe depressive episode, the number of symptoms is usually high, distressing and unmanageable and could impair the optimal social and occupational functioning of an individual. In addition, depressive disorder could also be classified as major depressive disorder (MDD), dysthymic or persistent depressive disorder (PDD), melancholic depressive disorder (MeDD), seasonal affective disorder (SAD), psychotic depression (PD), bipolar depression (BD), post-partum depression (PPD) and recurrent depressive disorder (RDD).

Major depressive disorder is usually characterised by a combination of symptoms which affects the sufferer's potential to engage in certain activities such as eating, sleeping, reading, working as well as engagement in previously pleasurable activities. Individuals with MDD usually experience depressed mood, loss of interest, fluctuations in eating habits resulting in changes in body weight, sleeplessness or over sleeping, lack of concentration and difficulty in thinking, suicidal thoughts which are usually present almost every day and may impair social and occupational functioning (Rajput, Sinha, Mathur, Agrawal, 2011; APA, 2013). Dysthymic or Persistent depressive disorder (PDD) is accompanied by feelings of sadness lasting for a at least one and two years in children/adolescents and adults, respectively. PDD symptoms are similar to those of MDD but may be mild and can last longer. Usually, most depressed individuals do not meet the full conditions for their symptoms to be classified as MDD as a result of the short period of remission (Benazzi, 2006; Sansone and Correll, 2005).

Melancholic depressive disorder (MeDD) is common among the elderly, severely depressed individuals and those experiencing psychotic depression. MeDD is characterised by inability to experience pleasure and poor or low mood, especially in the

morning hours as well as psychomotor agitation (Benazzi, 2006). Seasonal Affective Disorder (SAD) on the other hand is characterised by seasonal changes. The condition is very common during fall or early winter and abates during spring or summer. It is often associated with low mood, irritability, feelings of guilt and worthlessness. The individual in most cases develop increased appetite with cravings for food high in carbohydrate that can give them more energy (APA, 2013; Baghai, Eser and Möller, 2008). Psychotic Depression (PD) according to Schartzberg (2003) and Swartz and Shorter (2007) is usually severe and comes with psychotic symptoms. PD is mostly a combination of psychosis and depression which is difficult to separate. It is characterised mostly by hallucinations or delusions and are usually very severe with a prolong course, low response to medications and a higher rate of relapse (Baghai, Eser and Möller, 2008; Vythilingam, Chen, Bremner, Mazure, Maciejewski and Nelson, 2003).

In bipolar depression periods of depression/mania alternates with periods of normal mood. Some of the symptoms that usually accompanies it includes feeling extremely great which normally lead to disruptive behaviours, feeling very energetic with potential to do tasks that ordinarily he/she cannot do, racing thoughts and short periods of sleep, talking so fast, difficulties focusing on tasks as well as feelings of frustration and irritation. In addition, the individual may lose touch with reality and also experience episodes of psychosis and experience symptoms of anxiety. Cuellar, Johnson and Winters (2005) reported that anxiety disorders co-occur in up to half or two-third of people suffering from bipolar disorder.

Post-Partum Depression (PPD) occurs in mothers before or after delivery and it is associated with mood swings, anxieties and baby blues which increases the risk of developing post-partum major depressive episode (Chaudron, 2003). Furthermore, half of the episodes associated with postpartum depression start before delivery and are collectively referred to as peri-partum episode (DSM-V). Individuals suffering from recurrent depressive disorder usually have no history of independent episodes of high mood and increased energy, but they experience repeated episodes of depression. However, they may experience short episodes of mild mood elevation and hyperactivity after an episode of depression which may be as a result of treatment with antidepressants. Furthermore, the period of occurrence of the first episode of PPD is usually not age dependent and the onset can either be acute or insidious lasting for a period of few weeks to several months (ICD-10, 2016).

2.1.1.3 Causes of depressive disorders

Depression is usually caused by a combination of factors which may be psychosocial, biological or genetic.

2.1.1.3.1 Biological factors

Biologically, depressive disorders have been linked to neurotransmitters imbalances, inflammatory pathways dysregulation, increased oxidative dysfunction and disturbances in the hypothalamic-pituitary-adrenal (Mental Illness Research, Education and Clinical Centre, 2015). Depression usually results from imbalances in some chemicals in the brain called neurotransmitters which assist in transmitting messages from one nerve to another in the brain. Some of these neurotransmitters work as mood regulators; however, inadequate or excessive supply of these chemicals could be risk factors for depression (Drevets, Frank, Price, Kupfer, Holt, Greer, Huang, Gautier and Matthis, 1999). Studies have also found that reduced hippocampal function, which inhibits the hypothalamic-pituitary-adrenal axis could be linked with hypercortisolemia which is common in depression (Krishnan and Nestler, 2008). Hood and Drummond (2013) also found that disturbances in the hypothalamic-pituitary-adrenal that is associated with depressive disorder are mostly influenced by the life style of individuals as well as environmental, genetic and psychosocial factors such as diet, sleep, exercise and interpersonal relationships.

2.1.1.3.2 Genetic factors

People who have a family background of depression and bipolar disorders are inclined to develop these conditions as well. This tendency could be linked to different genes acting together and in combination with other factors to cause the mood disorder (Spaner, Bland and Newman, 1994; Fogarty, Russell, Newman and Bland, 1994). For example, Ji and Gershon (1992), confirmed that the prevalence of depression is up to 15% among the immediate families of patients with major depression compared to 5.4% among the general population. However, the magnitude of the risk factors attributable to genetic and/or environmental factors has not been proved by these family studies.

2.1.1.3.3 Psychosocial factors

Various psychosocial factors have been linked to the commencement of depressive disorder in depressed individuals. For example, it has been established that stressful life events and crises such as traumatic childhood experience resulting from death or

separation of parents, interpersonal problems, financial difficulty, failures, unemployment, job loss etc. may contribute to the onset of depression (Hosang, Korszun, Jones, McGuffin and Farmer, 2012). Other factors include poor interpersonal relationship such as inability to maintain friendship or family relationships, turbulent long-term relationship which eventually ends in break-up, challenges in the workplace or school environment resulting from lack of interpersonal relationship with colleagues and/or supervisors could lead to social isolation which could eventually trigger depression. Severe financial difficulties occasioned by loss of job or bankruptcy, prolonged physical or mental illness, severe childhood trauma are also additional factors that could lead to depression. Studies have also linked neurotic personality traits with higher incidence and relapse of depression or increased probability of developing depression, especially when individuals with these traits are faced with adverse life events (Klein, Kotov and Bufferd, 2011; Kendler, Gatz, Gardner and Pedersen, 2006; Noteboom, Beekman, Vogelzangs and Penninx, 2015).

2.1.1.3.4 Illness

In addition to these factors, several studies have found that physical illness have a link to depression (Patten, 1999; Beaudet, 1996). The onset, or deterioration of depression is particularly often linked to diagnosis with life threatening or chronic diseases including cardiovascular diseases, epilepsy, arthritis, chronic obstructive pulmonary disease, cancer and HIV/AIDS. The impact of these diseases such as disability, health care cost, decline in standard of life, short life expectancy and the psychological burden of coping with the illness can lead to a continuous feeling of sadness, loss of hope and total disinterest in life generally.

2.1.2 The HIV/AIDS Epidemic

The Centre for Disease Control (CDC) first documented the existence of HIV/AIDS in the US in 1981 when rising cases of unusual opportunistic infections and malignancies was observed among increasing numbers of homosexuals (CDC, 1981; Merson, O'Malley, Serwadda and Apisuk, 2007). Subsequently, the human immunodeficiency virus type 1 (HIV-1), a retrovirus was determined as being responsible for the disease in 1983 in a patient in France (Barre-Sinoussi, Chermann, Rey, Nugeyre, Chamaret, Gruest, Dauguet, Axler-Blin, Vezinet-Brun, Rouzioux, Rozenbaum, and Montagnier, 1983). In 1986, a new variant of the virus which is morphologically similar to, but is antigenically distinctly from HIV-1 was reported as the causal agent of the new disease

in West Africa (Clavel, Guetard, Brun-Vezinet, Chamaret, Rey, Santos-Ferreira, Laurent, Dauguet, Katlama, Rouzioux, 1986). The new West African variant, named HIV-2 is closely related to a simian virus responsible for immune deficiency in captive macaque monkeys (Chakrabarti, Guyader, Alizon, Daniel, Desrosiers, Tiollais and Sonigo, 1987), suggesting that the two variants were products of zoonotic transfers form primates in Africa (Hahn, Shaw, De Cock and Sharp, 2000). Further studies have since traced the origin of both variants to non-human primates in West Central Africa which later transferred to humans sometimes between the late 19th and early 20th century (Salemi, 2000; Korber, Muldoon, Theiler, Gao, Gupta, Lapedes, Hahn and Wolinsky, 2000; Worobey, Gemmel, Teuwen, et al., 2008). The widely held believe was the first human being to be infected with HIV were bush-meat hunters (Sharp and Hahn, 2011).

While HIV-1 is prevalent globally, HIV-2 is mostly confined to West Africa, Angola, and Mozambique (Robert, 2001) where it causes an illness similar to the one caused by HIV-1, though the infection is less transmissible and progress more slowly (Sharp and Hahn, 2011). It is widely believed that both variants are transmitted to humans from apes and Sooty Mangabey monkeys, respectively (Sharp and Hahn, 2011). HIV-1 is categorised into four groups which are known as groups M, N, O, and P, and are believed to be transmitted from two different sources in four individual transmission events. Groups M, N and O were transmitted from chimpanzees while group P was transmitted from gorillas. Out of the four HIV groups, groups N, O, and P are exclusive to West Africa, whereas the fourth group, M, is more widely distributed globally. Group M is made of nine sub-types named A-D, F-H, J and K (Maartens, Celum and Levin, 2014).

From the time it was first reported until now, HIV/AIDS has featured prominently on the global disease landscape and is currently considered as one of the most catastrophic infectious diseases affecting humanity. The illness has emerged as the foremost cause of fatality across the globe and the predominant cause of death in sub-Saharan Africa, affecting 6% of adults between the ages of 15 and 49 (Merson, O'Malley, Serwadda and Apisuk, 2007). As of 2016, there were around 34.5 million adults and 2.1 million youngsters below the age of 15 who had been diagnosed with HIV/AIDS worldwide (UNAIDS, 2017). Within the same time period, the deadly virus was responsible for the death of about 1 million people consisting of 890,000 adults and 120,000 children aged 15 years and under. Further, about 1.8 million new HIV infections (translating to 5,000 new infections daily) were reported in 2016 with about 160,000 of these occurring

among children younger than 15 years (UNAIDS, 2017). At the beginning of the pandemic, rates of infection among men were higher than among women. However, the situation reached equilibrium around 2001 with a prevalence rate of about 50% among the two genders (Merson, O'Malley, Serwadda and Apisuk, 2007). Recent statistics from the UNAIDS reveal that women aged 15 years and above account for approximately 50% (17.8 million) of the worldwide adult population (34.5 million) living with HIV/AIDS (UNAIDS, 2017). However, the situation in sub-Saharan Africa is markedly different from the global gender distribution with women accounting for about 61% of the adult HIV/AIDS infected population. As a result, nearly 90% of the worldwide population of HIV-positive children live in this region, and their infections are primarily transmitted from mother to child (Merson, O'Malley, Serwadda and Apisuk, 2007).

2.1.2.1 Mode of Transmission of HIV/AIDS

According to the CDC (CDC, 1999), HIV/AIDS can spread through blood transfusion or direct contact with HIV-infected blood; vaginal or anal sexual intercourse with an infected person without protection; direct contact with body fluids such as semen, cervical and virginal secretions of an infected person; sharing needles, syringes and other sharp objects with an infected person common among drug users or during unsafe medical and personal care procedures; vertical transmission to children from HIV-Positive mothers during pregnancy, delivery and breast feeding; and deep open-mouth kissing with infected individuals with sore or bleeding gums.

2.1.2.2 Stages of HIV/AIDS

Once infected, HIV/AIDS progresses through four stages in HIV infected patients (WHO, 2005). The four stages are: stage1 is usually asymptomatic and characterised with persistent generalised lymphadenopathy; stage 2 is symptomatic with patients demonstrating several clinical manifestations such as moderate weight loss less than 10% body weight, recurrent infections of the respiratory tract (sinusitis, tonsillitis bronchitis, otitis media, pharyngitis), herpes zoster, angular cheilitis, recurrent oral ulceration, papular pruritic eruptions, seborrheic dermatitis and fungal nail infections. Patients at stage 3 typically display various clinical symptoms, including sudden and severe weight loss without an apparent cause, severe diarrhoea lasting more than a month, persistent fever that lasts beyond a month, oral candidiasis, tuberculosis affecting the lungs and lymph nodes, oral hairy leucoplakia, severe bacterial infections, acute

necrotizing ulcerative stomatitis, gingivitis or periodontitis, and anaemia without an explanation.

During clinical stage 4, the infection develops to full blown AIDS accompanied by all or some of the illness characteristic of AIDS such as HIV wasting syndrome, pneumocystis pneumonia, recurrent severe bacterial pneumonia, chronic herpes simplex infection of more than one month duration, candidiasis, extra-pulmonary tuberculosis and Kaposi's sarcoma. Other symptoms of stage 4 infection include viral infections, toxoplasmosis, cryptococcosis, leishmaniasis, disseminated non-tuberculous mycobacterial infections, mycosis, HIV encephalopathy, recurrent septicaemia, lymphoma etc.

2.1.2.3 HIV/AIDS Prevention Strategies

The early years of the HIV/AIDS pandemic were marked by a prevalent sense of stigma, discrimination and denial, which resulted in the delayed implementation of preventive measures aimed at curtailing its spread. Globally, the disease was initially associated with marginalised populations such as homosexuals and sex workers and was therefore regarded as a punishment for the sins and misdemeanours of this group. This worldwide stigma was fuelled by extant moral norms and prejudices about gay sex in many countries. This bias was stronger in African countries and the Caribbean where the epidemic was spreading like wildfire. Interestingly, the first organised effort against HIV/AIDS came from people living with the disease and their caregivers in the US (Merson, O'Malley, Serwadda and Apisuk, 2007). This initial action, which arose from a response to the inactivity and lack of urgency from governments and authorities, eventually resulted in the creation of the Special Programme on AIDS (SPA) by the WHO in 1987. The SPA was tasked with organising and directing the global response to the epidemic (Mann and Kay, 1991). The SPA, which was later changed to Global Programme on AIDS (GPA) formulated the global HIV/AIDS prevention strategy which formed the foundation for the formulation of common policies and a tool for mobilising countries to confront the pandemic (Mann and Kay, 1991). The GPA was replaced by the Joint UN Programme on HIV/AIDS (UNAIDS) on January 1, 1996 and was saddled with the responsibility of leading an expanded, multisectoral global response to HIV/AIDS.

HIV prevention efforts are usually targeted at changing risky behaviour that exposes individuals to HIV infection (Gupta, Parkhurst, Ogden, Aggleton and Mahal, 2008). Thus, behavioural intervention programmes targeted at influencing the knowledge, attitudes and behaviour of individuals have dominated prevention efforts. These include promotion of safe-sex practices, sexual-health education, blood screening to prevent blood-to-blood transmission, and education on the dangers of sharing sharp equipment, provision of voluntary HIV testing and counselling services, identification and commencement of early antiretroviral treatment and measures to prevent vertical transmission between HIV-positive mothers and their children. However, according to Coates, Richter and Caceres, (2008), while individually oriented intervention strategies have succeeded in reducing risky behaviour, they often do not address other individual behaviour-influencing structural factors such as poverty, gender, age, policy and power. Therefore, in order to achieve the greatest reduction in vulnerability and risk of HIV, it is crucial to combine this structural approach with other prevention methods and treatment for HIV. Present-day approaches to prevent HIV/AIDS suggest a collaborative integration of socio-behavioural and medical techniques, utilising highly active retroviral prevention (HARP), a term coined by King Kennard Holmes in 2007 (Bekker, Beyrer and Quinn, 2012). HARP combine behavioural change with biomedical strategies, antiretroviral therapy, and social justice and human rights (Coates, Richter and Caceres, 2008).

The single most important breakthrough in HIV/AIDS treatment and prevention is the discovery and worldwide application of ART drugs. The first ART drug approved for the HIV treatment was a nucleoside/nucleotide analogue 3'-azido-3'-deoxythymidine (AZT) later called zidovudine (ZDV) approved by the US Food and Drug Administration and released into the market in 1987 (Lange and Ananworanich, 2014). The development of the drug was a joint effort between scientists at the US National Cancer Institute and Burroughs-Wellcome Company (now GlaxoSmithKline). The drug which acts by inhibiting the replication of HIV-1, was originally synthesised as a potential anticancer agent in the US in 1964 but was not developed further because it was biologically inactive in mice (Broder, 2010). However, despite impressive initial results, continued treatment with ZDV soon led to the development of resistance (Larder, Darby and Richman, 1989). In the later years, treatment of HIV progressed to the use of combination of ZDV with another drug of the same class called zalcitabine.

However, similar to the results of the monotherapy, the effect of the combination therapy was of limited duration (Lange and Ananworanich, 2014). This shortcoming of the mono- and dual- combination therapy provided the impetus for the development of the highly active antiretroviral therapy (HAART) which was first reported at the 11th International AIDS Conference in Vancouver, Canada in 1996.

Currently, there are about 25 antiretroviral drugs belonging to six different classes available (De Clercq, 2010). These include the nucleoside/nucleotide reverse transcriptase inhibitors (NRTI) such as ZDV, tenofovir and lamivudine which inhibit reverse transcriptase by acting as nucleoside and nucleotide analogues, entry/fusion inhibitors such as Maraviroc and enfuvirtide which blocks one of several targets to interfere with the adherence and entry of the virus into host cells. Nevirapine and efavirenz are non-nucleoside reverse transcriptase inhibitors (NNRTI) which act as non-competitive inhibitors of reverse transcriptase, the enzyme that converts viral RNA to DNA. Integrase nuclear strand transfer inhibitors (INSTI), e. g. elvitegravir and dolutegravir inhibit viral integrases, an enzyme that helps invading viruses integrate their DNA into the genome of the host cell. Protease inhibitors such as lopinavir, darunavir and atazarnavir block protease, the enzyme necessary to produce mature virus capable of infecting a host (Métifiot, Marchand and Pommier, 2013; Das and Arnold, 2013). These classes of drugs are usually combined in HAART.

The introduction of HAART was followed by the establishment of International AIDS Vaccine Initiative (IAVI) in 1998 to encourage investment in the development of HIV vaccine by the pharmaceutical and biotechnology industries (IAVI, 2006). Around the same time, there were research efforts targeted at developing and testing potential vaginal micro-biocides to protect women from infection with HIV by their sexual partners (Merson, O'Malley, Serwadda and Apisuk, 2007). There has been little progress in the development of HIV vaccines and microbiocides, but an important breakthrough in HIV prevention occurred in 1998 when the PETRA study team discovered that short-course ART given before delivery effectively protected against perinatal transmission of HIV to new-born children (The PETRA Study Team, 2002).

The most common drug regimen used in HAART is a combination of two NRTI as a backbone with one NNRTI, a protease or integrase inhibitor as a base (Maartens, Celum and Lewin, 2014). Combination of antiretroviral drugs in HAART has made HIV/AIDS

a treatable chronic disease. Unfortunately, despite the high burden of the disease, HAART was not introduced into low-income countries until around the year 2000. The subsequent introduction of HAART into low-income countries started with the sacrificial effort of Jon Gates, the first coordinator of Canada's Interagency Coalition on AIDS and Development. Although a PLWHA, Jon vowed not to use the new therapies until equal access to poor PLWHA is guaranteed globally. Jon paid the supreme price for his stand and died shortly after his public declaration, but his stand drew attention to the need to provide the much-needed HAART drugs to PLWHA in low-income countries. Thus, at the 13th International AIDS Conference in Durban, South Africa, global public awareness was raised about the need for affordable ART drugs as a way of tackling the precarious AIDS-related mortality in Africa. Consequently, UNAIDS reached agreement with five large pharmaceutical companies to provide cheaper antiretroviral drugs to low-income countries in a programme called Accelerated Access Initiative (AAI) (UNAIDS, 2000).

Further impetus was provided to the global effort for the prevention of HIV/AIDS in 2001 by the Commission on Macroeconomics and Health which reported a link between health and economic development. A special appeal was made in the report for global efforts to tackle what was considered the 'big three' infectious diseases. The appeal laid the foundation for the creation of the Global Fund to Fight AIDS, TB and Malaria (GFATM) (WHO, 2001). That same year, leaders from 180 countries made a commitment to fight HIV/AIDS at the UN General Assembly Special Session on HIV/AIDS (UNGASS) convened by the then UN Secretary-General, Kofi Annan, thus making HIV treatment a global agenda. This led to the launching of the '3 by 5' initiative by the WHO in 2003 aimed at providing ART for 3 million people by 2005 (WHO, 2005). Further, in January 2003, the President's Emergency Plan for AIDS Relief (PEPFAR) was launched by the US government to spend $15 billion over a 5-year period to prevent, treat and care of HIV/AIDS patients in 15 countries where 80% of the global population of people in need of HIV/AIDS treatment resides.

Still in search for an enduring solution to the pandemic, in June 2011, the UN General Assembly adopted a declaration to treat 15 million people with HIV by 2015. Within two years of the declaration, the programme was already providing antiretroviral treatment to 12.9 million PLWHA (UNAIDS, 2014). Encouraged by this outstanding achievement, the UNAIDS and its collaborators initiated an ambitious new program

with the aim of putting a stop to the AIDS epidemic by the year 2030. The primary aim of the "90-90-90" program is to identify 90% of all individuals with HIV, offer ART to 90% of those identified, and attain viral suppression for 90% of those receiving treatment by 2020 (UNAIDS, 2014). If this target is achieved, 73% of all PLWHA worldwide will be virally suppressed. The impact of these effort in LMIC is unprecedented as the number of PLWHA on ART increased from 300,000 at the end of 2002 to 9.7 million in 2012, with the number in sub-Saharan Africa alone rising from a mere 50,000 in 2002 to 7.5 million in 2012 (WHO/UNICEF/UNAIDS, 2013).

According to the UNAIDS, 21.7 million (59%) of the 36.9 million PLWHA worldwide are accessing antiretroviral therapy in 2017 (UNAIDS, 2018) resulting in an overall increase of 2.3 million people since 2016. Furthermore, ART was made available to 52% of children aged 0 to 14, 65% of adult women aged 15 and older, 53% of adult men aged 15 and older, and 80% of pregnant women living with HIV, thus preventing spread of the virus to their babies. The introduction and increasing access to ART has changed the global epidemiology of HIV infections by reducing new infections and AIDS-related deaths. Improved access to ART is currently driving a downward spiral in HIV/AIDS-related mortality. HIV-related mortality among PLWHA reduced from a peak of 1.9 million to 940, 000 between 2014 to 2017, the lowest this century. This is a decrease of about 51% since 2004 and about 34% since 2010 (UNAIDS 2018). The decrease in the number of PLWHA was mainly attributed to progress achieved in SSA, which is where 53% of the global population of PLWHA reside. In east and south Africa, AIDS-related deaths reduced by 42% between 2010 and 2017, while the reduction in west and central Africa was a more modest 24%. AIDS-related deaths reduced by 39% in Asia and the Pacific, 36% in West and Central Europe, 23% in North America, 12% in Latin America, and 11% in the Middle East and North Africa during the same time period (UNAIDS, 2018). In SSA, where 56% of all PLWHA are women, the reduction in the prevalence of HIV/AIDS among women was higher compared to men, according to global statistics. The number of new HIV infections also reduced from 3.4 million to 1.8 million between 1996 to 2017 because of improved access to ART, a decrease of 47% (UNAIDS, 2018). Similar to what was reported for AIDS-related deaths, reduction in new infections was strongest in sub-Saharan Africa (UNAIDS, 2018).

2.1.3 The HIV/AIDS Epidemic in Nigeria

HIV was first reported in Lagos, Nigeria in a 13year old female sex worker from a neighbouring West African country in 1986 (Nasidi and Harry, 2006). As of 2016, Nigeria bears the second highest burden of HIV infection globally, with an estimated 3.2 million individuals living with the virus (UNAIDS, 2017). The National Agency for the Control of AIDS (NACA) (NACA, 2017) reported that in 2013, Nigeria accounted for approximately 9% of the global population of people living with HIV. Additionally, the nation was responsible for 10% of the total number of new HIV infections and 14% of all deaths associated with HIV worldwide. However, the prevalence and trends of HIV infection in Nigeria varies from state to state and across its regions. The sero-prevalence rate raged from 0.5% to 4.9% with the lowest occurring in Zamfara State in the north-west zone and the highest in Benue State in the north-central (NACA, 2017). Zamfara State is the only state with a prevalence of less than 1%. When considering the six geo-political zones, the prevalence in the South-South Zone (3.1%) was the highest, while the lowest prevalence of 1.9% occurs in the South-East Zone. Overall, 41% of all PLWHA reside in six of 36 states in the country namely: Kaduna, Akwa Ibom, Benue, Lagos, Oyo and Kano (National HIV/AIDS Strategic Framework, 2019).

In Nigeria, the HIV/AIDS epidemic is mixed, characterised by a high prevalence of the disease in both the general population and key populations. Key population include: sex workers, homosexuals, and people who inject drugs who, even though constitute about 3.4% of the total population account for 32% of all new infections in the country (NACA, 2017). The prevalence among gays, sex workers, and people who inject drugs in Nigeria stood at 23%, 14.4%, and 3.4%, respectively (UNAIDS, 2017). Though the prevalence rate among sex workers dropped significantly from 24.5% in 2013 to 14.4% in 2016, the prevalence among this group (key population) is still eight times the prevalence in the normal population (NACA, 2015). In a sharp contrast, the prevalence among homosexuals is still rising making them the only group in Nigeria presently where the prevalence of HIV continues to rise. This group alone is responsible for 10% of all new HIV infections (NACA, 2014).

Data on HIV/AIDS prevalence rates in Nigeria indicates that women and young individuals are the most susceptible groups. In 2016, adolescents between the ages of 10-19 made up 7% (240,000) of the total number of PLWHA in Nigeria. Similarly, about 58% of Nigerians living with HIV/AIDS are women with infections occurring earlier in

young females than young males within the same age group (NACA, 2015). The increased vulnerability of females and young people to HIV in Nigeria is attributable to poor awareness about reproductive health, poor sexual/reproductive health services, early sexual debut and inter-generational sexual relationships, unprotected sex with multiple concurrent sexual partners, unwillingness to undergo voluntary HIV screening, poverty, early marriage, gender-based violence and abuse, stereotyped norms about masculinity and femineity, gender inequality, poor economic empowerment, rape, and harmful cultural practices (NACA, 2015).

2.1.3.1 HIV/AIDS Prevention in Nigeria

HIV/AIDS epidemic containment effort in Nigeria is guided by the National Strategic Framework and Plans (NSFP) which also serves as a platform for bringing together stakeholders to achieve the national HIV control goals. It also provides a tool for mobilising the much-needed resources for the control of the epidemic. To date, Nigeria has developed four strategic plans for HIV/AIDS at a national level. The first is the HIV/AIDS Emergency Action Plan (HEAP) 2001-2004 followed by the National Strategic Framework (NSF) 2005-2009 which contributed to the expansion of preventive services and access to treatment. NSF 2010-2015, the first six years long strategic response to HIV/AIDS in Nigeria focused on promoting behavioural change that can prevent new infections, treat HIV/AIDS and comorbid conditions, provide care and support for PLWHA, develop institutional architecture and systems for HIV/AIDS prevention, and develop an HIV/AIDS monitoring and evaluation systems in Nigeria (NACA, 2011). The National Strategic Framework (NSF) 2010-2015 established the groundwork for advancement of the multi-sectoral approach to addressing the HIV/AIDS epidemic in Nigeria. The primary goals of this strategy are to reduce the number of new infections, ensure equitable access to care and support, mitigate the impact of the epidemic, and foster local ownership and sustainability of prevention and treatment initiatives in Nigeria. Very importantly, it provided the impetus for the enactment of laws to prevent discrimination against PLWHA in Nigeria, an important step in tackling prejudice and discrimination against PLWHA in Nigeria.

The existing strategic framework and plan for addressing HIV/AIDS, known as NSFP 2017-2021, seeks to accelerate the national strategy created to eradicate AIDS by 2030 in Nigeria, in line with the 90-90-90 strategy of UNAIDS. The framework's goal is a Nigeria that is free of AIDS, with no new infections, and no discrimination or stigma

related to AIDS (NACA, 2017). The 2017-2021 NSFP targeted five thematic areas: prevention for both the general population and high-risk groups, testing services, eradicating mother-to-child transmission, treatment, care and support services, and adherence. The strategic objectives set under the thematic areas are as follows:

1. To achieve a significant decrease in the occurrence of new HIV infections in Nigeria by the year 2021 (Thematic Area 1)
2. To enhance availability of testing services so that 90% of PLWHA in Nigeria become aware of their status and are connected to appropriate services (Thematic Area 2)
3. To eliminate transmission from mother-to-child by 2021 (Thematic Area 3)
4. To ensure quality HIV treatment services for all diagnosed PLWHA, and sustained virological suppression for at least 90% of those on ART (Thematic Area 4)
5. To provide all-inclusive care to PLWHA, vulnerable children, and individuals impacted by HIV/AIDS as a right (Thematic Area 5)

Under the NSF/NSFPs, there has been a 5% decrease in new HIV infections and a 19% decrease in deaths associated with HIV since 2010 (UNAIDS, 2018). Further, as at 2017, 38% of PLWHA in Nigeria now know their status, and another 33% are receiving ART in different treatment centres all over the nation, however, there is currently no information on the number of PLWHA who have suppressed viral loads (UNAIDS, 2017). Between 2010 and 2017, pregnant women receiving ART increased from 17% to 30%. Additionally, early infant diagnosis also saw an increase from 6% to 12% during this timeframe (UNAIDS, 2018). A thorough examination of this data indicates that efforts to combat HIV/AIDS in Nigeria are advancing slowly, and the country is far from attaining the objectives of the "90-90-90" program, which is intended to terminate the HIV/AIDS crisis in Nigeria by 2030.

Three factors related to the health system, the patient and the community militate against HIV/AIDS treatment and prevention efforts in Nigeria (Saleh and Adamu, 2015). Health system-related factors include the high cost of antiretrovirals, lack of policy to encourage manufacturing and/or import of antiretrovirals in LMIC despite increasing number of patients requiring newer and more expensive antiretrovirals, strong intellectual property protection systems in the pharmaceutical industry, brain drain driven decrease in number of health workers, poor and inadequate healthcare facilities, inadequate knowledge among carers, side effects of antiretroviral drugs, widespread dependence on traditional

birth attendants and genital mutilation (circumcision) (WHO, 2006; UNICEF, 2010). Factors related to the patient include long distance to care centres, long waiting times, and poor understanding of HIV/AIDS.

Community-related factors militating against treatment and prevention of HIV/AIDS in Nigeria include stigmatisation and discrimination, insurgency (Boko Haram) and civil strife, and cultural practices such as spouse inheritance (Ugwu, 2009), pressure to breastfeed (WHO, 2006; UNICEF, 2010), high level of poverty which forces many young females into prostitution, the difficulty in assessing health services for HIV testing and counselling, and gender inequalities which make it impossible for women to compel their husbands to be committed to one sexual partner, or to convince or insist on the use of condom by their partners, or decline sexual advances of unfaithful partners, and interference with antiretroviral treatment by religious leaders (NARHS Plus II, 2012).

2.1.4 Stigmatisation and HIV/AIDS

It is widely recognised globally that the primary impediments to HIV prevention and the availability of treatment, care, and support services to PLWHA are stigma and discrimination (UNAIDS, 2014). According to Merriam Webster Dictionary (2007) and the Merriam Webster Thesaurus (2007), stigma is a mark or an identifying characteristic of shame, discredit, guilt or disgrace. In everyday use, the term is a mark of guilt or disgrace attached to something or a person to discourage people from identifying or relating with the person or object. It also connotes worthlessness or diminished value. Further, the UNAIDS describes stigma as beliefs and/or attitudes marking or staining a person or group of people as unworthy or discreditable (UNAIDS, 2015). Historically, the word “stigma” originated from the Greeks (Goffman, 1963) who used it to describe body marks and symbols given as a tag to depict an anomality in the moral status of the carrier. Stigma is so weighty that whenever an individual is labelled with it, the devaluing characteristics overshadows other attributes and becomes the focal point for evaluating the individual (Kurzban and Leary, 2001). Thus, stigma has the potential to suppress every other attribute carried by an individual thus reducing them to a polluted and worthless entity perceived in a negative way by others in the society (Goffman, 1963).

The term "HIV-related stigma" refers to adverse beliefs, emotions, and attitudes directed towards individuals who are either infected with HIV or at risk of contracting it, as well

as their families (UNAIDS, 2014). Discrimination is a product of stigma resulting from the distinction, exclusion or restrictions shown to people as a result of personal trait such as an individual's real or perceived HIV status (Odimegwu, Akinyemi and Alabi, 2017). HIV-related stigma and discrimination pose a significant obstacle in the efforts to combat HIV/AIDS (ICRW, 2005; UNAIDS, 2012; Brent, 2016). Stigma undermine the potential of individuals, families as well as the society to protect, support and provide much needed assurance to people affected by HIV/AIDS and is thus an important obstacle to efforts geared towards taming the deadly epidemic. Stigmatization is the main reason many victims of the HIV epidemic do not visit test centres to get tested, or when tested reveal their status or seek preventive help, care and support. Stigma is also an important factor responsible for non-adherence to medication and withdrawal of many PLWHA from treatment and care (Stangl, 2013 and Katz, 2013). According to Ammon, Mason and Corkery (2018), stigma is the most important obstacle to ART among PLWHA in sub-Saharan Africa. According to Scambler (1998), people with highly stigmatising medical conditions are most likely to hide their status to prevent others from discriminating against them (Scambler, 1998). Such discrimination potentially threatens their self-esteem an identity, and disrupts their personal life.

Several conceptual frameworks have been put forward to explain stigma and its effects. According to Parker and Aggleton (2003), it is an inequality- and exclusion-breeding social practice strongly linked to culture and power. Deacon, Stephney, and Prosalendis (2005) added that stigma is not a as result of lack of knowledge or a tool of social regulation, as it is often assumed, but instead it is a problem emanating from fear and assignment of blame. In relation to HIV/AIDS, Wingood, Harris and Mbewu (2008) proposed that the morbid fear of being associated with HIV is the major reason why people shy away from knowing their status, change unsafe behaviour and care for PLWHA. Gilmore and Sommerville (1994) in their categorisation of stigmatisation associated with sexually transmitted diseases contended that stigmatising response have at least four dimensions namely the problem, identifying the persons or group to be stigmatised, stigmatisation of the target person and the outcome. The problem is the discredited attribute which is a recognisable characteristic(s) used in identifying the target which in this context is HIV/AIDS. Application involves stigmatisation of the target and the associated negative attributes, while a response to the stigmatised which

distances and disempower him/her and ensures that he/she is under the control of the stigmatiser is usually the outcome.

Holzemer, Uys, Makoae, Stewart, Phetlhu, Dlamini, Greeff, and Kohi (2007) introduced a theoretical framework that aims to explain the unique stigma process in Africa. This model illustrates a context-specific cyclical process that involves the interplay of the environment, healthcare systems, and healthcare providers. Further, they posited that the cyclical process involves the tetrad of triggers which will lead to stigmatising behaviours which in turn will determine the stigma types developed by individuals and the eventual outcomes. The authors identified three categories of stigma, which are received stigma, internal stigma, and associated stigma. Stigma involving demeaning behaviour directed towards PLWHA is classified as received stigma, while internal stigma results from intrapersonal thoughts and behaviours developed by HIV infected individuals arising from HIV-status-related negative self-perceptions. The stigma directed at persons interacting, living, working with, or connected in any way with PLWHA is classified as associated stigma.

2.1.4.1 Forms of HIV/AIDS Stigma

Various forms of HIV/AIDS-related stigma have been reported in published literature. According to Scrambler (1998), a medical sociologist, there are two major types of stigmas: namely enacted or external stigma and internal or felt stigma. Stigma and discrimination suffered by PLWHA from others as a result of their positive status is known as enacted or external stigma (Herek and Burack, 2013). This type of stigma occurs externally and is reflected in the disposition and behaviours of others towards HIV-infected individuals. It usually arises from the judgement, ill treatment and discrimination of the stigmatized individual by others through rejection, avoidance, discrimination, blame, verbal and physical abuse, abandonment, judgemental attitudes, withdrawal of care and support, disrespect and labelling (Anglewicz, and Chintsanya, 2011). Internal or felt stigma is the innate negative feelings felt by infected individuals as a result of their condition and the likely attitudes and actions of others towards them. Scamler (2004) refers to felt stigma as the inner feelings of being devalued or being seen as worthless and shamed. This is mostly manifested in form of negative feelings, beliefs or actions within the infected person or which may be instigated by the person living with the HIV disease such as shame, self-blame, hopelessness, avoiding disclosure, suicidal thought, self-isolation, fear of death etc.

Aside from the two main types of stigmas previously discussed, other types of stigmas have been identified by various authors. Loufty, Logie, Zhang, Blitz, Margolese, Tharao, Rourke, Rueda, and Raboud (2012), Pescosolido and Martin (2015), and Nyblade, Stockton, Nyato, and Wamoyi (2017) have all recognized additional forms of stigma, which include experienced stigma, perceived stigma, anticipated stigma, secondary stigma, observed stigma, and layered stigma. According to the authors, stigma related to interpersonal acts of discrimination is known as experienced stigma. Perceived stigma refers to the perception or belief that individuals who are stigmatized will experience discrimination and be devalued by others in the community or other social groups. The expectations of being subjected to stigma and discrimination among the stigmatised or the fear of stigma irrespective of whether it exists or not is referred to as anticipated stigma. Associated or secondary form of stigmatization is stigma by association which is usually directed towards the people that are related to the infected individuals such as their families, friends or loved ones and caregivers. Observed stigma is stigma experienced by others that is witnessed or heard about while layered or compounded stigma is stigma experienced by a person with more than one stigmatised identity, for example a gay person infected with HIV may experience stigma associated with HIV and their sexual orientation.

2.1.4.2 Factors contributing to the Stigmatisation of PLWHA

The foundation for the widespread stigmatisation and discrimination of PLWHA was laid by earlier believe that stigmatising and/or criminalised behaviours such as homosexuality, sharing needles among illegal drug users, and engaging in commercial sex work often wrongly associated with HIV transmission are the only means of acquiring the infection (Brent, 2016). These believe persisted until recently when the possibility of contracting HIV through non-stigmatised form of behaviours such as heterosexual relations, blood transfusion and mother to child transmission was discovered. However, despite the recent discovery of the possible transmission of HIV through non-stigmatised behaviours, association of HIV infection with stigmatised forms of behaviour either consciously or unconsciously, still contribute immensely to HIV-related stigma (Herek, Capitanio and Widaman, 2002; Brent, 2016). According to the UNAIDS (2012), continued stigmatisation of PLWHA is attributable to ignorance about the harmful effects of stigma, continuing fear of infection and moral judgement.

According to Rankin, Brennan, Schell, Layiwa and Rankin, (2005), this enhances secrecy and denial which in turn serves as catalysts for the continued spread of HIV.

The reinforcement of HIV stigmatization in the society have been attributed to several factors which include the stereotyped perception of HIV/AIDS as a punishment for indulging in sexual immorality, as a disease resulting from criminalised behaviours or as a death sentence. Thus, the mere mention of the disease creates a kind of fear in people. In addition, infection with HIV/AIDS is widely perceived as a sign of irresponsible and perverse living by many people. Thus, being infected with HIV carries with it a mark of shame and disgrace to the infected, their families and the society at large (Kegeles, 1989; Panos, 1990 and Warwick 1998). According to de Bruyn (1999), the stereotyped linking of HIV to waywardness or promiscuity, its life-threatening nature, the fear of getting infected with the disease, ignorance about the mode of transmission and the believe that there was no treatment and cure for the disease are other factors enabling HIV stigma in the society.

Much like what obtains in other regions of the world, HIV stigma is an important hindrance to healthcare access for HIV patients in Sub-Saharan Africa. Stigma discourages voluntary testing and willingness to seek post diagnosis care, status disclosure and affects the quality of care given to HIV-infected individuals. Further, it promotes isolation of PLWHA within the community and affects the overall standard of life of HIV patients (Rankin, Brennan, Schell, Layiwa and Rankin, 2005). Widespread incidence of stigma and discrimination has been reported in several African countries. For example, Setlhare, Wright and Couper (2014) reported that external and internal stigmatisation among PLWHA in Botswana often follow diagnosis and manifestation of HIV/AIDS. Chan, Weiser, Boum, Siedner, Mocello, Haberer, Hunt, Martini, Mayer, Bangsberg and Tsai (2015) reported increasing HIV-related stigma in rural Uganda despite the expansion of treatment. Chan and Tsai (2016) also found that as ART was scaled up in 31 African countries, there was a corresponding increase in the anticipation of stigma among PLWHA.

Several complex factors, which may be socio-cultural, political and economic, influence the manifestations and/or expression of HIV/AIDS-related stigma and discrimination. These different factors are very important in the stigmatisation of HIV patients in the African context. In Africa, stereotyped beliefs about contamination, sexuality and

religion greatly influences the cultural constructs of HIV and AIDS and contribute significantly to the widespread incidence of stigma and discrimination in the African society. HIV-related stigma in Africa is enabled by the widespread association of the epidemic with supposedly socially unacceptable behaviour within the African population. For this reason, the shame and embarrassment felt by PLWHA in Africa has not been reduced by the improved availability of ART or the current knowledge that HIV infection or living with full blown AIDS is not necessarily a death sentence (Campbell, Nair, Maimane and Nicholson, 2007). In addition, the communal nature of the African society poses a double-edged challenge to PLWHA. On the one hand, while communality can act as an enabler of stigmatisation it can also ensure that the sick are adequately catered for because in many African communities, what happens to one person is often of concern to the whole community. Further, communality is an impediment to the efficacy of HIV-testing programmes in Africa. Many people are reluctant to present themselves for testing because in many communities, everyone will eventually know who visits test centres and their sero-status (Muyinda, Seeley, Pickering and Barton, 1997). This context also makes it difficult to reach potential beneficiaries with ART because it is usually not very easy for caregivers to reach PLWHA who hides their status because of the fear of stigmatisation (Weiser, Heisler, Leiter, Korte, Tlou, DeMonner, Phaladze, Bangsberg, and Iacopino, 2006), thus presenting a barrier to status disclosure.

Religion and religious believes which are highly pervasive in the African society plays important roles in the dynamics of HIV/AIDS in Africa. The roles played by religious institutions towards PLWHA have been both supportive and detrimental. On the positive side, after an initial period of widespread negative reactions towards PLWHA, religious groups in Africa are coming to terms with the devastation of the HIV epidemic and the need to join in others in providing care and support for PLWHA in many African societies. Thus, some faith-based organizations (FBOs) have launched initiatives to address the challenge of HIV-related stigma and promote education, care, and support for individuals living with HIV/AIDS and those orphaned by the disease (Morgan, 2014). According to Green (2000), and Marsh and Marsh (2013), FBOs are major partners in providing care and support to PLWHA around the world because FBOs have extensive social networks that span both informal settlements in urban areas and remote rural communities. FBOs also leverage on existing infrastructures and faith-based

motivation of their members for volunteer work among PLWHA. Additionally, FBOs often have a higher level of acceptance in many African societies since they are part of the local cultures of their host communities and adherents are associated with positive social values such as justice, empathy, and respect for human dignity. The regular meetings attended by a large number of the faithful's are also good avenues for information sharing and teaching.

However, these obvious advantages have been undermined by some weaknesses including the reluctance of FBOs to openly discuss sex and sexuality, subtle opposition to some HIV infection prevention measures such as condom use, gender bias and judgemental attitudes that are often perceived as a strong foundation for stigma and discrimination against PLWHA (Marsh and Marsh, 2013). Additional challenges include the approach of FBOs engaged in HIV prevention efforts in Africa which often target reduction of HIV transmission by changing human behaviour through education, advocating sexual abstinence and discouragement of premarital and extramarital sex. Critics of this approach pointed out that this moral construct of HIV/AIDS by FBOs generally exacerbate the problem of stigmatisation (Van der Walt and Vorster, 2016). They accuse FBOs of perpetuating stigma by accentuating moralistic attitudes and conservative ideologies (Campbell, Skovdal and Gibbs, 2011). The rejection of same sex behaviour in the African society by religious leaders is another factor contributing to the deep-rooted prejudice and stigmatisation of gays, lesbians, bisexuals and homosexual men in Africa (Endeshaw, Alemu, Andrews, Dessie, Frey, Rawlins, Walson and Rao, 2017; Mbote, Sandfort, Waweru, and Zapfe, 2018; Gichuru, Kombo, Mumba, Sariola, Sanders and van der Elst, 2018).

Nonetheless, recent research has demonstrated the efficacy of involving FBOs in Africa in constructive efforts aimed at decreasing HIV-related stigma and improving the care and support available to individuals affected by HIV/AIDS. This came through creating awareness about HIV and its associated realities such as status disclosure and stigma, and making FBOs realise they could inspire hope in PLWHA (Kruger, Greeff, and Letsosa, 2018). In a clustered randomised study carried out in Nigeria, Ezeanolue, Obiefune, Ezeanolue, Ehiri, Osuji, Ogidi, Hunt, Patel, Yang, Pharr and Ogedegbe (2015) found that ART uptake and retention was enhanced when church-run baby showers were used to encourage women to get tested for HIV. Similarly, Molyneux, Sariola, Allman, Dijkstra, Gichuru, Graham, Kamuya, Gakii, Kayemba, Kombo, Maleche, Mbwambo,

Marsh, Micheni, Parker, Shijo, Yah, van der Elst and Sanders (2016) found that positive engagement with religious leaders decreased stigma and improved prevention and care services for gays, lesbians and bisexuals.

Gender imbalance and poverty (Tsai, Bangsberg and Weiser, 2013) are other factors contributing to stigmatisation of PLWHA in Africa. Gender affects HIV stigma through its association with power and control. According to Campbell and Gibbs (2009), gender is a socially constructed relationship that creates limitations for women in accessing both material and symbolic resources, in comparison to men. Within this context, the African society is more tolerant of HIV-infected men than their corresponding women counterparts (Campbell, Nair, Maimane and Nicholson, 2007). Poverty similarly exerts its moderating influence on HIV stigma in the African society through its association with economic incapacity that undermines the potential of HIV infected individuals to contribute meaningfully to the resource pool which is critically important for the sustenance of many families and communities in Africa (Tsai, 2015). This scenario singles such economically disempowered HIV infected individuals out for social exclusion and corrodes their social status within the society.

2.1.4.3 HIV/AIDS-related Stigma and Discrimination in Nigeria

Stigma and discrimination are prevalent in the Nigerian society, and are expressed through negative attitudes towards PLWHA by individuals and communities, as well as reluctance among healthcare professionals to offer services to PLWHA. Poor understanding of HIV/AIDS and strong cultural influence have been found to be significant predictors of stigmatising behaviours towards people living with HIV/AIDS in Nigeria, as the Nigerian population harbours a great fear of the disease (Monjok, Smesny and Essien, 2009). Odimegwu (2003) reported that due to cultural and ethnic diversity, the Yorubas in the southwestern part of Nigeria are less likely to avoid PLWHA than the Igbos in the southeast.

A recent study of 56,307 respondents in Nigeria found that approximately 50% exhibit stigmatising and discriminatory behaviours towards PLWHA (Dahlui, Azahar, Bulgiba, Zaki, Oche, Adekunjo and Chinna, 2015). The likelihood is higher with younger persons, men, the illiterates, people with poor wealth index and the married. In a population-based study conducted in southeastern and southwestern Nigeria, Odimegwu, Adedini, and Ononokpono (2013) used seven dimensions to measure HIV-

stigma and reported a high prevalence (up to 85%) of stigma and discrimination with participants from the southeast exhibiting stigmatising behaviours more than their counterparts in the southwest. Similarly, Babalola (2007) reported a high prevalence of stigma among youths in northeastern and northwestern part of Nigeria which negatively affects voluntary counselling and testing. Ezedinachi, Ross, Meremiku, Essien, Edem, Ekure, and Ita (2002) reported that negative attitudes towards PLWHA among healthcare professionals in the south-south of Nigeria declined significantly after educational interventions. Similar manifestations of stigmatising behaviour were reported in studies carried out among dental and oral health professionals (Reis, Heisler, Amowitz, Moreland, Mafeni, Anyamele and Iacopino, 2005; Bukar, Gofwen, Adeleke, Taiwo, Danfillo and Jalo, 2008), nurses and medical laboratory scientists (Adebajo, Bamgbala and Oyediran, 2003), and primary healthcare workers (Sekoni and Owoaje, 2013) in Nigeria.

Most studies reporting the stigmatisation and discrimination experienced by PLWHA in Nigeria were focused on tertiary healthcare facilities in the south of the country with only one study coming from the north central region. These studies reported prevalence of stigmatisation ranging from 8% to 60%. In a study conducted in Ilorin, Owolabi, Araoye, Osagbemi, Odeigah, Ogundiran, and Hussain (2012), it was reported that 25% of patients on ART had experience of stigma or discrimination either in their family, at the hospital, within the community or at their workplace. Another study by Blessed and Ogbalu (2013) reported that female PLWHA at Federal Medical Centre, Owerri in southeast Nigeria experienced stigma more frequently than their male colleagues. According to Alubor, Zwandor, Jolayemi, and Omudu (2002), widespread prevalence of rejection and discrimination recorded in the 1910s against PLWHA in parts of Benue State in northcentral Nigeria was mostly driven by the fear of infection with an incurable disease. Further, in a study investigating the effect of the introduction of the law prohibiting homosexual relationships in Nigeria in north central Nigeria, Schwartz, Nowak, Orazulika, Keshinro, Ake, Kennedy, Njoku, Blattner, Charurat, Baral, and the TRUST Study Group (2015) reported that male homosexuals reported that the introduction of the law is a significant deterrent to their desire to seek medical care.

An inverse relation was also reported between stigma and ART adherence among study participants in southwestern Nigeria (Omosanya, Elegbede, Agboola, Isinkaye and Omopariola, 2014). Further, Adewuye, Afolabi, Ola, Ogundele, Ajibare, Oladipo and

Fakande (2009) also reported that post-traumatic stress disorder (PTSD) was associated with stigma in 27.3% of stigmatized PLWHA in southwestern Nigeria. Another study in southeastern Nigeria reported an incidence of co-morbid depression in 33.3% of stigmatised PLWHA (Onyebuchi-Iwudibia and Brown, 2014). Further, stigmatised PLWHA adopt low public profiles, shy away from public functions, avoid public health facilities for their medical needs and usually do not disclose their serostatus. These attitudes according to Olalekan, Akintunde and Olatunji (2014) pose serious threats to prevention of HIV infection.

2.1.4.4 Effects of HIV/AIDS-Related Stigma

The mental, physical and emotional health of PLWHA is significantly affected by stigma and discrimination which has also constituted a serious barrier to HIV prevention efforts worldwide. Stigma can profoundly affect the health and general wellbeing of both the individual and the community (Kipp, Pungrassami, Nilmanat, Sengputa, Poole, Strauss, Chongsuvivatwong and Van Rie, 2011) in addition to playing an important role in health inequalities (Hartzenbuehler, Phelan and Link, 2013). Despite reductions witnessed in other parts of the world, stigma remains an obstacle to HIV prevention in Africa and much of the developing world (Armstrong-Mensah, Ramsey-White, Pavao, McCool and Bohannon, 2017). The barriers to HIV prevention efforts occasioned by stigma manifest at different levels in the cycle of activities targeted at preventing the spread of HIV. These include early diagnosis, disclosure of HIV positive status, uptake of preventive services, and getting those already diagnosed to enrol on ART programmes.

According to Alemu, Biadgilign, Deribe and Escudero (2013), the fear and apprehension created by stigma prevents most PLWHA from reporting early for treatment and care, adhere to treatment regimens and/or maintain social networks. It is also a major reason preventing many PLWHA from revealing their status to partners, care providers and members of their family (Conn, 2013). Similarly, the barrier created by stigma and discrimination adversely impacts the potential of PLWHA to protect themselves and their health (Armstrong-Mensah, Ramsey-White, Pavao, McCool and Bohannon, 2017). The authors further averred that stigma, discrimination and fear of violence strongly hinders access and adherence to treatment, and routine prevention steps among PLWHA. It is also an important reason for low self-esteem and low motivation for self-protection, as well as the propensity to engage in risky sexual behaviour, or abuse of drugs and alcohol as a way of seeking self-validation.

Various authors have also reported that stigma associated with cultural beliefs about HIV compromise effective response to HIV/AIDS. Culture-associated HIV-stigma is associated with lower uptake of prevention services including educational meetings and counselling, poor adherence to preventive measures, lack of interest in programmes aimed at preventing transmission from mother to child (Bond, Chase and Aggleton, 2002, Kalichman, Simbayi, Cain, Jooste, Skinner and Cherry, 2006). It also hinders voluntary testing and counselling services, and a major barrier to participation in antiretroviral therapy (Brown, BeLue and Airhihenbuwa, 2010). Stigma has also been linked with late diagnosis of HIV infection, postponement or rejection of care, travelling outside local communities to access ART as a way of preventing breach of confidentiality, non-adherence to, and concealment of medications (European Centre for Disease Prevention and Control, 2017). Stigma also diminishes social support for PLWHA thereby increasing the risk of poor adherence to ART (Mhode and Nyamhanga, 2017).

Stigma and discrimination against PLWHA among healthcare professionals may also limit provision of HIV prevention services by healthcare professionals and uptake of such services by PLWHA, especially for key populations. For example, Arrey, Bilsen, Lacor and Deschepper (2017) reported that female migrants from Sub-Saharan Africa living with HIV in Belgium avoided or delayed seeking treatment because of stigma and discrimination experienced in services not related to HIV treatment within the Belgian hospitals system such as dental clinics and pharmacy. Similar studies in France (Marsicano, Dray-Spira, Lert, Aubriere, Spire and Hamelin, 2014) and the UK (Elford, Ibrahim, Bukutu and Anderson, 2008) also reported that stigma and discrimination hampers treatment and care among PLWHA in these countries. Further, these barriers earlier mentioned imposes additional physical, emotional and psychological burdens on PLWHA arising from loss of income and means of livelihood, threatened and strained marital and family relationships, poor health outcomes, withdrawal of care and support at the family level, despair, low self-esteem, loss of reputation, identity crisis, social isolation, loneliness and low productivity leading to loss of economic power ((ICRW, 2005; WHO, 2015). Turan, Budhwani, Fazeli, Browning, Raper, Mugavero, and Turan (2017) noted that social stigma impacts the emotions, thoughts, and actions of People Living With HIV/AIDS (PLWHA). These additional burdens eventually lead to other comorbidities among PLWHA, the most common of which is anxiety and depression.

2.1.4.5 Depression and HIV/AIDS

Depression is the most common psychological disorder associated with HIV/AIDS. Globally, about 121 million people (including many PLWHA) are affected by depression (Pappin, Edwin and Booysen, 2012). This is particularly common among PLWHA residing in LMICs including Sub-Saharan Africa. The high rate of depression and other psychological disorders among PLWHA in these regions is associated with delayed diagnosis, suboptimal treatment outcomes, delayed initiation of, and poor adherence to ART regimens, and increased HIV-related deaths (Parcesepe, Bernard, Agler, Ross, Yotebieng, Bass, Kwobah, Adedimeji, Goulet and Althoff, 2018).

Depression has been reported in more than one third of PLWHA residing in Africa with up to half of these dealing with a major form of depression (Bigna, Tounouga, Kenne, Djikeussi, Foka, Um, Asangbeh, Sibetcheu, Kaze, Ndangang and Nansseu, 2019). The distribution on the continent is however heterogeneous. Thus, Bernard, Dabis and de Rekeneire (2017) reported an estimated pooled prevalence of 9% and 32%, respectively, among PLWHA on treatment and their untreated counterparts in Sub-Saharan Africa. Similarly, Lwidiko, Kibusi, Nyundo and Mpondo (2018) reported that in the Southern part of Tanzania, 27% of HIV-positive children and adolescents showed symptoms of depression compared to 5.8% among their counterparts not infected with HIV. A study conducted in Khartoum, Sudan discovered that out of 322 HIV patients, 63.1% displayed symptoms of depression. Among these patients, 19.3% exhibited mild depression, 32.4% had moderate depression, and 11.4% had severe depression. The study also revealed that depression was more frequent among women, those who were illiterate, married or widowed, and those not receiving counselling (Elbadawi and Mirghani, 2017).

Further, Duko, Geja, Zewude and Mekonen (2018) reported that 48% of HIV-positive patients (n=401) at an out-patient treatment facility in a specialised hospital in Ethiopia are depressed. A similar study conducted at another hospital in Addis Ababa, Ethiopia reported a prevalence of depression of 41.2% (Tesfaw, Ayano, Awoke, Assefa, Birhanu, Miheretie and Abebe, 2016) while Eshetu, Woldeyohannes, Kebede, Techane, Gizachew, Tegegne and Misganaw (2015) reported that 38.94% of HIV/AIDS patients at an ART clinic in the Amhara Region of Ethiopia have comorbid depression. A far lower prevalence of depression (11%) was however reported in another study of HIV-infected individuals in the Northwest of the country (Kibret and Salilih, 2015). Except

for this region, the prevalence reported among PLWHA in other parts of Ethiopia was higher than the estimated pooled prevalence of 36.5% reported by Amare, Getinet, Shunet and Asrat (2018).

This is however comparable to the pooled prevalence of 38% reported for East Africa by Ayano, Solomon and Abraha (2018), but considerably lower than an overall prevalence of 63% reported among 100 newly infected patients in Yaoundé, Cameroon (L'akoa, Noubiap, Fang, Ntone and Kuaban (2013). In another study conducted among 400 HIV patients receiving ART in Bamenda, Cameroon, one in five (20%) of the study participants are diagnosed with MDD (Gaynes, Pence, Atashili, O'Donnell, Kats and Ndumbe, 2012). Similarly, Ngum, Fon, Ngu, Verla and Luma (2017) reported a prevalence of depression of 26.7% among PLWHA on HAART in an hospital in the southwest of Cameroon with 75% of these not adhering to their treatment course.

Back home in Nigeria, between 14.4% of PLWHA in the southwest and 56.7% in the northcentral are depressed. However, these differences are more a reflection of the differences in number of participants recruited and methods adopted for the study. Adiari and Campbell (2014) reported that 14.4% of 264 patients receiving ART at a tertiary hospital in South-western Nigeria are depressed. However, the prevalence of depression reported in two other South-western Nigeria studies are significantly higher at 23.1% (Obadeji, Ogunlesi and Adebowale, 2014) and 39.6% (Adeoti, Dada and Fadare, 2018) respectively in studies carried out at tertiary hospitals located in Sagamu and Ado Ekiti, Nigeria. Two studies carried out in Benin City (Seb-Akahomen, Lawani and James, 2018) and Calabar (Bankole, Bakare, Edet, Igwe, Ewa, Bankole and Olose, 2017) in the South-south region reported prevalence of depression of 31.5% and 20% respectively among 150 HIV patients poorly adherent to their medication in Benin City and 150 children and adolescents infected with HIV in Calabar, Nigeria.

In the South eastern part of Nigeria, the prevalence of depression ranged between 33% (Onyebuchi-Iwudiaba and Brown, 2014) and 39.1% among HIV patients who are 18 years or older receiving HAART at the Imo State University Teaching Hospital Aguocha, Uwakwe, Duru, Diwe, Aguocha, Enwere and Olose, 2015). Rates reported among PLWHA in the northern part of the country include 56.7% and 31% in Ilorin and Jos, North-centre Nigeria (Shittu, Issa, Olanrewaju, Mahmoud, Odeigah, Salami and Aderibigbe, 2013; Sule, Agaba, Ojoh, Agbir and Okonoda, 2018), 50.6%, 49.8%, 14.2%

and 16% in Sokoto (Oladigbolu, Abdulsamad, Inoh, Ezenwoko, Oche and Adeniran, 2018), Kano (Salihu and Udofia, 2016) and Kaduna (Olisah, Adekeye and Sheikh, 2014; Bolakale, Taju and Olubukola, 2016) in the North-western region of Nigeria and 20% in Maiduguri, North-eastern Nigeria (Ibrahim, Jidda, Wakil, Rabbebe, Omeiza, Yusuph, Ogunlesi and Suleiman, 2014).

Elsewhere outside Africa, rates among Iranian PLWHA ranged between 22% and 76% (Doosti-Irani, Moameri, Ahmadi-Gharaei and Holakouie-Naieni, 2017) while similar estimates for France (Feuillet, Lert, Tron, Aubriere, Spire and Dray-Spira, 2017) and Kazakhstan (Terloyeva, Nugmanova, Akhmetova, Akanov, Patel, Lazariu, Norelli and McNutt, 2018) are 28.1% and 9.9%. Similarly, more than 40% of 220 men living with HIV/AIDS in Heiliongjiang, Harbin Province, China, showed symptoms of depression (Liu, Zhao, Ren, Qi, Sun, Qu, Yan, Zheng, Wu and Cui, 2018). Rong, Nianhua, Jun, Lianguo, Si, Shen, Heng and Xia (2017) similarly reported that 40.3% of PLWHA receiving antiretroviral treatment in nine designated centres in Wuhan, Hubei Province, China showed symptoms of depression. These values are lower than the pooled prevalence of 50.8% reported among PLWHA in China (Wang, Fu, Kaminga, Li, Guo, Chen and Li, 2018). Betancur, Lins, de Oliveira and Brites (2017) in a study of 47 HIV patients aged 18-65 years in Salvador, Brazil reported a 59.5% prevalence of depression ranging from moderate to severe. Similarly, about one fifth of 482 patients at five outpatients' treatment centres in Vietnam showed symptoms of depression (Tran, Dang, Truong, Ha, Nguyen, Do, Nguyen, Latkin, Ho and Ho, 2018).

Prevalence of depression reported in published literature among PLWHA in India ranged from 16.1% to 58.75% (Bhatia and Munjal, 2014). In a study of 54 patients attending an ART centre in Assam, India, Kotoky and Gogoi (2018) reported a prevalence of depression of 55.6% among the respondents. Deshmukh, Bokar and Deshmukh (2017), reported a 50% prevalence among HIV/AIDS patients 18 years and above receiving ART in an hospital in central India. The prevalence among 145 female HIV/AIDS patients in North Karnataka, India was 34.5% (Hiremath and Desai, 2017), while Algoodkar, Kidangazhiathmana and Rejani (2017) reported a prevalence of depression of 30% among clinically stable PLWHA on ART in Kerala, India. The prevalence reported among Indian PLWHA receiving ART at different stages of the infection in a recent study was 16.1% (Alvi, Khalique, Ahmad, Khan and Faizi, 2018).

In the aforementioned studies, depression was found strongly or significantly associated with several factors including perceived stigma, negative life experiences, food insecurity, irregular attendance at treatment centres, poor medication adherence, low income, rural or urban residence, occurrence of other opportunistic infections, unemployment, material deprivation, disclosure of HIV status or breach of confidentiality, risk of social isolation, lack of family support, experience of discrimination, poor sleep quality, inadequate social support system, low CD4 cell count, female gender, family dysfunction, illiteracy/level of education, marital status, older age, living alone, history of childhood deprivation, inability to access counselling services, past history of psychiatric illness, hostility and perceived discrimination, ART side effects, religion and low socio-economic status.

2.1.4.6. The Relationship Between HIV/AIDS and Depression

A complex relationship exists between depression and HIV/AIDS with depression facilitating the transmission of HIV in addition to being a consequence of the disease (Nanni, Caruso, Mitchell, Meggiolaro and Grassi, 2015). Several studies have reported that co-morbid depression that is not attended to or not properly treated in HIV/AIDS patients could have a disabling effect on the HIV-infected individual. Depression can make infected individuals economically unproductive, reduce their potential to work and perform social roles, lead to loss of relationships, cause deterioration in physical health, increase accidents and impair problem solving skills (Abas, Ali, Nakimuli-Mpungu and Chibanda, 2014). Further, depression enhance HIV progression by reducing the CD4 T-cells count, thereby increasing viral load and risk of mortality (Arseniou, Arvaniti and Samakouri, 2014; Rivera-Rivera, Vázquez-Santiago, Albinao, Sánchez and Rivera-Amill, 2016). Depression also has negative behavioural effects which can increase the transmission of HIV including an increased propensity of depressed PLWHA to engage in high-risk behaviours which can predispose them to other sexually transmitted diseases (Cook, Grey and Burke, 2004; Treisman and Angelino, 2007; Nanni, Caruso, Mitchell, Meggiolaro and Grassi, 2015). In addition, when depression is untreated, it could lead to poor adherence to medication which can result in ART resistance and eventual treatment failure from high viral load and low CD4 count (Carpenter, Fischl and Hammer, 1998). Similarly, APA (2005) noted that untreated depression could be potentially deadly leading to loss of productivity as well as increase in cost of medical care (APA, 2005). The effects of depression enumerated above underscore the grandness

of regular and periodic screening and monitoring HIV/AIDS patients for symptoms of depression in the management of the disease.

2.1.5 Concept of Socioeconomic Status

Socioeconomic status (SES) is the combined social and economic standing based on income, education, profession and material possessions in comparison to others in the society. The term encompasses the social, cultural, economic and educational status as well as the goods and services available in a family. Parson, Hinson and Sardo-Brown (2001) defined SES as an individual's relative position or standing in the society determined by factors such as family income, educational background, occupational prestige and political power. Oakes and Rossi (2003) on the other hand, define SES as a concept that represents an individual's degree of access to resources that are collectively valued, including but not limited to material possessions, financial assets, social status, power, social connections, healthcare, leisure time, as well as educational and occupational opportunities. In other words, access to such resources determines the level of success in the social world. Glymour, Avendana and Kawachi (2014) also conceptualized SES as an individual's position in the community's social hierarchy which often reflect the individual's access to important socioeconomic resources, such as money, power and social relationships.

Socioeconomic status is usually categorized into three levels: low SES, middle SES and high SES (Islam and Khan, 2017) and these are used to describe the particular level which an individual or a family belong to in a society. The socioeconomic status of an individual is often measured either objectively in terms of educational qualifications, occupational position and level of an individual or household income or subjectively in terms of financial strain (Wang, Schmitz and Dewa, 2010). Education measures an individual's level of educational attainment. Education provides knowledge and necessary skills that facilitates access to information and resources that can promote good health outcomes for a well-educated individual. Income is measured based on how much an individual earns including wages, salaries as well as other incomes such as investments and savings. The higher the level of peoples' income, the easier it will be for them to access health care services and live good quality life. Additionally, apart from offering opportunities for evaluating healthcare, a higher income level facilitates access to quality nutrition, housing, education, and other essential resources that contribute to a better quality of life. Occupation is a more complex variable measured

using different theoretical perspectives affected by the significance attached to the various aspects of work life. It can be measured based on whether one is employed or has a good source of steady income or not, since the employed and those that have good source of steady income enjoys better health than the unemployed (Ross and Mirovsky, 1995).

Socioeconomic status is a key construct that plays a major role in the standard of life and potential to cope among individuals suffering from different health challenges. The SES affects people's health outcomes and the healthcare services they receive (Adler and Newman, 2002). Several studies have revealed that there is a strong relationship between SES and health. Mackenback (2008), argued that the lower the level of individuals' SES, the poorer their health and the higher their risk of suffering from chronic diseases and untimely death. Furthermore, apart from affecting physical conditions and mortality SES is also linked to mental health problems. For instance, Lorant, Deliege, Eaton, Robert, Phillippot and Ansseau (2003), Fryers, Melzer, Jenkins and Brugha (2005), and Maske, Buttery, Beesdo-Baum, Riedel-Heller, Hapke and Busch (2016) reported a comparatively higher occurrence of mental disorders in individuals of low SES than those of higher SES. Additionally, it is more likely that individuals with lower SES will suffer from poor health, lower life expectancy as well as more chronic conditions compared with individuals belonging to the higher SES class. Apart from that, financial challenges also limit their access to healthcare, diagnostic tests and medications (Saydah and Lochner, 2010; Foraker, Rose, Chang, 2011; Signorello, Cohen, Williams, Munro, Hargreaves, Blot, 2014; Washington Health Alliance, 2014; Wada, Higuchi and Smith, 2015).

2.1.6 Logotherapy

2.1.6.1 Brief History of Viktor Frankl

Logotherapy was developed in the 1930s by Viktor Frankl (1905-1997), a neurologist and psychiatrist born in Vienna in 1905. As a very inquisitive child, he showed interest in issues of life and death and aspired to be a doctor with dreams of developing a life-saving drug. He was not too sure about the meaning of life as an adolescent and whether such meaning actually exist. Unknown to him, he was on the path that will eventually lead him to discover a solution to a problem through which a generation of humanity would find succour. He trained as a psychiatrist and neurologist in the medical school with his work based on the framework of existential therapy. Frankl's entire family

except for his sister was killed during World War II, and he spent approximately three years in various Nazi concentration camps. Following his release from the concentration camp where he had been detained for three years, Frankl was appointed to head the Neurology Department at Poliklinik Hospital and was subsequently appointed as a professor of psychiatry and neurology at the University of Vienna. He later treated over 3000 women suffering from depression and suicidal ideation. In addition, he established a counselling centre during Austria's great depression where people can seek help at a minimal cost (Frankl, 1997). As a growing professor, he got many invitations to speak both in and outside Austria and taught in about 200 universities spread over more than forty countries of the world. Frankl was awarded 29 honorary Ph.D. degrees by different universities worldwide among many other prestigious awards (Levinson, 2001). His work in logotherapy and existential analysis derived mainly from his personal experience and suffering. He died of heart failure on September 2, 1997.

Logotherapy was developed by Frankl as the "Third Viennese School of Psychotherapy." Sigmund Freud established psychoanalysis as the first while the second was individual psychology developed by Alfred Adler. Existential philosophy and phenomenology rooted in psychoanalysis and individual psychology formed the foundation of logotherapy. Spiritually, logotherapy is rooted in a deep devotion to the human being as an intricate spiritual being (Kimble and Ellor, 2000). While developing his own method of psychotherapy, Frankl disagreed with the pleasure principle of Freud and perception of inferiority as the sole means of motivation as proposed by Adler. Rather, he believed that the search for meaning is the main reason driving man towards achievement. His view about the goals of psychotherapy was contrary to those held by proponents of other forms of therapy. He believed that while the goal of psychoanalysis propounded by Freud is to find a compromise between the demands of the unconscious and the requirement of reality, Adler's individual psychology is based on the premise that, beyond adjustment, individuals should be more courageous in reshaping their reality (Kimble and Ellor, 2000). Thus, in contrast to these two believes, the main goal of logotherapy is the fulfilment of the individual. It enables individuals rise above the boundaries of life that sometimes prove unchangeable, by finding meaning and fulfilment even in the most hopeless situations.

2.1.6.2 Concept of Logotherapy

Logotherapy was developed by Viktor Frankl to help individuals find meaning and purpose in life when faced with adversity (Frankl, 1959). Finding meaning in life cut across different aspects of man's struggle for existence such as finding meaning in the face of an incurable disease, meaning in the face of life adversities like loss of love ones, unemployment, serious financial challenges as well as traumatic life events. The main focus of logotherapy is the search for meaning which is the basic motivational force for every man (Frankl, 1959). It takes advantage of the spiritual dimension of the human life and is a spiritually oriented approach towards psychotherapy. One of its main propositions is that the human spirit is an important determinant of human health and that the human spirit can still remain whole even when it is blocked by biological and psychological sickness. In essence, hurting the psycho-biological organism does not necessarily make the spirit sick. He also pointed out that humans experience existential vacuum when the spirit is blocked or repressed. To this end, logotherapy mainly focuses on the elimination of blockages with a view of bringing to the surface the will to find meaning, thus liberating the human spirit for the accomplishment of life goals.

Logotherapy equip individuals to take responsibility for whatever challenges life brings across their paths, take control and move on rather than succumbing to such challenges. The therapy makes effort to assist individuals connect with their hidden strength through the deployment the spirit's power to hold out under adversities and rise above emotional distress usually associated with suffering. For instance, in a situation where an individual is suffering from an illness (mental or physical), being able to still find meaning in life will energize the individual to keep on fighting and as well increase their belief that behind the illness, there is an undamaged person who can still find reasons to live, a step necessary to start the healing process. In other words, chances may decide what happens in the life of a person, but the responsibility of deciding how to respond to such situations belong to the individual. Therefore, instead of focusing on the symptoms of illnesses, logotherapy helps the individual to adopt a radical and optimistic view about their potentials and their potential to transcend the self by pursuing what brings meaning into their lives.

As noted by Frankl, tragic optimism, the potential to stay positive and resolute in the face of adversities without giving up or losing the will to pursue life goals and set purposes is the core principle of logotherapy. Optimistic individuals usually adopt a

more active approach in search for solutions to problems and more often than not have a more meaningful experience in life (Ju, Shin, Kim, Hyun and Par, 2013). Looking at the transience of life, logotherapy therefore encourages an optimistic approach to life challenges instead capitulating to pessimism. It believed that people are not exhausted by their unfavourable suffering but rather seeing life as being meaningless is what is usually devastating and can lead to depressive episodes. Therefore, the therapy is futuristic, focusing on the meaning that an individual wants to fulfil in the future (Boeree, 2006).

According to Frankl, what constitute meaning in life varies with individuals and situations. In other words, meaning in life is not general, but rather changes with time and from one person to another. According to Wong (2014), man's search for meaning can be pursued from the perspective of the present and that of the ultimate. The author posited that because ultimate meaning is beyond human understanding, individuals should focus attention on the specific meaning of the moment the general meaning of life. Furthermore, while some philosophers opined that individuals should learn to endure the meaninglessness associated with life, Frankl suggested an optimistic approach whereby individuals should believe that they can pull through the challenges of life by having a positive spirit that look beyond the problem. Frankl maintained that meaninglessness is a major existential neurosis that leads to vanity, non-sensuality or existential vacuum since there is no predestined plan for life. Individuals at this point experience frustration and meaninglessness which could eventually lead to depression. He therefore, suggested that individuals have the obligation to create their own meaning when faced with unbearable life situations because no other person can help them to find their own meaning in life.

2.1.6.3 Existential Frustration

An individual's will to find meaning can be frustrated in life especially when such an individual is faced with life challenges that make life to be meaningless and hopeless. If a person's search for meaning is impeded, it can lead to an existential void where they feel an emptiness and a sense of meaninglessness. Frankl pointed out that meaninglessness creates a vacuum that needed to be filled. He also pointed out that trying to fill existential vacuum with superficial things as practised by many people (Boeree, 2006) will eventually lead to frustration and despair. He also noted that attempting to fill the existential void with superficial things, as many individuals do, will

ultimately result in frustration and despair (Boeree, 2006). Kmarzarrin (2013) therefore noted that people can best deal with frustration, anxiety and depression by choosing a purposeful life that will help them to finding meaning. The principle of logotherapy is therefore built on the struggle to find meaning which is regarded as the most important motivational force in the life of every individual (Shoakazemi and Sadati, 2010).

2.1.6.4 Principles of logotherapy

Three basic principles formed the foundation of logotherapy: freedom of will, the will to meaning and meaning of life (Frankl, 1959).

2.1.6.4.1 Freedom of will

This the liberty that an individual has to choose how he/she react to unpleasant situations of life. It is not the freedom from unfavourable situations rather it is the freedom to stand and face whatever conditions that life is bringing. Human freedom according to Frankl is finite, hence man is free to decide how to respond to challenges if and when it comes as life situations and circumstances do not completely limit him. According to him, man still has a measure of freedom even if his instincts, inherited dispositions and the environment influences his existence. He therefore noted that everything can be taken from an individual except his/her freedom to choose his attitude and disposition towards any situation. Human beings are not fully subjected to any specific conditions rather they are free to make decisions and are capable of taking an independent stand about situations that affect them psychologically, biologically and socially. In other words, individual freedom is important in psychotherapy because it gives the individual the opportunity of independent action when faced with somatic or psychological sickness.

People experiencing meaninglessness lack the capacity to face challenges, thus they experience difficulty in choosing their response to situations and the decisions they make about the future. At such instances, exercising the freedom of will is made possible by the capability for self-distancing and self-detachment which makes it possible for man to detach himself from the situation as well as from himself. Freedom of will help individuals to make choices that will assist them to be successful and happy in life in the midst of adversities (Frankl, 1984).

2.1.6.4.2 Will to Meaning

This pertains to the fundamental drive to search for meaning and lead a purposeful life. It is the potential of an individual to persist without giving up when confronted with

unchangeable and tragic situations or the potential of an individual to endure without losing hope in the face of an incurable disease. It is the factor that drives an individual's existence and actions beyond the desire for gratification and power. The potential to rise above immediate challenges (self-transcendence) makes it possible to exercise the will to meaning through the power of imagination and optimism. This then becomes an avenue through which an individual can find happiness by consciously trying to forget one's self and moving on. Barnes (1995) asserts that when there is will to meaning, an individual is able to endure any situation in life. On the contrary, when there is no will to meaning, even a healthy life will look empty and hopeless. Thus, will to meaning is important for survival and healthy life and provide strength for people to endure sufferings while persisting in the pursuit of their goals in life.

2.1.6.4.3 Meaning in life

This is the third principle of logotherapy and is based on the assumption that human can still find meaning even in the most hopeless and tragic life situations. According to Lukas (1980), meaning in life begins with the fundamental belief that life has absolute meaning that cannot be taken from an individual under any circumstance. This belief connotes that everything in this world has meaning and purpose that is associated with it and as such every element and life experiences has their own unique meaning. In essence, meaning can be discovered by people when they reflect on life experiences apart from their relationship with others. Frankl believed that when a person is denied of everything that makes life meaningful or when they are battling with illnesses and depression, finding meaning in life is what will eventually make the suffering more bearable and as well give hope to the individual to continue living. Therefore, finding meaning in life irrespective of life challenges is the ultimate demand of life.

According to Frankl, there are three different ways an individual experiencing hopelessness and meaninglessness can find meaning in life:

i. **Creative values:** Frankl (1986) believed that people can experience meaning in life through the acts of creativity and use of their unique talents and strength to engage in certain activities in life. Creative values deploy human talent to create things not previously in existence as a way of giving back to the world. For example, individuals that are experiencing meaninglessness can engage in creative activities such as making art work, drawing, painting, knitting, weaving, tending a flowerbed and

creating other unique things that nobody has done that can make them experience happiness.

ii. **Experiential values:** Grabber (2004) noted that through experiential values, people can receive from the world and find meaning by experiencing and appreciating nature, religion, culture, truth, beauty and love. This enables such individuals to enjoy life by appreciating relationships and nature, and all that life has to give with understanding and gratitude even in the face of difficulties.

iii. **Attitudinal values:** Attitudinal values refer to the stand taken by an individual towards fate and circumstances beyond his/her control. It is the capability to bravely and courageously face difficulties associated with unchangeable life events without losing self-respect. Having positive attitudes towards negative situations can assist people to experience meaning and fulfil their dreams in life. An individual's attitude towards situations that cannot be changed in life is very significant. According to (Frankl, 2006), a painful situation that cannot be changed should be accepted and transmuted into meaningful achievements. The more an individual put on a negative attitude towards an unchangeable situation, the more life becomes meaningless and hopeless. Attitudinal values are the most crucial factor for human survival especially during periods of difficulty and heartbreak. It encourages the individual to go an extra mile by digging deeper into their inner strength for hope and inspiration as well as connect with others in similar situations. In addition, Frankl (1986) opined that, human fulfilment can be measured by the way an individual accepts and cope with challenges, the courage he manifests in the face of an incurable sickness, and the dignity he displays during disaster. Therefore, logotherapy achieves the most profound meaning in life through attitudes displayed in the face of unavoidable suffering.

2.1.6.5 Techniques of logotherapy

There are different techniques used in logotherapy to assist individuals who are faced with existential question and meaninglessness as a result of difficult life circumstances to achieve meaning. These include the following:

Dereflection: People who are experiencing adversities tend to be more focused on their problems and as such, they work relentlessly or engage themselves in excessive thinking leading to feelings of emptiness and hopelessness. According to Lukas (1996), dereflection seeks to assist clients to move away from their symptoms as well as their

present feelings. Clients are thereafter assisted to come to the realisation that their real self is different from their existential situation and associated symptoms of psychological distress. In essence, they are made to understand that irrespective of their biological, psychological and social state, there is hope and they can take a stand towards their situations. Dereflection was developed by Frankl during the second world war to assist clients in dealing with dysfunctional and awkward behaviour that are brought about by hyper-intention and hyper-reflection, conditions that make the individual to either work relentlessly or engage in excessive thinking. For instance, in a situation where a patient is overly absorbed about symptoms of his illness, the patient can be encouraged to focus on the positive things that had happened in their lives or on other positive things that can make them feel a sense of happiness. The therapeutic process involves helping clients to separate themselves from their symptoms and then encouraging them to use their inner strength to overcome their current situation and engage in positive activities, which will ultimately lead to a reduction in symptoms. This technique aims to assist individuals in transcending their circumstances and moving toward creative and experiential values. When using de-reflection, the therapist first ascertains if the causes of the hyper-reflection and hyper-intention are a medical illness that should be treated separately. Next, he explains the link connecting hyper-intention and hyper-reflection to the client as well as the current symptom formation. He then directs the patient's awareness towards more positive issues by helping them develop an alternative list with different helpful thoughts, attitudes and meaningful activities that the patient think would probably add value to their lives. Finally, the therapist helps patients to use items from their surrogate list anytime they are hyper-reflecting or hyper-intending.

Paradoxical intention: this is another technique used in logotherapy to encourage and challenge individuals to face or confront their greatest fear through the use of humour. For instance, a client may be afraid that a particular symptom may appear as a result of an illness, thereby making him to be anxious and afraid. Paradoxical intention is a therapeutic approach that seeks to disrupt the negative cycle of a client's fear, shame, and depression by encouraging the adoption of a more positive attitude. The goal is to help the client overcome their self-defeating beliefs and behaviours by reframing their thoughts and reactions in a more positive and empowering way. An anxious individual will usually do everything possible to evade situations that increases his/her anxiety, a

situation that will unfortunately amplify the symptoms. According to Frankl, in order to deal with client's fear or anxiety through paradoxical intention, clients are advised to exaggerate and actually wish for what they fear most. He found out that using the wish as a substitute for the fear eventually help to deal with the fear. What this means is that through self-detachment the individual will be able to adopt a new attitude towards the feared object or situation. The initial phase of this approach commences with self-detachment, followed in the second phase by the individual being encouraged to courageously embrace the symptoms. Doing this will gradually reduce the symptoms and thus give opportunity to the therapist to start assisting the client to work towards enhancing meaningful living.

Attitudinal modification (AM): this technique was developed by Lukas for individuals who are suffering from mental imbalance such as depression, addiction and noogenic neuroses to promote the will to meaning. The aim is to assist individuals going through existential frustration to know that meaning can be found in every situation of life no matter how hopeless it may seem (Lukas, 1980). Thus, the therapist applying this technique focuses attention on changing an individual's negative attitude to a more positive one by using wisdom and insight to assess if some attitudes displayed by an individual are harmful. Once the therapist is able to establish that the individual has unhealthy or harmful attitude, rather than judge if such attitude is good or bad, he simply brings them up for open discussion. This technique offers a compassionate and caring approach towards clients' present situations as well as their worries by building faith, hope and love in ultimate meaning. Attitudinal modification is particularly used to encourage, support, reassure and help patients regain inner potential, peace and assurance through a self-transient attitude.

The following steps are followed by the therapist when using attitudinal modification:

i. The therapist explores the patient's current situation to understand the root cause of the patient' distress.
ii. The therapist probe into the cause of the suffering and see where there are practical limitations.
iii. This is followed by assessing the strengths and possibilities.
iv. Next, the therapist identifies unhealthy attitudes that may be contributing to the suffering and try to modify them.

v. The therapist makes his discoveries known to, and discusses them openly with the patient.
vi. He then helps to reaffirm belief in the meaning of life, and the limitless value attached to the patient.

Socratic dialogue: This method usually place emphasis on questioning the client in order to facilitate internal exploration that will eventually lead to the discovery of personal meaning and how such meaning can be actualized (Melton and Schullenberg, 2008). During the therapeutic session, the therapist utilizes the client's own language to facilitate self-exploration and understanding. The therapist identifies certain words by listening intently to the client and helps the client to see new meaning in those words thus allowing the client to realise that the answers to some of his questions lies within and is just waiting to be unveiled. However, it is important during the process that the therapist should refrain from imposing his personal values or his perception of meaning on the client.

In addition to the four major techniques, the following techniques can also be used in logotherapy; logo-drama game, guided autobiography, guided discovery of meaningful potentials, logotherapeutic dream analysis, logo-anchor technique, the appealing technique, symbols and metaphor, mountain-range exercise, literature and arts therapeuticum, the movie of your life and alternative list (Welter, 2005; Hutzell, Nassif and Rogina, 2008).

2.1.6.6 Applications of logotherapy

Logotherapy is useful in the management of different types of mental disorders such as depressive disorder, anxiety, post-traumatic stress disorder, obsessive compulsive disorder, substance abuse as well as other illnesses and incurable diseases such as schizophrenia, Cancer, HIV/AIDS and Paralysis

2.1.7 Cognitive Behavioural Therapy (CBT)

2.1.7.1 About Aaron Beck

CBT was founded by Aaron T. Beck in the 1960s. Prior to this time, he was a fully trained and was practicing psychoanalysis before he started noticing the prevalence of internal dialogue in his patients. This encouraged him to change the mode of therapy he was practicing. His aim was to help his patients identify, understand and manage the automatic thoughts they experience every day when he discovered through his

experiments that distorted, negative thoughts and beliefs were responsible for depression among his clients. Most of Beck's techniques used in CBT are used to identify, challenge and replace cognitive distortions of clients (Grohol, 2016).

The son of a Russian Jewish immigrant, and the youngest of five siblings, Beck was born in Providence, Rhode Island on July 18, 1921. He was married to Phyllis W. Beck, the first female judge on the appellate court of the commonwealth of Pennsylvania and they had four children (Weishaar, 1993). Beck attended Brown University and graduated in 1942, majoring in English and Political science. He won the William Gaston Prize for Excellence in Oration, the Francis Wayland scholarship and Philo Sherman Bennett Essay Award. He bagged his medical degree in 1946 at Yale Medical School in furtherance of his studies. Initially, Beck was not interested in psychiatry or psychotherapy. He started developing interest in the filed after completing medical school and was in his residency program in neurology because he believed it could reveal how the human mind operates. Following his two-year fellowship at the Austin Riggs Center in Stockbridge, Massachusetts, Beck volunteered at the Valley Forge General Hospital, which was an army hospital located close to Philadelphia. After completing a certificate in psychiatry in 1953, he became an instructor in psychiatry at the University of Pennsylvania in 1954. In 1958, he completed his studies at the Philadelphia Psychoanalytic Institute and was appointed as an assistant professor at Pennsylvania State University.

After spending most of his career life in the 1960s studying psychoanalysis, the focus of his research moved away from traditional psychoanalytic methods to focus on distorted thoughts leading to problematic behaviours. In the course of his training, Beck research focused on testing Freud's notion that unconscious anger directed against the self is the root cause of depression as proposed by dynamic theory. But from the series of experiments he carried out, he found little evidence that anger was responsible for the depression that individuals suffered from as claimed by Freud. What he found out instead was that depression was a result of the negative thoughts and beliefs that people have and their negative ways of processing information. During his work with depressed clients, Beck observed that they were experiencing automatic negative thoughts that were arising spontaneously. He coined the term "automatic thoughts" and developed the concept of the "negative triad," which referred to an individual's negative thoughts about themselves, the world, and the future. Thereafter, he started assisting his clients to

identify, assess and challenge unrealistic and dysfunctional thinking. Surprisingly, he found out that his clients were getting better each time he tried this method. Arising from this, Beck began to teach his psychiatric residents to adopt this form of treatment which they all confirmed was effective.

2.1.7.2 Concept of CBT

In order to help patients overcome psychological problems, CBT focuses on how individuals think and act. It is a structured, brief, present-oriented form of psychotherapy developed by Beck for the treatment of depression. CBT is directed toward modifying inaccurate and unhelpful thinking and behaviour as a means of providing solutions to existential problems (Beck, 1964). Beck believed people are influenced by what is happening around them, and their environment contributes to the way they think, feel and act. Accordingly, CBT believes that the way an individual feel is connected to the way he/she perceive things and not exactly what the situation is. In essence, there is a fundamental problem which is embedded in the negative ways people interpret situations that make them to usually act or behave in certain ways. Therefore, CBT is aimed at assisting individuals identify, challenge and alter dysfunctional ideas, attitudes and assumptions connected with their emotional and behavioural reactions to a particular situation. In addition, Beck opined that by modifying people distortive thinking, they will experience improvements in symptoms and also change the dysfunctional beliefs that cause their thinking error. Beck believed that, by monitoring and recording thoughts that lead to emotional distress, people can recognise that distorted thoughts contribute significantly to emotional distress.

Through CBT, individuals are taught how to identify distortive thinking, to consider their thoughts as mere ideas rather than facts and to also distant themselves from their thinking by looking at situations from different points of view. Furthermore, according to CBT, people may initially attribute their distress to external factors such as events and situations they encounter in their lives. However, it suggests that the emotions and reactions that people experience are not solely determined by external factors but also influenced by how they perceive and interpret those situations, and the meaning they attach to them. In other words, the way people see their emotional reactions in relation to what they think about the situation is the basic assumption of the cognitive behavioural approach (Beck, 1964). Consequently, people usually have different and quick ways of thinking to explain certain situations. This is usually referred to as

automatic thoughts. These thoughts normally pop up in the mind and mould the specific emotions experienced by people as well as the resulting behaviours.

CBT equip individuals with basic skills to recognise and evaluate the automatic thoughts that upsets the mind when they are experiencing distressing situations. In essence, people are encouraged to identify, confront and change such negative automatic thoughts when they experience them with the help of CBT. In addition, Beck asserted that depressed individuals often experienced automatic thoughts characterized by negative perception about themselves, the world and the future. In the management of depression, the main goal of CBT is to assist people resolve psychological problems, increase their engagement in positive behaviours, enabling them to recognise, assess, and address negative thoughts related to themselves, the world, and the future. Martin (2016) explained that CBT utilises a pragmatic and interactive approach that necessitates a cooperative effort between the therapist and client in the therapeutic process. This implies that both the therapist and client must be ready to actively participate and work collaboratively to identify the client’s issues and develop new techniques for addressing them.

2.1.7.3 Cognitive Distortions

Prejudiced thinking which exposes an individual to depression is defined as cognitive distortions (Dozois and Beck, 2008). These are ideas and thinking habits that are illogical, incorrect, or untrue, and have the potential to cause significant damage to a person's self-perception, their level of confidence, and their ability to accomplish their desired objectives. They refer to the systematic errors in the perception and processing of information. The term also connotes faulty ways of people’s thinking which usually convince them of reality that is simply not true. The different ways that people can engage in distortive thinking are discussed below:

1. **Filtering:** This refers to the process in which an individual may ignore all the positive and good things they experience and instead focus their attention solely on the negative things.
2. **Polarised or Black and White thinking:** This involves thinking in the extreme in which the individual sees everything as either good or bad, with nothing in the middle.
3. **Overgeneralisation:** It is a process in which an individual assumes that because certain negative event has happened, other bad things are likely to happen. The

individual may take a single negative incidence and make a broad generalization out of it.

4. **Jumping to conclusion:** This involves individuals drawing conclusions without any form of evidence.
5. **Catastrophising:** Individuals exhibiting this form of distortive thinking makes negative prediction about the future with little or no evidence. It involves focusing on a minor negative event and imagining all sorts of disaster that may likely happen as a result of that single event. Normally, the individual expects the worst outcome from a minor incident that has no relation to the tragedy that it is made out to be.
6. **Personalisation:** This is a type of cognitive distortion in which the individual blames him/herself as the cause of every negative event that happens. This type of distortion can lead to emotional problems, such as feeling offended easily or feeling unnecessarily guilty.
7. **Control fallacy:** in this type of cognitive distortion, people attribute whatever happens to them to external forces or their own actions.
8. **Blaming:** This usually involves blaming others for whatever happens without the individual taking responsibility for his or her actions.
9. **Emotional reasoning:** In this form of distortion, individuals believe through emotional responses that whichever way they are feeling is true without having concrete evidence.
10. **Labelling:** This is an extreme form of generalizing which involves creating a negative view about oneself based on past mistakes.
11. **Mindreading:** This involves an individual assuming that others are thinking negatively about him/her or have negative motives or intentions towards him/her.
12. **Always being right:** This type of distortion makes people believe that they must be right all the time. Such individuals find it difficult to accept that they are wrong.
13. **Heaven's reward fallacy:** This is a type of distortive thinking in which an individual expects that their acts of sacrifice or self-denial would lead to a reward and relapse into depression if that does not happen.

2.1.7.4 Principles of CBT

Some of the basic principles on which CBT is based include the following:

i. A sound therapeutic alliance: Most individuals who are depressed find it difficult to trust and work with their therapist. It is of utmost grandness that the therapist displays

some necessary traits such as warmth, empathy, caring attitude, unconditional acceptance, openness, listening ears and non-judgemental attitude towards the client during the counselling session.

ii. Collaboration and active participation: The focus of CBT is on building a cooperative and supportive relationship between the therapist and the client, who work together as a unit to recognise, assess the accuracy of, and modify dysfunctional thought patterns and behaviours. (Wright, 2006). During the therapeutic session, the therapist and client are encouraged to work as a team with the aim of effectively defining client's problems and equipping them with skills necessary for managing them. Furthermore, at the start of the therapeutic session, the therapist is usually more active. But gradually as client becomes less depressed, the therapist encourages the client to become active by allowing the client to decide which problem to be discussed, identifying the distortions in his/her thinking, summarizing important points and giving homework to the client.

iii. CBT is problem oriented with emphasis in the present: The therapist helps clients in ranking their goals by breaking issues into smaller steps and arranging them in order of importance. These goals should be well-defined, quantifiable, possible, practical, and have a specific timeframe. The therapist then guides the client in analysing and dealing with any negative thoughts or beliefs that might hinder their progress towards achieving the goals, enabling them to correct their flawed thinking and move forward. In addition, it focuses on the present problems and difficulties. Beck believed that by focusing in the here and now, the therapist helps the client to change his/her current dysfunctional automatic thoughts, assumptions and core beliefs in order to improve his/her emotional distress. In other words, CBT focuses on improving a client's current state of mind instead of focusing on the causes of distress or its symptoms.

iv. It is well structured and time-limited: in CBT, each session is well planned to make most of the time in solving the client's problem and usually most depressed clients are treated between six to fourteen sessions. The sessions include an introductory part where a mood check is carried out, a brief review of the week is done and both the therapist and the client set agenda for the week. The introductory part is followed by a middle part where homework is reviewed, problems on the agenda are discussed and new homework is given and the final part where field back are elicited.

v. CBT is educative, and seeks to teach clients how to be their own therapist and provides them with the necessary skills to prevent relapse.

vi. CBT teaches clients to recognise, evaluate and change their dysfunctional thoughts and beliefs. Clients are helped to identify major negative cognitions and adopt more genuine, adaptive perspectives that will assist them to feel better emotionally, function actively and decrease their emotional distress.

vii. CBT follows a scientific approach: a scientific method is adopted which involves asking questions, formulating hypotheses, conducting behavioural experiments, collecting data and examining the data.

2.1.7.5 Techniques of CBT

There are various techniques used in CBT. Some of these techniques include:

2.1.7.5.1 Guided Discovery

This is one of the basic techniques used in CBT. It is also referred to as Socratic questioning. In this technique, the therapist tries to elicit their clients' cognitions such as automatic thoughts, images and beliefs in order to identify which cognitions are upsetting to the clients. Thereafter, he asks series of questions to help the client distance themselves from such cognitions, evaluate the authenticity of the cognitions and de-catastrophize their fears. Questions that can be asked by the therapist include:

1. What is the evidence that your thoughts are true?
2. What are other ways you can use to view this situation?
3. What is the worst thing you think can happen and if it does, how can you cope?
4. What is the best that you think can happen?
5. What will be the result of believing your automatic thoughts? Or what could be the result if you change your thinking?
6. If your friend is in a similar situation and have the same automatic thought, how will you advise them?

This technique involves questioning the clients in order to bring information to their awareness. Socratic questioning is driven by the therapist's genuine curiosity to have an understanding about the client's view of issues rather than a mere interest that wearily assumes that he is going to get all the expected answers from the client. In other words, the therapist using this technique seek to probe deeply into the client's situation so that most of the hidden issue about the problem the client is passing through could be

revealed. Beck et al (1993) therefore suggested that the client should be asked thoughts arousing questions and those that could lead to increased awareness rather than questions that will lead to direct answers. Through this type of questioning, the client would be made to provide their own answers instead of depending on the therapist's interpretation of situations that would put them in a compromising situation (Blackburn and Twaddle, 1996). It is necessary that the therapist prevent tendencies of guiding the client to discover information that he wants to find so that he would be able to confirm his hypotheses about the problem. According to Padesky and Greenberg (1995), guided discovery is a key technique in CBT because apart from helping clients to unravel their negative automatic thoughts, it could also assist them to change their perception about the world and see things from a different perspective.

2.1.7.5.2 Journaling

This is a technique that requires the client maintaining a diary to keep daily account of his/her moods and thoughts. The journal contains different sections which usually include the time, the source, the extent or intensity of the mood or thought as well as the way the client responded. Thereafter, the therapist and client review everything the client has written down in order to identify and identify clients' dysfunctional thought patterns and emotional tendencies in order to find out how they can be changed, and how the client can adjust or cope with them.

2.1.7.5.3 Cognitive Rehearsal

This involves asking a client to recall a problematic situation or event from his or her past. Thereafter, both the therapist and the client would work on the problem in order to identify possible solutions. During the session, the client will be asked by the therapist to rehearse positive thoughts and by so doing begin to modify his/her thought process. By the time the client is confronted by similar situations in the future, the rehearsed behaviour will be drawn on to deal with the difficult situation.

2.1.7.5.4 Imagery Based Exposure

In imagery-based exposure, clients are encouraged to bring recall a recent memory that provoked strong negative emotions. For instance, some clients may have difficulty in identifying negative automatic thoughts in a particular situation. In that instance, the therapist asks clients if they had any image of the situation which could easily be retrieved in their mind. Once the client confirms that he/she remembers anything, the

therapist then asks if the image make any meaning to him/her in order to elicit the thought that is associated with the image. Thereafter, the emotions and thoughts experienced by the client during the particular situation(s) and the type of emotions displayed will be labelled. The aim is to help a client to remember past situations so that they can expose or identify thoughts that are associated with these situations. In addition, this technique can assist a client to repress reflections in order to make painful memories less likely in triggering ruminations and reduce avoidance coping (Boyes, 2012). Thus, when the client is less depressed by disturbing memories, he/she will be able to choose healthier coping actions.

2.1.7.5.5 Cognitive restructuring

This is a structured, goal-directed and collaborative intervention strategy which explores, evaluates and replaces emotional harmful thoughts and beliefs that causes emotional disturbance (Burns and Beck, 1978; Hollon and Dimidjian, 2009; Dobson and Dozois, 2010). It is a therapeutic process that help individuals to learn how to identify and challenge irrational or maladaptive thoughts usually associated with mental health disorders. Once individuals are able to identify thoughts that are harmful or destructive, they begin to confront them in order to change the irrational thoughts responsible for the psychological disturbance (Hollon and Dimidjian, 2009; Dobson and Dozois, 2010). In essence, this technique aims to assist individuals reduce their emotional distress by helping them to develop more positive and functional thoughts (Mills, Reiss and Dembeck, 2008).

2.1.7.5.6 Pleasant activity scheduling

This is an effective technique used in CBT especially for the management of depression (Boyes, 2012). Usually, the client is asked to schedule one pleasant activity he or she will engage in for each day such as doing an act of charity, visiting a friend, listening to music, watching a movie or football, reading a book etc. The client is asked to write down the list of these various activities that he will engage in daily to make him happy and direct his thought from the distressing situation. Alternately, the client may be asked to schedule a particular activity in a day that will give him a sense of mastery, competence or accomplishment. In essence, engaging in activities that produces higher level of positive emotions in their daily lives will help them to engage less in negative or dysfunctional thinking.

2.1.7.5.7 Thought records

This is a worksheet that is usually used by a client to evaluate his/her automatic thoughts when they are feeling depressed. The worksheet consists of different columns that the client will be asked to fill starting with date, then the situation that led to the thought, followed by the nature of the automatic thought and how much the client believed in it. The next column consists of the emotions that followed the automatic thoughts and how intense they were felt. In the next column, the client is asked to identify the nature of his/her cognitive distortions as well as how he/she responded to them. The last column is the outcome which has to do with how much the client believed in those distortions. One of the benefits of using this technique is that the process can assist an individual to view such thoughts as mere intuitions, theories and ideas rather than complete truth. According to (Boyes, 2012), the thought record aims to test how valid is the thought passing through the patient's mind. Once an individual is able to come up with evidence for or against the dysfunctional thoughts, he/she can then change to more stable and realistic thoughts.

2.1.7.5.8. Visualising the best part of the day

This technique is useful especially for individuals suffering from DDs. It involves recalling the good parts of one's day to help the client stay positive (Anderson, 2014). In other words, the client is encouraged to write down things that give him/her a sense of fulfilment and happiness and by so doing the client can form new associations in his/her mind that can make it easy to stay positive and as well look beyond the negative side of life.

2.1.7.5.9 Emphasising the positive

Most individuals going through depression tend to focus undue attention on negative things or events. During their depressive episodes, they unknowingly and selectively focus attention and emphasize on negative experiences by either discounting or failing to recognize positive experiences. Their inability to process positive information often results in a distorted sense of reality. Therefore, in other to counter this characteristic of depression, the therapist would continuously assist the client to focus attention on positive things in his life. During the evaluation, the therapist would elicit the clients' strength and positive qualities and ask questions to discover recent positive developments and positive engagements in the life of the client. In other words, the focus of the session should be tailored towards the positive and by so doing, the therapist

would assist the client have a better week. In addition, the therapist will ask the client to suggest things that can counteract their negative automatic thoughts and beliefs. And as a follow up, the therapist will collaboratively set take-home assignments with clients that will make them experience a sense of pleasure and achievement.

2.1.7.5.10 Mindfulness meditation

To practice mindfulness, one should focus patients' awareness on each current moment in their thoughts without passing any judgement or reacting to it. This technique can help an individual to counter many of the sufferings experienced daily such as stress, anxiety and depression because through this exercise, the person will develop the ability to perceive occurrences with less personal attachment and in a more objective manner. While practicing mindfulness meditation, the patient will take a seated position with their eyes shut and concentrate on their breath to enhance their focus and attention. This process will assist in decreasing the intrusion of harmful thoughts that the individual may be battling with. While doing the exercise, different thoughts will pop up within the individual but rather than get caught up in a thought, the individual will see it as an ordinary thought no matter how real it may look and then continue focusing attention. In other words, this technique will help individuals suffering from harmful automatic thoughts to be free from unnecessary cogitation and unhealthy fixation by assisting clients to focus in the present rather than the past which cannot be changed.

2.1.7.6 Applications of CBT

Research conducted previously has provided evidence of the efficacy of CBT in managing diverse types of DD. For instance, Goldapple, Segal, Garson, Lau, Bieling, Kenedy and Mayberg (2004); Clark and Beck (2010); Lynch, Laws and McKenna (2010); and Nice (2011) reported that CBT is effective in the management of major DD, post-traumatic stress disorder, generalized anxiety disorder, panic disorder, agoraphobia, social phobia, obsessive compulsive disorder, substance abuse, attention deficit hyperactivity disorder, body dysmorphic disorder, eating disorder and personality disorders.

2.1.7.7 Benefits of CBT

The utilization of CBT is linked with numerous advantages. CBT equips individuals with helpful strategies and necessary practical skills that can be integrated into daily life routines to cope with future stress and challenges even after the expiration of the

treatment session. The therapy also assists individuals to build self-esteem by helping in the identification and solution of problems related to existential and future challenges. It is an effective therapy for coping with grief and loss, and helps depressed individuals to learn how to communicate their feelings to others by equipping them with good communication skills. CBT help people to identify, challenge and change negative thoughts that are associated with depression and assist people suffering from different mental disorders by equipping them with necessary tools to prevent relapse. In addition, CBT is very instructive in the sense that it teaches their clients rational self-counselling skills. The duration of CBT is comparatively shorter than other therapies, and the therapy can typically be completed in around 16 sessions. CBT focuses on getting better instead of feeling better, thus correcting problematic underlying assumptions and causes of problems to create long-term results.

2.1.8 Theories of depressive disorder

There are various theories upon which depressive disorder is hinged some of which are discussed below:

2.1.8.1 The Psychoanalytic Theory of depressive disorder

Freud (1917) developed the psychoanalytic theory of depression. This theory argued that depression occurs when anger is directed inward (introjections) as a result of parental loss or rejection. On this note, depression is seen as a manifestation of anger directed inward and the severe demands of the super ego. Freud differentiated between real loss, such as the passing of a loved one, and symbolic loss, like losing a job. He believed that both types of losses can trigger depression by causing the person to relive childhood memories where they felt a loss of affection or care from a significant relationship, such as their parents. However, Freud later altered this theory and asserted that internalizing loss objects is not necessarily bad and that depression simply results from an excessively overbearing conscience. Put differently, depression happens when a person's super ego or inner voice becomes overpowering. On the contrary, manic episode results from the assertion of an individual’s ego or rational mind leading to feelings of being in control. According to Freud, to prevent depression from a loss, a person should participate in the mourning process, which involves reflecting on the memories of the person who has passed away. This can help the individual to separate themselves from the deceased, thus decreasing self-directed anger. He also stated that although, it may be difficult for

individuals who are very much dependent on others for their self-esteem and as such still remain very depressed.

2.1.8.2 Learned Helplessness Theory of depressive disorder

This circumstance arises in both humans and animals who have been conditioned to anticipate and endure agony, distress, or unease without any means of getting away from it (Cherry, 2014). The theory of learned helplessness was developed by Martin Seligman (1974). According to this theory, depression results when attempts to escape certain situations by individuals is not successful and as a result, they become passive and try to cope with aversive stimuli even when there is an opportunity to escape from such. His theory was based on an experiment he conducted with dogs. In the experiment, a dog was placed in a cage that was partitioned. When the floor of the cage was electrified, the dog attempted to escape. He noticed that the dog, after multiple failed attempts, ceased trying to escape even when it had the opportunity to do so. Additionally, he observed that the dogs displayed certain indications of depression commonly seen in humans, such as inactivity, sluggishness, disinterest, and decreased appetite. Seligman thus utilised the concept of learned helplessness to clarify how depression occurs in humans. He posited that people develop a sense of helplessness when they are unable to regulate events in their lives, causing them to relinquish their efforts to alter their surroundings.

Abrahamson, Seligman, and Teasdale (1978) however revised the theory by modifying the concept of learned helplessness to focus on the process of attribution. The theory posits that some individuals are more prone to depression, and as such when confronted by negative life events, they are most likely to become depressed. The categorization of attributions can be broken down into three dimensions, according to Weiner and Rehm (1971).

Firstly, causes can be classified as either internal or external, with the event or situation being attributed to aspects of the individual, such as their abilities, personality, or effort, or external factors, such as the task, another person, or chance. Secondly, causal factors can be viewed as either stable or unstable, meaning they either persist over time, which may be linked to a person's skill or the nature of the task, or they are variable and depend on the effort invested or chance. Lastly, the attributed cause can be either global or specific, with global causes being applicable to multiple situations, and specific causes being applicable to limited areas.

The revised model postulated that individuals tend to form stable attributional styles, and that a particular style is common among those susceptible to depression. People with this behavioural pattern tend to attribute negative consequences to internal, permanent, and widespread reasons, while assigning positive occurrences to external, temporary, and particular causes. That is, they tend to hold themselves responsible when things go wrong, and they see the cause as being widespread and persistent. Conversely, they do not take credit for their successes, and instead believe that success has no bearing on future behaviour or outcomes. In essence, according to the authors' just having a negative experience is not enough to cause feelings of hopelessness or depression. Rather, they argued that people who attribute their failures to internal, permanent, and widespread reasons are more prone to depression than those who attribute their failures to external, temporary, and particular reasons. They further observed that individuals with this depressive style are more prone to making negative attributions when a significant unpleasant event happens, and by doing so, they perceive themselves as helpless. A depressive attributional style can be seen as a predisposition or risk factor for making negative attributions in response to unpleasant events. The specific nature of the attribution made will have an impact on the type of depression experienced. For instance, attributing the negative experience to oneself will influence the person's self-confidence, attributing it to a stable factor will affect how long the depression lasts, and attributing it to a global factor will impact how widespread the depression is. The intensity of the depression is not only determined by how unpleasant the event is, but also by the explanations the individual gives for it.

2.1.8.3 Self-Control Theory of depressive disorder

The self-control theory of depressive disorder addresses how individuals manage their behaviours to ensure they attain their long-term goals. The major assumption of this theory is that hopeless about long-term goals sets in during depression, thus bringing a feeling of helplessness in managing the individual’s behaviour. Behaviour targeted at the attainment of long-term goals is the first to degenerate during episodes of depression. Therefore, even though a person who is depressed may be able to fulfil the necessary tasks for daily living, they often neglect behaviours that do not have immediate consequences. Rehm (1977) therefore suggested a self-regulation theory of depression that integrated concepts from the theories of Lewinsohn, Beck, and Seligman. This

model was founded on the self-regulation structure that Kanfer had initially put forward in 1970.

Kanfer's model describes a three-stage feedback loop for controlling behaviour and achieving long-term goals. The cycle consists of self-monitoring, self-assessment, and self-reinforcement. Self-monitoring involves individuals observing and evaluating their behaviour, the antecedents that precede the behaviour, and the consequences of the behaviour. According to Kanfer, self-monitoring among individuals suffering from depression either manifest as a propensity to respond to negative life events only or the propensity to recognise the immediate consequences of the behaviour only. Self-evaluation is a process through which individuals create a perception of their growth and progress by comparison to an internal standard. Usually, such internal standards are set by adopting an externally imposed standard or by adopting standards that are more or less stringent than existing external standards. Kanfer's self-reinforcement model suggests that individuals can use principles that apply to controlling the behaviour of others to regulate their own conduct. Under self-reinforcement, conducts that contribute positively towards that achievement of a goal is rewarded while those contributing negatively are punished. This model of self-reward/self-punishment works together with external rewards and punishments from the surroundings and assists in sustaining conduct in situations where external reinforcement is not instantly accessible.

Rehm's self-control model proposes that individuals with depression display one or more of six deficits in behaviour related to self-control. The first deficit, usually referred to as self-monitoring deficit posits that, depressed individuals focus their attention mostly on negative events in their lives and pay less attention to positive life events. This deficit was described as selective attention in depression (Beck, 1972) or as the depressed individual's vigilance in anticipating aversive experience (Ferster, 1973). The second deficit is that depressed individuals selectively focus on the immediate in contrast to the delayed consequences of their behaviour. As a result, individuals experiencing depression are likely to struggle with considering anything beyond the immediate requirements when making decisions about their behaviour. Another issue is that depressed individuals have a tendency to establish inflexible criteria for self-evaluation and often strive for perfection. Consequently, the standards they set for themselves are typically more stringent than those they set for others. The fourth deficit is that, they make depressive attributions for failure and ascribe success to external factors. The fifth

deficit identified in Rehm's self-control model is that depressed individuals do not provide themselves with enough contingent rewards to maintain significant areas of behaviour. Finally, depressed individuals tend to administer excessive self-punishment, which can suppress constructive behaviour. The six deficits identified in Rehm's self-control model emerge during the self-reinforcement stage of self-regulation, partly because of inadequacies in earlier stages of self-control behaviour. Essentially, the self-control model is a vulnerability model since inadequacies in self-control abilities can render individuals prone to depression when external reinforcement is not favourable.

2.1.8.4 Beck’s Cognitive Model of depressive disorder

In 1967, Aaron Beck created the cognitive model, which suggests that an individual's biased way of obtaining and processing information contributes significantly to the incidence and continuance of depression (Beck, 1967; 1987 and 2008). This indicates that an individual's perception and interpretation of information can contribute to the development of depression. Beck suggested that hidden schemas, which are memories or ideas about stimuli, can be triggered by internal and external environmental cues and affect how incoming information is processed. These schemas direct how stimuli are perceived, arranged, and retrieved, which ultimately shapes how individuals interpret their experiences in a particular circumstance.

The way cognition is conceived (that is how people think about situations and the content of those thoughts) is an important aspect of the cognitive model. Based on this, Beck (1976) identified three levels of thinking:

Core Beliefs: This refers to firmly entrenched convictions that individuals maintain about themselves, the world, and what is yet to come.

Dysfunctional Assumptions: These are inflexible, contingent guidelines for existence that individuals embrace, which are typically impractical and unsuitable in nature.

Negative Automatic Thoughts (NAT): These are ideas that are triggered automatically in particular circumstances without any conscious effort. They usually pop up within the individual uninvited and as depression gets worse, they begin to appear more frequently. In severe cases, they fully dominate the individual’s thinking making it difficult to concentrate and do normal tasks. During depressive episodes, NATs normally focused on negative events, low self-esteem and worthlessness.

Beck also noted that depressive schemas, often characterised by negative self-referential beliefs can be triggered by adverse childhood events, such as loss of parents, childhood abuse and parental abandonment or rejection. Consequently, subsequent stressors activate such latent depressive self-referential schemas. Clark, Beck, and Alford (1999) observed that once activated, depressive schemas can modify an individual's information processing ability, leading to negative self-referential thoughts about oneself, the world, and the future, usually referred to as the cognitive triad. Consequently, individuals with such thought patterns are at risk of developing depression. Based on that, depressed individuals begin to perceive the world through a structured set of depressive schemas that skew their experiences of the cognitive triad in a negative direction. These thoughts are automatic and they pop up within the individuals to cause depression. The individuals then begin to interpret situations in an unrealistic negative manner and start viewing the world as posing challenges too difficult for them to cope with. This can lead to feelings of hopelessness about the future with such individuals believing that their worthlessness will stop their future from getting better. They also asserted that, impairment in attention, interpretation and memory will lead to activation of the depressive self-referential schemas.

Moreover, negative and pessimistic processing leads to a bias in the way depressed individuals interpret, evaluate and appraise situations. This result in depressed individuals developing schema-based dysfunctional attitudes where they view themselves as defective and see their daily lives filled with struggles (Beck, 1967). Furthermore, they assume that their present challenges or suffering will continue for an indefinite period. Kellough, Beevers, Ellis, and Wells (2008) highlighted that the activation of maladaptive attitudes heightens the chances of depressed individuals focusing solely on mood-matching stimuli. This selective focus on mood-congruent stimuli leads to the assimilation of negative emotional information and the exclusion of positive information. Therefore, Beck's cognitive theory of depression posits that experiences of childhood adversity can contribute to the establishment of depressive self-referential schemas, such as maladaptive attitudes. Moreover, stressful events can activate negative self-schemas, which can, in turn, influence information processing in the brain, resulting in a negative bias towards attention, perception, and recall.

2.1.9 Theoretical framework

The cognitive model (Beck 1967) that view depression as people's maladaptive, faulty and irrational way of thinking manifesting in form of distorted thoughts and judgement provided the theoretical framework for this study. According to the cognitive model, people's emotions, behaviour as well as their physiology are influenced by the way and manner they perceive events or situations. In other words, peoples' feelings are not determined by situations itself, but rather by the way they perceive, interpret or react to the situation (Beck 1964; Ellis, 1962). Beck pointed out three main dysfunctional schemas that dominate the cognition of depressed individuals: negative believes about the self, the world and the future, often referred to as the cognitive triad. The presence of such negative believes in an individual's cognition is an indicator of the probability that depression will occur. By implication, depressive disorder can be seen as an outcome of these negative schemas about the cognitive triad. In other words, depressed individuals mostly view themselves as hopeless, unlovable, doomed or deficient. They usually blame their unpleasant situations on their supposed physical, mental and moral predicaments. This will result in feelings of guilt, self-blaming and isolation which will further worsen their mood (Beck, Steer, Beck and Newman, 1993; Sadock, Sadock and Ruiz, 2009).

These believes are also able to shape what people pay attention to apart from their negative contents. Beck averred that depressed people selectively devote attention to what will confirm what they know already in their environment, even when evidence is suggesting otherwise, a phenomenon usually referred to as information processing error. Thus, depressed individuals always demonstrate selective attention to information to fit their negative expectations and will selectively refuse to pay attention to information suggesting otherwise. The grandness and the meaning placed on negative events are usually magnified at the expense of the meaning and grandness attached to positive events. Although, these manipulations take root unconsciously, they help to maintain the negative schemas of the depressed individuals despite contradictory evidences. As a result, even when there are evidences that their situation will be okay, they still feel miserable and hopeless about their future.

2.2 Empirical review

2.2.1 Logotherapy and depressive disorder

Depressive disorders in humans have been commonly associated with meaninglessness (Psarra and Kleftaras, 2013). Thus, logotherapy deals with issues concerning existentialism, that is, people's desire to answer questions relating to their existence and finding meaning in life with the aim of assisting people to find meaning in existence when faced with hopelessness. The psychotherapeutic technique has been effective in the treatment of several mental disorders, especially mood disorders, incurable diseases and other health related issues. Several recent studies showed that logotherapy helps depressed individuals experiencing meaninglessness by ameliorating symptoms of depression and psychological distress (Mohammadi, Fard and Heidari, 2014; Julom, and de Guzmán, 2013; Melton and Schulenberg, 2008). Similarly, Falaye and Prabo (2013) reported that logotherapy was effective in the management of sexually risky behaviours among in-school adolescents in Rivers State, Nigeria.

Arzani (2016) in an experimental study examined the efficacy of group logotherapy in reducing symptoms of depression among 60 drug addicts in a methadone treatment centre in Ghorveh (Niko Salamat), Kordestan Province, Iran in 2013. The findings demonstrate that logotherapy successfully reduced depressive symptoms among individuals with addiction. This is evidenced by the considerably lower average depression scores of the experimental group participants after the study, in comparison to those of the control group. In another study conducted by Cho (2008), logo-autobiography effectively improved feelings of meaninglessness and the mental health of wives of alcoholic husbands. Kleftaras and Katsogianni (2012) conducted a study that explored the relationship between spirituality, life purpose, and depression in individuals who have alcohol dependence. They found that there was a significant statistical correlation between spirituality and life purpose, and that these factors were connected to alcoholism and depressive symptoms.

Asagba (2016) similarly employed logotherapy in the treatment of persons suffering from substance abuse. He reported that the therapy helped clients reach a higher level of self-transcendence where they were able to rediscover meaning and orient themselves towards meaningful goals. Joshi, Marszalek, Berkel, and Hinshaw (2014) investigated the interplay between several concepts that are essential to depressive disorders and noogenic neurosis, including the desire for control, desire for enjoyment, quest for life's purpose, existence of purpose in life, feeling of emptiness in life, and disappointment. They explored four possible models to explain the relationship that exist among these

factors using structural equation modelling. According to two of the models, noogenic neurosis can occur due to an unsuccessful search for meaning while the other two models predicted an association between existential frustration, will to power and will to pleasure. In conclusion, they were able to find evidence that persistent periods of meaninglessness could lead to noogenic neurosis.

Similarly, an experimental study conducted by Masoumi, Afshari and Bahredar (2016) confirmed that group logotherapy was helpful in managing mental health issues (anxiety, depression, social and somatic dimensions) among AIDS patients treatment facilities at Shiraz University of Medical Sciences, Iran in 2014. The study demonstrated that the mental well-being of participants in the experimental group improved significantly compared to the control group, who did not receive any group-logotherapy training, after eight sessions of group logotherapy. Suyanti, Keliat, and Daulima (2018) conducted a quasi-experimental pre-test and post-test study to examine the impact of several psychotherapeutic interventions on depression and stigma among 60 Indonesian housewives living with HIV/AIDS. The study participants were randomly divided into the logotherapy and the acceptance and commitment therapy groups. According to the authors, a combination of logotherapy, acceptance and commitment therapy (ACT), and family psycho-education was successful in addressing self-stigma and depression among the participants with a significant decrease in self-stigma (p value<0.05) among the patients that received logotherapy training, ACT and family psycho-education.

There have been reports of the efficacy of logotherapy in treating depression among cancer patients and their caregivers. Delavari, Nasirian and Baezegar (2014) in a semi pilot study investigated the efficacy of logotherapy on anxiety and depression in mothers of cancer afflicted children in Shahid Sadoughi hospital in Yazd, Iran. Anxiety and depression significantly reduced after nine treatment sessions in logotherapy with the effectiveness of the therapy reported to be around 20% and 53% for anxiety and depression, respectively.

Kang, Im, Kim, Kim, Song, and Sim (2009) conducted a study to examine how logotherapy (meaning not defined in the given text) affected the spiritual well-being, suffering, and sense of meaninglessness in teenagers with terminal cancer. The results indicated that the therapy was successful in reducing the distress related to the participants' sufferings and contributed to an improvement in their feelings of

meaninglessness. Similarly, Shahabi (2016) confirmed that logotherapy positively and significantly improved the level of optimism and helped cancer patients control their emotions. Haghighi, Khodaei and Sharifzadeh (2012) also showed that group logotherapy counselling effectively reduce depression among breast cancer patients. Depression was significantly reduced in the experimental group after the intervention while symptoms of depression remain unchanged in the control group. The authors therefore recommended that logotherapy should be used to enhance the meaning in life of such patients in addition to medical treatment. Further, Robatmili, Sohrabi, Shahrak, Talepasand, Nokan and Hasani (2015) in a study of students experiencing significant levels of meaninglessness and depression in Iran reported that group 10 sessions of group logotherapy with training in creative, experiential attitudinal values led to a significant reduction in depression levels and an improvement in the participants' sense of meaning in life compared to the control group, which did not undergo these sessions.

According to Psarraa and Kleftaras (2013), 511 individuals with various disabilities showed a correlation between depression and feeling a lack of meaning. This was linked to a weaker sense of purpose, coherence, sense of control, death acceptance, and a reduced drive to achieve goals. The strength of this connection was affected by the level of existential emptiness experienced by the individuals. The authors reported that, the more depressed a person with physical disability, the lower the level of positive adaptation. Similarly, Julom and de Guzmán (2013) reported that logotherapy effectively improved feelings of meaninglessness among patients of paralysis.

2.2.2 CBT and depressive disorder

One of the main assumptions of CBT is that the onset of depressive disorder is significantly influenced by the interpretation that people give to negative life events as propounded by Beck. CBT has therefore been shown by several recent studies as the most effective and empirically reviewed psychotherapy for the treatment of depression focusing majorly on the interaction between peoples thought, feelings and behaviour (Cuijipers, Berking, Anderson, Quigley, Kleiboer, and Dobson, 2013; Beck, 2011; Marian and Filimon, 2010; Cuijipers, Straten, Anderson and Oppen, 2008). Furthermore, there are evidences validating the success of CBT in the treatment of depressive symptoms among individuals with life threatening medical conditions such as chronic heart diseases, cancer, AIDS, multiple sclerosis and stroke (Beltman, Voshaar and Speckens, 2010).

Adina, Maritim, Sindabi and Disiye (2017) examined the effect of CBT on depressive symptoms among fifty-three HIV-infected outpatients in Kenya randomly assigned to the experimental group (n=26) that received a 2 hours weekly session of CBT for six weeks and control group (n=27). Results after two months post-treatment follow-up revealed that CBT effectively reduced depressive symptoms as well as increased the general functioning of the study participants. Similarly, Raheem and Adeniyi (2016) recently carried out a study to investigate effect of cognitive therapy on psychological distress management among adolescents with HIV/AIDS infected parents in Oyo State, Nigeria. The results of their study also demonstrated that cognitive therapy is effectively reduced psychological distress among participants in the study.

Sockol (2015), conducted a thorough analysis of 40 studies that explored the effectiveness of CBT in preventing and treating perinatal depression during the first year postpartum and pregnancy. Results showed that CBT interventions significantly reduced the symptoms of depression compared to controls in both treatment and prevention studies with significantly reduced level of postpartum depression among individuals who received CBT treatment compared with the controls. Furthermore, treatments provided after childbirth were found to be more efficient compared to those given before childbirth. The results further revealed that in prevention trials, the treatment that were administered individually were more effective than the group interventions. Findings provided compelling proof that CBT was a successful approach in addressing and preventing depression in the perinatal phase.

Ressello and Jimenez-Chafey (2006) also supported the effectiveness of CBT in treating depression in teenagers with diabetes. The study involved eleven adolescents aged between 13 to 16 years old who received group-CBT intervention in twelve sessions. The study found that by the end of the CBT intervention, there was a significant decrease in depressive symptoms, self-concept, and diabetes self-efficacy, and a decrease in anxiety symptoms and feelings of hopelessness among the participants. However, no significant changes were observed in glycemic control and self-care behaviors. In another study, Seyed-Reza, Norzarina and Kimura (2015) examined the benefits of group-CBT on distress caused by diagnosis with diabetes and glycemic control in patients with Type 2 diabetes. Group-CBT significantly improved diabetes distress and the level of blood sugar in the participants. There was however no significant difference in the blood sugar level of participants in the control group post-test. Further, Azizi,

Babaei and Mousavi (2018) hypothesized that guided imagery technique of CBT effectively reduced depression in Type 2 diabetes patients. Bhat (2017) also reported that CBT techniques such as Socratic questioning, imagery, guided discovery, role playing, behavioural experiments etc used for the treatment of depressive symptoms are having significant effect in changing the thought pattern as well as the distortive thinking of individuals suffering from depressive disorders.

Moosavi, Kafi, Haghari, Ofoghi, Atashkar and Abolhgasemi (2012) compared the efficacy of CBT and logotherapy in reducing depressive symptoms in men aged 65 to 85 years residing in nursing homes. The participants were assigned randomly to one of three groups: two experimental groups and one control group. The experimental groups underwent ten sessions of CBT and logotherapy, respectively, with each session lasting 75 minutes per week. The 15-item Geriatric Depression Scale was used to evaluate the participants' depressive symptoms before and after the interventions. Result showed that both CBT and logotherapy reduced symptoms of depression being particularly effective in reducing negative spontaneous thoughts, standard of life, psychological functioning and symptoms of depression among participants. CBT however had more significant positive effect on depression among the experimental group than the control group.

CBT has also been confirmed by other studies as an efficacious and cost-effective psychotherapy for the treatment of depression in cases where antidepressants have failed. Thus, Wiles, Thomas, Turner, Garfield, Kounali, Campbell, Kessler, kuyken, Lewis, Morrison, Williams, Peters and Hollingghurst (2016) recommended that cases of depression that have failed with the use of antidepressants be referred for CBT intervention. This is predicated on the fact that during CBT sessions, patients are taught skills that will assist them in managing their feelings, with the added potential that benefits derivable from the technique could be sustainable beyond the expiration of the therapeutic sessions. Similarly, Hollinghurst, Carroll, Abel, Campbell, Garland, Jerrom, Kessler, Kuyken, Morrison, Ridgway, Thomas, Turner, Williams, Peters, Lewis and Wiles (2014) reported that CBT combined with usual care is cost effective among depressed patients that were unresponsive to antidepressants.

In addition, other studies have proven that CBT techniques such as relaxation training, problem solving training, cognitive restructuring, and behavioural activation are effective in reducing pain among individuals suffering from chronic pain. The reduction

in pain was traceable to a reduction in mood, anxiety and sleep disorders usually associated with pain (Alsaadi, McAuley, Hush and Maher, 2011). Turner and Romano (2001) stated that the objective of CBT is to alleviate both physical discomfort and the emotional distress that often accompanies it. CBT aims to help individuals minimise negative behaviour linked to pain, recognise and modify dysfunctional thoughts and beliefs, and enhance their self-confidence in managing pain. However, Williams, Eccleston and Morley (2012) in a review of forty-two studies investigating psychotherapies for pain management reported that CBT results in minor to moderate improvement in pain and the disability associated with chronic pain, it is however capable of modifying the mood and reducing exaggerated thoughts about pain in patients experiencing chronic pain. Similarly, King (2011), Palemo, Eccleston, Lewandowski, Williams and Morley (2010) confirmed that CBT is efficacious in alleviating chronic pain among children and adolescents. Aggarwal, Lovell, Peters, Javidi, Joughin and Goldthorpe (2011) also reported that CBT either alone or with biofeedback effectively improved the intensity of pain, depression and pain-related activity interference.

Brenninkmeije, Lagerveld, Blonk, Schaufel and Wijngaard-de Meij (2018) recently investigated how effective is work-focused CBT in the management of absenteeism-related common mental disorders among employees with aim of finding out who benefit most from a CBT-based intervention that aims to enhance return to work. Findings showed that work-focused CBT resulted in full return to work among employees with high self-efficacy which did not depend on baseline depressive symptom or anxiety.

Puig and Encinas (2012) examined the effectiveness of CBT in the management of major depressive disorders in a university psychology clinic with a single group of 69 participants using a quasi-experimental approach. Results indicated that 55.1% of the participants recorded clinically significant improvement after therapy. Similarly, Feng, Chu, Chen, Chang, Chen, Cho, Chang and Chou (2012) reported that cognitive behavioural group therapy significantly reduced depression among study participants which lasted up till six months compared to the control group. Hans and Hiller (2013) equally conducted a study on the effectiveness of, and dropout from outpatient CBT session for adults with unipolar depression. They discovered that outpatient CBT effectively reduced depression among participants that completed the therapy and the intention-to-treat group (ITT). Moderate to large post treatment effect sizes were found

for secondary outcomes and post treatment gains lasted till 6 months after completion of intervention.

A recent study by Zhang, Zhang, Zhang, Jin and Zheng (2018) similarly confirmed that CBT effectively reduced the risk of a relapse of depression for patients of major depressive disorders in remission. It has also been reported that the therapy is effective in the treatment of anxiety and depression in primary care (Twomey, Reilly and Byrne, 2015). Thimm and Antosen (2014) equally examined the effectiveness of CBT for the treatment of depression in routine practice. They reported that CBT significantly reduced depression level among the study participants. They further noted that the effect sizes at post-treatment were substantial. For example, 44% of the participants showed a remarkable improvement in depression, another 30% recovered, while at follow-up, there was an increase in percentage to 57% and 40% respectively.

2.2.3 Gender and depressive disorder

Research indicates that the occurrence of major depression is higher in females than in males, with estimates suggesting that the prevalence among females is 1.5 to 3 times greater than among males. (Cyranowski, Frank, Young, et al. 2000; Kesller, 2003; Burt, 2002; Ford and Erlinger, 2004; Patten, Wang, Williams, 2006; Seedat, Scott, Angermeyer, 2009). This is attributable to factors such as socioeconomic status, abuse, educational background and income (Rai, Zitko, Jones et al., 2013), poverty, different forms of abuse and harassment as well as the stress associated with limited social power and status in comparison to men (Nolen-Hoeksema and Hilt 2009). It has also been shown that the factors that cause depression among women are different from those of men. Women generally internalise the symptoms of depression while men generally externalise the symptoms (Bartels, Cacioppo, van Beijsterveldt, 2013). Kendler and Gardner (2014) reported that women are more sensitive issues relating to interpersonal relationships while men are more sensitive to issues related to external career and goals. They further noted that women often suffer from depression associated with specific illnesses such as premenstrual dysphoric disorders, postpartum disorders, postmenopausal disorders and anxiety often associated with hormonal fluctuations among the female gender. In other words, the higher prevalence of depression among women could also be linked to hormonal changes that usually occur during puberty, premenstrual periods, during pregnancy and perimenopause.

Picco, Subramaniam, Abdin, Vaingankar and Chong (2017) carried out a study to find out whether gender-specific differences exist in Singaporean adult residents with respect to the prevalence and correlates of MDD. It was discovered that the occurrence rate of MDD was greater among females (7.2%) compared to males (4.3%). Furthermore, MDD was found to be more common in both divorced men and women and those who have experienced the loss of a partner than in those who are single. Similarly, Lenzoa, Toffleb, Tripodia and Quattropani (2016) compared meta-cognitions among gender by exploring the correlation between meta- cognition and different constructs including chronic anxiety, depression, and obsessive-compulsive symptoms among 32 males and 32 females. The results demonstrated a positive relationship between dysfunctional meta-cognition beliefs and other constructs and gender.

Several experimental studies have proved that men belonging to different age grades, ethnic groups and social background display nonchalant attitude towards seeking professional help when depressed or when suffering from other depression-related psychological issues such as substance abuse, stress or physical disabilities (Husaini, Moore and Cain, 1994;). Cochran and Rabinowitz (2000) also pointed out that men hardly seek mental health services when compared with women. While symptoms of depression such as crying, change of appetite and weight gain or loss are easily displayed by females, males often resort to alcohols, drugs and in extreme cases, suicide (Health Canada, 2003).

On the other hand, Zartoloudi (2012) in his own argument opined that even though depressive illness is mostly associated with women, men are also vulnerable to depression which often leads to critical outcomes if left untreated. In his opinion, he believed that if insufficient attention is given to both the direct and indirect impacts of depression on men, the projection that depression would be the second most prevalent reason for worldwide disability by 2020 would be an underestimation. Frost, Hoyt, Chung and Adam (2015) examined the contribution of gender and depressive symptoms to the emotional experiences of youths between the ages of 11 to 18 from Sloan 500 Family Study. They found no gender difference exists in depression scores of the participants. Further, there was an independent relationship between emotional experiences of the adolescents and each of depressive symptoms and gender. The study also reported that strong negative emotions among participants can be attributed to interpersonal factors.

Godwin and Gotlib (2004) examined the type of relationship existing between gender and the big five personality factors and the role played by the factors in the relationship between gender and depression in US adults. Their findings revealed that neuroticism contributed significantly to the high prevalence of depression among females. More so, Brebner (2003) hypothesized that females are usually more emotional in comparison with males especially in the display of emotional reactions such as anger, happiness, contentment, sadness and affections. Although, the increase in emotional display may serve as a source of protection, it could also result in depression especially in situations where an individual experience negative emotions than positive ones. Shih, Eberhart, Hammen, and Brennan (2006) observed that the reason for the greater occurrence of depression among females is linked to their greater sensitivity to interpersonal life stressors compared to males.

There are proofs that females are more committed to friendship and social relationships than males (Rose and Rudolph, 2006). Thus, Charbonneau, Mezulis, and Hyde (2009) found that adolescent girls aged 15 showed stronger emotional responses to stressful interpersonal events compared to their male peers. The correlation between stressful life events and depression in adolescents is moderated by this heightened emotional response. Further studies have revealed that while females are usually more expressive in terms of their emotional symptoms during diagnosis, males on the other hand talk more about physical symptoms (Danielson and Johansson, 2005). Moreover, while females tend to often express feelings of guilt and shame, males gravitate more towards expressing aggression and anger, suggesting that there is a difference in how each gender experience depression. Further, unlike women who are usually expressive when facing challenges, studies have shown that depressed men often pretend to be alright by using avoidance mechanism as a coping technique. Such avoidance mechanisms of coping include engaging in activities that can distract them, denial, social diversion, behavioural disengagement and alcoholism or drug abuse. In addition, they also engage in compulsive activities such as gambling, indulging in sexual activities, spending, excessive exercising or anything that will take their minds off their current challenges (Bonin, McCreary and Sadava, 2000; Real, 1997). In other words, unlike non-depressed individuals who engage in such activities for fun, men experiencing depression rely on such activities as a way of gaining relief from the distressing situations and to rectify inadequate self-esteem. Further, according to Schuch, Roest, Nolen, Penninx and de

Jonge (2014), single and recurrent major depressive disorder occurs in women at a younger age than in men with a larger percentage of depressed men however suffering from co-morbid alcohol dependence or abuse.

2.2.4 Socioeconomic status and depressive disorder

Various studies have confirmed that SES is a contributing factor to the development and continuation of depressive disorder. Previous studies have established a strong link between SES and depressive disorder (Andrade, Caraveo-Anduaga, Berglund, et al 2000; Jo, Yim, Bang, Lee, Jun, Choi, 2011; Lorant, Deliege, Eaton, Robert, Phillipot, and Brugha, 2003) found that there was a notable association between depression and SES in three European nations. In a similar study of 133 African-American college students, Salami and Walker (2014) found a partial relationship between SES of participants and depressive symptoms. Higher SES was linked to depressive symptoms, anxiety and increased level of hopelessness. In addition, the result further showed that hopelessness was mediated by the relationship between the SES of the participants and anxiety symptoms. Higher rates of depressive symptoms and anxiety which impact negatively on emotional development as well as future educational and occupational attainment has also been linked to low socioeconomic status among youths (Lemstra, Neudorf, D'Arcy, Kunst, Warren and Bennett, 2008).

Wang, Schmitz and Dewa (2009) similarly found that low education and financial strain increased the risk of major depressive disorder among participants who have been employed for 12 months in Canada. But lower risk was reported for those with low education who have been unemployed in the past 12 months, compared with individuals with higher level of education. According to them, working-class men with low household income and non-working individuals with low personal income had a higher prevalence of major depressive disorder.

Maselko *et al.* (2018) carried out a study in an LMIC setting to investigate the relationship between indicators of SES and prenatal depression in pregnant women. They collected data on various SES indicators, including assets, education, food insecurity, debt, and depressive symptoms, from 1154 pregnant women living in rural Pakistan. The study found that possessing fewer assets, experiencing food insecurity, and having household debts were independently associated with more severe depressive symptoms. Lorant, Croux, Weich Deliege (2007) therefore concluded that significant

relationship exists between worsening SES and depression. Doan (2011), similarly conducted a study on Vietnamese adults to explore the link between SES and depression. The study discovered that individuals with lower education, occupational status, and income reported more depression, indicating an inverse relationship between SES and depression.

In a non-systematic narrative review of social determinants of mental health, Silva, Loureiro, and Cardoso (2016), reported that several factors were independently associated with poorer mental health outcomes. These factors included low income, being single, lack of social support, female gender, low education level, low socioeconomic status, unemployment, financial difficulties, and perceived discrimination. Similarly, Charis, Tan, Gunapal, Wong and Heng (2014) concluded that lower social support as well as low SES significantly increased the odds of DS among the elderly. Equally, Huurre, Eerola, Rahkonen and Aro (2007), reported that poor social support had significant impact on depression among individuals with low SES.

Further, Klijs, Kibele, Ellwardt, Zuidersma, Stolk, Wittek, Mendes de Loen and Smidt (2016) investigated the relationship between neighbourhood income and major depressive episodes. The results indicated that living in low-income neighbourhood has a relationship with major depressive episodes. The correlation between the two variables was partly attributed to chronic illnesses, lifestyle choices, stress, and limited social involvement. Similarly, several studies have reported that individuals living in neighbourhoods associated with lower SES are at a greater risk depression (Annequin, Weill, Thomas, Chaix, 2015; Everson-Rose, Skarupski, Barnes, Beck, Evans, Mendes de Leon, 2011; Galea, Ahern, Nandi, Tracy, Beard and Vlahov, 2007).

Similar to the context of the present study, Yeneabat, Bedaso and Amare (2017) examined the factors associated with depressive symptoms among PLWHA attending antiretroviral clinics in Ethiopia. They found that 76.7% of 390 participants have depressive symptoms which ranged from low to moderate to high. The highest prevalence of depression was found among individuals with food insecurity. They therefore suggested that both government and NGOs should assist PLWHA in order to encourage their involvement in income generating ventures. A similar study carried out in Ilorin, Nigeria by Shittu, Issa, Olanrewaju, Mahmoud, Odeigah and Sule (2014) found out that income was the major socioeconomic determinant of depression among

PLWHA. Their result further revealed that, majority of the participants had low social cohesion and have experienced several negative events and those with low educational level suffered more from depressive disorders. Likewise, low average monthly income predicted the likely occurrence of depression among caregivers of HIV-positive children in Calabar, Nigeria (Ochigbo, Torty and Oparah, 2018). Lwidiko, Kibusi, Nyundo, Bonaventura and Mpondo (2018) similarly reported that childhood deprivation was significantly associated with depressive symptoms among children and adolescents in Southern Tanzania.

Several studies have also shown that race may co-moderate the effects of SES on depression. Hudson, Neighbours, Geronimus and Jackson (2012) assessed how multiple SES indicators relate to episodes of major depression among Black Americans in the US. They found out that household income and unemployment were significant predictors of a likely occurrence of major depressive episodes among Black American men, while major depressive episodes were inversely related to household income among females. Lower depressive symptoms and psychological distress were however observed among African-American adults with higher educational attainment by Assari (2018). The author also found that the interaction between gender and educational attainment was significant as higher educational attainment strongly protected African-American females against depressive symptoms and psychological distress compared to their male counterparts. Previous studies have also shown that African-American men with high socioeconomic status have an increased risk of experiencing depression, which is consistent with these findings.

Several studies have reported that among black individuals, particularly males, higher SES can increase the risk of depression and suicide (Stringhini, Berkman, Dugravot, Ferrie, Marmot, Kivimaki and Singh-Manoux, 2012; Hudson, Neighbors, Geronimus and Jackson, 2012; Assari, 2015; Assari and Caldwell, 2017). Similarly, Assari (2017), reported that family income positively correlated with odds of major depressive disorder. The study particularly found that among black males, higher family was related to higher risk of depression. This has been attributed to various factors, including structural racism, as well as the social, psychological, and physiological burdens of upward social mobility. These challenges were found to be more significant for Black men compared to their White counterparts. In another study, Assari, Gibbon and Simons (2018) further showed that the association between higher income and a higher

prevalence of depressive symptoms occurs mostly in white compared to black communities. In essence, geographic location and SES may be associated with depressive symptoms in black youths with high income probably due to discrimination against blacks by whites. They therefore suggested the need to reduce discrimination against blacks in the white dominated communities. No association was also found between depression, level of education and income among PLWHA in Uttar Pradesh, India (Rai and Verma, 2015).

2.2.5 Conceptual model for the study

The conceptual model of the present study is structured in such a way that it illustrates the effects of the interventions in treating depression among stigmatised PLWHA (Fig 2.1). From the model, logotherapy and CBT are the two treatment packages and are also the independent variables that will be manipulated to ascertain their effects on depressive disorder which is the dependent variable. The study's outcome can be influenced by two types of intervening variables, namely primary and secondary variables. Internal factors intrinsic to the participants such as self-esteem, self-confidence, self-worth, hopelessness, gender and age, are constitute the primary variables while the secondary intervening variables are external factors that can impact the results of a study, such as financial challenges, family support, poverty, unemployment, social support, socioeconomic status). The study will however concentrate on gender and SES as the moderating variables. This is because evidence has shown that the likelihood of poor health outcomes, lower life expectancy and chronic health conditions among is higher among low SES individuals compared with people of higher SES. Additionally, low SES individuals often suffer poor access to health care services related to their inability to afford the cost of such services (Wada, Higuchi and Smith, 2015).

In addition, various studies have presented evidence indicating that the occurrence of major depression is more prevalent among females compared to males, with estimates ranging from 1.5 to 3 times higher (Cyranowski, Frank, Young et al, 2000; Keslller, 2003; Burt, 2002; Ford and Erlinger, 2004; Patten, Wang Williams, 2006; Seedat, Scott and Angermeyer, 2009). Shih, Eberhart Hammen and Brennan (2006) similarly stated that the higher prevalence of major depression among females compared to males may be due to the fact that females have a greater emotional response to interpersonal life stressors than males.

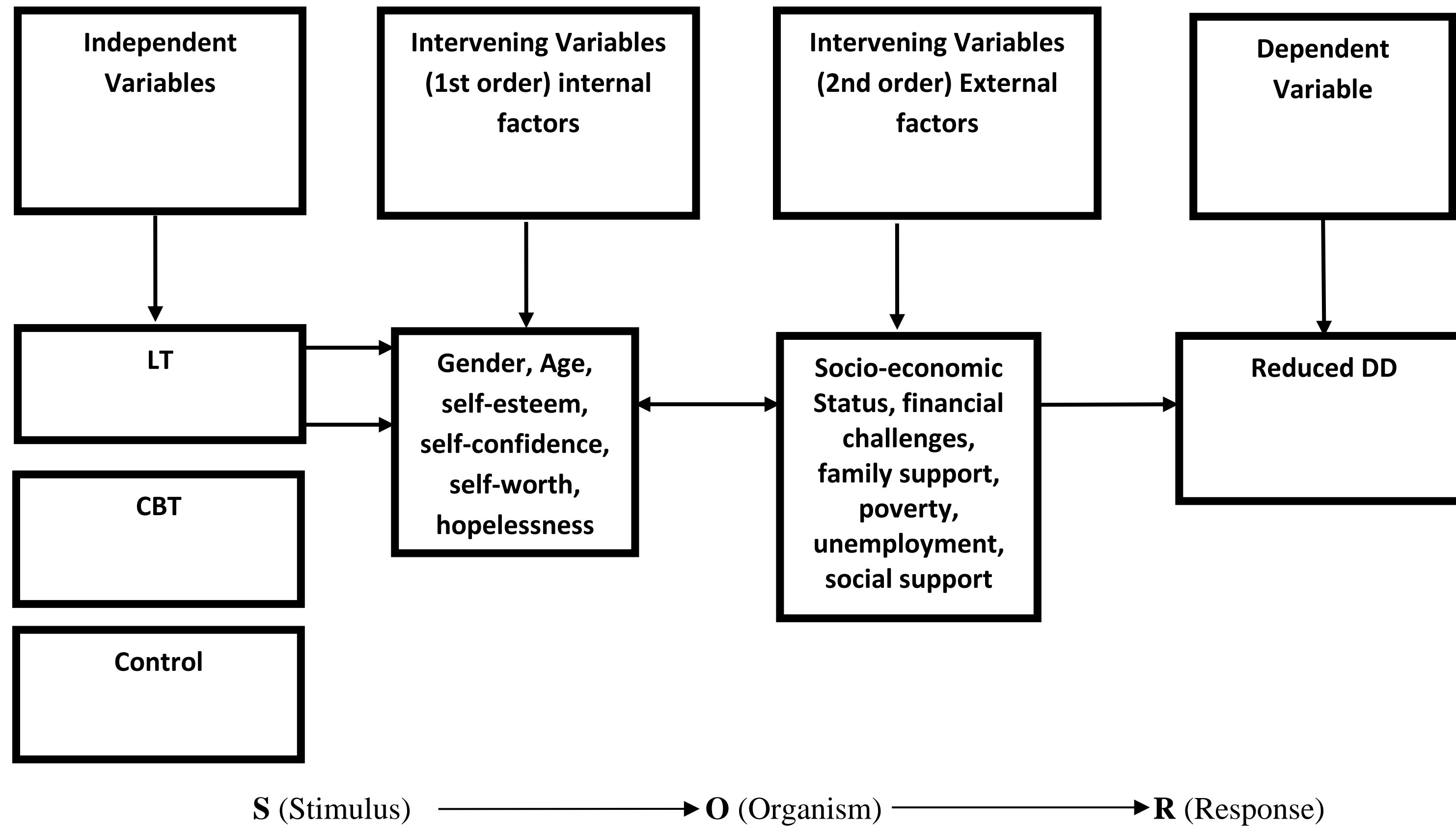

Fig 2.1 Conceptual Model for this Study. Source: (Researcher, 2021)

CHAPTER THREE
METHODOLOGY

This chapter provides a comprehensive description of the methodology used in the study, including research design, study population, sampling procedures, instrumentation, study procedures, summary of activities in the experimental groups, and data analysis.

3.1 Design

The mixed methods design which includes both quantitative and qualitative method of data collection was adopted for the study. The study utilised a quantitative method, specifically a pre-test, post-test, control group quasi-experimental design with a 3x2x3 factorial matrix as shown in Table 3.1. The factorial matrix consisted of two treatment groups labelled A1 and A2 and control group labelled A3. Group A1 are the experimental subjects that received LT treatment and Group A2 received CBT. The first column consists of the experimental and control groups. Participants gender, represented as B1 and B2 for males and females, respectively, is presented in the second column. The participants SES (second moderating variable) for each gender is presented in three columns under each gender represented by C1, C2 and C3 for high, moderate and low SES, respectively (Table 3.1). The Focus Group Discussion was used to collect qualitative data and the response of participants were content analysed.

3.2 Study population

The study population is made up of 60 PLWHA who were stigmatised, experiencing depression and accessing antiretroviral therapy in selected HIV-care facilities (Clinics) in Oyo State, Nigeria. There are 42 registered HIV facilities in Oyo State where HIV infected individuals go for treatment, but the ones selected for this study were OLA Catholic Hospital, Oluyoro, Ibadan, Adeoyo State Hospital, Yemetu, Ibadan and State Hospital, Oyo, all in Oyo State, Nigeria.

3.3 Sample and sampling procedure

The HIV-care facilities used for the study were selected based on specific characteristics of the study participants who were stigmatised and experiencing depression due to their HIV status using purposive sampling. Fifty (50) prospective participants were screened

Table 3.1: Study design for the treatment of depressive disorder among the study participants

Therapeutic Techniques	Gender						
	Males (B1)			Females (B2)			
	High SES (C1)	Moderate SES (C2)	Low SES (C3)	High SES (C1)	Moderate SES (C2)	Low SES (C3)	
LT(A1)	A1B1C1 n=2	A1B1C2 n=3	A1B1C3 n=2	A1B2C1 n=2	A1B2C2 n=4	A1B2C3 n=9	n=20
CBT (A2)	A2B1C1 n=0	A2B1C2 n=0	A2B1C3 n=0	A2B2C1 n=2	A2B2C2 n=5	A2B2C3 n=13	n=20
Control (A3)	A3B1C1 n=1	A3B1C2 n=2	A3B1C3 n=1	A3B2C1 n=5	A3B2C2 n=6	A3B2C3 n=5	n=20
Total	n=3	n=5	n=3	n=9	n=15	n=25	n=60

Legend: LT: Logotherapy; CBT: Cognitive Behavioural Therapy; SES: Socioeconomic Status

from each of the study facilities to identify those experiencing stigmatisation and showing depressive symptoms. However, the final sample consisted of sixty (60) participants who were willing to participate in the study who were selected using random sampling. The 60 participants are made of 20 participants each from the three facilities where the study was carried out.

3. 4 Inclusion criteria

Study participants were selected based on the characteristics listed below

- Participants must be PLWHA receiving ART from the HIV Facility
- Participants who experienced stigmatisation and depression as a result of their HIV positive status.
- Participants that were willing to be part of the study.

3.5 Instrumentation

The instruments used for the study are listed below:

Berger HIV stigmatisation scale (Screening Instrument)

Berger HIV stigmatisation scale was adapted for use by the researcher to screen for stigmatisation among PLWHA. The instrument was developed by Berger, Ferrans and Lashley (2001). While the original instrument consists of 40 items, the adapted instrument will consist of 24 items. The instrument measures four components of perceived HIV-related stigma among PLWHA such as personalised or enacted stigma, disclosure concerns, public attitude concerns and negative self-image. This tool has a well-established content validity, and in general, Cronbach's alpha has been found to be acceptable, at a level above 0.70. The instrument consists of 24 questions/statements related to HIV stigma rated on a four-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree). Subscale scores were generated by adding the individual scores for each item under each subscale. Participants that scored ≥40 in the screening were selected for the study. The level of perceived stigma is directly proportional to the total score obtained. In other to confirm culture compatibility of the scale, the scale was revalidated for this study and a Cronbach alpha value of 0.80 was obtained.

Hospital anxiety and depression scale (HADS) (Screening Instrument)

The HADS was used to screen for depressive disorder among PLWHA in the study. The scale was developed by Sigmond and Snaith (1983). The instrument consists of items addressing anxiety and depressions and is used as a screening tool for symptoms of

depression and anxiety. The items from this instrument that pertained to depression were selected for the study. The scoring system ranges from 0 to 21, with higher scores indicating higher levels of distress. The response format of the questionnaire is rated from 0 to 3. Participants who scored ≥8 were selected for the study. The scale has a Cronbach's alpha of 0.73 for anxiety and 0.78 for depression. In other to confirm culture compatibility of the scale, the researcher revalidated the scale and Cronbach alpha value of 0.75 was obtained.

Beck depression inventory (BDI)

The BDI was the main instrument that was administered on the experimental and control groups after the screening instrument had been used. It was used to prevent sensitisation arising from using HADS as instrument. Beck developed the BDI in 1961 to measure characteristic attitudes and depressive symptoms. The BDI is a self-report rating inventory consisting of 21 items. Different forms of the BDI have been developed over time, including card form, computerized form, the 13-item form, and the more recent BDI-II developed by Beck, Steer and Brown (1996). Each item was rated on a 4-point Likert-scale, ranging from 1 (strongly disagree) to 4 (strongly agree). Participants who scored ≥21 were selected for the study. It has an internal consistency range of 0.73 to 0.92 with a mean of 0.86. In other to confirm culture compatibility of the scale, the researcher revalidated the scale and Cronbach alpha value of 0.70 was obtained.

Socioeconomic status scale

Various indices of SES of the participants were measured by the socioeconomic status scale (Fehintola, 2020). The instrument has a Cronbach alpha value of 0.86 and contain six major items namely: type of occupation, level of education, income level, level of independence, types of residence as well as household possessions. The Cronbach alpha value of 0.86 was obtained on revalidation before use in this study.

3.6 Procedure for data collection

An introduction letter and request for consent to carry out the study issued by the Department was submitted to the Principal Investigators and Directors of the various facilities that were used for the research. An ethical approval was also obtained from the University of Ibadan/University College Hospital (UCH), Ibadan Ethical Committee with approval number UI/EC/21/0122, the Ministry of Health, Oyo State, Nigeria with approval number AD13/479/4235, and from OLA Catholic Hospital, Ibadan, Nigeria with approval number OCH/EC/21/13. Two assistants were recruited and trained to

assist in the study. The Stigmatisation Scale and HADS were used as instrument to identify participants experiencing stigmatisation and are having depressive symptoms. Among the 50 participants screened at each facility, 20 participants each who indicated their willingness to participate in the study were eventually used for the study. A Focused Group Discussion (FGD) was carried out by the researcher among the participants during the training session. Before the intervention, both the experimental and control groups were administered with the BDI and SES scale to assess their depression levels and socioeconomic status. At the treatment phase, each of the experimental groups were taken through nine sessions of logotherapy and CBT, respectively over eight weeks with each session lasting one hour, the control group did receive any treatment. Only the BDI was however repeated for all the groups in the study post-test. This was done to elicit their responses if there was improvement in their depressive symptoms after the application of the psychological interventions

3.7 Summary of the treatment package

Experimental Group 1

Treatment objective: To reassure participants (PLWHA) that irrespective of their affliction with an incurable disease that seems hopeless, they can still find meaning in life and achieve their various goals in life.

Session 1: Sharing of the goals and objectives of the treatment, roles of the participants and the researcher and the administration of Berger Stigmatisation Scale and HADS to select study participants and acquire pre-treatment assessment scores.

Session 2: Explanation on causes and symptoms of depressive disorder, and its impacts on the psychological wellbeing of patients, as well as potential ameliorative effects of logotherapy on depressive symptom, especially among PLWHA.

Session 3: Explanation of freedom of will, will to meaning and meaning in life, the three rudimentary principles of logotherapy.

Session 4: Training on creative values, experiential values and attitudinal values.

Session 5: Discussion on the technique of dereflection with participants.

Session 6: Discussion on the technique of paradoxical intention.

Session 7: Training on attitudinal modification and the grandness of positive thinking.

Session 8: Discussion on Socratic questioning.

Session 9: Recap of previous sessions activities and administration of instrument for post-treatment assessment scores and conclusion.

Experimental Group 2: (CBT)

Purpose of the Therapy: CBT simply aims at helping participants employ healthy and positive thoughts to counter negative thoughts.

Session 1: Sharing of the goals and objectives of the treatment, roles of the participants and the researcher and the administration of Berger Stigmatisation Scale and HADS to select study participants and acquire pre-treatment assessment scores.

Session 2: Explanation on causes and symptoms of depressive disorder, and its impacts on the psychological wellbeing of patients, as well as potential ameliorative effects of CBT in the management of depressive symptom, especially among PLWHA.

Session 3: Explanation of different types of cognitive distortions.

Session 4: Training on identification and evaluation of distorted thinking and negative automatic thoughts.

Session 5: Training on the use of thought records or journaling for recording negative thoughts.

Session 6: Training on the use of cognitive restructuring for modification of maladaptive thoughts.

Session 7: Training on pleasant activity scheduling.

Session 8: Training on mindfulness meditation

Session 9: Recap of previous sessions activities and administration of instrument for post-treatment assessment scores and conclusion.

3.8 Control of Extraneous Variables

These are variables that the researcher did not put into consideration but which came into play by chance. If these variables are not checkmate, they could mar the results of the experiment. Therefore, the researcher moderated the two that were germane and could obscure the results of the experiment from being clearly seen: gender and socioeconomic status. The effects of such variables were guided against through appropriate randomisation of study participants into the two experimental and the control groups. To control for extraneous variables, the study kept strictly to the inclusion criteria, applied the 3x2x3 factorial matrix design, and employed the Analysis of Covariance (ANCOVA).

3.9 Data Analysis

To determine the main effects of the independent and moderating variables on the dependent variable, the collected data from each group's responses were analysed using

ANCOVA at a $\alpha_{0.05}$. Scheffe Post-hoc analysis was also caried out to ascertain the weight of the mean scores of members of each group. The quantitative data were complimented by data from Focus Group Discussion which were content analysed.

CHAPTER FOUR

RESULTS AND DISCUSSION

The findings of this study and the discussion of those findings are presented in this chapter. The presentation of the results and their discussion as well as the focused group discussion are based on the seven hypotheses tested in the study.

4.1.1 Hypothesis One: There is no significant main effect of logotherapy and CBT on depressive disorder among stigmatised PLWHA.

To test this hypothesis, the post-test scores of the participants on the depressive symptoms of stigmatised PLWHA was analysed by ANCOVA with the pre-test scores from BDI and SES as covariates to establish whether the differences between the pre- and post-experimental scores are statistically significant. The summary of the analysis is presented in Table 4.1.

The analysis showed that the main effect of treatment significantly reduced depressive disorder amongst the participants ($F_{2,42} = 31.554$; $P < 0.05$, $\tilde{\eta} = 0.600$). There is significant difference in the mean scores pre- and post-test, showing that symptoms of depressive disorder was reduced among participants in the logotherapy and CBT groups compared to the control group. Hence hypothesis one was rejected statistically. Therefore, it is concluded that there is significant main effect of logotherapy and CBT in reducing depressive symptom among stigmatised PLWHA enrolled in this study. By implication, both logotherapy and CBT were effective in reducing depressive symptoms among stigmatised PLWHA.

To further probe the level of reduction of the severity of depressive symptoms among participants in the three groups (Logotherapy, CBT and Control), the direction of the differences was ascertained and the magnitude of the mean scores of the participants in each of the treatments and control groups were determined using the Scheffe post-hoc analysis. The results were presented in Table 4.2.

As shown in Table 4.2, the mean score of participants exposed to CBT and logotherapy were significantly different from those in the Control group. However, while CBT is better than logotherapy in ameliorating depressive symptoms among the study participants, the difference in the mean scores of the participants exposed to CBT and logotherapy is not significant suggesting that the differences in their effects in reducing the depressive disorder among stigmatised PLWHA is not statistically significant.

Similar to the findings of this study, Moosavi, Kafi, Haghari, Atashkar and Abolhgasemi (2012) found that both CBT and logotherapy reduced symptoms of depression and were effective in reducing negative spontaneous thoughts as well as increased the standard of life and psychological functioning of depressed aged men inhabiting nursing homes in Iran. Further, their study also confirmed that CBT had a better impact in reducing depression among their study participants when compared to logotherapy similar to the findings of this study. The reduction in the symptoms of depression among the study participants by the two psychotherapies as observed in this study is not surprising as both logotherapy and CBT shared many similarities and a high degree of compatibility (Ameli, 2016). Both techniques lay emphasis on behavioural change through modification of internal maladaptive attitudes, focuses on resolving present issues and uses active, participatory and collaborative techniques of guided discovery led by the therapist without imposing personal views of reason and meaning on the patient (Ameli, 2016). Thus, Frankl (2000) in comparing both psychotherapies pointed out that behaviourism (CBT) is a therapy of reactions while logotherapy goes beyond behaviourism without contradicting it by focusing on actions. Therefore, Lukas (2006, in Ameli, 2016) recommended that future applications should focus on a combination of both psychotherapeutic techniques.

Adina, Maritim, Sindabi and Disiye (2017) similarly found that CBT effectively reduced depressive symptoms as well as increased the general functioning of HIV infected out-patients in a Kenyan Hospital. A recent study by Namira, Tuapattinaja and Hasnida (2020) also found that Group CBT effectively improved the standard of life of PLWHA which by implication, led to a reduction in depressive symptoms among these patients. Further in a review focusing on the effects of CBT on depression, anxiety, stress and mental health, and standard of life among women living with HIV/AIDS, Pu, Hernandez, Sadeghi and Cervia, (2019) found that while CBT substantially improved

Table 4.1: Summary Table of Analysis of Covariance (ANCOVA) showing the Main and Interactive Effects of Depressive Disorders among Stigmatised People Living with HIV/AIDS in the Treatment Groups, Gender and Socio-Economic Status

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1991.227[a]	15	132.748	8.796	.000	.759
Intercept	53.103	1	53.103	3.519	.068	.077
Prescore	119.681	1	119.681	7.930	.007	.159
Gender	.590	1	.590	.039	.844	.001
SeS	175.338	2	87.669	5.809	.006	.217
Trtgrps	952.456	2	476.228	31.554	.000	.000
Gender * Trtgrp	20.024	1	20.024	1.327	.256	.031
Gender * SeS	58.083	2	29.041	1.924	.159	.084
Trtgrp * SeS	219.613	4	54.903	3.638	.012	.257
Gender * Trtgrp * SeS	82.396	2	41.198	2.730	.077	.115
Error	633.877	42	15.092			
Total	4282.000	58				
Corrected Total	2625.103	57				

a. R Squared = .759 (Adjusted R Squared = .672)

Legend: Df: Degree of Freedom; F: Frequency; Sig.: Significance Trtgrp: Treatment Group; SeS: Socioeconomic Status; Gender * Trtgrp: Gender and Treatment Group; Gender * SeS: Gender and Socioeconomic Status; Trtgrp * SeS: Treatment Group and Socioeconomic Status; Gender * Trtgrp * SeS: Gender, Treatment Group and Socioeconomic Status

Table 4.2: Scheffee Post-hoc Test of Treatment Groups on Depressive Disorder among the Participants

Treatment Groups	N	Subset for alpha = 0.05	
		1	2
Cognitive Behavioural Therapy	20	2.2857	
Logotherapy	20	2.4286	
Control	20		11.7500
Sig.		.996	1.000

the standard of life, reduced stress and depressive symptoms among women living with HIV/AIDS, it has a lesser impact on anxiety.

Back home in Nigeria, Raheem and Adeniyi (2016) reported that CBT was effective in the management of psychological distress among adolescents whose parents were infected with HIV/AIDS in Oyo State Nigeria. They reported that CBT better improved the symptoms of depression among female participants than the males, and that the impact of the treatment does not depend on gender and social skills of participants. Similarly, Nwobi, Eseadi, Emeka, Ekwealor, Ogbonnaya, Oboegbulem, Chinwueba, Mbagwu, Agundu, Okpoko, Ololo, Ohia, Nwanko, Osike, Okechukwu, Umoke, (2018) reported that CBT improved stress, anxiety and depression among community-dwelling adults living with HIV/AIDS in south eastern Nigeria.

Apart from reducing symptoms of depression, Zhang, Zhang, Zhang, Jin and Zheng (2018) further found that CBT also effectively reduced the risk of developing new episodes of depression. Several studies have also shown that CBT is effective in improving adherence (Spaan, Luenen, Garnefski and Kraaij, 2020) and retention in ART care among HIV/AIDS patients in addition to improving symptoms of comorbid depression (Joska, Andersen, Smith-Alvarez, Magidson, Lee, O'Cleirigh, and Safren, 2020; Mendez, Mayo and Safren, 2021). Lamb, Nogg, Safren, and Blasihill, (2018) and Klimek, Wilhelm, Safren and Blashill (2020) also reported that CBT improved body image and self-care among sexual minority men living with HIV/AIDS. Similarly, O'Clerigh, Zvolenski, Smits, Labbe, Coleman, Wilner, Stanton, Gonzalez, Garrey, Regenauer, and Rosenfield (2018) also reported that CBT was effective in an integrated depression management and smoking cessation among PLWHA in Boston, Massachusetts, USA. The recent realisation that multiple psychosocial comorbidities synergistically fuel the HIV/AIDS pandemic as proposed in the syndemic theory (Glynn, Safren, Carrico, Mendez, Duthely, Dale, Jones, Feaster and Rodriguez, 2019) makes CBT an important psychotherapeutic tool in the management of HIV/AIDS and its comorbidities.

Similar to the positive effects of CBT, logotherapy also reduced depressive symptoms in stigmatised PLWHA in this study. Several studies have proved the effectiveness of logotherapy in the management of depressive disorers by helping to reduce the symptoms of depression and psychological distress among individuals experiencing

meaninglessness (Melton and Schulenberg, 2008; Julom and de Guzmän, 2013; Mohammadi, Fard and Heidari, 2014). Further, Putri and Welly (2021) reported a significant difference in the level of depressive smptoms experienced by PLWHA before and after logotherapy intervention noting that anxiety and depression reduced after logotherapy treatment. Likewise, Suyanti, Keliat and Daulima (2018) found out in their study that a combination of logotherapy, acceptance and commitment therapy and family psychosocial education was effective in overcoming self-stigma and depression among house wives living with HIV/AIDS. Bakhshi, Yektaee, Hajimiri and Inanlou (2019) additionally found out that logotherapy counselling sessions enhanced hopefulness in HIV patients. Shahabi (2016) also confirmed among cancer patients that logotherapy positively and significantly impacted on optimistic orientation and emotional control. According to Asagba (2016), logotherapy is a holistic and multidisciplinary treatment that helps clients to reach a higher level of self-transcendence so that they can rediscover meaning and orient themselves towards meaningful goals. This was further buttressed by Masoumi, Afshari and Bahredar (2016), who reported the efficacy of group logotherapy in the management of different manifestations of mental health of AIDS patients (anxiety, depression social and somatic dimension).

These findings and discussion are complimented by the Focus Group Discussion. The effective reduction of depression by the treatment packages among the study participants was reinforced by the feedback obtained from the participants at the post-treatment session. Most of them enthusiastically reiterated that the various skills learnt during the training sessions has been very helpful as they have learnt and started putting into practice on how to identify, challenge and change most of the negative cognitions responsible for their depressive symptoms. They further noted that instead of allowing themselves to be overwhelmed by their symptoms, they now engage themselves with pleasant activities such as listening to music, watching movies, engaging in creative values and other meaningful activities that keep them from being absorbed in maladaptive thinking. In sum, the participants attested to the fact that rather than give up on their dreams, they were willing to engage in meaningful activities that would bring a sense of purpose and direction in their lives. All this eventually led to the improvement in their condition.

4.1.2 Hypothesis Two: There is no significant main effect of gender on depressive disorder among stigmatised PLWHA.

Results showed that gender had no significant effect in reducing depressive disorder among stigmatised PLWHA ($F_{1,42} = 0.039$; $P > 0.050$, $\tilde{\eta} = 0.001$) (Table 4.1). This means that there is no significant main effect of gender in reducing depressive disorder among stigmatised people living with HIV/AIDS. Hence hypothesis two was statistically accepted. Frost, Hoyt, Chung and Adam (2015) similarly demonstrated that depressive symptoms and gender were each independently related to adolescent emotional experiences and that gender has no influence on depression scores. They reported that strong negative emotions can be attributed to interpersonal factors.

However, this finding contrasted with the findings of other studies reporting a 1.5 to 3 times higher prevalence of major depression among females than their male counterparts (Cyranowski, Frank, Young and Shear 2000; Kesller, 2003; Burt, 2002; Ford and Erlinger, 2004; Patten, Wang, Williams, Currie, Beck, Maxwell, El-Guebaly, 2006; Seedat, Scott, Angermeyer, Berglund, Bromet, Brugha *et al.,* 2009). Further, Shih, Eberhart Hammen and Brennan (2006) pointed out that females react more strongly to interpersonal life stress than men which could be linked to the higher prevalence depression among this group. Similarly, Lenzoa, Toffleb, Tripodia and Quattropani (2016) compared meta-cognition among gender to explore the correlation between meta-cognition, anxiety, depression, pathological worry and obsessive-compulsive symptoms in a study of 64 participants made up of 32 males and 32 females. Their results showed a positive relationship between dysfunctional meta-cognition beliefs and other construct and gender.

Generally, gender affects several HIV/AIDS-associated variables such as knowledge of HIV status (Giguère, Eaton, Marsh, Johnson, Johnson, Ehui, Jahn, Wanyeki, Mbofana, Bakiono, Mahy and Maheu-Giroux ScD, 2021), disclosure (Fonner, Mbwambo, Kennedy, Kerrigan and Sweat, 2020), uptake and utilisation of voluntary HIV testing and counselling services (Cheruiyot, Magu, Mburugu and Sagwe, 2019; Fonner, Mbwambo, Kennedy and Sweat, 2019; Nyondo-Mipando, Kumwenda, Suwedi-Kapesa, Salimu, Kazuma and Mwapasa, 2021), self-testing (Hatzoid, Gudukeya, Mutseta, Chilongosi, Nalubamba, Nkhoma, Munkmbwe, Munjoma, Mkandawe, Mabhunu, Smith, Madidi, Ahmed, Kambeu, Stankard, Johnson and Corbett, 2019), adherence to therapy and willingness to return to therapy after a period of abstinence (Teasdale, Brittain, Zerbe, Mellins, Falcao, Couto, De Gusmao, Vitale, Kapogiannis, Simione, Myer, Mantell, Desmond and Abrams, 2021; Bisnauth,

Davies, Monareg, Buthelezi, Struthers, McIntyre and Rees, 2021). A recent population-based HIV impact assessment carried out in East Africa showed that more HIV-Positive men than women are less likely to know their status (Hatzoid, Gudukeya, Mutseta, Chilongosi, Nalubamba, Nkhoma, Munkmbwe, Munjoma, Mkandawe, Mabhunu, Smith, Madidi, Ahmed, Kambeu, Stankard, Johnson and Corbett, 2019).

Previous studies (Hussaini, Moore and Cain, 1994) reported that the nonchalant attitude displayed by men towards seeking professional help when depressed or when suffering from other psychological issues related to depression is affected by age, ethnicity and social background. Thus, according to Zartoloudi (2012), even though depressive illness is mostly associated with women, men are also vulnerable to depression which if untreated often lead to critical conditions.

These findings and discussion are complemented by the Focus Group Discussion. It was observed in course of this study that more women presented themselves for treatment than men in all the HIV facilities used for the study. This could be attributed to our cultural belief in Africa where it is believed that being infected with HIV/AIDS is a sign of irresponsibility and rather than seek medical help or treatment during distressing episodes, men rather result to alcoholism, substance abuse, gambling, smoking, hanging out with friends as a coping mechanism. In addition, they do not want to be seen seeking medical care and treatment in the primary care centres as a result of stigmatisation, shame and guilt of what others might probably say about them.

Some participants of the present study confirmed this pointing out during the focused group discussion that they had done everything possible to get their spouses to seek medical treatment but to no avail. They mentioned that rather than seek help, their husbands result to alcoholism and prefer venting their anger and frustrations on them. Further, it was observed that most of the women who participated in the study were either widowed, have been abandoned by their husbands due to their seropositive status, or were just cohabiting with their husbands without any form of emotional or sexual relationship because of stigmatisation. It was also discovered that most of these women were experiencing serious emotional distress resulting from bearing the brunt of their HIV infection alone without any form of emotional or social support from their spouses or relatives and a high degree of financial incapacity. As a matter of fact, some of them stated that their husbands had abdicated the responsibility of providing for the home as a reaction to their HIV positive status.

4.1.3 Hypothesis Three: There is no significant main effect of socio-economic status on depressive disorder among stigmatised PLWHA.

The main effect of socio-economic status significantly reduced symptoms of depressive disorder among study participants ($F_{2,42} = 31.554$; $P<0.05$, ῆ=0.217) as shown in Table 4.1 above meaning that there is significant difference in the reduction of depressive disorder among participants that are in the low, moderate and high SES levels. Hence hypothesis three was not accepted statistically.

The results from Table 4.3 further showed that participants with moderate socio-economic status benefited most from the treatments followed by participants in the high and low SES. This finding aligned with that of several studies which reported that individuals living in neighbourhoods associated with lower SES generally have a higher risk of depressive symptoms (Galea, Ahern Nandi, Tracy, beard and Vlahov, 2007, Everson-Rose, Skarupski, Barnes, Beck, Evans and Mendes de Leon, 2011, Annequin, Weill, Thomas and Chaix, 2015).

In the context of HIV/AIDS, Yeneabat, Bedaso and Amare (2017) reported that 76.7% of participants among HIV patients receiving treatment at Fetche Zonal Hospital, Central Ethiopia have depressive symptoms ranging from low, moderate to high with the highest prevalence of depression found among individuals with food insecurity. Similarly, Shittu, Issa, Olanrewaju, Mahmoud, Odeigah and Sule (2014) found that income was the major socioeconomic determinants of depression among PLWHA. Further, Ochigbo, Torty and Oparah (2018) found out in their study that low average monthly income was a predictor of depression among caregivers of HIV-positive children. Lwidiko, Kibusi, Nyundo, Bonaventura and Mpondo (2018) likewise confirmed that there was association between HIV and depressive symptoms among children and adolescents and that childhood deprivation was significantly associated with depressive symptoms among their study participants. According to Andru, Mojola, Moran, Eisenberg, and Zelner (2021), a persistent and positive relationship have been observed globally between wealth and the odds of HIV infection which were most pronounced for women than men.

Loramt, Croux, Weich, Deliege (2007) also hypothesized that a significant relationship exists between worsening SES and depression. This point was further buttressed by

Table 4.3: Scheffee Post-hoc Test of Treatment Groups on depressive disorder among the Participants

Socio-economic status	N	Subset for alpha = 0.05
		1
Moderate socio-economic status	33	3.9394
High socio-economic status	12	4.8333
Low socio-economic status	17	8.5882
Sig.		.125

Doan (2011), who found that the prevalence of depressive symptoms is higher among the least educated, those with low occupational status or lowest income among his study participants. In the same vein, Maselko, Bates, Bhalotra, Gallis, O'Donnell, Sikanda and Turner (2018) conducted a study to examine how low socioeconomic status contributed to prenatal depressive symptoms among pregnant women and reported a significant relationship between worsening SES and depression. However, in contrast there was no association found between depression, level of education and income among PLWHA in Uttar Pradesh, India (Rai and Verma, 2015).

These findings and discussion are complemented by the Focus Group Discussion which revealed that low SES and low level of educational attainment is a significant factor in the development of depressive symptoms among PLWHA who participated in the present study. Apart from battling with a life-threatening disease, most of the participants have severe financial challenges which has led to the development of, or worsened their depressive symptoms. Majority of the patients are unemployed, divorced, abandoned by their spouses due to stigmatisation or widows who find it difficult to afford good quality life either because of very little income from their small businesses or total dependence on their spouses without any source of income. Majority of them stressed during the discussion that not being able to feed, inability to afford good shelter, inability to send their children to school and as well cater for their daily needs had increased their depressive symptoms in addition to their poor health status.

4.1.4 Hypothesis Four: There is no significant interaction effect of treatments and gender on depressive disorder among stigmatised PLWHA.

Findings of this study showed that the reduction of depressive disorder among stigmatised PLWHA was not significantly affected by the interaction effect of treatments and gender ($F_{1,42}$=1.327; P>0.050, ῆ=0.031) (Table 4.1). This means that there is no significant interaction effect of treatment and gender in reducing depressive disorder among stigmatised PLWHA. Hence hypothesis four was statistically accepted.

Thus, the effect of the interventions in reducing the depressive symptoms of stigmatised PLWHA was not significantly moderated by gender. Although, it has been previously reported in several studies that the life-time prevalence and correlates of major depressive depression among women (7.2%) was higher than men (4.3%) (Picco, Subramaniam, Abdin, Vaingankar and Chong, 2017), the reduction of depressive

symptoms by the two interventions among stigmatised PLWHA who participated in this study was not significantly moderated by gender. This may possibly be as a result of the low number of male participants compared to females enrolled in the study. While there were four men out of 20 participants among the logotherapy group, there was none among the CBT group. According to Cochran and Rabinowitz (2000), men hardly seek mental health services when compared to women. While females easily display symptoms of depression such as crying, change of appetite and weight gain or loss, males often result to alcohols, drugs and in extreme cases, suicide (Health Canada, 2003). Similar to this study, Raheem and Adeniyi (2016) in a study of adolescents with HIV/AIDS infected parents in Oyo State, Nigeria, found that the impact of CBT in ameliorating the symptoms of depression among the study participants does not depend on gender.

According to the WHO (2017), females have the highest prevalence (5.9%) of the 4.4% of the world population (322 million people) living with depression worldwide. Similarly, in a study investigating the correlation between meta-cognition, anxiety, depression, pathological worry and obsessive-compulsive symptoms, Lenzoa, Toffleb, Tripodia and Quattropani (2016) found a positive relationship between dysfunctional meta-cognition and other constructs and gender. In the opinion of Brener (2003), females are usually more emotional in comparison with males especially in the display of emotional reactions such as anger, happiness, contentment, sadness and affections. The researchers noted that, even though, the increase in emotional display may serve as a source of protection, it could also result to depression especially in situations when an individual experiences negative emotion more than positive ones.

4.1.5 Hypothesis Five: There is no significant interaction effect of treatments and SES on depressive disorder among stigmatised PLWHA.

The interaction of treatments and SES have significant effect in reducing depressive disorder among stigmatised PLWHA ($F_{2,42}=3.638$; $P<0.050$, $\tilde{\eta} = 0.257$) (Table 4.1) suggesting that the treatments and SES interacted to significantly reduce depressive disorder among stigmatised PLWHA. Hence hypothesis five was statistically rejected implying that SES moderated the effect of the treatments in reducing depressive symptoms among stigmatised PLWHA. Substantial evidence exists in published literature suggesting that response to treatment among patients experiencing mental

health disorders is moderated by SES (Potts and Henderson, 2020). However, the moderating effects of SES on psychotherapy outcomes in particular is very complex with the reasons adduced by most authors in explaining this relationship more conceptual than empirical (Hawley, Leibert and Lane, 2014). While retention in therapy is greater among patients belonging to higher SES (Clarkin and Levy, 2004), there is no consistent relationship between SES and reduction of symptoms (Petry, Tennen, and Affleck, 2000).

For example, in a recent study investigating the effectiveness of mindfulness-based cognitive therapy among patients presenting with major depressive disorder in a university hospital outpatient clinic in the Netherlands, Geurts, Compen, Van Beek and Speckens (2020) found that lower level of education increases the likelihood of not completing the therapy sessions than intermediate and higher levels of education. They also found that employed participants and those on sick leave improved more than their unemployed counterparts after the treatment sessions. According to the authors, the higher level of improvement among the former group was associated with attendance of more sessions of psychotherapy than the latter group. Levi, Laslo-Roth and Rosenstreich (2018) suggested a cognitive explanation for the poor retention in psychotherapy by low SES people, pointing out that the three main cognitive domains impaired by poverty (self/emotion regulation, perception and cognitive flexibility), may play crucial roles in psychotherapeutic success.

Further in a recent review exploring the relationship between SES indicators and outcomes of psychotherapeutic interventions for depression and anxiety, Finegan, Firth, Wojnarowski, and Delgadillo (2018) reported that poorer psychotherapeutic outcomes will likely result from socioeconomic deprivation. Exploring this concept further, Hawley, Leibert and Lane, (2014) found that the outcomes of psychotherapy among patients suffering from depression is collectively predicted by subjective and objective measures of SES. While level of educational and health insurance status predicted better outcome of psychotherapy, no such association was found for income level and the two subjective SES indicators (perceived SES status and perceived financial security) used in the study. Additionally, Giebel, Corcorn, Goodall, Campbell, Gabay, Daras, Barr, Wilson, and Kullu (2020) found that the inequality in mental health outcomes associated with socioeconomic status was not related to better access for people in the moderate and higher socioeconomic levels as was widely believed. They found that rather than

being constrained by poor access, people of low socioeconomic status in the UK have better access to medications and psychotherapy.

These findings and discussion are complemented by the Focus Group Discussion. The participants noted that serious financial challenges could lead to depressive disorder especially when they cannot pay for their treatment and afford good quality life. Most of them affirmed that even though they were battling with a life -threatening disease, not having enough resources to meet their daily financial demands especially in the aspect of feeding and meeting up with other financial obligations had contributed to their depressive symptoms.

4.1.6 Hypothesis Six: There is no significant interaction effect of gender and Socio-economic status on depressive disorder among stigmatised PLWHA.

Results showed that the interaction effect of gender and SES have no significant effect in reducing depressive disorder among stigmatised PLWHA ($F_{2,42}=1.924$; $P>0.050$, $\tilde{\eta}=0.084$) (Table 4.1). Thus, the interaction effect of gender and SES did not significantly reduce depressive disorder among stigmatised PLWHA. Hence hypothesis six was statistically accepted.

However, the most likely reason for this observation could be because the onset of depression does not respect gender, whether masculine or feminine. This was supported by the findings of Bonin, McCreary and Sadava (2000) and Real (1997) who reported that unlike women who are usually expressive when facing challenges, men often pretend to be alright by using avoidance mechanism as coping technique. Such avoidance mechanisms of coping include engaging in distracting activities, denial, social diversion, behavioural activities such as gambling, indulging in sexual activities, spending, excessive exercising or anything that will take their minds off their current challenges.

However, in contrast to the results of this study, Silva, Loureiro and Cardoso (2016) in a review on the social determinants of mental health reported that low income, separation from marital partner, lack of social support, being female, low level of education, low SES, unemployment, financial distress, and perceived discrimination are independently and significantly linked to worst mental health outcomes.

4.1.7 Hypothesis Seven: There is no significant interaction effect of treatment, gender and SES on depressive disorder among stigmatised PLWHA.

Results shows that the interaction effects of treatment, gender and SES did not significantly reduce depressive disorder among stigmatised PLWHA ($F_{2,42}$ = 2.730; P>0.050, $\tilde{\eta}$ = 0.115) (Table 4.1). This means that there is no significant interaction effect of treatment, gender and SES in reducing depressive disorder among stigmatised PLWHA. Hence hypothesis seven was statistically accepted. This means that the reduction of depressive disorder mediated by the treatments was not affected by the interactive effects of gender and SES which was not significant in reducing depressive symptoms among participants of the present study.

However, this does not mean that there was no significant effect of treatments in the reduction of depression among the participants. For instance, at the post treatment session, participants attested to the fact that they felt better and they were no more experiencing most of the symptoms of depression such as sadness, crying, feelings of worthlessness, mood swing, low energy, loss of interest in things that were formally pleasurable that they usually experience before the psychological interventions. They excitedly confirmed that there was serious improvement in their depressive symptoms.

This result substantiates the outcome of other studies that revealed that higher SES can be a risk factor for depression, depressive symptoms and suicide among blacks, especially black males (Stringhini, Berkman, Ferrie, marmot, Kivimaki and Sing-Monoux, 2012; Hudson, Neighbors, Geronimuus and Jackson, 2012; Assari, 2015; Assari and Caldwell, 2017). Assari, (2017) further reported that high family income positively correlated with a higher risk of depression among black males. A higher prevalence of depressive symptoms was similarly observed among higher income earners in white communities by Assari, Gibbon and Simons, (2018).

4.2 Qualitative Report of Data from Focused Group Discussion

4.2.1 General Questions

Four research questions were raised and answered through a focus group discussion. This was employed to elicit responses on causes and management of depressive disorder among PLWHA receiving treatment in the various facilities. The responses of the participants are presented based on the following criteria: age, gender and treatment

centre. The following are the transcription of the discussion conducted among PLWHA. The sub-themes examined in the discussion includes: the definition of depression, symptoms of depression, causes of depression and management of depression

GQ-1: In your own words, how would you describe depression?

Responses (Group 1)

Depression refers to a situation whereby one engages in excessive thinking and the absence of peace in one's life because of negative life events such as the death of one's husband or child. **(Female, 48yrs, Adeoyo State Hospital, Ibadan).**

Responses (Group 2)

when one is suffering and there is no social or financial support. Depression can also occur when one is diagnosed with an incurable disease such as HIV/AIDS of which you know that you are going to live with the disease forever. The realization of living with the disease forever and being subjected to daily intake of drugs can make one to develop depression. **(Male, 45yrs, Adeoyo State Hospital, Ibadan)**

Responses (Group 3)

In my own opinion, depression is a kind of sad feelings that one experiences for a long period of time or negative thoughts that one keeps in the heart because of unfavourable life events that one has passed through which could have negative effects on the health of that individual. It usually starts from the mind and later spread to other parts of the body. When one is overwhelmed these negative feelings, it could lead to sadness and misery and if one is not careful, he/she may begin to think that live is not worth living. **(Female, 36yrs, Adeoyo State Hospital, Ibadan)**

GQ-2: what are the symptoms of depression?

Responses (Group 1)

One can know that he/she is experiencing depression if he/she is experiencing loss of appetite, sleeplessness, excessive thinking, sadness, loss of weight and inability to work or motivation to pursue one's daily job. ***(Female, 19yrs, Adeoyo State Hospital, Ibadan)****.*

Responses (Group 2)

In my own opinion, symptoms of depression include feelings of agitation, irritation, loss of energy, loss of happiness, sadness and bad appearance. ***(Male, 45yrs, Adeoyo State Hospital, Ibadan)****.*

Responses (Group 3)

In my own opinion, feelings of guilt, worthless and hopeless feelings, maladaptive thinking, loss of happiness, loss of weight, inability to do work, loss of self-esteem and weakness of the bones, loss of energy, lack of will to pursue one's dreams, finding it difficult to sleep at night and waking up too early, anxiety are symptoms of depression. **(Female, 36yrs, Adeoyo State Hospital, Ibadan)**

GQ-3: What are the causes of depression

Responses (Group 1)

*When one is diagnosed of HIV/AIDS and he/she is having serious financial challenges to cope with the situation especially when you are thinking of how to get money to do test, can lead to depression. (**Female, 48yrs, Adeoyo State Hospital, Ibadan**).*

Responses (Group 2)

An individual can be depressed when she has done everything to get cured and the situation remain the same without improvement after taking drugs. One can also get depressed when you are told that somebody that all of you are receiving treatment has died because of HIV, as a result, you start getting worried and being anxious. **(Female, 43yrs, Adeoyo State Hospital, Ibadan)**.

Responses (Group 3)

When my marriage started having problem because my husband found out that I have HIV, he stopped eating my food, he doesn't sleep with me again and there was no communication in the house again. I started having feelings of inadequacy and that led to my depression. Further, inability to source for fund to pay for the routine testing and the drugs, feelings of abandonment, lack of social and financial support from families and loved ones could also lead to depression. **(Female, 32yrs, Adeoyo State Hospital, Ibadan)**.

GQ-4: What are the various ways to manage/treat depression

Responses (Group 1)

*One can manage depression by rejecting bad thoughts and practicing self-help, speaking positive things to yourself such as: I will not die, I will achieve my goals despite everything and not giving up on yourself. (**Female, 37yrs, Adeoyo State Hospital, Ibadan**).*

Responses (Group 2)

Depression can also be managed by having faith in God since life is full of ups and down and making every effort to face and fight the situation and being positive. In addition, one should avoid thinking negative thoughts, being determined to move on, having strong faith, engaging in activities that could bring happiness. **(Female, 53yrs, Adeoyo State Hospital, Ibadan)**.

Responses (Group 3)

In my own opinion, depression can be managed by avoiding self-isolation, engaging in pleasant activities such as listening to music, watching television, being in company of friends, getting a trusted companion to share your problems with because the problem that is shared is half solved. Also, being able to transcend or rising above one's challenges. **(Female, 45yrs, Adeoyo State Hospital, Ibadan)**.

GQ-1: In your own words, how would you describe depression?

Responses (Group 1)

In my own opinion, one can develop depressive disorder when one has done everything possible and yet cannot achieve his/her goals. For instance, serious financial challenges due to unemployment, having a toxic relationship especially when your spouse finds out that you have been diagnosed with HIV/AIDS and he or she is thinking that it is because you are having extra marital affair, not being able to meet up with one's financial obligation could lead to depression (**Female 48yrs, OLA Catholic Hospital, Oluyoro, Ibadan**).

GQ-2: what are the symptoms of depression?

Responses (Group 1)

In my own view, mood swing, loss of interest in things that were formally pleasurable and feelings of fatigue are symptoms of depression. In addition, fear of living with the disease and daily drug intake are common themes associated with depression (**Female, 28yrs, OLA Catholic Hospital, Oluyoro, Ibadan**),

Responses (Group 2)

One can be experiencing depression when you are tired of everything in life, and you feel like taking your life to end the suffering. In some cases, if such a person did not seek psychological help, that individual can end up committing suicide. **(Female, 38yrs, OLA Catholic Hospital, Oluyoro, Ibadan)**

Responses (Group 3)

In my own view, some of the signs you can see in someone experiencing depression include; worthless feelings, lack of energy and strength for daily activities, helpless and miserable feelings about life and everything generally and you feel like ending it all. **(Female, 46yrs, OLA Catholic Hospital, Oluyoro, Ibadan)**

GQ-3: What are the causes of depression

Responses (Group 1)

In my own opinion, abandonment can lead to depression especially when nobody cares about you. For instance, when people start isolating or avoiding you because they know that you have HIV, loss of one's job because of HIV, broken relationship that one had invested so much on because one was diagnosed with HIV, daily intake of drugs with negative side effects can all lead to depression. **(Female, 46yrs, OLA Catholic Hospital, Oluyoro, Ibadan).**

Responses (Group 2)

One can also get depressed because of the weariness of taking HIV drugs daily and their side effects. For example, as a HIV patient, you must take drugs everyday otherwise your viral loads will keep on going up. In the aspect of side effects, one can be having itchy body as well as skin

discolouration. **(Female, 48yrs, OLA Catholic Hospital, Oluyoro, Ibadan).**

Responses (Group 3)

Rejection can lead to serious depression in my opinion because it is the highest level of stigmatisation. For instance, the family that once loved and cherished you now begin to ostracized you. You cannot share things with them anymore like soap, utensils because they are afraid that you might infect them with the disease. **(Female, 52yrs, OLA Catholic Hospital, Oluyoro, Ibadan).**

GQ-4: What are the various ways to manage/treat depression

Responses (Group 1)

In my own opinion, depression can also be reduced by being able to identify negative thoughts, confronting them and replacing them with more positive thoughts. More importantly, once one is feeling down or depressed, he/she should seek the help of a psychologist or counsellor for psychological treatment. **(Female, 35yrs, OLA Catholic Hospital, Oluyoro, Ibadan**

Responses (Group 2)

For me, depression can be managed by adhering strictly to one's treatment effectively in order to prevent other opportunistic infection and have a healthy lifestyle. Through this, the viral load could be reduced to the barest minimal and the CD4 t-cell boosted so that one could have a good quality life. **(Female, 38yrs, OLA Catholic Hospital, Oluyoro, Ibadan).**

Responses (Group 3)

From the various training that was given to us by our therapist, depression can be managed by putting into practice everything that we have been taught. For example, anytime I want to be weighed down by negative thoughts, I will quickly challenge them and replaced them with more positive thoughts. In other words, always think positive. **(Female, Adult, 52yrs, OLA Catholic Hospital, Oluyoro, Ibadan).**

4.3 Thematic Summary of the Qualitative Analysis

4.3.1 Depressive Disorder

Depressive disorder is common among PLWHA. According to respondents to the question posed during the FGD, depressive disorder is a situation characterised by excessive thinking and the absence of peace in one's life due to negative life events. It was also described as feelings of sadness that occurs as a result of being diagnosed with an incurable disease.

4.3.2 Symptoms of depressive disorder

Several symptoms of were listed as being associated with depressive disorder. These include: sleeplessness, loss of energy, fatigue, mood swing, weakness of the bones, loss

of appetite, hopeless feelings, suicidal ideation. As noted by a respondent, loss of appetite, sleeplessness, excessive thinking, sadness, loss of weight and inability to work or lack of motivation to pursue daily activities are some of the common symptoms of depression. Other respondents also identified feelings of guilt, worthless and hopelessness, maladaptive thinking, unhappiness, loss of weight, inability to work, loss of self-esteem, weakness of the bones, loss of energy, lack of will to pursue one's dreams, sleep difficulty, interrupted sleep, anxiety are common themes associated with depressive disorder.

4.3.3. Causes of depressive disorder

Some factors were also identified by participants as being responsible for depressive disorder among stigmatised PLWHA. The factors include: financial challenges, isolation, abandonment, stigmatisation, the burden and negative effects of daily intake of HIV drugs. According to a discussant, rejection can lead to serious depression because it constitutes the highest level of stigmatisation. They also said that inability to source for fund to pay for the routine testing and the drugs, feelings of abandonment, lack of social and financial support from families and loved ones could also lead to depression.

4.3.4. Management of depressive disorder

Several methods of managing depressive disorder were also identified by participants including: seeking professional help from a therapist, positive thinking, taking one's drugs consistently, engaging in pleasant activities that could keep the mind busy to avoid negative thoughts, as well as challenging and replacing negative thoughts with positive thoughts. According to a respondent, one should avoid negative thoughts, be determined to move on, have strong faith, and engage in activities that could bring happiness. Another respondent mentioned identifying negative thoughts, confronting and replacing them with more positive thoughts.

CHAPTER FIVE

SUMMARY, CONLUSION AND RECOMMENDATIONS

The summary, conclusions and recommendations from the study are presented in this chapter. The chapter also discussed the implications of the results, contributions made to knowledge, the limitations encountered during the study and suggestions for further studies.

5.1 Summary

- There was significant main effect of treatments in reducing depressive disorder among stigmatised PLWHA ($F_{2,42} = 31.554$; $\alpha_{0.05}$, ῆ = 0.600)
- There was no significant main effect of gender in reducing depressive disorder among stigmatised PLWHA ($F_{1,42} = 0.039$; $\alpha_{0.05}$, ῆ = 0.001)
- There was significant main effect of socio-economic status in reducing depressive disorder among participants ($F_{2,42} = 31.554$; $\alpha_{0.05}$, ῆ = 0.217).
- There was no significant interaction effect of treatments and gender in reducing depressive disorder among stigmatised PLWHA ($F_{1,42} = 1.327$; $\alpha_{0.05}$, ῆ = 0.031).
- There was significant interaction effect of treatments and SES in reducing depressive disorder among stigmatised PLWHA ($F_{2,42} = 3.638$; $\alpha_{0.05}$, ῆ = 0.257)
- There was no significant interaction effect of gender and SES in reducing depressive disorder among stigmatised PLWHA ($F_{2,42} = 1.924$; $\alpha_{0.05}$, ῆ = 0.084).
- There was no significant interaction effect of treatments, gender and Socio-economic status in reducing depressive disorder among stigmatised PLWHA ($F_{2,42} = 2.730$; $\alpha_{0.05}$, ῆ = 0.115).

5.2 Conclusion

Stigmatised PLWHA selected from three treatment facilities in Ibadan, Nigeria were exposed to sessions of logotherapy and CBT to examine the efficacy of the two psychotherapies in the management of depressive disorder, a common comorbidity among people infected with HIV/AIDS with gender and socioeconomic status as moderating variables. To this effect, the participants were exposed to the above-named

therapies over a period of eight weeks, and data generated were analysed to reach a conclusion on the efficacy of the therapies in the management of depressive symptoms among the study participants. At the end of the study the following conclusions are made:

Logotherapy and CBT effectively reduced symptoms of depressive disorder among stigmatised PLWHA who participated in this study. However, CBT was more effective in reducing depressive symptoms among study participants. What this means is that a proper use of the two psychotherapies should lead to a similar outcome.

It was further observed during the study that while SES had significant effect in the reduction of depressive symptoms, gender did not significantly affect the reduction of depressive symptoms among the study participants. Also, while there was no interaction effect of gender in reducing depressive disorder among the study participants, the interaction effect of SES in reducing depressive symptoms among the participants was significant. In addition, among the study participants, the interaction effect of gender and SES have no significant effect in reducing depressive symptoms. Similarly, there were no significant interaction effect of treatments, gender and SES in reducing depressive symptoms among stigmatised PLWHA that participated in this study.

5.3 Implications of the Study

Results from this study clearly demonstrated that logotherapy and CBT effectively reduced depressive symptoms among stigmatised PLWHA. The findings have implications for clinical psychologists, counselling psychologists and other researchers who may want to use the findings of this study as a basis for planning further studies.

Having discovered the effectiveness of logotherapy and CBT in reducing depressive symptoms among stigmatised PLWHA, this study can be used as a guide by others to investigate the effect of other psychological interventions for the same or similar purpose. Further, clinical and counselling psychologists can also make use of these psychotherapeutic interventions in the treatment of depressive disorders among PLWHA.

People living with HIV/AIDS usually face a lot of challenges ranging from stigma/discrimination, financial challenges, complicated therapeutic regimen and loss of family and social support. These challenges and the meaninglessness they

experienced usually trigger depressive symptoms which could have negative effect on their psychological wellbeing. This study has proved that logotherapy and CBT are effective in reducing depressive symptoms among stigmatised PLWHA.

This study also provides basic information necessary that could be used for identifying depressed individuals to the management and counsellors in HIV facilities.

Content analysis from focus group discussion shows that ART treatment alone without financial support cannot reduce the depressive symptoms experienced by PLWHA as it was observed during this study that serious financial challenges is a major contributor to the depressive symptoms experienced by the study participants

5.4 Limitations of the Study

Despite the fact that this study demonstrated that logotherapy and CBT effectively reduced depressive symptoms among stigmatised PLWHA, a number of limitations were encountered in the course of the study.

Sustaining study participants financially throughout the period of the training was a major challenge encountered in the field stage of this work. According to the care-givers in the facilities used, the PLWHA used to present themselves at the treatment facilities to pick up their drugs fortnightly, or once or twice a month. However, the drug pickup time has to be changed to once in three or six months in response to incessant complaints of inability to afford the cost of transportation from their base to the care facility. In confirmation of the information provided by the care-givers, it was observed that most participants belong to the low socioeconomic class, as such provision has to be made to cover the cost of transportation for participants in the study to ensure regular attendance at the weekly training sessions.

Despite the provision of weekly transport fare for all participants, it was observed that some of the participants in the various groups were still not regular in attending the weekly training sessions. Thus, the provision of transport fare had to be supplemented with weekly telephone calls 24-48 hours before the treatment session times to further persuade enrolees to attend the training. However, it was observed that despite all the efforts put in place to sustain attendance, most participants could not complete the training, a situation that led to the reduction in the sample size from the initial 30 participants in each group to 20 participants.

Only gender and socioeconomic status were examined as moderating variables in the study, thereby excluding other moderating variables which could also possibly affect the outcome of the treatments.

In addition, difficulties were also encountered in securing ethical approval from some of the facilities selected for the study. While some of the facilities were reluctant in giving their consent for the study leading to unplanned delays, some facilities outrightly did not approve the training in their facilities after a long period of follow-up. This resulted in the substitution of some of the facilities initially selected for the study with others who are more receptive to the request to carry out the study in their facility.

5.5 Recommendations

Based on findings in this study, it is hereby recommended that:

- Psychological interventions targeted at managing symptoms of depression should be included in the routine treatment of PLWHA receiving antiretroviral therapy (ART) in HIV facilities in addition to adherence counselling usually given to the patients. The patients should be exposed to different psychotherapies as this would assist in enhancing their psychological wellbeing.
- The techniques adopted in this study can be taught to depressed PLWHA to assist and equip them to consciously identify, challenge and replace maladaptive thoughts with a view of preventing a relapse.
- Government, NGOs and Policy makers should formulate and implement policies geared towards the effective treatment of HIV/AIDS and co-occurring depression among PLWHA.
- HIV facilities should employ trained psychologists that could develop and utilize customised psychological interventions in the treatment of depressive disorder among PLWHA.
- Government should put in place adequate welfare programmes to assist HIV patients especially those of low SES as this would help to improve their standard of life.
- Clinical and counselling psychologists could employ logotherapy and/or CBT to help clients experiencing depressive symptoms deal with depression.
- The government should ensure constant financial assistance to PLWHA to enable them survive harsh economic conditions.

- Future researchers could develop ideas relating to logotherapy and CBT training and application from this study.

5.6 Contributions to Knowledge

This study has contributed new information to the current knowledge in the research field:

- The study demonstrated that logotherapy and CBT effectively reduced depressive symptoms among stigmatised PLWHA receiving ART in the HIV facilities selected for this study as evidenced by the significant improvement in their depressive symptoms post treatment.
- The study also showed that CBT was more potent than logotherapy in reducing depressive symptoms among stigmatised PLWHA that participated in the study.
- The study filled the gaps in previous research works investigating the efficacy of psychotherapies in the treatment of depressive disorder among stigmatised PLWHA.
- It also provided clinical and counselling psychologists a treatment package for treating depressive symptoms.
- Findings from the focus group discussion showed severe financial challenges can contribute immensely to the onset of depression among PLWHA in LMICs. As such, PLWHA within this setting need adequate financial support and other welfare program to support them in easing the financial burden associated with treatment and care as well as to be able survive the harsh economic situations.

5.7 Suggestions for Further Studies

Logotherapy and CBT, the two psychotherapies employed in this study to ameliorate symptoms of depressive disoder among stigmatised PLWHA can be replicated in other states and geopolitical regions of the country.

Further studies can also examine factors other than gender and SES as moderating variables in order to identify other variables that could potentially influence the effectiveness of the two therapies in the treatment of depressive disorder among stigmatised PLWHA.

Future research could also explore other psychological interventions in the treatment of depressive disorder among stigmatised PLWHA.

Finally, future studies could also attempt to revalidate the findings of this study by replicating the research.

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APPENDIX I

TREATMENT PACKAGES

Experimental Group 1 (Logotherapy)

Session 1

General briefing and administration of the instrument to collect pre-test scores

This session aims to establish a positive atmosphere for discussion by building a strong rapport with the participants, giving them general orientation about the treatment and to administer the Beck depression inventory and socioeconomic status scale to ascertain their level of preparedness and to also assure them of confidentiality.

Objectives: When this session ends, it is expected that participants will be able to:

1. State the training goals and objectives
2. State the relevance of the session to their mental health and psychological wellbeing.
3. List their roles and researcher's role in getting maximum benefit from the sessions
4. Administer the pre-test instrument.

Activities

- The participants will be welcomed warmly into the programme and the researcher will briefly introduce herself and her research assistants.
- Participants will also be asked to briefly introduce themselves by a way of calming them down and create an atmosphere that is free from tension.
- Next, the purpose of the programme and expected benefits at completion will be explained to the participants.
- Participants will also be introduced to the rules guiding conduct during the programme and expectations from them.
- The participants will be assured of confidentiality.
- To conclude, the participants will be given the pre-test instruments.

Concluding remarks:

- To conclude, participants will be thanked for their cooperation and reminded of the date, time, and location of the next session.

Session 2

Introduction to depressive disorder and Logotherapy

Objectives: When the session ends, participants are expected to:

- Understand the meaning of depressive disorder
- Identify the different symptoms of depressive disorder
- To state how their depressive mood is affecting their mental health and general wellbeing
- Know the meaning of logotherapy and its benefits in finding meaning in a hopeless situation

Activities

- The participants will be welcomed warmly
- The meaning of depressive disorder, its symptoms and effect on their health will be explained to them
- The meaning of logotherapy and its benefits will be explained to the participants as follows:

The concept of depressive disorder will be explained to the participants by the researcher as a mental illness characterized by symptoms such as sadness, loss of interest or pleasure, low self-esteem or guilt, sleep and appetite disturbances, continuous fatigue, and difficulty concentrating. She will further explain to them that depression can persist for a long time, leading to both functional and occupational impairment in their potential to function at school, work and their businesses and to cope with their daily lives. She will also explain to them that any person suffering from depressive disorder will experience all these things for at least two weeks before it will be confirmed that such an individual is suffering from depressive disorder.

The researcher will explain all the symptoms of depressive disorder to the participants as;

- Depressed mood lasting almost the whole day
- Loss of interest in things that use to make them happy
- Change in appetite
- Lack of sleeping or oversleeping
- Psychomotor agitation or retardation
- Lack of energy or feelings of fatigue

- Feelings of guilt or worthlessness
- Difficulty in thinking and making decisions
- Suicidal thoughts or ideation
- Anxiety symptoms

These symptoms can make an individual not function well at school, in the office and even in their businesses and daily lives.

Effects of depressive disorder

The researcher will further explain the impacts/effects of depression to the participants as follows:

- It affects an individual's mental and emotional wellbeing
- It impacts negatively on the health of workers by causing work-related illnesses, absenteeism decreased job performance as well as low productivity.
- Depression can lead to huge public health and economic costs.
- Second highest contributor to global burden of disease.
- Reduced treatment adherence, poor prognosis and increased disability.
- Depression can negatively impact on the effective functioning of the heart by causing inappropriate release of adrenaline which overtime damages the cardiovascular system that can eventually lead to heart failure.
- Increased in mortality for many physical diseases.
- Increased in health care cost which may be attributable to primary care visit, hospitalisation and medications.
- It can increase poverty level by interfering with individual's potential to function optimally both at the workplace and family settings.
- Depression in childhood and adolescent stage can have a prolong negative effect on the social and economic life during adulthood since it could it lead to impairment in their academic pursuit as well as other negative outcomes such as risky behaviours.
- It can slow down or decrease mental capabilities such as cognition, psychomotor, perception and behavioural as well as physical activities in individuals.
- Diminished libido is associated with depressive disorders in both men and women such as loss of interest in or enjoyment of sex.
- It is associated with negative health outcomes including cardiac diseases, suicide and decreased life expectancy.

- Child or spouse abuse or other violent behaviours may be displayed by the individual.
- Increase in risky behaviours.
- Suicidal ideal or suicide attempt.
- Suicide.

Meaning of Logotherapy and its Benefits During Adversity

Logotherapy will be explained is a type of therapy that help people find meaning and purpose in life when faced with adversity. Finding meaning in life cut across different aspects of man's struggle for existence such as finding meaning in the face of an incurable disease, meaning in the face of life adversities like loss of love ones, unemployment, serious financial challenges as well as traumatic life events. The main focus of logotherapy is the search for meaning which is the primary motivational force for every man. It takes advantage of the spiritual dimension of the human life as an inner resource that can help to cope with life stress and challenges. It is a spiritually oriented approach towards psychotherapy. It contains love, the will to meaning and freedom of choice, responsibility and sense of humour.

The following benefits of logotherapy will be explained to participants:

- It helps individuals take responsibility for whatever challenges life brings across their part as well as being in control of their lives and moving on rather than allowing themselves to be overwhelmed with such challenges.
- The therapy makes effort to assist individuals to get in touch with their hidden strength to be able to withstand the adversities of life. The therapy also leverages the capability of the human spirit to prevail over emotional distress that usually occurs at the peak of suffering. For instance, in a situation where an individual is suffering from an illness (mental or physical), being able to still find meaning in life will energize the individual to keep on fighting and as well increase their belief that behind the illness, there is an undamaged person who can still find reasons to live and of course that is the beginning of the healing process.
- More specifically, logotherapy taps into an individual's strength and his/her personal search for meaning and purpose in life. Therefore, instead of focusing on the symptoms of their illnesses, logotherapy helps the individual to adopt a radical and optimistic view about their potentials and their potential to transcend the self by pursuing what brings meaning into their lives.

As homework, participants will be instructed to make a list of the various feelings they have been experiencing since they have been diagnosed with HIV. Furthermore, they will be asked to write out how all these feelings have affected their daily lives.

Concluding remarks:

- In closing, participants will be appreciated for their cooperation
- Additionally, the participants will be encouraged to complete their assigned tasks and reminded of the next session's date, time, and location.

Session 3

Discussion on the Principles of Logotherapy

Objective: When the session ends, it is expected that participants will be able explain the basic principles of logotherapy.

Activities

- All participants will be welcomed to the third session.
- This will be followed by a general review of the assignment
- After which the basic principles of logotherapy will be discussed with the participants:

Freedom of will: Freedom of will will be explained as freedom to choose one's reaction to life unpleasant situations. It is not the freedom from unfavourable situations rather it is the freedom that will enable one to stand and face whatever conditions that life is bringing. The researcher will encourage participants to recognise the freedom they have and also implement the freedom. This freedom will help you to take away energy or strength from the symptoms and the problem that is overwhelming to you, so that you will be able to face life. The researcher will further explain to them that everything can be taken from one except his/her freedom to choose the attitude towards any situation. As a result, they have the freedom to choose how to respond to their situation and nobody can take that freedom from them. For instance, they can choose to be happy, eat well, dress well, put on a smiling face and nobody can stop them.

Will to meaning: Will to meaning will be explained as the potential of an individual to persist without giving up when confronted with unchangeable and tragic situations or the potential of an individual to endure without losing hope in the face of an incurable disease. It is the factor that drives an individual's existence and actions beyond the desire for gratification and power. She will also reinforce it to them that the will to meaning is

possible because of man's potential to transcend or rise above immediate challenges. The researcher will also explain to them that will to meaning is very important for survival as well as to live a healthy life whether one has HIV or not.

Meaning of life: It will be pointed out to participants that meaning in life begins with the fundamental belief that life has absolute meaning that cannot be taken from an individual under any circumstance. This belief connotes that everything in this world has meaning and purpose that is associated with it and as such every element, life and life experiences has their own unique meaning. In essence, meaning can be discovered by people when they reflect on life experiences apart from their relationship with others. The researcher will also explain to them that when a person is denied of everything that makes life meaningful or when they are in throes battling with illnesses and depression, finding meaning in life is what will eventually make the suffering more bearable and as well give hope to the individual to continue in life. Therefore, finding meaning in life irrespective of life challenges is the ultimate demand of life.

Participants will be given the opportunity of asking questions after which they will be given a take home assignment.

Concluding remarks:

- In closing, participants will be appreciated for their cooperation
- Further, they will be encouraged to do their homework and will be reminded of the date, time and location of the next session.

Session 4

Creative, Experiential and Attitudinal Values.

Objectives: This session is tailored at achieving the following objectives:

- The participants should understand the meaning of creative, experiential and attitudinal values.
- They should also be able to identify their own unique creative, experiential and attitudinal values.

Activities

Participants will be cordially welcomed to the session, followed by a review of the previous home work. Thereafter:

i. Creative values will be explained to participants as the different means of giving back to the world through the deployment of human talent and natural endowment in the

creation of things not previously in existence. For example, individuals that are experiencing meaninglessness can engage in creative activities such as making art work, drawing and painting, knitting, weaving, tending a flowerbed and creating other unique things that nobody has done that can make them experience happiness. The researcher will encourage them that they too can have their own creative values

ii. It will be explained to participants that through experiential values, people can receive from the world and also find meaning by experiencing and appreciating nature, religion, culture, truth, beauty and love. They can enjoy every moment of the day and appreciate the gift of relationships and nature, and all that life has to offer with understanding and appreciation even when life hurts. Through experiential values, you can cultivate good relationship with others; show them the kind of love no one has ever shown them, assist those that need help in whatever way you can, try and touch somebody's life in your own little. All these things can keep you happy and make you fulfilled.

iii. Attitudinal values will be explained as the stand taken by an individual towards situations and circumstances beyond his/her control which cannot be changed. It is the potential to endure adversity with courage and dignity when confronted with unchangeable adverse events. The researcher will explain to participants that having positive attitudes towards negative situations can assist people to experience meaning and fulfil their dreams in life. On the other hand, when they have negative attitude towards a situation that cannot be change can make them feel miserable and hopeless.

As homework, participants will be asked to:

- Identify some creative values they can embark on.
- List various ways they can experience the world.
- List some positive attitudes they can display to be able to cope with their present challenges.

Concluding remarks:

- In closing, participants will be appreciated for their cooperation
- Further, they will be encouraged to do their homework and will be reminded of the date, time and location of the next meeting.

Session 5:

Dereflection

Objectives: The following are set as objectives that should be attained at the end of this session.

- Participants should be able to understand that the more they focus their attention on the symptoms and the problem, the more they will be anxious and life will become more meaningless.
- The participants should be empowered to start redirecting their attention into more meaningful things instead of dwelling in their problems

Activities

Participants will be welcomed to the meeting followed by a review of their homework.

Thereafter, participants will be exposed to the basic understanding of dereflection. Usually, when people are going through difficult situations, they become over absorbed with the problems and symptoms without being able to think of any other thing outside of the problem. For example, most PLWHA think either of their viral load or their CD4 count all the time whether eating, in the market or when they wake up in the midnight.

Dereflection is technique in logotherapy that will assist participants to redirect their attention from their symptoms and problem into more rewarding or positive things. The first goal of dereflection is to assist participants distance themselves from their symptoms and what they are feeling presently. Secondly, it will assist participants in dealing with dysfunctional and awkward behaviour that are brought about by hyper-intention and hyper-reflection in which the individual tries to either work relentlessly or engage in excessive thinking. The researcher will assist participants to distance themselves from their symptoms, after which they will be encouraged to use their resistive power of the human spirit to transcend their current situations, and move toward positive activities which will eventually lead to a reduction of the symptoms. The researcher will reorient the participants to take their mind away from their symptoms and their problems and refocus their attention into more meaningful things that can make them happy. She will further encourage them that when they don't well much in their problems, they will discover that all their fears and worries will come down.

Next, the researcher will do the following:

- Explain the link between hyper-intention and hyper-reflection to the participants as well as the current symptom formation;
- Thereafter, participants' awareness will be directed towards more positive issues
- Next, participants will be asked to develop an alternative list with different helpful thoughts, attitudes and meaningful activities that can add value to their lives;
- They will then be encouraged to make use of items in their surrogate list to counter hyper-reflection or hyper-intention.

As homework, participants will be asked to

- To list five positive things that has happened in their lives in the past.
- To identify some meaningful things that they will redirect their attention towards so that they won't be focusing much attention on their problems.

Concluding remarks:

- In closing, participants will be appreciated for their cooperation
- Further, they will be encouraged to do their homework and will be reminded of the date, time and location of the next meeting.

Session 6

Paradoxical Intentions

Objectives: The session is set to attain the following objectives:

- Participants are made to understand that the fear their symptoms and anything related to their positive status will keep them in bondage.
- The participants should be able to face and confront their fears

Activities

Participants will be welcomed to the meeting followed by a review of their homework.

The researcher will expose participants to paradoxical intentions. This technique is used to encourage and challenge individuals to face or confront their greatest fear through the use of humour. For instance, a client may be afraid that a particular symptom may appear as a result of an illness, thereby making him to be anxious and afraid. The aim of paradoxical intention is to undermine the client's vicious circle by trying to replace his fear, shame and depression with more positive attitude. The technique builds upon an individual's capacity for self-detachment to break the vicious circle that usually

entangle people in psychogenic neuroses like phobia, anxiety and obsessive-compulsive behaviour.

Participants will be enlightened that anxious individuals usually try to avoid situations that aggravate their anxiety, a situation that will intensify the symptoms. They will therefore be advised to exaggerate and actually wish for what they fear most to deal with their fears and anxiety. This will help them to discover that replacing fear with a wish takes the wind out of the sail of the fear. In other words, through self-detachment, the individual will be able to adopt a new attitude towards the feared object or situation.

The participants will then be taken through the following steps:

- Assist them to distance themselves from their fears and source of worries.
- Participants will be asked to develop a new attitude of not being afraid but rather encouraged to make attempt to start welcoming the symptoms and things they use to fear and gradually, the symptoms will begin to reduce so that they can work towards achieving and living meaningful life.

As homework, participants will be asked to identify things that used to make to be afraid and also worry.

Concluding remarks:

- In closing, participants will be appreciated for their cooperation
- Further, they will be encouraged to do their homework and will be reminded of the date, time and location of the next meeting.

Session 7

Attitudinal Modification

Objectives: The session is set to achieve the following objectives:

- An attitudinal change towards the present situations of participants
- Participants should be able to develop new sets of attitudes to replace their negative attitudes.

Activities

Participants will be appreciated for creating time for the training and their various take home assignments.

They will then be made to understand that a negative attitude towards a particular situation can make things worse while a positive attitude can lighten the burden no matter how bad the situation may be. It will further be explained that attitudinal

modification seeks to assist individuals going through existential frustration to know that meaning can be found in every situation of life no matter how hopeless it may seem (Lukas, 1980). Attention will then be focused at assisting participants in changing negative attitudes to more positive one. One of the foci of this session will be for the researcher to use wisdom and insight to assess if some attitudes being displayed by the participants are harmful or not, by asking the participants to talk about some of their attitudes towards their situation. And it is established that any participant exhibits unhealthy or harmful attitude, such attitudes will be brought up for open discussion to ascertain whether they are healthy or not taking care to avoid judging whether such attitudes are good or bad in search for a meaning-oriented life.

Moreover, this technique offers a compassionate and caring approach towards the clients' present situations as well as their worries. Therefore, by building faith, hope and love in ultimate meaning, the researcher will use attitudinal modification to encourage, support, reassure and help participants regain their inner stability by finding a self-transient attitude which will help them regain their inner peace and be assured that every detail of their existence is cared for.

The researcher will mention some examples of negative attitudes:

- ✓ Crying
- ✓ Locking themselves up
- ✓ Isolating themselves from others
- ✓ Making attempts to harm self
- ✓ Deliberately doings things that make their treatment not to be effective such as having unprotected sex, alcohol intake, smoking, refusal to take their drugs, absconding from treatment etc.

The researcher will encourage the participants to identify some positive attitudes that can be used to replace the negative ones which will be discuss among the group.

Concluding remarks:

- In closing, participants will be appreciated for their cooperation
- Further, they will be encouraged to do their homework and will be reminded of the date, time and location of the next meeting.

Session 8

Socratic Dialogue

Objectives: This session is set to achieve the following objectives:

- Participants should be able to discover things that will give them personal meaning.
- Participants should be able to know how to actualize their personal meaning in life.

Activities

Participants will be welcomed warmly and commended for their participation so far. Thereafter, the researcher will review their homework.

Socratic dialogue is a way of using questioning to clarify meaning, elicit emotion and consequences, as well as gradually create insight or explore alternative action. When using this method, the researcher will facilitate participants' discovery of meaning, freedom and responsibility through the use of questioning and challenging in a non-confrontational way. This will be done by questioning the participants in order to facilitate internal exploration that will eventually lead to the discovery of personal meaning and how such meaning can be actualized. The researcher will ask questions such as: What do you mean by what you said? Can you give example to support what you are saying? Can you explain further? Are you saying that? What led you to that belief? Have you ever felt this way? Is there a different point of view? During the therapeutic session, the researcher will use the participants' own words as a means of self-discovery. By listening intently to what the participants will say, the researcher will be able to pinpoint to certain words and make them see new meaning in them. This process will help the participants realize that answers to some of their questions lies within and is just waiting to be unveiled. Moreover, during the process, the researcher will refrain from imposing her personal values or perception of meaning on the participants, instead the participants will be guided to perceive their own unrealistic and counterproductive attitude so as to develop a new outlook which may be a better alternative for a fulfilled life. The process will involve takes the following steps:

i. Plan significant questions to inform an overall structure and direction without being too prescriptive.

ii. Allow time for the client to respond to the questions without feeling hurried

iii. Stimulate the discussion with probing that follow the responses given

iv. Invite elaboration and facilitate self-discovery through questioning
v. Keep the dialogue focused, specific and clearly worded
vi. Regularly summarise what has been said
vii. Ask open questions rather than yes or no questions

The researcher will have one-on-one discussion with the participants concerning some issues bothering them to give room for questions and answers during the session.

Concluding remarks:

- In closing, participants will be appreciated for their cooperation
- They will be encouraged to develop a list of better alternatives or things they will do that will make them have a fulfilled life and will be reminded of the date, time and location of the next meeting.

Session 9

Topic: Overview, Post-Experiment Test and Closing.

Objectives: Participants are expected at the end of this session to be able to:

- Sum up their experiences focusing on the benefits they have derived from the various skills they have been exposed to in the last eight weeks of the program.
- Respond to items in the post-test instruments.

Activities

- Participants will be welcomed warmly to the session and will be most sincerely appreciated for their patience and participation so far in the programme followed by a review of their homework together with the researcher.
- This will be followed by an interactive session during which the effect of the therapeutic sessions on the participants will be determined. There will also be a role playing of the previous activities to establish whether the experience of the participants through the intervention has been positive.
- This will be followed by the administration of the post-test instrument on the participants

The participants will be appreciated again for their patience and cooperation followed by the distribution of gifts to participant as a token of appreciation for partaking in the program.

Concluding remarks:

- In closing, participants will be commended for their unwavering commitment and cooperation through the entire duration of the programme.
- They will then be admonished to effectively utilise the skills acquired during their participation in the therapy sessions to their maximum benefit.

Group 2: Cognitive Behavioural Therapy (CBT)

Session 1

General orientation and administration of instruments to obtain Pre-test Scores.

This session aims at creating an enabling atmosphere for interactive discussion and establishment of good rapport with the participants, giving them general orientation about the treatment and to administer the Beck Depression Inventory and Socioeconomic Status Scale to ascertain their level of preparedness and to also assure them of confidentiality.

Objectives: When this session ends, participants are expected to be able to:

1. State the training goals and objectives
2. State the relevance of the session to their mental health and psychological wellbeing.
3. List their roles and researcher's role in getting maximum benefit from the sessions
4. Complete the pre-test instrument.

Activities

- The participants will be welcomed warmly into the program and the researcher will briefly introduce herself and her research assistants.
- The researcher will also ask the participants to briefly introduce themselves to make them relax and as a means of creating an atmosphere that is free of tension.
- Next, the purpose of the program and benefits derivable from participation in the program will be explained to the participants.
- Similarly, the rules guiding conduct during the sessions and expectations from participants will also be explained.
- The participants will be assured of confidentiality.
- The pre-test instruments will then be administered to participants.

Concluding remarks:

- To close the session, participants will be appreciated for their patience and cooperation and will thereafter be reminded of the date, time and place of the next meeting.

Session 2:

Depressive Disorder and CBT

Objective: When the session ends, participants are expected to:

- Understand what depressive disorder mean
- Recognise various symptoms of depressive disorder
- To state how their depressed mood is affecting their mental health and general wellbeing
- Know the meaning of CBT and its benefits in enhancing their emotional wellbeing.

Activities

- The participants will be welcomed warmly
- The meaning of depressive disorder, its symptoms and effect on their health will be explained to them
- The meaning of CBT and its benefits will be explained to the participants as follows

The researcher will explain the concept of depressive disorder to participants as a mental disorder that is associated with feelings of sadness, loss of interest or pleasure, feelings of guilt or low self-worth, sleep disturbance or loss of appetite, continuous feelings of fatigue as well as lack of concentration. These feelings of sadness can cause serious emotional suffering for an individual. She will further explain to them that depression can persist for a long time and can make it difficult for them to carry out their daily activities at school, work and their businesses and to cope with their daily lives. She will also explain to them that any person suffering from depressive disorder will experience all these things for at least two weeks before it will be confirmed that such an individual is suffering from depressive disorder.

The researcher will explain all the symptoms of depressive disorder to the participants as follows;

- Depressed mood or feelings of sadness nearly everyday

- Loss of interest in things that use to make one happy or things that one used to enjoy
- Change in appetite (eating more or less than one used to eat)
- Lack of sleep or oversleeping
- Psychomotor agitation or retardation (changes in how fast one move such as either being too restless or moving too slowly)
- Lack of energy or feelings of fatigue (feeling tired all the time)
- Feelings of guilt or worthlessness
- Difficulty in thinking, concentrating and making decisions
- Suicidal thoughts or ideation (thinking about death or trying to harm oneself)
- Anxiety symptoms

These symptoms can make an individual not to function well at school, in the office and even in their businesses and daily lives.

The researcher will ask the participants the following questions:

- What kind of thoughts come to your mind when you are feeling sad?
- What do you do when you are feeling sad?
- How do you always relate with other people when you are sad?

Effects of depressive disorder

The researcher will further explain the impacts/effects of depression to the participants as follows:

- It affects an individual's mental and emotional wellbeing
- It impacts negatively on the health of workers by causing work-related illnesses such as absenteeism, decreased job performance and low productivity.
- Depression can lead to huge public health and economic costs.
- It is the second highest contributor to the global burden of disease.
- It leads to reduced treatment adherence, poor prognosis and increased disability.
- Depression can negatively impact the effective functioning of the heart by causing inappropriate release of adrenaline which overtime damages the cardiovascular system that can eventually lead to heart failure.
- It increases mortality for many physical diseases.
- It increases health care cost attributable to primary care visit, hospitalization and medications.
- It can increase poverty level by interfering with an individual's potential to

function optimally both at the workplace and family settings.

- Depression in childhood and adolescence can have prolong negative effects on social and economic life during adulthood since it could it lead to impairment in academic pursuit, risky behaviours and other negative outcomes.
- It can slow down or decrease mental capabilities such as cognition, psychomotor, perception and behavioural as well as physical activities in individuals.
- Diminished libido is associated with depressive disorders in both men and women such as loss of interest in or enjoyment of sex.
- It is associated with negative health outcomes including cardiac diseases, suicide and decreased life expectancy.
- Child or spouse abuse or other violent behaviours may be displayed by the individual.
- Increase in risky behaviours.
- Suicidal ideal or suicide attempt.
- Suicide.

Meaning of CBT and its benefits

CBT will be explained as a psychotherapeutic intervention that focuses on the way individuals think and act in order to help them overcome emotional and behavioural problems. It is a structured, brief, present-oriented form of psychotherapy developed by Beck for the treatment of depression. CBT is directed toward providing solutions to current problems and modifying inaccurate and unhelpful thinking and behaviour. It would further be explained that CBT is based on the interrelationship of thoughts, actions and feelings. Further, explanation will be provided on the various components of CBT as follows:

"Cognitive" refers to your thoughts (everything that goes on in your mind including your dreams, memories, images, thoughts attention).

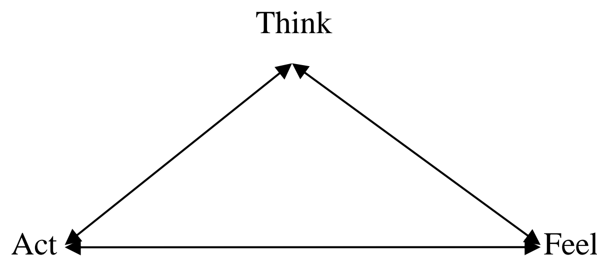
"Behavioural" refers to your actions (everything you do including what you say, how you try to solve a problem, how you act and avoidance)

"Therapy" refers to a systematic approach of trying to solve a problem, an illness or irregular condition.

While "depression" deals more with the way we feel.

She will then explain to them that by identifying thoughts and actions that affect our feelings, we can learn to gain more control over them and improve our mood and thus feel better.

The researcher will use the diagram below to illustrate depression to the participants.



- Our thinking can affect our body
- Our thinking can affect our actions (what we do)
- Our thinking can affect our mood (how we feel)

She will explain to them that having different bad thoughts can make one feel depressed. However, with the help of CBT, they will be able to reduce or eliminate the feelings of depression, shorten the time they feel depressed, learn how to prevent or avoid getting depressed and to feel more in control of their lives.

The researcher will explain the following benefits of CBT to participants

- CBT equip individuals with helpful strategies and necessary practical skills which they can integrate into everyday life to help them cope better with future stress and challenges even after the expiration of the treatment session.
- CBT assist individuals to build self-esteem by helping them to identify and find solutions to their problems.
- It is an effective therapy for coping with grief and loss.
- CBT helps depressed individuals learn how to communicate their feelings to others by equipping them with good communication skills.
- It helps people to identify, challenge and change negative thoughts that are associated with depression.
- CBT assist people suffering from different mental disorders by equipping them with necessary tools to prevent relapse.
- CBT is very instructive in the sense that it teaches clients rational self-

counselling skills.

- The therapy can be completed within a short period of time unlike other therapies.
- CBT focuses on getting better instead of feeling better. In other words, by correcting problematic underlying assumptions, CBT creates long-term results since the cause of the problem is corrected.

As homework, the researcher will ask participants to identify at least five of the negative thoughts that they are battling with.

Concluding remarks:

- To close the session, participants will be appreciated for their investment of time and effort in attending the meeting and will be encouraged to do their homework.
- They will thereafter be reminded of the date, time and place of the next meeting.

Session 3:

Cognitive distortion

Objectives: Participants should at the end of the session be able to:

- Elucidate the concept of cognitive distortion
- List the different types of cognitive distortion

Activities

- Activities for the day will start with a warm welcome and review of the previous session's homework.

Cognitive distortion will be explained as negatively biased error in thinking that expose an individual to depression. They are beliefs and thought patterns that are irrational, false or inaccurate and are capable of causing serious harm to an individual's sense of self-worth, his/her confidence as well as his/her her potential to achieve set goals. They also refer to the systematic errors in the perception and processing of information. The term also connotes faulty ways of thinking which usually convince people of reality that is simply not true.

The researcher will list and explain the different types of cognitive distortions to participants and the different ways people can engage in distortive thinking such as:

- **Filtering:** this refers to the process in which an individual may ignore all the positive and good things they experience in a day and focus their attention solely on the negative things.

- **Polarized thinking or Black and White thinking:** this involves thinking in the extreme in which the individual sees everything as either good or bad, with nothing in the middle.
- **Overgeneralisation:** it is a process in which an individual assumes that because certain negative event has happened, other bad things are likely to happen. The individual may take a single negative incidence and make a broad generalization out of it.
- **Jumping to conclusion:** it involves individual's faulty ways of reasoning and drawing conclusions without any form of evidence.
- **Catastrophising:** in this form of distortive thinking, the individual makes negative prediction about the future based on little or no evidence. It involves taking one minor negative event and imagining all sorts of disaster that may likely happen as a result of that single event. Normally, the individual expects that the worst will happen or has happened as a result of a minor incident that has no relation to the tragedy that it is made out to be.
- **Personalisation:** this is a type of cognitive distortion in which the individual blames him/herself as the cause of every negative event that happens. This type of distortion can lead to emotional problems, such as getting offended easily or feeling unnecessarily guilty.
- **Control fallacy:** in this type of cognitive distortion, people believe that whatever happens to them is as a result of external forces or due to their own actions.
- **Blaming:** it usually involves blaming others for whatever happens without the individual taking responsibility for his or her actions.
- **Emotional reasoning:** in this form of distortion, the individuals believe that whatever way they are feeling must be true. In essence, it means believing that something should be true based on emotional responses rather than having concrete evidence.
- **Labelling:** this is an extreme form of generalising which involves creating a negative view about oneself based on the mistake that one has made in the past.
- **Mindreading:** this involves making assumptions that others are thinking negatively about one or have negative motives or intentions towards one.
- **Discounting the positive:** this is a situation where the individual will not notice the positive things that happen, they only see the negative things.

- **Always being right:** this type of distortion makes people to believe that they must be right and as such, being wrong is unacceptable.
- **Heaven's reward fallacy:** this is a type of distortive thinking in which an individual expects that any form of sacrifice or self -denial on one's part would pay off but if that does not happen, it results to feelings of depression.

As homework, participants will be asked to identify which of the thinking errors exposed to them they usually experience.

Concluding remarks:

- To close the session, participants will be appreciated for their investment of time and effort in attending the meeting and will be encouraged to do their homework.
- They will thereafter be reminded of the date, time and place of the next meeting.

Session 4

Identification and evaluation of negative automatic thoughts

Objectives: This session is set to achieve the following objectives:

- ➢ The participant should know when they are having negative automatic thoughts and be able to identify and evaluate such thoughts.

Activities

- ➢ The session will start with a warm welcome of participants followed by a review of the homework given in the previous session

Thereafter, negative automatic thoughts (NATs) will be explained to participants as stream of thinking that co-exists with a more manifest stream of thoughts. Negative automatic thoughts are thoughts that are negative and subconscious and they occur in response to everyday events. It also refers to thoughts that are involuntarily activated in specific situations. They usually pop up within the individual uninvited and as depression gets worse, they begin to appear more frequently. In severe cases, they fully dominate the individual's thinking making it complicated for him/her to concentrate and do normal tasks. During depressive episodes, NATs normally focused on negative events, low self- esteem and worthlessness. These thoughts are usually very brief and when they pop up in one's mind, they affect the way that person will feel or act. In addition, these thoughts are irrational, self-defeating and they can have impact on an individual's mood and feelings; they can lead to self-doubt, depression, anxiety, anger, irritability and low mood. These thoughts could be verbal (you just say it out without knowing) and they could be visual (having the image of that negative thing you are

thinking about) or they could be both. The researcher will further explain to participants that these thoughts are:

- Always negative
- Make you feel bad about yourself
- Uninvited
- Self-destructive
- Believable
- Biased.

The researcher will list out some negative automatic thoughts experienced by depressed individuals such as:

- I am going to die
- Nobody likes me because I'm HIV positive
- My husband will abandon me
- My marriage is going to scatter
- Nobody wants to marry me
- My viral load is going to be very high
- I hate the day they gave birth to me
- This sickness will kill me
- I am useless
- I am hopeless
- It is all my fault
- I cannot achieve my goals anymore
- I will not be able to have children etc.

The researcher will ask participants to unveil some of the negative automatic thoughts that usually pop up within their mind and how they used to feel anytime they have such thoughts. She will educate them that being able to identify automatic thoughts can give them the opportunity to test and respond to them immediately. The researcher will expose participants to how they can identify negative automatic thoughts. For instance;

i. When you notice a change in your mood or you notice that you are getting worse in the way you are feeling; stop and ask yourself, what is going through my mind right now?

ii. Try and write down those things that are going through your mind
iii. If you cannot remember what was going through you mind, try and make a guess of what you were thinking about
iv. Where you thinking of what will happen to you or were you trying to remember what you did
v. Ask yourself what the thought meant to you.

Evaluating negative automatic thoughts

The researcher will expose participants to how they can evaluate automatic thoughts that are dysfunctional. Evaluating automatic thoughts entails questioning the validity of that thought that just showed up in your mind. In other words, you are trying to find out if the thought is true or not, whether it is a fact or just an opinion. She will take them through the following steps:

- Try and identify the automatic thoughts
- Examine the validity of the automatic thought (is it true or is not true; is there any evidence supporting the thought or try and find out if there is evidence against the thought)
- Explore the possibility of other interpretations (is there any alternative explanation to what I am thinking?)
- De-catastrophise the problematic situation (ask yourself this; what is the worst that can happen?) This will help you think of more realistic outcomes that in case the worst happens, this is how I will cope. By doing this, you will notice that you have already taking strength away from the problem. (Try to imagine the best that could happen also)
- Recognise the impact of believing the automatic thought (if you believe in the thought, how will it affect you?)
- Gain a distance from the thought (ask yourself this: what will I tell a friend if he/she is in the same situation? Use your answer to encourage yourself).

As homework participants will be asked to identify their automatic thoughts whenever they notice a change in their mood and also try and evaluate the authenticity of such automatic thought from what they have leant.

Concluding remarks:

- To close the session, participants will be appreciated for their investment of time and effort in attending the meeting and will be encouraged to do their homework.

- They will thereafter be reminded of the date, time and place of the next meeting.

Session 5

Dysfunctional Thought Records

Objective: The following are set as objectives for this session:

- Participants should know what thought records are used for.
- They should also know how to record their automatic thought using the thought records

Activities

- The session will start with a warm welcome followed by a review the homework given in the previous session.

Thereafter, explanation will be provided to participants on what dysfunctional thought record is. She will explain to them that dysfunctional thought record is a worksheet that participants can use to evaluate their automatic thoughts when they are feeling depressed. The worksheet consists of different columns that the participants will be asked to fill, starting with date, the situation that led to the thought, followed by the nature of the automatic thoughts and how much the client believed in it. The next column consists of the emotions that followed the automatic thoughts and how intense they were felt. In the next column, the client is asked to identify the nature of his/her cognitive distortions as well as how he/she responded to it, this is followed by a column where the client will generate alternative thoughts that are more positive and functional which can replace the negative ones. The last column is the outcome which has to do with how much the client believed in those distortions. One of the benefits of using this technique is that the process can assist an individual to view such thoughts as mere intuitions, theories and ideas rather than the complete truth. According to Boyes (2012), testing the validity of thoughts is the major aim of thought record. Once an individual is able to come up with evidence for or against the dysfunctional thoughts, he/she can then change to more stable and realistic thoughts.

The researcher will show participants what dysfunctional thought record looks like and how to use it.

As homework, the researcher will give a copy of dysfunctional thought record to the participants each and ask them to record any dysfunctional thought they might experience when they get home.

Concluding remarks:

- To close the session, participants will be appreciated for their cooperation demonstrated in their attendance at the sessions so far and will be encouraged to do their homework.
- They will thereafter be reminded of the date, time and place of the next meeting.

Session 6

Cognitive restructuring

Objective: The single objective of this session is**:**

- To enlighten participants on how to change dysfunctional thoughts to more functional and positive ones

Activities

- To start the session, participants will be welcomed to the meeting after which the previous homework will be reviewed with participants

Cognitive restructuring will be explained to participants as a structured, goal-directed and collaborative intervention strategy that focus on exploration, evaluation and replacement of harmful thoughts and beliefs causing emotional disturbance. It is a therapeutic process that help individuals to learn how to identify and challenge irrational or maladaptive thoughts that are usually associated with mental health disorders such as depressive disorders, anxiety disorder, obsessive compulsive disorder, substance abuse disorder etc. Once individuals are able to identify thoughts that are harmful or destructive, they begin to confront them in order to change such irrational thoughts responsible for their psychological disturbance (Dobson and Dozois, 2010; Hollon and Dimidjian, 2009). In essence, this technique aims to assist individuals reduce their emotional distress by helping them to develop more positive and functional thoughts (Mills, Reiss and Dembeck, 2008). The researcher together with the participants will try and generate a list of positive thoughts that the participants will be using to replace their negative thoughts. Examples are given below:

- I will learn to be happy
- Life is interesting
- I really feel good
- I am a good person
- I will make it

- I will not die
- I am attractive
- I will not give up
- I will live for my children
- My future is bright
- My home is not going to scatter
- This sickness will not kill me etc.

Dysfunctional Thought Record

Date/Time	Situation (The event that led to the dysfunctional thought)	Nature of automatic thought/ rating (10%-100%)	Emotions/Intensity	Nature of cognitive distortion (filtering, blaming etc.)	Alternative thoughts that are more positive that could replace negative thoughts	Outcome of the exercise (was it successful? Were you able to confront your negative thoughts and replace them?)
Mon						
Tue						
Wed						
Thur						
Fri						
Sat						
Sun						

The researcher will teach participants how to replace thoughts that make them feel bad by taking them through the following steps of how to replace negative thoughts.

When a negative thought is running through your mind and ruining your mood, first

- Identify the thought
- Next tell yourself, “this thought is ruining my mood and it wants me to feel bad
- Tell yourself, “I’m going to change this negative thought to a positive one”
- Look for a more functional or positive thought to replace the negative thought. For example, if the thought of death is flashing through your mind, tell yourself I will not die but I will live.
- Continue with this practice, anytime you are having negative thoughts, try and replace them immediately with positive thoughts.

As homework, participants will be asked to practice what they have learnt about how to replace negative thoughts with positive thoughts.

Concluding remarks:

- To close the session, participants will be appreciated for their cooperation demonstrated in their attendance at the sessions so far and will be encouraged to do their homework.
- They will thereafter be reminded of the date, time and place of the next meeting.

Session 7

Topic: Pleasant activity scheduling

Objective: The single objective set for this session is to identify different pleasant activities they will engage in to improve their mood in times distress.

Activities

- Participants will be welcomed to the meeting after which the homework given in the previous session will be reviewed.

The session will begin with an explanation of pleasant activities to study participants. Pleasant activities are the activities that we do mostly every day that can engage our mind positively. They are ordinary activities that we enjoy. The researcher will encourage participants that engaging in activities that produces higher level of positive emotions in their daily lives will help them to engage less in negative or dysfunctional thinking.

The researcher and the participants will explore different pleasant activities they can embark on such as:

- Watching television
- Going to church or mosque
- Visiting our friends
- Making a call
- Charting with friends on face book, Skype or Whatsapp
- Reading a book
- Listening to music
- Taking a walk
- Encouraging somebody
- Praying for somebody
- Watching football
- Playing football
- Baking
- Surfing the internet
- Give a gift
- Take pictures
- Travel
- Spend time with your family
- Take part in social or political activities if you like them
- Learn something new
- Cook
- Go partying
- Play video games

As homework, the researcher will ask participants to schedule at least one pleasant activity they will engage in each day or to schedule any activity that will give them a sense of mastery, competence or accomplishment.

Concluding remarks:

- To close the session, participants will be appreciated for the time and effort invested in attending the sessions so far and will be encouraged to do their homework.
- They will thereafter be reminded of the date, time and place of the next meeting.

Session 8

Mindfulness meditation

Objective: This session is set to achieve the following objectives:

- Understand the grandness of mindfulness in helping to let go of all distressing thoughts and stress and becoming more relax at difficult times.
- Mention the various steps in mindfulness meditation that will assist in calming them down during distressing moment.

Activities

- The participants will be warmly welcomed.
- The researcher will review their homework with them

The researcher will explain mindfulness meditation as paying attention to each event experienced in the present moment within one's mind as well as being non-judgmental, non-reactive and accepting attitudes. This technique can help an individual to counter many of the sufferings experienced daily such as stress, anxiety and depression because through this exercise, the individual will learn to experience events in a more impersonal and detached way. The researcher will further explain the grandness of mindfulness to participants as listed below:

- Mindfulness improves your health and overall standard of life.
- It reduces anxiety and depression
- It increases your concentration
- It can help one in achieving a stronger potential to cope more effectively with day-to-day stress.

The researcher will take the participants through the steps of mindfulness meditation enumerated below:

- First find a comfortable place where you will not be disturbed or distracted
- Start with shorter periods between 5-10minutes
- Position yourself in a way that you will be relaxed and alert with your back reasonably straight.
- Then start by first taking a deep breath with your eyes open or closed.
- Close your eyes and drop all your heavy loads and move away from all the worldly stress (all the things worrying and disturbing you).
- Now, focus on your breath. Bring all your awareness to the sensation of your breathing. Try and feel the cool air coming in and the warm air going out. Don't

try to control your breathing, let it be whatever it is, flowing in and out of its own.

- ➢ Start counting your breath softly. Count from 1-10 and then start over. Start from one again if you notice you missed the sequence before reaching number ten. You know why? Because your mind has wandered away. You need to be focused. Don’t criticize yourself even if your mind wanders away, just try and be focused when you start again.
- ➢ Get more and more absorbed in your breathing. Once your mind settles down during the first few minutes, you will find it easier to focus your attention on the air as it travels deeper inside you and back again. Open your whole consciousness to the simple process of breathing.
- ➢ Now bring your attention to the presence of the thought that are going through your mind, trying to pull your attention away from your breath. This is the most important step. Allow yourself to be aware of those thoughts and feelings, wishes and plans, images and memories. Tell yourself: I am noticing my thoughts but I’m not carried away by them. Note: it is a process of awareness not thinking. The idea is to sit with your thoughts and let them be whatever they are. Each time you noticed that you are being carried away by a thought, gently bring back your focus on your breath again and again.
- ➢ Feel a growing sense of peacefulness within as you keep settling into the breath with more focus. Once you are there in the state of peaceful awareness, you may decide to stay in that state as long as you want. Finally, you may bring the meditation to an end by opening your eyes, stretching out your hands and getting up.

As homework, the researcher will ask participants to try the exercise when they get home and she will also encourage them to keep up with it.

Concluding remarks:

- In closing, participants will be appreciated for the time and effort invested in attending the sessions so far and will be encouraged to do their homework.
- They will thereafter be reminded of the date, time and place of the next meeting.

Session 9

Overview, post-intervention test administration and closing.

Objectives: At the end of the session, the participants are expected to be able to:

- Summarise their experiences based on what they have benefited from the various skills they have learnt since the commencement of the program.
- Respond to the post-test instruments.

Activities

- Participants will be welcomed warmly to the session and will be most sincerely appreciated for their patience and participation so far in the programme followed by a review of their homework together with the researcher.
- This will be followed by an interactive session during which the effect of the therapeutic sessions on the participants will be determined. There will also be a role playing of the previous activities to establish whether the experience of the participants through the intervention has been positive.
- This will be followed by the administration of the post-test instrument on the participants

The participants will be appreciated again for their patience and cooperation followed by the distribution of gifts to participant as a token of appreciation for partaking in the program.

Concluding remarks:

- In closing, participants will be commended for their unwavering commitment and cooperation through the entire duration of the programme.

They will then be admonished to effectively utilise the skills acquired during their participation in the therapy sessions to their maximum benefit.

Control Group

Session 1

Administration of pre-test instrument

Objective: The single objective of this session is the administration of the pre-test instrument to collect pre-treatment scores from participants

Activity: During this session, the researcher will establish a rapport with study participants in this group. Thereafter, the purpose of the programme will be explained to participants and followed by a solicitation of their full support and cooperation. This will be followed by the administration of the pre-test instruments on the participants.

Concluding remarks

- Participants will be appreciated for their time and effort and will be reminded of the date, time and place of the next meeting.

Session 2

Positive thinking

Objective: To know the benefits of positive thinking to their psychological well -being.

Activities

- The participants will be warmly welcomed.

The researcher will explain the meaning of positive thinking as a mental and emotional attitude that focuses on the bright side of life and expects positive results. A person with positive thinking mentally anticipates happiness, health, success and believes that he/she can overcome any obstacle and difficult situation. She will further encourage them that the power of their thought is a mighty power that is always shaping their lives. The researcher will also tell them some of the benefits of positive thinking as follows:

- Positive thinking can increase your life span.
- Help you not to get depressed
- Lower your level of distress
- Generate resistance to common cold.
- Lead to better psychological and physical well- being.
- Lead to better cardiovascular health and also reduce the risk of death from cardiovascular diseases.

The researcher will expose participants to the various ways they can stay positive in their thinking such as:

- Ignoring what other people say about them.
- Using their imagination to visualize only favourable and beneficial situations
- Using positive words in their inner dialogues or when talking to others
- Always smiling which helps to relief stress
- Anytime a negative thought enters your mind, replace it with a positive one.
- It doesn't matter what your situation is right now, think positive and have hope.
- Believe in yourself by having faith in your abilities. When your self confidence is high, you can succeed no matter what life brings across your path.

- Put yourself in the hand of God.
- Say to yourself every day, "I can do all things, I can achieve all no matter what through Christ/God that strengthens me.
- Remind yourself that God is with you and nothing can defeat you no matter how tall the problem may look.
- Always tell yourself that you will not be defeated by this illness.

Concluding remarks

- Participants will be appreciated for their time and effort and will be reminded of the date, time and place of the next meeting.

Session 3

Administration of post-test instrument and closing

Objective: the single objective of this session is to administer the post-test instrument on members of the control group.

Activity: The post-test instrument will be administered after which general counsel will be given to the participants on positive thinking and the need to be committed to their treatment. A gift will thereafter be given to each participant as a token of appreciation for their cooperation and participation in the programme.

Closing remarks:

In closing, participants will be commended for the time and effort invested in participating in the programme.

APPENDIX II

Department of Guidance and Counselling
Faculty of Education
University of Ibadan, Ibadan

SECTION A

Dear Respondents,

This sole purpose of this questionnaire is to collect information about the stigmatisation experienced by people living with HIV/AIDS and its effects on their daily lives. The information collected is strictly for academic research purposes and your response will be treated with the highest level of confidentiality

Facility..
Age.......................................
Gender..................................

SECTION B

Berger HIV Stigmatization Scale

Instruction: For each of the following statements, please read carefully and then mark the appropriate answer in the space next to the word. Please give only one response to each item and respond to all items.

Key: SA= Strongly agree, A= Agree, D=Disagree and SD= Strongly disagree

S/N		SA	A	D	SD
	Personalised stigma				
1	I have been hurt by the way people react to me because of my HIV status				
2	I am being isolated by people who use to be close to me because of my HIV				
3	I regretted that I told some people that I have HIV				
4	Some people stopped touching me since they knew that I have HIV				
5	Some people who used to be close to me have stopped calling me immediately they found out that I have HIV				
6	Some people are now afraid of me since they found out that I have HIV				
	Disclosure concerns				
7	It is very risky to tell people that you have HIV				
8	I make sure I keep my HIV secret from everybody				
9	I am always careful of who I tell that I have HIV				
10	I am afraid that people will judge me once they found out that I have HIV				
11	I have told those who are close to me that they should keep my HIV status secret				
	Concern about public attitude				
12	People who have HIV are treated like outcast				
13	Some people have lost their jobs because their employers found out they have HIV				

14	Many people believe that people who have HIV are wayward				
15	Many people think that people who have HIV are disgusting				
16	Many people who have HIV have experienced rejection immediately people found out that they have HIV				
17	Many people are not comfortable when they are around people who have HIV				
	Negative self-image				
19	I feel guilty because I have HIV				
20	The way some people react to people that have HIV makes me feel worse about my self				
21	I feel I am not as good as others because I have HIV				
22	Having HIV makes me feel I am a bad person				

SECTION C: HOSPITAL ANXIETY AND DEPRESSION SCALE

	Items				
	I still enjoy the things I use to enjoy				
0	Definitely as much				
1	Not quite so much				
2	Only a little				
3	Hardly at all				
	I can laugh and see the funny side of things:				
0	As much as I always could				
1	Not quite so much now				
2	Definitely not so much now				
3	Not at all				
	I feel cheerful:				
3	Not at all				
2	Not often				
1	Sometimes				
0	Most of the time				
	I feel as if I am slowed down:				
3	Nearly all the time				
2	Very often				
1	Sometimes				
0	Not at all				
	I have lost interest in my appearance:				
3	Definitely				
2	I don't take as much care as I should				
1	I may not take quite as much care				
0	I take just as much care as ever				
	I look forward with enjoyment to things:				
0	As much as I ever did				
1	Rather less than I used to				
2	Definitely less than I used to				
3	Hardly at all				
	I can enjoy a good book or radio or TV program:				
0	Often				

1	Sometimes				
2	Not often				
3	Very seldom				

SECTION D: BECK DEPRESSION INVENTORY (BDI)

1	**Sadness**					
0	I do not feel sad.					
1	I feel sad most of the time.					
2	I am sad all the time.					
3	I am so sad or unhappy that I can't stand it.					
2	**Pessimism**					
0	I am not discouraged about my future.					
1	I feel discouraged about the future					
2	I do not expect things to work out for me.					
3	I feel my future is hopeless and will only get worse.					
3	**Past Failure**					
0	I don't feel like I'm a failure.					
1	I feel I have failed more than everyone else					
2	When I look back, all I see is failure.					
3	I feel I am a complete failure as a person.					
4	**Loss of Pleasure**					
0	I get much pleasure from the things I enjoy.					
1	I get very little pleasure from the things I used to enjoy.					
2	I don't get pleasure from the things I used to enjoy.					
3	I have lost complete pleasure from the things I used to enjoy.					
5	**Guilty Feelings**					
0	I don't use to feel guilty.					
1	I feel guilty over many things I have done or should have done					
2	I feel quite guilty most of the time.					
3	I feel guilty all the time.					
6	**Punishment Feelings**					
0	I don't feel I am being punished.					
1	I feel I may be punished.					
2	I expect to be punished.					
3	I feel I am being punished.					
7	**Changes in Sleeping Pattern**					
0	I have not experienced any change in my sleep pattern.					
1	I don't sleep as much as I used to					
2	I wake up 1-2 hours early and can't get back to sleep.					
3	I wake up several hours earlier than I used to and I find it difficult to go back to sleep.					
8	**Self-Criticism**					
0	I don't criticize or blame myself more than usual					
1	I criticize myself for all of my faults.					
2	I am more critical of myself than I used to.					

3	I blame myself for everything bad that happens.					
9	**Suicidal Thoughts or Wishes**					
0	I have not thought about killing myself.					
1	I have thoughts of killing myself, but I would not carry them out.					
2	I would like to kill myself.					
3	I would kill myself if I had the chance.					
10	**Crying**					
0	I don't cry any more than I used to.					
1	I cry more now than I used to.					
2	I cry over every little thing.					
3	I feel like crying, but I can’t.					
11	**Agitation**					
0	I am no more restless or wound up than usual.					
1	I feel more restless or wound up than usual.					
2	I am so restless or agitated that it’s hard to stay still.					
3	I am so restless or agitated that I have to keep moving or doing something.					
12	**Loss of Interest**					
0	I have not lost interest in other people or activities.					
1	I am less interested in other people or things than before.					
2	I have lost most of my interest in other people or things.					
3	I have lost complete interest in everything					
13	**Indecisiveness**					
0	I have no problem making decisions.					
1	I find it more difficult to make decisions than usual.					
2	I have greater difficulty in making decisions than before.					
3	I can’t make decisions at all anymore.					
14	**Worthlessness**					
0	I do not feel as if I am worthless.					
1	I don’t consider myself as worthless as before					
2	I feel more worthless as compared to other people.					
3	I feel I’m totally worthless.					
15	**Loss of Energy**					
0	I have as much energy as ever.					
1	I have less energy than I used to.					
2	I don’t have enough energy to do much.					
3	I don’t have enough energy to do anything.					
16	**Self-Dislike**					
0	I feel the same about myself as ever.					
1	I have lost confidence in myself.					
2	I am disappointed in myself					
3	I dislike myself.					
17	**Irritability**					
0	I am no more irritated by things than usual.					

1	I am a little irritated than usual.					
2	I am quite irritated than usual.					
3	I am always irritated than usual.					
18	**Changes in Appetite**					
0	I have not experienced any change in my appetite					
1	My appetite is much less than before.					
2	My appetite is much greater than before.					
3	I have no appetite at all.					
19	**Concentration Difficulty**					
0	I can concentrate as before.					
1	I cannot concentrate as before.					
2	It's hard to keep my mind on anything for very long.					
3	I find it difficult to concentrate on anything.					
20	**Tiredness or Fatigue**					
0	I don't get tired or fatigued than l used to					
1	I get more tired more easily than I used to.					
2	I am too tired or fatigued to do a lot of things I used to.					
3	I am too tired to do anything					
21	**Loss of Interest in Sex**					
0	I have not noticed any recent change in my interest in sex					
1	I am less interested in sex than I used to be.					
2	I have almost no interested in sex now.					
3	I have lost interest in sex completely.					

SECTION E: SOCIO-ECONOMIC STATUS SCALE

SECTION A: PERSONAL DATA

1. Age: Below 20 yrs ( ); 20-30 yrs ( ); above 30 yrs ( )
2. Sex: Male ( ) Female ( )
3. Tribe: Yoruba ( ), Igbo ( ), Hausa / Fulani ( ), Others

SECTION B: EDUCATIONAL HISTORY

Highest Qualification

(i) Basic Education Certificate ( ), (ii) GCE, WAEC, NECO ( ), (iii) ND ( ),
(iv) NCE ( ) (v) HND ( ), (vi) B.A; B.Sc; LLB (Bachelor Degree) ( ),
(vii) Masters Degree ( ), (viii) PhD ( )

SECTION C: HOUSING TENURE

Indicate the type of house you live in

(i) Mud House ( ), (ii) Townhouse ( ), (iii) Semi-detached house ( ), (iv) Detached House( ), (v) Bungalow ( ), (vi) Duplex/Triplex ( ), (vii) Mansion ( )

The Ownership of the house

(i) Rented Housing ( ), (ii) Co-operative ( ), (iii) Private rental ( ),
(iv) Public rental ( ), (v) Housing Association ( ), (vi) Squatting ( ),
(vii) Home Ownership ( )

How many people sleep in a room?

(i) less than 4 people ( ), (ii) less than 3 people ( ), (iii) less than 2 people ( ),
(iv) 1 person ( ), (v) more than 4 people ( )

Kinds of Amenities in the House

(i) TV Set ( ), (ii) Radio Set ( ), (iii) Dstv, Gotv, etc ( ), (iv) Video & Audio Players ( ), (v) Air Conditioner ( )

SECTION D: OCCUPATIONAL HISTORY

What is your occupational Status?

(i) No occupation ( ), (ii) Self Employment ( ), (iii) Civil servant ( )

What kinds of occupation do you engage in?

(i) Profession ( ), (ii) Employment ( ), (iii) Business ( )

SECTION E: INCOME

What is your source of income?

(i) Business income ( ), (ii) Pension Income ( ), (ii) Dividend Income ( ),
(iv) Salary Income ( ), (vi) Rental Income ( ), (vii) Interest Income ( ),
(viii) Profit Income ( ), (ix) Professional Income ( )

What is your total income per month?

(i) Less than 30,000 per month ( ), (ii) 30000 – 50,000 per month ( )
(iii) 51,000 - 100,000 per month ( ), (iv) 100,001 - 200,000 per month ( )
(v) 201,000 - 300,000 per month ( ), (vi) 300,001 - 500,000 per month ( )

SECTION G: POSSESSION OF GOODS

Items	None	Just 1	Just 2	>2
How many family/personal physicians do you have?				
How many personal lawyers do you have?				
How many gardeners do you have?				
How many House helps do you have?				
How many personal Drivers do you have?				
How many political parties do you belong to?				
How many religious associations do you belong to?				
How many professional bodies do you belong to?				
How many cars do you have?				
How many motor cycles do you have?				
How many houses do you have?				
What is the approximate number of acre of landed property you have?				
How many computers do you have at home for yourself and for your family?				
How many cell phones do you have?				
How many business companies do you have?				

APPENDIX III

DEPARTMENT OF COUNSELLING AND HUMAN DEVELOPMENT STUDIES
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Prof. E. A. Awoyemi
B.Ed., M.Ed., Ph.D

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Dr. A. A. Owodunni
B.Ed., M.Ed., Ph.D

Tests and Measurement
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Dr. J. O. Fehintola
B.Sc., PGDE, M.Ed., Ph.D
Dr. A. K. Taiwo
B.Sc., M.Ed., Ph.D

Date: 14/7/2021

The Chairman
Ethical Committee
OLA Catholic Hospital

LETTER OF INTRODUCTION

This is to certify that Adeboo Chioma Faustina with Matriculation No.: 131718 is one of our M.Phil/Ph.D./Ph.D. students in the Department of Counselling and Human Development Studies, University of Ibadan. He/She would like to collect data for his/her thesis titled: Logotherapy and Cognitive Behavioural Therapy in the Treatment of Depressive Disorder Among Stigmatised People Living with HIV/AIDS in Oyo State, Nigeria

Kindly assist him/her in any way you can.

Thank you.

Head of Department
Dept. of Guidance & Counselling
Faculty of Education
University of Ibadan

Prof. Chioma C. Asuzu,
Head of Department.

INSTITUTE FOR ADVANCED MEDICAL RESEARCH AND TRAINING

(IAMRAT) College of Medicine, University of Ibadan,

Ibadan, Nigeria.

Director: Prof. Catherine O. Falade, MBBS (1b), M.sc., FMC? FWACP Tel: 0803 326 4593, 0802 360 9151

e-mail: cfalade@comui.edu.ng lillyfunke@yahoo.com

UI/UCH EC Registration Number: NHREC/05/01/2008a

NOTICE OF FULL APPROVAL AFTER FULL COMMITTEE REVIEW

Re: Logotherapy and Cognitive Behavioural Therapy in the Treatment of Depressive Disorder among Stigmatised People Living with HIV/AIDS in Oyo State, Nigeria.

UI/UJCH Ethics Committee assigned number: UI/EC/2 1/01 22

Name of Principal Investigator: Onome F. Adelowo

Address of Principal Investigator: Department of Counsel ling and Human Development Studies

University of Ibadan, Ibadan

Date of receipt of valid application: 06/04/202 1

Date of meeting when final determination on ethical approval was made: N /A

This is to inform you that the research described in the submitted protocol, the consent forms, and other participant information materials have been reviewed and given /illl approval by the UI/UC'H Ethics Committee.

This approval dates from 21/05/2021 to 20/05/2022. If there is delay in starting the research, please inform the UI/UCH Ethics Committee so that the dates of approval can be adjusted accordingly. Note that no participant accrual or activity related to this research may be conducted outside of these dates. All in/brmecl consent /örms used in this study must carry the UI/UCH EC assigned number and duration of UI/UJCH EC approval Q/' the study. It is expected that you submit your annual report as well as an annual request for the project renewal to the UI/UCH EC at least four weeks before the expiration ofthis approval in order to avoid disruption of your research.

The Naliona/ Code for Ilea/lh Research El/lic.s requires you 10 with all institutional guidelines, rules and regulations and li'ilh the tenets e/ lhc Code including ensuring thal all adverse events are reported pronjpll.l' 10 the UI/UJCH EC. No changes are permitted in the research without prior approval by (he UI/UJCH EC except in circmn.qances outlined in the Code. The UI/UJCH EC reserves lhe right to conduct compliance visit 10 your research site withotll previous notification.

Professor Catherine O. Falade
Director. IAMRAT
Chairperson, UI/ UCH Research Ethics Conunittee
E-mail: Iliuchec a Q'lnail.com

Research Units • Genetics & Bioethics • Malaria • Environmental Sciences • Epidemiology Research & Service • Behavioural & Social Sciences Pharmaceutical Sciences • Cancer Research & Services Hlv/AIDS

TELEGRAMS................ TELEPHONE................

MINISTRY OF HEALTH

DEPARTMENT OF PLANNING, RESEARCH & STATISTICS DIVISION

PRIVATE MAIL BAG NO. 5027, OYO STATE OF NIGERIA

Your Ref. No. ....
All communications should be addressed to the Honorable Commissioner quoting
Our Ref. No.AD 13/479/ 4235

28th June, 2021

The Principal Investigator,
Department of Counselling and Human Development Studies,
University of Ibadan,
Ibadan, Nigeria.

Attention: Adelowo Onome

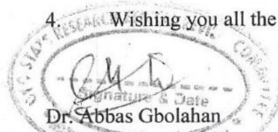
ETHICS APPROVAL FOR THE IMPLEMENTATION
OF YOUR RESEARCH PROPOSAL IN OYO STATE

This is to acknowledge that your Research Proposal titled: "Logotherapy and Cognitive Behavioural Therapy in the Treatment of Depressive Disorder among Stigmatized People Living with HIV/AIDS in Oyo State, Nigeria." has been reviewed by the Oyo State Ethics Review Committee.

2. The committee has noted your compliance. In the light of this, I am pleased to convey to you the full approval by the committee for the implementation of the Research Proposal in Oyo State, Nigeria.

3. Please note that the National Code for Health Research Ethics requires you to comply with all institutional guidelines, rules and regulations, in line with this, the Committee will monitor closely and follow up the implementation of the research study. However, the Ministry of Health would like to have a copy of the results and conclusions of findings as this will help in policy making in the health sector.

4. Wishing you all the best.



Signature & Date
Dr. Abbas Gbolahan
Director, Planning, Research & Statistics
Secretary, Oyo State, Research Ethics Review Committee

OLA CATHOLIC HOSPITAL
OLUYORO OKE-OFA

P. O. Box 7044, Secretariat,
Ibadan, Nigeria
E-mail: oluyorocatholic@yahoo.com
Tel: 0701 807 4569

Your Ref. No. ________ *Our Ref. No.* OCH/EC/21/13 *Date:* 27th July, 2021

Mrs. Onome F. Adelowo,
Department of Guidance and Counselling,
Faculty of Education,
University of Ibadan.

Dear Mrs. Adelowo,

RE: ETHICAL CLEARANCE OF RESEARCH TOPIC "LOGOTHERAPY AND COGNITIVE BEHAVIOURAL THERAPY IN THE TREATMENT OF DEPRESSIVE DISORDER AMONG STIGMATISED PEOPLE LIVING WITH HIV/AIDS IN OYO STATE, NIGERIA"

This is to inform you that after due consideration by the Ethical Committee of this Institution, your above named research has been given ethical clearance subject to the following conditions:

(1.) That the work be completed within six months from the date of this letter.

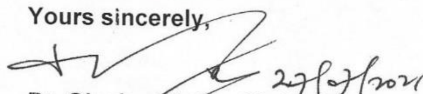
(2.) That you sought written permission for extension of time if the work is not completed within the next six months.

(3.) That a final copy of the work be submitted to the Committee for the hospital's library.

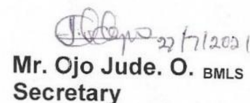
(4.) That your Supervisor will be contacted if a copy of the project is not submitted.

We wish you success.

Yours sincerely,



Dr. Okedare Amos Olufemi MB; BS (ABU) M.COMM.H (OAU) FWACP (FM)
Chairman, Ethics Committee



Mr. Ojo Jude. O. BMLS
Secretary

O.L.A. CATHOLIC HOSPITAL
P.O.BOX 7044 SEC.
OLUYORO OKE-OFA, IBADAN