EFFECT OF COGNITIVE BEHAVIOURAL TECHNIQUE IN REDUCING DEPRESSION SYMPTOMS AMONG ADULT LEARNERS IN BENUE STATE, NIGERIA

BY

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DECLARATION

I hereby declare that the work in this thesis entitled "Effect of Cognitive Behavioural Technique in Reducing Depression Symptoms among Adult Learners in Benue State, Nigeria" has been carried out by me in the Department of Educational Psychology and Counseling. The information derived from the literature has been duly acknowledged in the text and a list of references provided. No part of this thesis was previously presented for another degree or diploma in this or any other institution.

Joseph Egede OGBU……..5th November, 2015

CERTIFICATION

This thesis entitled **"EFFECT OF COGNITIVE BEHAVIOURAL TECHNIQUE IN REDUCING DEPRESSION SYMPTOMS AMONG ADULT LEARNERS IN BENUE STATE, NIGERIA"** by Joseph Egede OGBU meets the regulations governing the award of Ph.D degree in Educational Psychology of the Ahmadu Bello University, and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

Dedicated to my dear wife Victoria Ogbu and my children Dominique,Leony, Giddy, Promise and Jacklyne for their patience, support and prayers during the course of this educational pursuit.

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ABSTRACT

This study investigated the effect of cognitive behavioural technique in reducing depression symptoms among adult learners in Benue State, Nigeria. The population consisted of male and female adult learners in Benue State Agency for Adult and Non-formal education, Makurdi. The study was a quasi-experimental study which adopted pre-test, post-test control group design. An intact sample of 30 adult learners – 15 in the treatment group and 15 in the control group participated in the study. The treatment group was given cognitive behavioural technique treatment while the control group was given a placebo in form of mere lectures on topics in adult literacy education. The CBT was carried out within eleven psychotherapeutic sessions that lasted for six weeks. Beck Depression Inventory (2004) was used to determine the levels of depression symptoms of each participant before and after the application of cognitive behavioural technique. Five null hypotheses were formulated and tested at 0.05 level of significance. The independent t-test was used in testing hypotheses 1, 3, 4 and 5 while ANOVA was used in testing hypothesis 2. Hypothesis 1 which states that there is no significant reduction of depression symptoms among adult learners after the application of cognitive behavioural technique was rejected ($t = 9.24$; $p = 0.000$). Hypothesis 2 which states that there is no significant effect of age on the effectiveness of cognitive behavourial technique in reducing depression symptoms among adult learners in Benue State was retained ($f = 2.60$; $p = .609$). Hypothesis 3 which states that there is no significant effect of gender on the effectiveness of cognitive behavourial technique in reducing depression symptoms among adult learners in Benue State was retained ($t = 0.107$; $p = .288$). Hypothesis 4 which states that there is no significant effect of marital status on the effectiveness of cognitive behavourial technique in reducing depression symptoms among adult learners in Benue State was retained ($t = 0.110$; $p = .914$). Hypothesis 5 which states that there is no significant effect of employment status on the effectiveness of cognitive behavourial technique in reducing depression symptoms among adult learners in Benue State was retained ($t = 0.109$; $p = .327$). It was recommended among others that since cognitive behavioural technique (CBT) was effective in reducing depression symptoms among the adult learners, adequate provisions should be made by promoters of adult literacy education in Benue State for regular application of CBT by experienced educational psychologists and guidance counselors so that they can treat adult learners who may show symptoms of depression especially as the causative factors of depression among the adults are on the increase.

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ABBREVIATIONS

ANFEA: Adult and Non-Formal Education Agency.

BDI: Beck Depression Inventory.

CBT: Cognitive Behavioural Technique.

DSM-IV: Diagnostic and Statistical Manual of Mental Disorders IV.

MDD: Major Depression Disorder.

UPD: Untreated Prenatal Depression.

PMDD: Premenstrual Dysphoric Disorder.

REBT: Rational Emotive and Behavioural Therapy.

RLT: Rational Living Therapy.

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4. Participants' Socio-demographic Data.
5. Beck Depression Inventory.
6. The CBT Treatment Package/procedure.
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OPERATIONAL DEFINITION OF TERMS

The following key terms are operationally defined:

Adult Learners: All those enrolled in adult literacy programme under the auspices of Benue State Agency for adult and Non-formal Education, whatever the literacy level.

Cognitive Behavioural Technique: A form of cognitive restructuring method used to help a person to recognize his negative patterns of thought, evaluate their validity, and replace them with healthier ways of thinking, feeling and acting positively so that the individual can be more functional and productive.

Depression: A mood disorder characterized by deep sadness and despair, coupled with persistent feelings of despondency, worthlessness, and hopelessness, causing impaired emotional, cognitive, behavioural, and physical functioning.

Depression symptoms: Cognitive symptoms of depression which include poor concentration and attention, indecisiveness, sense of worthlessness or guilt, poor self-esteem, hopelessness, suicidal thoughts, and memory impairment.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The incidence of depression especially among the adult populace has increased dramatically in recent years. It is estimated for example that more than 330 million people worldwide suffer from serious depression. It has also been estimated that in 20 years, depression will be outranked only by cardiovascular disease (Awake, 2004). About 10 to 20 percent of all adults report having one or more episodes in their lives that meet the clinical definition of depression (Ashfield, 2010; Baron, 1998). Once it starts, depression tends to continue to worsen over time. This sends a danger signal to depressed adult learners as they may learn with difficulty and helplessly achieve poor academic performance as a consequence. Of great concern is the fact that depression is frequently recurrent and cyclical, or sometimes chronic. Depression is impairing and is associated with many problems, such as learning difficulties in adults (Hammen, 2009).

Depression can have a toll on academic activity and particularly adult learning activity as the depressed adult learners experience inability to concentrate and pay attention as well as difficulty in making decisions. They feel worthless, hopeless and guilty. They develop poor self-esteem and have memory impairment, They experience restlessness and agitation marked by difficulty in sleeping (Beck, 1999). The cognitions of depressed people lose complete touch with reality where they experience delusions and hallucinations. These delusions and hallucinations that depressed people experience are usually negative in content. Undoubtedly, this condition could seriously inhibit adult learning efficiency and undermine their academic performance. Such depressed adults find that they cannot think, concentrate or remember and these are

indispensable variables for effective learning and academic performance at all levels of education (Owojaiye, 2000; Piaget, 1990; Omoruyi, 2010).

Worse still, people who are depressed are disinterested, disenchanted, lack energy and motivation. They are irritated and may not see the point of doing anything as depression takes over the whole person's emotions, bodily functions, behavours and thoughts. They become less physically, mentally and socially active which tends to worsen depression. This could have significant bearing on adult learning (Gleitman, 1996). Depression is more than just a low mood but a serious disorder that could make the adult learner find it difficult to function every day where he is reluctant to participate in activities that were once meaningful and enjoyable including educational activities. There is substantial evidence that depression affects people's performance in their various learning activities. For example, Beck (1999) emphasized the importance of mood-dependent memory. That our current moods influence what we remember and what we think which has significant bearing on adult learning.

Depression, as a mood disorder is characterized by sadness, despair, feelings of worthlessness and low self-esteem. It often leads the depressed individual to be physically, mentally and socially inactive. It is the most common psychological disorder that places people in an emotional trap from which it is increasingly difficult to escape (Ashfield, 2010). As one of the most common mental health problems, an episode of major depression may last from 6 to 12 months or longer. Half the people who recover from an untreated episode of depression will slip back into their former state of depression within two years of their former episode.

The Diagnostic and Statistical Manual of Mental Disorders-IV (2000) or DSM-IV pointed out that depression includes a variety of emotional, psychological, behavioural and cognitive symptoms, all of which have significant bearing on life activities of the depressed. The cognitive symptoms, which are the concern of this study as they could have bearing on adult

learning include, poor concentration and attention, indecisiveness, sense of worthlessness or guilt, poor self-esteem, hopelessness, suicidal thoughts, and memory impairment.

Adult learners are generally affected by different mediating factors of depression. For instance, Etta (2001) noted that as one advances in age, one experiences many losses that cause pain. It could be loss of independence, physical ability, mobility, health, long-time career, or loss of someone one loves (e.g. a marriage mate, friend, child or relation). Grieving over these losses is normal and healthy, even if the feelings of sadness last for a long time. Losing all hope and joy, however, is not common. Advancement in age is characterized by soul searching, questioning and assessing the meaning of the achievements of the life structure (middle crisis). For some, the change is gradual and fairly painless. For others, it is full of uncertainties. They question nearly every aspect of their lives and feel that they cannot go on as before. This could be stressful and depressing especially when there are marker events like divorce, nagging spouse, illness, unemployment and change in occupation.

In another development, gender tends to determine the vulnerability of depression among the adults. Naturally, most women are emotionally weaker than men. For instance, Nolen-Hoeksema (2001) cited in Hockenbury & Hockenbury (2002) explained that women are more vulnerable to depression because they experience a greater degree of chronic stress in daily life combined with a lesser sense of personal control than men. Furthermore, women are also prone to ruminate about their problems, adding to the sense of low mastery and chronic strain in their lives. The interaction of these factors creates a vicious circle that intensifies and perpetuates depressed feelings in women.

Among the different mediating factors of depression in adults, marital status is considered to be a significant factor. While Rogers (2011) opined that married people have comparatively low depression rates because they are, for several reasons, emotionally less

damaged by stressful experiences than are unmarried people, Gross (1996) opined that married people have higher depression rates because of the challenges involved in sustaining marriage especially with a difficult spouse amidst socio-economic downturn. In fact, most psychologists argue that marriage is associated with low rates of depression because it shields the individual from exposure to stress.

In discussing risk factors of depression, Witters (2012) explained that employment status has bearing on the possibility of one getting depressed. To Witters, people who are employed tend to be relatively happy, emotionally stable and psychologically contented than people who are unemployed. The employed have purchasing power and means to satisfy their needs. However, other psychologists such as Raven (2013) suggested that work can be a source of depression to some people especially when it is tasking, challenging, unrewarding and done in a poor social and physical environment.

Given the above varying positions in the mediating factors of depression, and given the fact that depression rate has been rising with each successive generation – a trend that has been found not only in the United States and Canada but also in France, Germany, Italy, New Zealand, Taiwan and African countries including Nigeria (Cross-National Collaborative Group, 2000), this present study has become quite necessary and urgent based on current research findings that depression will become an even greater problem by the year 2020 (Lopez & Murray, 1998; Wang, Simon, & Kessler, 2003). It is therefore very necessary that the depressed adult learners in Benue State, in their various categories, be helped in reducing their depression symptoms through psychological therapeutic measures in order to enhance their learning efficiency and academic performance. This is the thrust of the study.

1.2 Statement of the Problem

Being depressed clinically or sub-clinically has become common place in adults' daily lives. Adult learners, in their various categories, have peculiar characteristics or circumstances distinct from those of other students which subject them to a depressive state, whether they are in their early adulthood, middle adulthood or late adulthood. All the stages of adulthood present tasks and challenges that are stressors which could result to depression and consequently cause psychomotor and cognitive retardation in the affected adults (Agu, 2010). This ugly trend tends to be affecting and undermining the adult learners' interest and enthusiasm towards adult literacy education, giving rise to increasing illiteracy rate among the adult populace.

In Benue State, like in other states of the federation, adult learners, in their peculiar circumstances are exposed to various kinds of risk factors of depression which could impede their active participation in adult literacy classes, thereby hampering the possibility of effectively achieving the goals of Mass Literacy Education in the state. Some are drop-outs from the formal school system with negative experiences. Thus, they may tend to notice, store, and remember information consistent with their negative moods which is one of the risk factors of depression. Some because of advanced age, are experiencing late-life events such as chronic and debilitating medical disorders, losses of friends and loved ones as well as several physiological disabilities which result to depression. Some have numerous and challenging family responsibilities, marital tribulations, societal responsibilities, economic pressures because of the current state of unemployment. Others, because of gender differences particularly women, are more vulnerable to depression. Consequently, they tend to bring unhappy thoughts and memories to mind; to dwell on them, and to enter new negative information into memory. This pattern sets up a self-perpetuating cycle in which the possibility of escape from depressing thoughts or depression itself tends to decrease over time among the adult learners in the state.

It is sad and quite worrisome to note that efforts by successive governments over the years to eradicate illiteracy nationwide especially among the adult populace have failed in Benue State. For instance, the first national literacy campaign launched in 1982; the Mass Mobilization for Social Justice, Self-reliance and Economic Recovery (MAMSER) of 1987 and the educational programme of literacy-for-all by the 2000 all failed to eradicate or significantly reduce illiteracy rate among the adult populace in the state. Furthermore, irrespective of the numerous Adult Literacy centers in the state, there is still a staggering rate of adult illiteracy in the state.

The National Literacy Survey, (2010) puts the adult literacy rate in Benue State at 69.8 percent while the remaining 30.2 percent is made up of illiterates and there is the likelihood that this percentage may rise if urgent measures are not taken since risk factors of depression which affect participation, retention and effective adult learning are increasing daily. In expressing his concern in this regards for instance, Ejembi (2012) found out that the incidence of depression in Benue State is alarming today as the present generation of young and older adults are experiencing higher rates of depression than their predecessors. This situation has been triggered by the present economic hardship coupled with the state of insecurity which has had its toll in several parts of the state where many indigenes have been displaced, lives and property lost. Consequently, those who become depressed are not only older adults but young adults. This will have serious implications for learning generally and adult learning in particular in the state if urgent measures are not taken to reduce the depression level among the adult learners.

Consequent on the aforementioned ugly trend befalling adult literacy education in Benue State, this study was conducted to find out the effect of Cognitive Behavioural Techniques on reducing the symptoms of depression among adult learners so that if found effective, it could be used to salvage the depressive state of the adult learners so that they could concentrate, pay

attention, develop self-esteem, become hopeful and be free from sense of worthlessness and guilt, become enthusiastic and motivated to effectively acquire literacy education, and be sustained in the literacy programme throughout the course duration so that adult literacy education in Benue State becomes efficient, effective and result-oriented. By this, the National Policy on Education (2004) particularly as related to the objectives of Mass Literacy, Adult and Non-formal Education can be effectively achieved in the state.

1.3 Objectives of the Study

The following were the objectives of the study:

1. To test the effectiveness of cognitive behavioural technique in reducing depression symptoms among adult learners in Benue State.
2. To determine the effect of age on the effectiveness of cognitive behavioural technique in reducing depression symptoms among adult learners in Benue State.
3. To determine the effect of gender on the effectiveness of cognitive behavioural technique in reducing depression symptoms among adult learners in Benue State.
4. To ascertain the effect of marital status on the effectiveness of cognitive behavioural technique in reducing depression symptoms among adult learners in Benue State.
5. To ascertain the effect of employment status on the effectiveness of cognitive behavioural technique in reducing depression symptoms among adult learners in Benue State.

1.4 Research Questions

In meeting the objectives of the study, the following research questions were raised:

1. What is the effectiveness of cognitive behavioural technique in reducing depression symptoms among adult learners in Benue State?

2. What is the effect of age on the effectiveness of cognitive behavioural technique in reducing depression symptoms among adult learners in Benue State?

3. What is the effect of gender on the effectiveness of cognitive behavioural technique in reducing depression symptoms among adult learners in Benue State?

4. What is the effect of marital status on the effectiveness of cognitive behavioural technique in reducing depression symptoms among adult learners in Benue State?

5. What is the effect of employment status on the effectiveness of cognitive behavioural technique in reducing depression symptoms among adult learners in Benue State?

1.5 Research Hypotheses

In line with the research questions, the following null hypotheses were generated.

1. There is no significant difference in the pretest and posttest scores of depression symptoms among adult learners in Benue State after the application of cognitive behavioural technique.

2. There is no significant effect of age on the effectiveness of cognitive behavioural technique in reducing depression symptoms among adult learners in Benue State.

3. There is no significant effect of gender on the effectiveness of cognitive behavioural technique in reducing depression symptoms among adult learners in Benue State.

4. There is no significant effect of marital status on the effectiveness of cognitive behavioural technique in reducing depression symptoms among adult learners in Benue State.

5. There is no significant effect of employment status on the effectiveness of cognitive behavioural technique in reducing depression symptoms among adult learners in Benue State.

1.6 Basic Assumptions of the Study

The study was carried out with the following basic assumptions:

1. That depression which is as a result of some psychosocial factors is present in the various categories of adult learners in Benue State in varying degrees.

2. That the presence of depression symptoms may be affecting the cognitive processes of the depressed adult learners to the extent that they may be incapacitated in their behaviours, feelings, thoughts and physical disposition required for regular participation and effective performance in adult education activity in Benue State.

3. That cognitive behavioural technique may be effective in reducing depression symptoms among adult learners in Benue State.

4. That age, gender, marital status and employment status may affect the effectiveness of cognitive behavioural technique in reducing depression symptoms among the adult learners.

1.7 Significance of the Study

The incidence of depression in adult learners and the implication it has for their learning call for an effective, sustained and well studied psychological therapeutic measure to enhance adult learning. Before such psychological treatment can be effective, there must be adequate information about the depth of depression in the various categories of adult learners (Roland and

Eme, 2010). Therefore, the outcome of this study will be useful in the provision of baseline information in this regard.

Policy makers in adult education, promoters or personnel of State Agencies for Mass literacy, educational psychologists, guidance counsellors, psychotherapists, community service providers, and other student researchers will find the outcome of this study very useful as they will appreciate the incidence of depression in adult learners, its effect on adult learning and the appropriate treatment procedures using Cognitive Behavioural Technique (CBT).

The government, particularly policy makers in education, especially in the area of adult and non-formal education, will find the result of this study very significant as it will provide them with evidence based on empirical data that will help them to formulate effective adult and non-formal education policies and programme packages in view of the avalanche of challenges of adulthood that could cause depression, as well as adequately monitoring and evaluating such policies and implementing such packages in such a manner that depressive factors associated with adult learning are effectively put under control.

The promoters or personnel of Benue State Agency for Adult and Non-formal Education who may not be trained educational psychologists especially in the area of depression, may be facing various challenges promoting adult and non-formal education in the state as they may not be aware of the incidence of depression in adult learners and its effects on the extent of their participation, literacy acquisition and retention in the literacy programme. The outcome of this study will therefore be an eye opener in this direction; to sensitize the promoters or personnel about the cognitive symptoms of depression in the learners and be more empathetic towards the learners when they are stressed and feeling pressured. They will be more aware of the strengths and weaknesses of the learners so that they (the promoters) can package their educational programmes accordingly, carefully handle, and motivate the adult learners in order to control or

reduce those symptoms of depression so as to enhance effective adult learning. They will learn not to let things get out of hand before they take action to support the depressed adult learners.

Separate studies on depression and school activities have been conducted by some educational psychologists (e.g. Thotman, 2011; Roland and Eme, 2010; Olaide, 2000) however, none of these focused on how any therapeutic measure could reduce depression symptoms to allow for effective adult learning in the area of literacy acquisition, let alone in Benue State. There is therefore the need for this present study in the area to fill this gap so that therapeutic measures to reduce depression symptoms in adult learners which could inhibit their thinking, concentration or remembering ability could be ascertained in order to contribute in achieving literacy education in the State. Educational psychologists, especially in the area of adult education, and guidance counsellors will benefit from this study as a reference material in the areas of depression, Cognitive Behavioural Technique, and adult literacy education.

The adult learners themselves who are at the center of this study will benefit from the findings. They will realize that the cause of their problems is the negative conceptions of themselves and the world around them. They will understand that their habitual thinking errors underlie their disorder. Thus, the result of this study will help to restructure their cognition about their past, their present and their future as they will be helped to learn new ways of thinking positively, acting and feeling rationally. This will have positive effect on their learning activities as they will be able to concentrate, pay attention, develop feelings of worth and high self-esteem, become hopeful, decisive and have unimpaired memory all of which are inhibited by depression.

The scholarly importance of this study cannot be overemphasized as the findings will contribute to existing body of knowledge, provide information, open up research areas and assist in the design of such studies for student researchers in educational psychology and other

researches in related fields. In different respects, this study will be a reference material for such student researchers whose research problems may be related to this present study.

1.8 Scope and Delimitation of the Study

This study is an investigation of the effect of cognitive behavioural technique (CBT) in reducing depression symptoms among adult learners in Benue State after scientifically filtering out adult learners with such symptoms using Beck Depression Inventory designed for this purpose. There are varying degrees of depression but this study was concerned with adult learners with mild and moderate depression symptoms because CBT is suggested to be directed at individuals at that level of depression. There are different types of depression symptoms but this study is restricted to cognitive symptoms because of its effects on learning process. The cognitive behavioural techniques adopted cognitive restructuring method based on Beck's (2004) template. The study is restricted to Benue State. Male and female adult learners in the adult literacy centers under the auspices of Benue State Agency for Adult and Non-formal Education were used as participants for the study. The choice of this category of students was because adults, whether in their young, middle or late adulthood are exposed to different kinds of stressors that subject them to depression. Findings are limited to Benue State.

The CBT treatment in this study was directed at adult learners with mild and moderate depression symptoms and not extended to severe depression episodes. The findings are thus limited to mild and moderate episodes. Furthermore, the treatment was directed at cognitive symptoms of depression because of its bearing on adult learning and not extended to other symptoms like emotional, somatic (physical), or behavioural. The outcome is thus limited to cognitive symptoms.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.01 Introduction

This chapter reviews literature related to Cognitive Behavioural Technique (CBT) and reduction of depression symptoms. To this end, the chapter is structured into the following sub-themes:

i) Conceptual framework:

-The concept of depression.

-Symptoms of depression.

-Types of depression.

-Causative factors of depression.

- The concept of Cognitive Behavioural Therapy.

- Principles of Cognitive Behavioural Therapy.

-Criticisms of Cognitive Behavioural Therapy.

ii) Theoretical framework:

- Aaron T. Beck's Theory of Cognitive Behavioural Therapy for Depression

- Judith S. Beck's Theory of Cognitive Behavioural Therapy

- Michelle G. Craske's Theory of Cognitive Behavioural Therapy

- Roth and Fonagy's Theory of Cognitive Behavioural Therapy

- Meichenbaum's Theory of Cognitive Behavioural Modifications

-The Theory of Attitude Change as applied to CBT

iii) Mediating factors of depression in adulthood.

-Age and depression.

-Gender and depression.

-Marital status and depression.

-Employment status and depression.

iv) Depression and effective adult learning.

v) A review of related empirical studies.

vi) Summary of the literature review.

2.02 Conceptual Framework

2.03 The Concept of Depression

Depression, according to Oltmanns and Emery (2007:130), "can refer either to a mood or to a clinical syndrome or a combination of emotional, cognitive and behavioural symptoms". The feelings associated with a depressed mood often include disappointment and despair. Baron (1998:549) defined depression as "a mood disorder involving intense sadness, lack of energy, and feelings of worthlessness and despair". To recognize the onset of depression, some of the warning signs according to Baron are feeling down, sad, and blue everyday of the week; ongoing lack of interest in all pleasurable activities including ones previously enjoyed; significant weight loss when a person is not dieting; fatigue and loss of energy everyday; insomnia or sleeping too much; persistent inability to think or concentrate, or consistent feelings of indecisiveness. Similarly, Baron and Kalsher (2005:388) defined depression as "a mood disorder in which individuals experience extreme unhappiness, lack of energy, and severe related symptoms".

Baron (1998) explained that first, persons suffering from depression experience truly profound unhappiness, and they experience it much of the time. Second, that persons experiencing depression report that they have lost interest in the usual pleasures of life, sex,

sports, hobbies – all fail to provide the enjoyment they did at other times. Third, that persons suffering from depression experience major loss of energy; everything becomes an effort and feelings of exhaustion are common. The onset of depression can occur at any point in the life span of an individual, but a substantial majority of cases emerge before age 40. Depression occurs in children as well as adolescents and adults. The median duration of depressive episodes is 5 months (Solomon, 2001). According to Akiskal (2000) cited in Weiten (2008), depressive episodes can vary greatly in length, but they typically last 3 to 12 months.

Furthermore, Baron (1998) noted that additional symptoms of depression may include loss of appetite, disturbances of sleep, and difficulties in thinking. Depressed persons find that they cannot think, concentrate, or remember. They have recurrent thoughts of death, and feelings of worthlessness or excessive guilt. Many depressed people are irritable. Their anger may either be directed at themselves or at others, and frequently at both. Even when they are cheerful, depressed people, especially those in manic episode are easily provoked to anger. They become extremely argumentative and abusive, particularly when people challenge their grandiose statements about themselves and their inappropriate judgment. Baron explains that depressed people often have feelings of disappointment, despair and sadness. Although sadness is a universal experience, profound depression is not.

In his further contribution, Solomon (2001) noted that no one has been able to identify the exact point at which "feeling down or blue" crosses a line and becomes depression, but when one gets there, there's not much mistaking it. One experience shades gradually into the next. The transition has been described by the author as starting out insipid, fogs the day into a dull colour, weakens ordinary actions until their clear shapes are obscured by the effort they require, leaves one tired and bored and self-obsessed.

Anxiety is also common among people who are depressed just as depression is a common feature of some anxiety disorders. Two out of every three depressed patients report feeling anxious (Rivas-Vasquez et al., 2004). The authors explained that people who are depressed are sometimes apprehensive, fearing that matters will become worse than they already are or that others may discover their inadequacy. They sometimes report that they are chronically tensed and unable to relax. Many depressed people however suffer from some clinical problems that are not typically considered symptoms of depression. Within the field of psychopathology, the simultaneous manifestation of a mood disorder and other syndromes is referred to as comorbidity suggesting that the person exhibits symptoms of more than one underlying disorder.

Hammen (2009) noted that depression is heterogeneous in its manifestations and clinical course, and more than likely, there are multiple etiological pathways and possible different forms of the disorder. A common element however, is that depression is usually framed within a diathesis-stress perspective: Stressful life events and chronically stressful circumstances are typically the triggers of depression. However, most youngsters experience stressors and do not become depressed. Thus much of research in the field attempts to identify three broad realms of diatheses: cognitive vulnerabilities that adversely affect the ways in which negative events are construed with respect to personal meaning and self-worth; biological vulnerabilities such as the neuroendocrine, hormonal and genetic mechanisms by which stress responses result in depressive reactions; and the personal and interpersonal characteristics that modify the nature and adequacy of resources for coping with adversity.

In contributing to literature, Nesse (2000) pointed out that depression is a mood disorder characterized by deep sadness and despair. Nesse explained that since these feelings are sometimes an appropriate and normal reaction to tragedy, someone is considered clinically depressed only if the episode arises without a discernable cause and lasts for two or more weeks.

In agreement with Baron (1998), Nesse further explained that in addition to the effects on mood, symptoms of depression include (1) diminished pleasure or interest in food, sex, social banter, and other joys; (2) intense feelings of worthlessness, guilt, and self-blame; (3) restlessness and agitation, marked by difficulty sleeping, concentrating on work, and making decisions; (4) fatigue, slowness, and lack of energy (in extreme cases, there is such a paralysis of the will that the person has to be pushed out of bed' washed, dressed and fed by others); and (5) recurring thoughts of suicide and death. There seems to be an absence of purpose, direction or concern, a lack of energy or vitality and a general sense of nihilism. Rush and Beck (2000) asserted that the depressed-prone people tend to (1) blame their setback on personal inadequacies without considering circumstantial explanations, (2) focus selectively on negative events while ignoring positive events, (3) make unduly pessimistic projections about the future, and (4) draw negative conclusions about their worth as a person based on insignificant events. For instance, imagine that an adult learner got a low grade on a minor quiz in class. If he made the kinds of errors in thinking as just described, he might blame the grade on his woeful stupidity, dismiss comments from a classmate that it was an unfair test, gloomily predict that he will surly flunk the course, and conclude that he is not a genuine adult education material.

According to Hockenbury and Hockenbury (2002:586), depression is "a mood disorder characterized by extreme and persistent feelings of despondency, worthlessness, and hopelessness, causing impaired emotional, cognitive, behavioural, and physical functioning". Hockenbury and Hockenbury noted that everybody has his ups and downs. When things are going well, one feels cheerful and optimistic. When events take a more negative turn, one's mood can sour, making him/her feel miserable and pessimistic. Either way, the authors note that the intensity and duration of the moods are usually in proportion to the events going on in people's lives. That's completely normal. However, when depressed, Hockenbury and

Hockenbury noted, all sense of hope will vanish along with the idea of a futurity, the brain becomes less an organ of thought than an instrument, registering minute by minute, varying degrees of its own suffering. Sleep becomes synthetic. Most people who are depressed describe themselves as feeling utterly gloomy, dejected or despondent. The severity of a depressed mood can reach painful and overwhelming proportions. Unfortunately as these feelings become more intense and prolonged, they can become ruinous. It may not be clear when the person's experience crosses the unmarked boundary between being productive and energetic to being out of control and self destructive (Solomon, cited in Oltmanns & Emery, 2007).

2.04 Symptoms of Depression.

Most people know what it is like to experience a wave of sadness. In time, perhaps just in matter of hours or days, the feeling subsides. Clinical depression is however far more serious as the depressed individual experiences the ups and downs, twists and turns of his feelings as if on a runaway train without a clear sense of how or when, or even if he can ever get off. In analyzing different case studies of episodes of depression, Oltmanns & Emery, (2007) explained that many of the most important symptoms and signs of depression can be divided into four general areas namely; emotional symptoms, cognitive symptoms, somatic symptoms, and behavioural symptoms. Episodes of major depression and mania typically involve all four kinds of symptoms.

Emotional symptoms of depression according to Oltmanns and Emery, (2007) include such negative emotions as sadness, anxiety, fear and anger. These reactions may last only a few moments at a time. Emotional symptoms also called dysphoric (unpleasant) mood is the most common and obvious symptom of depression. Most people who are depressed described themselves as feeling utterly gloomy, dejected or despondent. The severity of such a depressed mood can reach painful and overwhelming proportions. As these feelings become more intense

and prolonged, they can become ruinous. Oltmanns and Emery, mentioned however, that it may not be clear when the person's experience crosses the unmarked boundary between being productive and energetic to being out of control and self-destructive. In bipolar mood disorders for example, periods of elated mood tend to alternate with phases of depression. In any case, emotional symptoms of depression, as noted by Oltmanns and Emery, could serve a useful purpose in our lives, particularly in our relationships with other people. Emotional reactions serve as signals to other people about our current feelings and needs. They also coordinate our responses to changes in the immediate environment.

Hockenbury and Hockenbury (2002) equally agreed that emotionally, the depressed individual feels an overwhelming sadness. Even if surrounded by close friends and loving family members, the depressed person feels alone and disconnected from others. The authors listed the emotional symptoms of depression to include feelings of sadness, hopelessness, helplessness, guilt, emptiness or worthlessness; feeling emotionally disconnected from others and turning away from other people.

Cognitive symptoms which are the central concern of this study involve changes in the thinking pattern of the depressed. Such cognitive symptoms, according to psychologists (e.g. Piaget, 1990; Oltmanns & Emery, 2007; DSM-IV-TR, 2000; Owojaiye, 2000) include inability to concentrate, pay sustained attention, difficulty in making simple decisions, easy distraction, feelings of hopelessness, worthlessness and guilt (self-blame), feelings of low self-esteem, delusions and hallucinations, suicidal thoughts, inability to think and remember constructively (memory impairment) or cognitive slowness. Depressed people think about the negative side of themselves, their immediate environment and what lies ahead and not the positive.

In cognitive terms, depressed people experience self-destructive thoughts and impulses. They see themselves as failures, unworthy creatures, unlucky and less important in society. They

tend to find no meaning in life and feel convincing that it is better not being alive. These negative thoughts may lead to suicide attempts (Beck, 1985). Similarly, Hockenbury and Hockenbury, (2002) gave a list of cognitive symptoms of depression to include difficulty thinking, concentrating and remembering; global negativity and pessimism; suicidal thoughts or preoccupation with death.

Somatic symptoms or physical symptoms of depression are related to basic physiological or bodily functions. They include fatigue, aches and pains, and serious changes in appetite and sleep patterns. Some people who are clinically depressed often report feeling tired all the time. The simplest tasks which they had previously taken for granted seem to require an overwhelming effort. For instance, such routines as taking a shower, brushing the teeth, getting dressed in the morning become heavy tasks (Beck, 1976).

Sleeping problem is also a common somatic symptom of depression, particularly trouble getting to sleep. Beck mentioned that this disturbance frequently goes hand in glove with cognitive difficulties. Worried about their problems and challenges and unable to relax, depressed people will toss and turn for hours in bed before falling asleep. Some depressed people report having difficulty staying asleep throughout the night, and they awake 2 or more hours before the usual time. Beck noted that early morning waking is often associated with particularly severe depression. A less common somatic symptom is for a depressed person to spend more time sleeping than usual.

In the midst of a manic episode, a person is likely to experience a drastic reduction in the need for sleep. According to Beck (1976), some depressed people report that reduced sleep is one of the earliest signs of the onset of manic episode. Although depressed people typically feel exhausted when they cannot sleep, a person in a manic episode will probably be bursting with energy in spite of the lack of rest. Furthermore, depressed people frequently experience a change

in appetite. Although some people may eat more than usual, other reduce the amount they eat, while some may eat next to nothing. Food just does not taste good any more. Depressed people can also lose a lot of weight even when they are not dieting.

In discussing somatic symptoms of depression, Oltmanns and Emery (2007) pointed out that people who are severely depressed commonly lose their interest in various types of activities that are otherwise sources of pleasure and fulfillment. One common example is a loss of sexual desire. Depressed people are less likely to initiate sexual activity, and they are less likely to enjoy sex if their partners can persuade them to participate. Various ill-defined somatic complaints can also accompany mood disorders. Some depressed people complain of frequent headaches and muscular aches and pains. These concerns, Oltmanns and Emery noted, may develop into a preoccupation with bodily functions and fear of disease.

In a similar vein, Hockenbury and Hockenbury (2002) listed the somatic (physical) symptoms of depression to include changes in appetite resulting in significant weight loss or gain; insomnia (early morning awakening or oversleeping); vague but chronic aches and pains; diminished sexual interest; loss of physical and mental energy; global feelings of anxiety; restlessness and fidgety activity.

Behavioural symptoms pertain to the changes in the things that depressed people do and the rate at which they do them. The depressed individuals experience psychomotor retardation which refers to several features of behaviour that may accompany the onset of serious depression. Oltmanns and Emery (2007) noted that the most obvious behavioural symptoms of depression is slowed movement. Depressed people may talk and walk as if they are in slow motion. Others become completely immobile and may stop speaking altogether. Some depressed people pause for very extended periods, perhaps several minutes, before answering a question.

Behaviourally, Hockenbury and Hockenbury (2002) explained that the depressed person's feelings are reflected in dejected and spiritless facial expressions. Crying spells may occur for no apparent reason. Speech, movements and gestures seem awkward and slower than usual. The authors listed the behavioural symptoms of depression to include dejected facial expression; makes less eye contact, eyes downcast; smiles less often; slowed movement, speech and gestures; tearfulness or spontaneous episodes of crying; loss of interest or pleasure in usual activities including sex; withdrawal from social activities.

In order not to confuse depression with sadness, important considerations were given by Oltmanns and Emery (2007) to distinguish clinical depression from normal sadness as follows:

i) The mood change is pervasive across situations and persistent over time. The person's mood does not improve, even temporarily, when he or she engages in activities that are usually experienced as pleasant.

ii) The mood change may occur in the absence of any precipitating events, or it may be completely out of proportion to the person's circumstances.

iii) The depressed mood is accompanied by impaired ability to function in usual social and occupational roles. Even simple activities become overwhelmingly difficult.

iv) The change in mood is accompanied by a cluster of additional signs and symptoms including cognitive, somatic, and behavioural features.

v) The nature or quality of the mood change may be different from that associated with normal sadness. It may feel "strange", like being engulfed by a black cloud or sunk in a dark hole.

2.05 Types of Depression

There are two basic types of depression: bipolar and unipolar. People with bipolar depression experience emotional extreme at both ends of the mood continuum, going through periods of both depression and mania (excitement and elation). The mood swings in bipolar depression can be patterned in many ways. People with unipolar depression experience emotional extremes at just one end of the mood continuum as they are troubled only by periodic bouts of depression.

The Diagnostic and Statistical Manual of Mental Disorders-IV's (2000) approach to classifying mood disorders recognizes several subtypes of depression, placing special emphasis on the distinction between unipolar and bipolar depression. Under unipolar, there are two types of depression namely; Major depression and Dysthymia. Under bipolar, there are bipolar I (manic depression), bipolar II (hypomanic depression).

Major depressive disorder, according to Kassin (2001) is a disorder where people show persistent feelings of sadness and despair and loss in interest in major sources of pleasure. Negative emotions are at the heart form the heart of the depressive syndrome, but many other symptoms may also appear. People who suffer major depression and are in a state of mental pain and anguish either commit suicide or try to commit suicide. They experience reduced appetite and insomnia. Anxiety, irritability, and brooding are commonly observed among such individuals. Besides, self-esteem tends to sink as the depressed person begins to feel worthless. In the United States for instance, about 75 percent of suicides are committed by people who are depressed. In fact, the single best predictor of suicide potential is a sense of hopelessness (Kassin, 2001).

In one study in the United States, more than 2,000 psychiatric outpatients were tested and followed for up to seven years. Of the 17 who went on to commit suicide, 16 had initially got high scores on a "hopelessness scale" (Beck et al., 1990 in Kassin, 2001). In a survey of college students who had attempted suicide, the other factors most frequently cited were loneliness, major depression, problems with lovers or parents, feelings of helplessness, grades, and money (Kassin, 2001). When people are severely depressed, friends and relatives do try to cheer them up and offer a sympathetic ear, a shoulder to lean on, and advice. However, these efforts usually fail and the depression persists. The suffering person is filled with complaints, regrets, and expressions of self-pity which makes social interaction unpleasant. Studies have shown that people who suffer major depression avoid eye contact, speak softly, are slow to respond, wear sad or blank facial expressions, and are negative in their demeanor – a pattern of behaviour that is seen as rude, detached, and nonresponsive (Segrin & Abramson, cited in Kassin, 2001).

Symptoms listed in Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR) for major depressive episode includes:

i) Depressed mood most of the day, nearly every day, as indicated either by subjective report (for example, feels sad or empty) or observation made by others (for example, appear tearful). In children and adolescent, it can be irritable mood.

ii) Markedly diminished interest or pleasure in all or almost all activities most of the day, nearly all day.

iii) Significant weight loss when not dieting or weight gain (for example a change of more than 5 percent of body weight in a month), or decrease or increase in appetite nearly every day.

iv) Insomnia or hypersomnia nearly every day.

v) Psychomotor agitation or retardation nearly every day (observable by others).

vi) Fatigue or loss of energy nearly every day.

vii) Feelings of worthlessness or excessive or inappropriate guilt nearly every day (not merely self reproach or guilt about being sick).

viii) Diminished ability to think or concentrate or indecisiveness nearly every day.

ix) Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan or a suicidal attempt or a specific plan for committing suicide.

Dysthymia differs from major depression in terms of both severity and duration. Dysthymia represents a chronic mild depression condition that has been present for many years. In order to fulfill DSM-IV-TR criteria for this disorder, the person must, over a period of at least two years, exhibit a depressed mood for most of the day on more days than not. Two or more of the following symptoms must also be present:

i) Poor appetite or overeating.

ii) Insomnia or hypersomnia.

iii) Low energy or fatigue.

iv) Low self esteem.

v) Poor concentration or difficulty making decisions.

vi) Feelings of hopelessness.

These symptoms must not be absent for more than two months at a time during the two-year period. If at any time during the initial two years the person met criteria for major depression episode, the diagnosis would be major depression rather than dysthymia. As in the case of major depressive disorder, the presence of a manic episode would rule out a diagnosis of dysthymia. It is noteworthy that the distinction between major depressive disorder and dysthymia is somewhat artificial because both set of symptoms are frequently seen in the same person

(Oltmanns & Emery, 2007). These authors note that in such cases, rather than thinking of them as separate disorders, it is more appropriate to consider them as two aspects of the same disorder which waxes and wanes over time. Some experts have argued that chronic depression is a single, broadly conceived disorder that can be expressed in many different combinations of symptoms over time (McCullough et al., cited in Oltmanns & Emery, 2007).

Bipolar disorders produce wild fluctuations that range from manic (a euphoric, overactive state) to depressed (a state of hopelessness and apathy). The bipolar-disorder patients alternate uncontrollably between the two extremes, in cycles that last from a few days to several months. One week, they are flying as high as a kite, bursting with energy and optimism. The next week, they have sunk to the depths of despair. The mood disorder must be severe enough to interfere with occupational or social functioning. A person who has experienced at least one manic episode would be assigned a diagnosis of bipolar 1 disorder. Oltmanns & Emery, (2007) noted that the vast majority of patients with this disorder have episodes of major depression in addition to manic episodes. Some patients experience episodes of increased energy that are not sufficiently severe to qualify as full-blown mania. These episodes are called hypomania.

A person who has experienced at least one major depressive episode, at least one hypomanic episode, and no full-blown manic episodes would be assigned a diagnosis of bipolar II disorder. In a bipolar disorder, a patient is troubled by a cycling mood swings, usually severe highs (mania) and lows (depression). The mood swings are sometimes dramatic and rapid, but usually are more gradual. When in the depressed stage, a person can have any or all of the symptoms of a depressive disorder. When in the manic stage, the individual may be over active, over talkative and have a great deal of energy (Beck, 2004). Mania affects thinking, judgment and social behavior, sometimes in ways that cause serious problems and embarrassment. A person in manic phase may feel elated, full of grand schemes that might range from unwise

business decisions to romantic sprees. People in an advanced stage of mania also harbor delusions (false beliefs) of grandeur. They make promises they cannot keep, buy things they cannot afford, start new sexual relationships, and drag others into risky money-making schemes that are bound to fail.

Bipolar disorder is thought to be less common than other depressive disorders. Perhaps, that is why people conclude that bipolar disorder is worth having. However, Kassin, (2001) cautioned that as the disorder progresses, mania accelerates out of control, and "high" becomes "too high." The person becomes easily distracted, moves from one project to another, stays awake at night and is extremely sensitive to stimulation. It has been said that to the manic person, a gentle breeze feels like a slap on the face and the dropping of a pin sounds like a clanging noise. Socially, the charm and wit give way to behaviour that embarrasses others. Kassin, lamented that fitting the stereotype of the "raving maniac", the person becomes loud, fast-talking, frenzied, and explosive. Even mild criticism may trigger anger and hostility.

The DSM-IV-TR criteria for bipolar depression include:

i) Inflated self-esteem and grandiosity.

ii) Decreased need for sleep – for example, feels rested after only 3 hours of sleep.

iii) More talkative than usual, or pressure to keep talking.

iv) Fight of ideas or subjective experience that thoughts are racing.

v) Distractibility – that is attention too easily drawn unimportant or irrelevant external stimuli.

vi) Increase in goal directed activity either socially, or at work or school, or sexually or psychomotor agitation.

vii) Excessive engagement in pleasurable activities that have a high potential for painful consequences – for example, the person engages in unrestrained buying sprees, sexual indiscretions, or foolish business investments.

2.06 Causative Factors of Depression.

According to Ashfield, (2010), many factors contribute to depression. These include:

i) Family history of depression.

ii) Hormonal changes (in women and men).

iii) Emotional stress (e.g. bereavement, job loss, relationship breakdown).

iv) Medicines (e.g. some cancer and heart medicines).

v) Personality i.e. the type of person one is and how one responds to life events.

vi) Social support – whether one has sufficient supportive people around one. People isolated on farms or station properties may lack important social support.

vii) Life changes – major life changes such as the birth of a baby may increase the risk of developing depression. Ashfield, (2010) noted that during the pre- and postnatal period, women (and men) are at greater risk of developing depression and anxiety. Left untreated, the impact of these conditions on the mother and her children may have a greater risk of cognitive, emotional and behavioural difficulties. Untreated prenatal depression (PND) can also impact on family relationships and infant attachment. Studies have indicated that the partners of women with PND may also be at greater risk of depression.

viii) Medical conditions such as thyroid and other hormone problems, or battling with a chronic or terminal illness. Ashfield indicated that there are strong links between depression and chronic illness.

With reference to medical conditions and depression, Ashfield, (2010) clarified the links between depression and chronic illness, noting that depression is common – one in five women and one in eight men will experience depression at some time in their lives. The author explains that for people who live with chronic physical illness, this figure is even higher. That 28 percent of people with a chronic physical condition also have mental disorder. Having a chronic physical illness puts a person at greater risk of developing depression. The symptoms of chronic physical illness as well as some of the treatment can result in major lifestyle changes which may cause severe disruptions to a person's work, social life and create financial difficulties.

Depression also creates the likelihood of developing a chronic physical illness, particularly cardiovascular (heart) disease or stroke. For people with chronic physical illness, depression makes recovery more difficult. It can make it harder for people to find the energy to eat healthily, exercise or take medication regularly. Having a chronic physical illness can also make it seem like an effort to connect the family members and friends. This can make the person with the illness feel isolated and make it harder for him/her to recover from depression.

In their own contribution, Oltmanns and Emery (2007) explained that there are biological and hormonal causes of depression in women. These include premenstrual problems, pregnancy and infertility, postpartum depression, perimenopause and menopause, and health problems. In premenstrual problems, the authors argue that hormonal fluctuations during the menstrual cycle can cause the familiar symptoms of premenstrual syndrome (PMS) such as bloating, irritability, fatigue and emotional reactivity. For many women PMS is mild. But for some women, symptoms are severe enough to disrupt their lives and a diagnosis of premenstrual dysphoric disorder (PMDD) is made.

In relation to pregnancy and infertility, the many hormonal changes that occur during pregnancy can contribute to depression, particularly in women already at high risk. Other issues

relating to pregnancy such as miscarriage, unwanted pregnancy, and infertility can also play a role in depression (http://www.helpguide.org/mental/depression-women). In postpartum depression, many new mothers experience the "baby blues." This is a normal reaction that tends to subside within weeks. However, some women experience severe, lasting depression. This condition is known as postpartum depression. Postpartum depression is believed to be influenced, at least in part, by hormonal fluctuations. In perimenopause and menopause, women may be at increased risk for depression during perimenopause, the stage leading to menopause when reproductive hormones rapidly fluctuate. Women with past histories of depression are at increased risk of depression during menopause as well.

In a similar view, Ashfield (2010), Oltmanns and Emery (2007) found out that health problems also contribute to depression. Chronic illness, injury, or disability can lead to depression in women as can crash dieting or quitting smoking. Oltmanns and Emery further explained the psychological causes of depression in women to include the following:

i) Focusing on, and rehashing negative feelings. Women are more likely to ruminate when they are depressed. This includes crying to relieve emotional tension, trying to figure out why they are depressed and talking to their friends about their depression. However, rumination has been found to maintain depression and even make it worse. Men on the other hand tend to distract themselves when they are depressed. Unlike rumination, distraction can reduce depression.

ii) Overwhelming stress at work, school or home. Some studies have shown that women are more likely than men to develop depression from stress. Furthermore, the female physiological response to stress is different. Women produce more stress hormones than men do, and the female sex hormone progesterone prevents the stress hormone system from turning itself off as it does in men.

iii) Body image issues. The gender difference in depression begins in adolescence. The emergence of sex differences during puberty plays a role. Some researchers point to body dissatisfaction, which increases in girls during the sexual development of puberty.

Social causes of depression in women, (as with men too) along with lifestyle choices, relationships, and coping skills, according to Oltmanns and Emery (2007) include:

i) Marital or relationship problems.

ii) Family responsibilities such as caring for children, spouse or ageing parents.

iii) Experiencing discrimination at work or not reaching important goals, losing or changing a job, retirement, or embarking on military service.

iv) Persistent money problems.

v) Death of a love one or other stressful life event that leaves the person feeling useless, helpless, alone, or profoundly sad.

2.07 The Concept of Cognitive Behavioural Techniques (CBT)

The beginning of behavior therapy can be traced back to John B. Watson's (1878-1958) behaviourism; the view that the appropriate focus of psychological study is observable behaviour, not unobservable cognitive or emotional states. Watson viewed the behaviour therapist's job as being a teacher. The therapeutic goal is to provide new, more appropriate learning experiences. In developing treatments, Watson and other early behaviour therapists relied heavily on animal learning research, particularly, Pavlov's classical conditioning and Skinner's operant conditioning. More recently, behavior therapy has been extensively influenced by the findings of cognitive psychology (Mahoney, 1991). Thus, the term cognitive behavior therapy has largely replaced behavior therapy in describing this set of techniques, but the two terms often are used interchangeably.

At the heart of CBT is an assumption that a person's mood is directly related to his or her patterns of thought. Negative, dysfunctional thinking affects a person's mood, sense of self, behavior, and even physical state. The goal of cognitive behavioral therapy is to help a person, whether male or female learn to recognize negative patterns of thought, evaluate their validity, and replace them with healthier ways of thinking. CBT is based on the assumption that cognitions, behaviours and emotional responses are interrelated. The hallmark of CBT is its pragmatic approach. It is a practical approach oriented to changing behavior rather than trying to alter the dynamics of personality. Thus, changes in thought patterns will affect moods and behaviours, and changes in behaviours will affect thoughts and moods (Beck, 1999; Ashfield, 2010).

Therapists who practice CBT aim to help their patients change patterns of behavior that come from dysfunctional thinking. Negative thoughts and behaviour predispose an individual to depression and make it nearly impossible to escape its downward spiral. When patterns of thought and behaviour are changed, according to CBT practitioners and researchers, so is mood. The focus and method of cognitive behavioral therapy sets it apart from other more traditional therapies in the following ways:

i) CBT is based on two specific tasks: cognitive restructuring in which the therapist and patient work together to change thinking patterns, and behavioural activation in which patients learn to overcome obstacles by participating in enjoyable activities. CBT focuses on the immediate present: what and how a person thinks more than why a person thinks that way.
ii) CBT focuses on specific problems. In individual or group sessions, problem behaviours and problem thinking are identified, prioritized, and specifically addressed.
iii) CBT is goal-oriented. Patients working with their therapists are asked to define goals for each session as well as longer-term goals. Longer-term goals may take several weeks or

months to achieve. Some goals may even be targeted for completion after the sessions come to an end.

iv) The approach of CBT is educational. The therapist uses structured learning experiences that teach patients to monitor and write down their negative thoughts and mental images. The goal is to recognize how those ideas affect their mood, behaviour, and physical condition. Therapists also teach important coping skills such as problem solving and scheduling pleasurable experiences.

v) CBT patients are expected to take an active role in their learning, in the session and between sessions. They are given homework assignments at each session some of them graded in the beginning and the assignment tasks are reviewed at the start of the next session.

vi) CBT employs multiple strategies, including Socratic questioning, role playing, imagery, guided discovery, and behavioral experiments.

vii) CBT is time limited. Typically, treatment with CBT lasts 12 to 14 weeks.

Cognitive Behavioural Therapy (CBT) aims at helping the individual learn new ways of thinking positively, acting and feeling rationally using different, research-based techniques. It focuses on the present and on behavior, adhering to the truism, "Action speaks louder than words". CBT assumes that people's emotional and behavioural reactions (e.g., hostility and depression) are the result of their interpretations of events and not the result of the events themselves. The therapy encompasses a diverse assemblage of models and strategies for assessing and treating an individual's behavior.

According to Oltmanns and Emery (2007), CBT does not offer an elaborate theory about the nature of human personality rather, it is a practical approach oriented to changing the negative behaviour of depressed male and female individuals rather than trying to alter the dynamics of personality. Oltmanns and Emery (op. cit.) noted that one of the most important

aspects of Cognitive Behavioral Therapy is its embrace of empirical evaluation. Cognitive behavioral therapists have found that what works includes a variety of different treatments of different problems. Despite the diversity that characterizes CBT, three broad theoretical assumptions underlie CBT approaches:

1. A person's thoughts, images, perceptions, and other cognitive mediating events affect behavior. A corollary assumption is that a specific focus on a person's cognitions is an effective strategy for changing performance.
2. Individuals are active participants in their own learning rather than being passive recipients of environmental influence. Individuals to a considerable degree, create their own environments.
3. A third assumption of CBT is the requirement that the utility of cognitive constructs in behavior change efforts must be empirically demonstrated. That is, cognitions are subjected to scientific investigation and objective methods of inquiry and must demonstrate utility in predicting behavior.

These three assumptions characterize a variety of clinical procedures that are subsumed under the term cognitive behavioral therapy. Rather than being a retreat to mentalist, CBT represents a triumph of methodological behaviorism, a view of behavior as influenced by multiple and interactive determinants, and an expanded range of strategies for changing behavior.

The two most influential cognitive therapy proponents are Ellis (1962, 1973) and Beck (1976). Whereas therapies developed by Ellis and Beck attempt to alter people's irrational self-statements, beliefs, expectations, and interpretations of events, Ellis focuses on specific irrational statements that presumably underlie a range of emotional and behavioral problems. Beck focuses on general cognitive errors e.g. over generalization and logical inconsistencies that characterize

the thinking of depressed or low self-concept individuals. Although cognitive therapies share characteristics with both self-control therapy and self-instructional training, their conceptualization of the relationships among thought, behavior, and emotion is strictly cognitive. Ellis ABC conceptualization of human functioning is a linear model instead of an interactive one. Some activating event in the environment (A) triggers a client's relevant beliefs, (B) The client's emotional and behavioral consequences and (C) result directly from these beliefs.

Although Ellis (1977) provided data on the effectiveness of Rational-Emotive and Behavioral Therapy (REBT), both his methodology and his conclusions regarding the almost miraculous success of REBT has seriously been challenged (Eschenroeder, 1982; Mahoney, 1977). However, several psychologists have suggested the use of psychotherapeutic treatment for mild and minor depression (Rush, Shaw, & Khatomi, 1980; Rush & Watkins, 1981). This necessitated its adoption in this present study because cognitive techniques, whether patterned on Ellis or Beck's approach, depends largely on the client's ability to engage in philosophical disputation, logical analysis, and abstract thinking, and so it is not developmentally appropriate for children. However, related therapies that attempt to alter children's beliefs and expectancies have been developed. One type of belief that has been the focus of such interventions is attributional style.

Attributional style refers to a person's preferred casual explanations for performance (Palmer & Rhodes, 1985). In separate investigations, differences in attributional styles between depressed and non-depressed children (Friedlander, Philips, & Morrison, 1981; Kaslow, Rehm, & Siegel, 1984) and between mastery oriented and helpless children (Diener & Dweck, 1978; Reppucci, 1973) were demonstrated. Similarities in attributional styles of depressed children and children who do not persist in the face of failure (helpless children) led researchers to develop attribution retaining programs. These programs, attempt to increase children's tendencies to

attribute success to ability, (an internal and stable cause) and, failure to their efforts, (an internal but unstable cause) (Dweck, 1975).

In his definition, Wesler (1986) defined Cognitive Behavioural Therapy (CBT) as a collection of assumptions about disturbance and a set of treatment interventions in which human cognitions are a central role. Wesler stresses that the attempt to change cognition (cognitive restructuring) is always a means to an end; that end being the lasting changes in target emotions and behaviour. Cognitive Behavioural Techniques (CBT) is a form of psychotherapy that attempts to counsel the depressed in other to help him/her get out of depression. It also aims at helping people with low or negative self-concept, self-esteem, anxiety, and phobia. It is focused on current issues and symptoms unlike more traditional forms of therapy which tend to focus on a person's history. The usual format is weekly therapy session coupled with daily practice exercises designed to help the patient apply CBT skill in their home environment.

As claimed by Wesler (1986), Cognitive Behavioural Technique is scientifically established for low self-concept and depression. That the technique offers both group and individuals, whether young or old (provided they can engage in logical and constructive analysis of themselves and situations) with experienced and well-trained clinicians. Patients have the option to use treatment alone (especially in mild to moderate cases) or in combination with medication under the prescription of a qualified and registered physician.

Cognitive Behavioral Technique is a form of psychotherapy that emphasizes the important role of thinking about how we feel and what we do. Cognitive Behavioral Technique does not exist as a distinct therapeutic technique. The term Cognitive Behavioral technique (CBT) is a very general term for a classification of therapies with similarities. There are several approaches to Cognitive Behavioural Techniue including Rational Emotive Therapy (RET), Rational Behavior Therapy (RBT), Rational Living Therapy (RLT), Cognitive Therapy (CT),

and Dialectic Behavior Therapy (DBT). However, most cognitive behavioral therapies have the following characteristics according to Wikipedia (2009):

i. CBT is based on the cognitive model of emotional response:

Cognitive behavioral Technique is based on the idea that our thoughts affect our feelings and behaviors, not external things, like people, situations, and events. The benefit of this fact is that we can change the way we think or feel/ act better whether one is an adolescent or an adult even if the situation does not change.

ii. CBT is brief and time-limited:

Cognitive-behavioral Technique is considered amongst the most rapid in terms of results obtained. The average number of sessions clients receive (across all types of problems and approaches to CBT) is only 16. Other forms of therapy, like psychoanalysis, can take years. What really enable CBT to be brief are its highly instructive nature and the fact that it makes use of homework assignments. CBT is time-limited in that it helps clients understand at the very beginning of the therapy process that there will be a point when the formal therapy will end. The ending of the formal therapy is a decision made by the therapist and client. Therefore, CBT is not open-ended or never-ending process.

iii. In CBT, a sound therapeutic relationship is necessary for effective therapy, but not the focus:

Some forms of therapy assume that the main reason why people get better in therapy is because of the positive relationship between the therapist and client. Cognitive behavioral therapists believe it is important to have a good, trusting relationship, but that is not enough. CBT therapists believe that the clients change because they learn how to think differently and

they act on that learning. Therefore, CBT therapists focus on teaching rational self-counseling skills.

iv. CBT is a collaborative effort between the therapist and the client:

Cognitive – Behavioral therapists seek to learn what their clients want out of life (their goals) and then help their clients achieve those goals. The therapist's role is to listen, teach and encourage, while the client's roles is to express concern, learn and implement that learning.

v. CBT is based on stoic philosophy:

Not all approaches to CBT emphasize stoicism. Rational Emotive behavior Therapy, Rational Behavior Therapy and Rational Living therapy emphasize stoicism. Beck's cognitive therapy does not tell people how they should feel. However, most people seeking therapy do not want to feel the way they have been feeling. The approaches that emphasize stoicism teach the benefits of feeling, at worst Calm when confronted with undesirable situations. They also emphasize the fact that we have our undesirable situations. If we are upset about our problems, we have two problems; the problem, and our upset about it. Most people want to have the fewest number of problems possible. So when we learn how to be more calmly, accept a personal problem, not only do we feel better, but we usually put ourselves in a better position to make use of our intelligence, knowledge, energy, and resources to resolve the problems.

vi. CBT uses the Socratic Method:

Cognitive Behavioral Therapists want to gain a very good understanding of their client's concerns. That's why they often ask questions. They also encourage their clients to ask questions about themselves, like "How do I really know that those people are laughing at me?" "Could they be laughing about something else?"

vii. CBT is structural and directive:

A Cognitive Behavioral Therapist has a specific agenda for each session. Specific techniques or concepts are taught during each session. CBT focuses on the client's goals. Clients are not told what their goals should be, or what they should tolerate. CBT is directive in the sense that clients are shown how they think and behave in ways to obtain what they want. Therefore, CBT therapists do no tell their clients what to do, rather they teach their clients how to do it.

viii. CBT is based on an educational model:

CBT is based on the scientifically supported assumption that most emotional and behavioral reactions are learned. Therefore, the goal of the therapy is to help clients unlearn their unwanted reactions and to learn a new way of reacting. Therefore, CBT has nothing to do with "just talk" with anyone. The educational emphasis of CBT has an additional benefit. It leads to long term results. When people understand how and why they are doing well, they know what to do to continue doing well.

ix. CBT theory and techniques rely on the inductive method:

A central aspect of rational thinking is that it is based on facts. Often, we upset ourselves about things when, in fact, the situation isn't like we think it is. If we knew that, we would not waste our time upsetting ourselves. Therefore, the inductive method encourages us to look at our thoughts as being hypotheses or guesses that can be questioned and tested. If we find that our hypotheses are incorrect because we have new information, then we can change our thinking to be in line with how the situation really is.

2.08 Principles of Cognitive Behavioural Technique (CBT).

The principles of CBT according to Martell (2007) are as follows:

1. Behaviour, whether public or private is strengthened or weakened by its consequences.
2. Behaviours that are rewarded are increased; those that are punished will decrease.
3. The approach is functional rather that structural.
4. Neural stimuli, paired with positive or negative environmental stimuli, can take on the properties of the environment in which they are presented and be conditioned to be positive or negative.
5. Cognitive Behavioural Therapy is data driven and empirically based.
6. Changes in clients made possible in therapy must be generalized to their day-to-day lives.
7. Insight alone is not beneficial to a client.

The experimental setting for CBT programme is in form of Psycho-educational groups whereby the participants (the experimental group) are treated as a psychotherapy group. Psychotherapy group method is the simultaneous treatment of individuals with homogeneous psychological disorder in a group. In other words, it is a therapeutic process in which a therapist is involved in a close relationship with a number of clients in a group in other to help them replace distorted and self-defeating mode of thoughts with more rational self-statements to help resolve their psychological conflicts or concerns (Beck, 1999; Clarke, Beck & Alford, 1999).

The experimental sessions last for a duration of 6 weeks. This will gave the experimenter an ample time to apply the Cognitive Behavioural Technique on the depressed individuals. Each therapeutic session lasts between 50-60 minutes in order to minimize boredom on the part of the participants (Vinogradov et al., 2003). Participants are given homework assignments at the end

of every session. Each previous homework assignment is reviewed at the beginning of the next session in order to reinforce treatment gains and learning that would focus on changing their distorted and maladjusted thoughts that cause depression.

Apart from psychological group therapy, individual counselling is used in order to cater for individualized problems of the adult learners. Individual counselling is a one-on-one psychotherapy in which the therapist gives attention to an individual at a time in order to examine his personal challenges and concerns. Recent studies (e.g. Sanderson & McGinn, 2001; Keller, 2003) indicated that as a result of these procedures, individuals learnt to reinterpret negative events in ways that helped them cope with such outcomes without becoming depressed.

The behavioural objectives of CBT according to Martell (2007) are:

1. Help the depressed identify their distorted, illogical and self-defeating mode of thoughts towards life challenges generally.
2. Help the depressed to demonstrate, through their responses that they understand that a distorted, illogical and self-defeating mode of thoughts affects one's beliefs, mood and cognitive functioning.
3. Help the depressed respond to therapeutic change process through their change of attitude.
4. Help the depressed manifest reduction in their depression symptoms after the application of the CBT.

Cognitive Behavioural Techniques rest on a psychological model that emphasizes the learned nature of behaviours, whether they are adaptive or maladaptive. Three general models of learning are identified (classical, operant and social learning), although the validity of these models and their direct connections to some techniques can be questioned. A variety of

techniques are associated with CBT, and most have been found effective for both male and female, married and unmarried, young and old (Murdock, 2009). Murdock explains that CBT approaches are congruent with a preventive orientation to adult learners' adjustment and learning. Its emphasis on competence versus remediation of dysfunctional behaviours and self-regulatory mechanisms versus external control extend its impact to all categories of adult learners.

Cognitive Behavioural Techniques, as suggested by Wright, Beck and Thase, (2003) employ teaching of specific information or skills relevant to the psychological well-being of the depressed that could help to reduce their depression symptoms. The techniques aim at addressing the underlying causes of depression in the participants, rather than just the symptoms so that it could be effective in reducing such symptoms. As a talk therapy, the CBT use verbal interventions and in each session, there is systematic monitoring and shaping of the client's thought pattern in order to help him/her change maladaptive patterns of thinking. The clients are taught to detect their automatic negative thoughts – self-defeating statements that people are prone to make when analyzing life challenges and academic problems. They are then trained to subject these automatic thoughts to reality testing. Then they were helped to see how unrealistically negative their thoughts are as far as life challenges and adult learning are concerned.

The psychotherapy group method is ideal in the application of CBT because the participants would essentially function as therapists for one another (Stone, 2003). Besides, as the participants are exposed to the various sessions of the CBT, they would have the opportunity to describe their problems, trade view points, share experiences and discuss coping strategies. Most important, they would provide acceptance and emotional support for each other. In this atmosphere, the participants would work at peeling away the social masks that cover their

insecurities. More so, since different members of the group have different problems or challenges that could be predictors of their depression, they serve one another as models of more positive and constructive learning behaviour. This feeling helps to reduce tension, timidity, and anxiety among the adult learners and will increase individual's self-confidence as the CBT programme takes its course. As the participants come to value one another's opinions, they would work hard to display healthy changes that could reduce their depression symptoms.

The experimenter's responsibilities in this group therapy include setting goals for the group, initiating and maintaining the CBT process. Group therapeutic techniques obviously save time and energy of the experimenter which were crucial in this study. The group method helps the participants to discover that they were not alone in their depressed condition. The focus of the psychotherapy group method which was adopted in this study is to help the depressed overcome their negative thoughts and tendencies about themselves, their world and their future by teaching them to question their irrational conclusions and help them to develop more objective ways of thinking and acting. This is meant to help them to recognize and reject the false assumptions and conclusions that cause depression. Several studies (e.g. Beck, 1985; Sanderson & McGinn, 2001; Sa'ad, 2010; Keller, 2003) have suggested psychotherapy group method as experimental setting for CBT programme. Consequently, this present study used the psychotherapy group method in applying the CBT treatment to the participants in the treatment group.

Finally, the educator/therapist's role in CBT is consistent with the training of many school professionals (Brown, 1987; Conoley, 1982). Knafer (1970) described the role of the cognitive-behavioral therapist as a consultant and expert who teaches the client how to go about change. The interaction is future-oriented in that the focus is on the development of general repertoires for dealing with problem situations.

2.08.1 Criticisms of Cognitive Behavioural Technique:

Cognitive behavioural technique has been seriously criticized by different psychologists especially non-cognitive behavioural therapists. For instance, Hughes, (1988) stated that cognitive behavioral technique (CBT) is neither a panacea for treating people's behavioral and emotional problems nor a completely novel therapeutic and adult management approach. Rather, CBT represents an expanded behavioral paradigm that shows considerable promise for helping depressed people. Whether CBT achieves its promise will depend greatly on whether its proponents avoid certain pitfall which is an uncritical acceptance of any new technology, an acceptance based on the belief that change is progress and new is better. Traditional behavioral approaches in the schools have demonstrated their utility across a wide range of problems and are still the treatment choice for many problems, often, the greatest benefit of the newer cognitive-behavioral approaches. Such combined approaches will result from efforts that combine these approaches with behavioral approaches. Such combined approaches capitalize on the initial improvement obtained with behavioral programs while altering a person's sense of competence (self-efficacy), which promotes greater durability of treatment gains (Collins, Rothblum, & Wilson, 1986).

Although there is some evidence of greater generalization and durability of behavioral changes resulting from CBT, this evidence is far from conclusive. Just as behaviorists realized that generalization must be programmed into change efforts, cognitive behaviorists (e.g. Wong, 1986) are investigating factors that enhance generalization across behaviors, settings, and tasks. They maintained that the claim that CBT results in greater generalization is overly broad and empirically unjustified.

Another criticism of CBT in schools, especially adult education institutions is the cost effectiveness of CBT interventions. Critics argue that many CBT interventions involve an

expensive clients' training. Their superiority over behavioral approaches when demonstrated, must be weighed against their greater cost in terms of time, resources, effort expended, and efficiency (Wong, 1986). The need to consider cost efficiency is related to the need to specify the active ingredients in multi-component CBT interventions. Eliminating training components that do not significantly contribute to treatment effectiveness will result in more efficient programmes that, in turn, will increase the probability that educational institutions for instance will allocate the necessary resources for CBT programme.

2.09 Theoretical Framework.

Psychologists have tried for many years to find a cure for mental disorders. In order to treat and prevent depression however, one must first understand where it comes from and what factors serve to maintain it. This has resulted in the emergence of various therapies particularly cognitive behavioural therapies for depression. Consequently, many theories have been propounded relating to cognitive behavioural therapy.

Among the theories discussed herein, Beck's Theory of Cognitive Behavioural Therapy for depression is the basis on which this study is anchored. The theory explains how the depressed are likely to make negative assertions about themselves in terms of their beliefs, interpretations and perceptions about the past, the present and the future which results to depression. This is the premise of this study. Besides, Beck the proponent of this theory developed the Cognitive Behavioural Therapy for depression which is being experimented in this study to find out its effectiveness in reducing depression symptoms among adult learners in Benue State.

2.09.1 Aaron T. Beck's Theory of Cognitive Behavioural Therapy for Depression

In analyzing the intricacies of depression, Beck, (1976, 2004) believes that a psychological mechanism that plays a key role in depression is negative views about oneself. According to Beck, individuals suffering from depression often possess negative self-schemas – negative conceptions of their own traits, abilities, and behaviours. They have habitual thinking errors that underlie their disorder. Depressed-prone people tend to (1) blame their setbacks on personal inadequacies without considering circumstantial explanations, (2) focus selectively on negative events while ignoring positive events, (3) make unduly pessimistic projections about the future and (4) draw negative conclusions about their worth as a person based on insignificant.

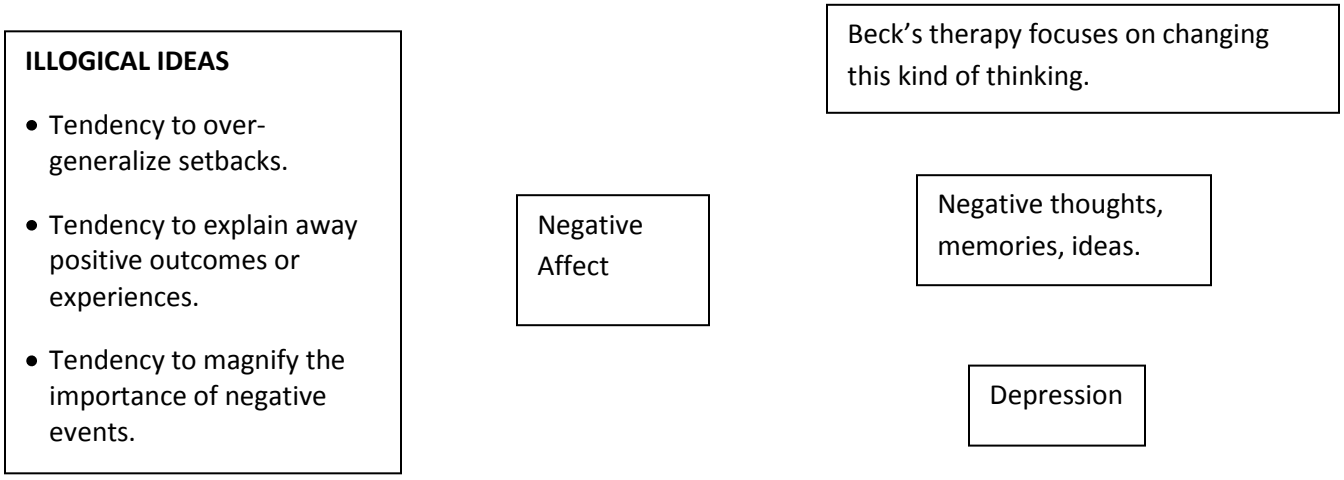
Beck noted that the depressed-prone individuals tend to be highly sensitive to criticism from others and are often very concerned about disapproval from them. Because they are more likely to notice and remember negative information, their feelings of worthlessness strengthen, and when they are exposed to various stressors (e.g. the breakup of a romantic relationship, a failure at work), their thinking becomes distorted in important events in a negative light – for instance, they interpret a complement from a friend as insincere, or someone's being late for an appointment as a sign off rejection.

Beck (1967, 1997) as cited in Carlson and Heth (2010), developed a therapy for depression that shares with Ellis's therapy, an emphasis on the client's beliefs, interpretations, and perceptions. Beck's cognitive therapy, however, focuses more on faulty logic than on the beliefs themselves. The negative beliefs are seen are conclusions based on faulty logic. A depressed person concludes based on faulty logic. A depressed person concludes that he or she is "deprived, frustrated, humiliated, rejected or punished. Beck views the cognitions of the depressed individual in terms of a cognitive triad: a negative view of the self ("I am worthless"),

of the outside world ("The world makes impossible demands on me"), and of the future ("Things are never going to get better").

Even when confronted with evidence that contradicts their negative beliefs, depressed individuals often find an illogical means of interpreting good news as bad news. For example, children who exhibit symptoms of depression tend to under-estimate their abilities (McGrath & Repetti, 2002). A student who receives an "A" in an examination might attribute the high grade to an easy, unchallenging question rather than to his or her own mastery of the material. The fact that few others in the class scored "A" does little to convince the depressed student that he or she deserves congratulations for having done well. The depressed student goes on believing, against contrary evidence, that the good grade was not really deserved. Once the faulty logic is recognized for what it is, therapy entails exploring means for correcting the distortions.

Fig. 2.1 **Beck's Cognitive Behavioural Therapy Model for Depression**



Source: Baron & Kalsher, 2005, pp.412

Beck's Cognitive Behavioural Therapy model is designed to change cognitive tendencies (e.g. distorted thinking) that contribute to depression. Such patterns of thought often produce negative affect (mood) which then increases the likelihood of further negative thoughts. Beck's cognitive behavioural therapy attempts to break this cycle. Beck assumes that depressed

individuals engage in illogical thinking and that this underlies their difficulties. They hold unrealistic negative beliefs and assumptions about themselves, the future and the world (e.g. such negative beliefs and assumptions like "*I am a worthless person, no one could ever love me", "If good things happen to me, it's just blind luck*", "*My life is a mess and I will never improve*". Moreover, Beck contends that the depressed cling to these illogical ideas and assumption until they are helped to think otherwise. Beck's CBT model is less explicit regarding the causal relationships among events, thoughts, and emotions.

In Beck's (2004) cognitive behaviour therapy model cited in Baron and Kalsher (2005), depressed persons have a systematic negative bias in their thinking, which causes them to have a negative view of themselves, the future, and the world. They filter events through these negative cognitive schemata, which results in a distorted and overly pessimistic interpretation of reality, culminating in the affective states and behavioral symptoms characteristic of depression. According to Beck, such distorted thinking leads individuals to have negative moods, which in turn, increase the probability of more negative thinking. In other words, he emphasized the importance of mood–dependent memory – how our current moods influence what we remember and what we think about. This could have serious implications on adult learning. How this vicious circle can be broken is the focus of Beck's model of Cognitive Behavioural Therapy. To do this, if a client states, for example, that he is a total failure, Beck may ask how he defines failure and whether some experience he defines this way may actually be only partial failures. If that is so, Beck will inquire, aren't they also partial successes? Continuing in this manner, Beck might then ask the client whether there are any areas of his life in which he does experience success and has succeeded in reaching goals. Furthermore, if a client expresses the negative thought, "I am a poor father because my children are not better disciplined", Beck would take the second part of the statement and seek factual evidence about its truth. He would also focus on the

evaluative conclusion that one is a poor father because one's children sometimes misbehave. In these and other ways, clients are trained to distance themselves from things, to be more objective, to distinguish fact from fiction and fact from evaluation, to see things in proportion and not to see things in such extreme terms. Beck's cognitive therapy is less confrontational and its use has been extended to anxiety and personality disorders, among others.

Beck's cognitive approach does not attempt to disprove the ideas held by depressed persons. Rather, the therapist and the client work together to identify the individual's irrational assumptions, beliefs and expectations, and to formulate ways to test them. Following this procedures, individuals learn to interpret negative events in ways that help them cope with such outcomes without becoming depressed. This present study will follow this pattern.

In his model, Beck explains the most common cognitive biases in depression to include:

i. Drawing a negative conclusion when there is little or no evidence to support it (arbitrary inference).

ii. Focusing on a single negative detail taken out of context, ignoring the more importance aspects of the situation (selective abstraction).

iii. Drawing a sweeping, global conclusion based on an isolated incident and applying that conclusion to other unrelated areas of life (over-generalization).

iv. Grossly overestimating the impact of negative events and grossly underestimating the impact of positive events so that small, bad events are magnified, but good, large events are minimized (magnification and minimization).

v. Taking responsibility, blaming oneself or applying external events to oneself when there is no basis or evidence for making the connection (personalization).

All the aforementioned cognitive tendencies have the capacity to affect the general activities of the depressed including educational activities. Central to Beck's therapy is the idea that such tendencies lead individuals to have negative moods, which increases the probability of negative thinking. Negative thoughts contribute to depression, and depression, in turn, strengthens illogical thinking. Beck hypothesized that depressed people see the world through a gray-colored glasses as opposed to the rose-colored variety. According to Beck's analysis, this negative filter makes the world appear much bleaker than it really is. He contends that the illogical ideas people hold are often maintained even in the face of evidence that contradicts them.

Beck believes that depressives see themselves as victims. The key elements in depression are negative thoughts about oneself, the world and the future and these thoughts are seen to come automatically and involuntarily. The source of such thoughts is logical errors based on faulty data and once negative thinking has been identified, it can be replaced by collecting evidence against it. Accordingly, Beck sees the client as a colleague of the therapist who researches verifiable reality. Consider the following example from an actual therapy session by Beck (1999).

A woman who complained of severe headaches and other somatic disturbances was found to be very depressed. When asked about the cognitions that seemed to make her unhappy, she said, "My family doesn't appreciate me", "Nobody appreciates me, they take me for granted", "I am worthless." As an example, she stated that her adolescent children no longer wanted to do things with her. Although this particular statement could very well have been accurate, the therapist decided to determine whether it was true. He pursued the "evidence" for the statement in the following interchange:

Patient: My son doesn't like to go to to the theater or to the movies with me anymore.

Therapist: How do you know he doesn't want to go with you?

P: Teenagers don't actually like to do things with their parents.

T: Have you actually asked him to go with you?

P: No, as a matter of fact, he did ask me a few times if I wanted him to take me. But I didn't think he really wanted to go.

T: How about testing it out by asking him to give you a straight answer?

P: I guess so.

T: The important thing is not whether or not he goes with you but whether you are deciding for him what he thinks instead of letting him tell you.

P: I guess you are right but he does seem to be inconsiderate. For example, he is always late for dinner.

T: How often has that happened?

P: Oh, once or twice. I guess that's really not all that often.

T: Is he coming late for dinner due to his being inconsiderate?

P: Well, come to think of it, he did say that he had been working late those two nights. Also, he has been considerate in a lot of other ways.

Actually, as the patient later found, her son was willing to go to the movies with her. This example shows that the therapist does not accept the client's conclusion and inferences at their face value. Instead, those conclusions resulting from faulty logic are discussed so that the client may understand them from another perspective, changing his or her behavior as a result.

2.09.2 Judith S. Beck Theory of Cognitive-Behavioral Therapy

Dr. Beck is the director of the Beck Institute for Cognitive Therapy and Research in Philadelphia and president and distinguished founding fellow of the Academy of Cognitive Therapy. According to Beck (1995), CBT treatment is collaborative, structured, and goal-oriented. It is designed to be as short term as possible, though sometimes with complex cases and severe mental illness, the treatment takes a longer period. CBT also places a strong emphasis on relapse prevention, which essentially teaches patients skills so they can learn to be their own therapists. Beck notes that in addition to the thoughts patients revealed during free association, they often had another stream of thoughts that they did not report very often. This led to the idea that people can have two concurrent levels of thinking. In addition to a more volitional level of thinking, there is often an automatic level of thinking. That is, evaluative thoughts that spontaneously arise in people's minds. Everyone has this automatic level of thinking from time to time i.e. depressed patients often had automatic thoughts that are highly negative and distorted. These patients tended to see themselves as failures, helpless, worthless, and unlovable. Most patients are unaware of their automatic thoughts before they come to treatment. Frequently, they are more aware of the emotions or behavioral reactions that their automatic thoughts lead to. However, almost all patients can be easily taught to identify their automatic thoughts.

Depressed individuals are asked to notice when their mood changes (or when they are engaging in dysfunctional behavior) and to ask themselves what is going through their minds. The patients are then taught to test the validity and utility of their thoughts. When they evaluate their thinking and see things more realistically, they feel better and are able to act more functionally. Therapists must determine the key cognitions and behaviors of each individual patient and use their conceptualization to plan treatment. It is important to understand that the

cognitive formulation of depression is different from the cognitive formulation of other disorders. The key automatic thoughts in depression are negative cognitions about the self, the world, and the future. Typical automatic thoughts include, "I am such a failure. I don't have a job. I am so tired. I can't get off this couch. My life is terrible," and so forth. Cognitive-behavioral therapists follow a certain structure in session. They ask about the patient's mood; make a bridge between sessions; set a specific problem-solving-oriented agenda; work toward solving specific problems; collaboratively set homework assignments (so patients can make small changes in their thinking and behavior every day); and summarize and ask for feedback at the end of sessions. According to Beck, if therapists are not doing these very basic things, chances are they are not practicing standard CBT. Of course, it takes much more than just following the structure to practice CBT effectively.

According to Beck (2005), a patient with a straightforward case of depression will most likely stay in therapy for approximately 6-12 sessions, starting with weekly sessions. If the patient is in crisis, initial sessions may occur more often. As patients start to feel better and use the tools they have learned, therapy may be spaced out to once every 2 weeks and then once every 3-4 weeks. Even after termination, patients schedule "booster sessions" to prevent relapse. Beck suggests conducting a thorough evaluation of the patient before starting treatment. In addition to extensive history-taking and a diagnostic interview, there is need do a careful analysis of the patients' current functioning, asking what they do on a typical day from wake until sleep; how often they see family and friends; and how they function at work, outside of work, and in their relationships. In the first session, it is important to establish a strong therapeutic alliance; educate patients about their diagnosis; explain the cognitive model; elicit expectations for treatment; socialize patients to treatment; and, most importantly, instill hope. One way to do so is by setting specific goals with patients at this first session. Pointed questions should be asked such

as, “How would you like to be different by the end of treatment?” “What do you want your life to look like?” Help the patient form very concrete behavioural goals, such as, “I would like to meet new people,” “I would like to be able to concentrate better at work,” “I would like to be able to manage my finances better,” “I would like to get back into exercising,” “I would like to be more assertive,” or, “I would like to get a job.” The therapist should then work toward these goals at every session.

At each session, patients should be asked how they have been feeling compared to previous sessions. They should be asked to fill out certain objective tests, such as the Beck Depression Inventory. A mood check provides a very quick look at what the patient’s symptoms are, and at what has and has not improved. This helps inform the patient and therapist about whether treatment is effective enough. It may also points out problems to be discussed during the session. Next, set an agenda with patients, asking them to name current problems they would like to be solved. However, before discussing these problems in detail, we need to find out if there are any other pressing problems or issues. Ask patients what happened between the previous visit and the current session that is important for the therapist to know. Ask patients whether they anticipate that any other problems might arise before the next therapy session. Following this, it is easy to review what the patient did for homework, what he or she learned, and what he or she wants to continue doing the next coming week.

Next, prioritize the problems on the agenda, finding out what patients think is most important to work on given limited time together available. Then discuss the first problem, and, in the context of solving the problem, teach the patient the necessary cognitive and behavioral skills. The homework assignment, which is collaboratively set, naturally follows from this problem-solving process. It usually includes implementing solutions to problems and practicing skills. At the end of sessions, summarize or have the patients summarize the most important

things learnt from the session, and make sure they have these written down to review during the week. Also ask for feedback to find out how the patient felt about the session, whether the patient thinks the therapist understood them correctly, and whether they want to do anything differently in the next session.

As pointed out by Beck (2005), it is very important for a cognitive-behavioral therapist to adapt the session to the patient. There are some patients who cannot tolerate the structure initially, or for whom the structure is really inappropriate. In such cases, the therapist must modify the treatment, at least initially. Some patients are accustomed to more traditional psychotherapy in which they speak about whatever is on their minds, without much direction from the therapist. Sometimes cognitive-behavioral therapists simply need to explain the rationale for structuring the session and to ask patients if this sounds okay. Difficulties in structuring the session can often be solved in a common-sense manner. For example, therapists may negotiate with patients, offering them the option of dividing the session so that they spend some time problem solving and some time having the patient talk in an open-ended way without interruption.

In planning cognitive-behavioral therapy according to Beck (2005), the therapist takes the data that the patient presents, conceptualizes the patient in cognitive terms, and tailors treatment to the individual based on this conceptualization and on the cognitive formulation of the patient's disorder(s). The therapist seeks reasons for why the patient is experiencing his or her current difficulties, paying particular attention to the patient's perceptions of current situations that may lead to distress and/or dysfunctional behavior. The therapist also recognizes themes behind these ideas and works on patients' basic understandings about themselves, their worlds, and other people.

In Beck's theory, whenever therapists find that patients are "resistant," to the treatment process, they need to define the resistance in behavioral terms. For example, the patient may not do homework; not let the therapist get a word in edgewise; avoid talking about important problems; or continue to abuse substances. It is then important to determine whether therapists need to do practical problem solving, and/or help patients respond to interfering cognitions, and/or teach the patient new skills. One patient might not do homework because the therapist had suggested something that was much too difficult. In this case, it is really the therapist's error. The therapist must simply apologize and ensure that new assignments are appropriate. Another patient might not do homework because he thinks he will not do it well. In this case, the therapist needs to help the patient assess and decatastrophize this possibility.

2.09.3 Michelle G. Craske's Theory of Cognitive Behavioural Therapy.

Cognitive behavioural therapy according to Craske, is an amalgam of behavioral and cognitive interventions guided by the principles of applied science. The behavioral interventions aim to decrease maladaptive behaviors and increase adaptive ones by modifying their antecedents and consequences and by behavioral practices that result in new learning. The cognitive interventions aim to modify maladaptive cognitions, self-statements or beliefs. The hallmark features of CBT are problem-focused intervention strategies that are derived from learning theory as well as cognitive theory principles. A functional analysis usually initiates the treatment, establishing the topography of the problem behaviors, emotions, and cognitions, as well as their functional relationships with each other. The aim is to identify the factors that may cause, contribute to, or exacerbate a particular problem. This analysis includes a consideration of the antecedents and consequences of behavior, the stimuli that are eliciting cognitive, emotional, and behavioral conditional responses, and the cognitions that are contributing to the

emotions and behaviors. The effect of environmental and cultural contexts on these relationships is evaluated as well. The functional analysis then guides the treatment approach.

Cognitive restructuring in CBT begins with a discussion of how cognitive errors contribute to the misconstrual of situations and how they in turn lead to behavioral choices that compound distress and confirm misappraisals, contributing to a self-perpetuating cycle. Next, thoughts are recognized as being hypotheses rather than facts and therefore open to questioning and challenge. This approach is the cognitive technique of ‘‘distancing’’ or the ability to view one’s thoughts more objectively and to draw a distinction between ‘‘I believe’’ and ‘‘I know.’’ Once relevant depression-related cognitions are identified, they are categorized into types of errors, including dichotomous thinking, arbitrary inference, overgeneralization, and magnification, among others.

CBT therapists use Socratic questioning to help clients make guided discoveries and question their thoughts. Logical empiricism is employed by which rational consideration is given to the evidence that exists, including ignored evidence, historical data, and alternative explanations for events. According to Craske, the core idea of any therapy calling itself ‘cognitive’ is that people’s emotional reactions and behaviour are strongly influenced by cognitions, in other words, their thoughts, beliefs and interpretations about themselves or the situations in which they find themselves. People react differently to similar events. Even events as obviously terrible as suffering a bereavement, or being diagnosed with a terminal illness, do not produce the same emotional state in everyone: some may be completely crushed by such events, while others cope reasonably well. So it is not just the event that determines emotion, there must be something else. CBT says that the ‘something else’ is cognition, i.e. the interpretations people make of the event. When two people react differently to an event it is because they are seeing it differently, and

when one person reacts in what seems to be an unusual way, it is because he has unusual thoughts or beliefs about the event. It has an idiosyncratic meaning for him.

Modern CBT according to Craske, commonly identifies four interacting systems:

i) Cognition
ii) Affect, or emotion
iii) Behaviour
iv) Physiology.

These systems interact with each other in complex feedback processes and also interact with the environment - where 'environment' is to be understood in the widest possible sense, including not just the obvious physical environment but also the social, family, cultural and economic environment.

The basic principles at the heart of CBT as summarized by Craske are:

i) The cognitive principle: it is interpretations of events, not events themselves, which are crucial.
ii) The behavioural principle: what we do has a powerful influence on our thoughts and emotions.
iii) The continuum principle: mental-health problems are best conceptualized as exaggerations of normal processes.
iv) The here-and-now principle: it is usually more fruitful to focus on current processes rather than the past.
v) The interacting-systems principle: it is helpful to look at problems as interactions between thoughts, emotions, behaviour and physiology and the environment in which the person operates.

vi) The empirical principle: it is important to evaluate both our theories and our therapy empirically.

As earlier argued by Beck, Craske also believes that negative automatic thoughts (NATs) exert a direct influence over mood from moment to moment, and such thoughts are therefore of central importance to any CBT therapy. They have several common characteristics:

i) As the name suggests, one does not have to try to think negative automatic thoughts - they just happen, automatically and without effort (although it may take effort to pay attention to them and notice them).
ii) They are specific thoughts about specific events or situations. Although they may become stereotyped, particularly in chronic problems, they may also vary a great deal from time to time and situation to situation.
iii) They are, or can easily become, conscious. Most people are either aware of this kind of thought, or can soon learn to be aware of them with some practice in monitoring them.
iv) They may be so brief and frequent, and so habitual, that they are not 'heard'. They are so much a part of our ordinary mental environment that unless we focus on them we may not notice them, any more than we notice breathing most of the time.
v) They are often plausible and taken as obviously true, especially when emotions are strong. Most of the time we do not question them, but simply swallow them whole. One of the crucial steps in therapy is to help clients stop swallowing their NATs in this way, so that they can step back and consider their accuracy. As a common CBT motto has it, 'Thoughts are opinions not facts'- and like all opinions they may or may not be accurate.
vi) Although we usually talk about NATs as if they were verbal constructs - e.g. 'I am useless' - it is important to be aware that they may also take the form of images. For example, in social phobia, rather than thinking in words, 'Other people think I'm

peculiar', a person may get a mental image of himself looking red-faced, sweaty and incoherent.

vii) Because of their immediate effect on emotional states, and their accessibility, NATs are usually tackled early on in therapy.

As first described by Beck, Craske's theory recognizes the fact that the characteristic cognitions in depression are the negative cognitive triad, namely negatively biased views of oneself, of the world in general and of the future. In other words, the typical depressed view is that I am bad (useless, unlovable, incompetent, worthless, a failure); the world is bad (nothing good happens, life is just a series of trials); and the future is also bad (not only are myself and the world bad, but it will always be like this and nothing I can do will make any difference). Depressed people are also likely to show characteristic general biases in the way that they think, e.g. towards perceiving and remembering negative events more than positive ones; or tending to see anything that goes wrong as being their fault; or over-generalizing from one small negative event to a broad negative conclusion.

2.09.4 Roth and Fonagy's Theory of Cognitive Behavioural Therapy

Roth and Fonagy (2005) reported evidence showing that CBT is strongly supported as a therapy for most of the psychological disorders in adults and has more support in more kinds of problem than any other therapy. In addition to this evidence of CBT's efficacy i.e. that it works in tightly controlled research trials, there is also some useful evidence demonstrating its effectiveness (i.e. that it can also work well in ordinary clinical practice, outside specialist research centres).

Regarding the proposed causal role of negative thoughts, i.e. the suggestion that negative thinking can provoke low mood, Roth and Fonagy (2005) concluded that there is some

experimental evidence that negative self-referent thinking can indeed induce subjective, behavioural, motivational and physiological features similar to mild to moderate depression. If negative thoughts are experimentally provoke about themselves in non-depressed people, temporary states quite similar to depression can be produced. The least well-supported part of Roth and Fonagy's theory is the suggestion that people are vulnerable to depression because of negative beliefs that are still present in 'latent' form even when they are not depressed. A similar picture is found for specific CBT models for other disorders: in some areas there is good solid research support and in others the evidence is equivocal. Overall, then, the evidence is:

a. that CBT is undoubtedly an effective treatment for many problems; and
b. that there is support for CBT theory but that there is still room for exploring and developing this approach further in some areas.

Modern CBT is derived from the legacy of behaviour therapy (with its emphasis on the importance of behaviour change in overcoming mental health problems), and cognitive therapy (with its emphasis on understanding and changing the meaning of events).

Like other cognitive behavior therapy theories, Roth and Fonagy's theory also suggests that problems can usefully be described in terms of the interactions between four'systems':

i) The cognitive system - what a person thinks, imagines, believes.
ii) The behavioural system - what they do or say that can be directly observed by others.
iii) The affective system - their emotions.
iv) The physiological system - what happens to their body, such as autonomic arousal or changes in appetite.

Three 'levels' of cognition are distinguished:

i) Negative automatic thoughts - specific thoughts that arise spontaneously in various situations, which have a negative effect on mood, and which are relatively accessible to consciousness.

ii) Dysfunctional assumptions - 'rules for living' that guide behaviour and expectations in a variety of situations, and which are often in conditional (if … then …) form. Core beliefs - very general beliefs about oneself, other people or the world in general, which operate across a wide range of situation but which are often not immediately conscious.

Different kinds of psychological problem have different characteristic cognitions, in content, style or both - e.g. in anxiety there is a preoccupation with threat, and associated biases towards perceiving threat. There is considerable evidence that CBT can be an effective way of helping various mental health problems; and less clear, but still significant, evidence for the theories lying behind the treatment.

2.09.5 Meichenbaum's Theory of Cognitive Behavioural Modifications

Meichenbaum, cited in Patterson (1980) related an experience he had during his Doctoral degree research at the University of Illinois that gave birth to research and theory development leading to his cognitive behavioural approach to behaviour modification and psychotherapy. His research involved training hospitalized schizophrenic patients to emit 'healthy talk" by operant conditioning procedures. He observed that some of the patients repeated aloud to themselves the experimental instruction "give healthy talk", "be coherent and relevant" while they were being given a follow-up interview as part of the evaluation of the effectiveness of the treatment, thus engaging in spontaneous self instruction.

It should be noted that the use of such experimental instructions constituted a departure from strict operant conditioning thereby introducing a cognitive element in the treatment. An

incident reported by William Gilbert, Director of the Counseling Centre at the University of Illinois, occurred at about the same time Meichenbaum was engaged in his research. A Psychology student working in a mental hospital decided to attempt to eliminate certain antagonizing behaviour in a patient, which consisted of sticking his tongue out at members of the hospital staff, by the method of aversive conditioning. After several interviews, the patient caught onto the psychology student's objective and said, "Doc, if you're trying to get me to stop sticking my tongue out, just tell me and I'll be glad to". Whether or not Meichenbaum was aware of and influenced by this is not known, but it points to the influence of cognitive factor in behaviour change (Patterson, 1980).

Meichenbaum's experience led him to wonder if schizophrenic patients and other patients or clients could be explicitly trained to talk to themselves in a way that would lead to changes in their behaviour. He went into a program of research to study the role of cognitive factors in behaviour modification. He focused on inner speech, or inner dialogue, seeking to alter it to see if such changes would lead to changes in thinking, feeling and behaviour. He also began to develop a theoretical explanation for the operation of such factors in behaviour change. His results are presented as a progress report, not as finished or proven theory and practice.

Building upon the research result that shows that overt private speech influences the behavior of children, Meichenbaum explored the use of self instructional training with hyperactive, impulsive children. He found that impulsive children manifested less verbal control of non-verbal behaviour than did reflective children in laboratory studies and that impulsive children used private speech differently in natural play situations. In the latter situation, impulsive children were deficient in outer-directed and self-regulatory speech. Impulsive children do not habitually and spontaneously analyze their experiences in cognitively mediated terms (i.e. both verbal and imaginable) and they do not formulate and internalize rules that might

guide them in new learning situations. Meichenbaum then developed a program to train hyperactive, impulsive children to talk to themselves differently so that they could comprehend problem tasks better and spontaneously produce verbal mediators and strategies and use these mediators to guide, monitor and control their behaviour.

Meichenbaum and others have succeeded in changing the behaviour of impulsive, hyperactive and aggressive children through a training program in which the experimenter models the self instructions as well as the behaviours and in which the child engages in self instructions rehearsal. The addition of operant procedures that was reinforced led to greater improvement. Conversely the addition of self instructional training to operant procedure enhanced the results over those obtained from operant procedure. However, extrinsic reinforcements were not effective with children who attributed results to luck or chance rather than to their own efforts. Self instructional training was effective in helping children change their attributions from luck or lack of ability to effort (Patterson, 1980). Meichenbaum concluded that self instructional training can be effective in altering learners' attribution and cognitive styles but cautioned that its effectiveness has not yet been full demonstrated.

Meichenbaum also designed a program of training in which instructions for patients diagnosed as schizophresic were developed. He began with structured sensory motor tasks rather than with social instructions since there is evidence that interpersonal relationship pressures increase symptomatology such as bizarre verbalizations. The initial tasks included a digit symbol test and the Porteus Maze test. The patients were trained to develop and use self-controlling statements. As they developed proficiency tasks such as a proverb test, an interview was added. When a patient used symtomatology to control the situation, the patient was made aware of this as a cue to use self instructional controls learned earlier in the simpler tasks. Each subject was individually trained to first monitor and evaluate his own performance by means of self

questioning. Then if he judged his performance to be inferior, he learned to self-instruct in a relevant fashion in order to produce a more desirable response (Patterson, 1980). Verbalization included:

(i) *A restatement of the task requirements.*

(ii) *Instruction to perform the task slowly and to think before acting.*

(iii) *A cognitive strategy using imagery in seeking a solution.*

(iv) *Self-rewarding statements.*

(v) *An example of a poor or erroneous response followed by the reason it was inappropriate and*

(vi) *A statement describing how to cope with failure and come up with an adequate response.*

According to Patterson (1980), there are certain underlying mechanisms of change common to all procedures (therapy systems) and contexts (in therapy and in nonprofessional contacts) in which change occurs. These mechanisms involve the individual's cognitive processes. First, the client must recognize or become aware of his or her inadequate behaviours. Second, this awareness is a cue that produces a certain internal dialogue. The nature of this dialogue is guided by the theoretical orientation of the therapist to which the client adapts. Third, there is a change in the nature of the internal dialogue from which the client engages in prior to the therapy. There is a "translation" process fostered by the therapist reflection, explanations, interpretation, information giving and coping behaviors that are discussed and rehearsed in therapy, resulting in an internal dialogue that influences the clients' cognitive structures as well as behaviour. Some clients require explicit teaching of such coping responses, and this is where the technology of behaviour therapy is of particular value which this present study takes cognizance of.

The three phases are hereby elaborated as follows according to Patterson (1980):

Phase 1: Self Observation: Prior to the therapy, the client's internal dialogue consists of negative self statements and images. During the therapy, the client focuses on his or her thoughts, feelings, physiological reactions, and interpersonal behaviours. The translation process leads to new cognitive structures that allow the client to view his or her symptoms or problems differently and to produce thought patterns and behaviours that are incompatible with the maladaptive ones. This re-conceptualization process leads to a redefinition of problems in ways that give the client both a sense of understanding and a feeling of control and hope that are required for positive changes. Re-conceptualization gives new meaning to thought, feelings, and behaviours. These meanings vary with different schools of therapy, and different conceptualizations may be effective in facilitating change. However, one of the most essential variables that determine therapy outcome is the degree to which given conceptualization leads to specific behavioral changes that can be transferred to the real life situation.

Therapists vary in the strategy and force with which they attempt to change their clients' conceptualizations. Therapists must be concerned with their client's self statements, descriptions, definitions and attributions. The re-conceptualization is a joint process, and the client's acceptance of it is an implicit result of therapist-client interaction.

Phase 2: Incompatible Thoughts and Behaviour: In the second phase, the client's self observation triggers an internal dialogue. If the client's behaviour is to change, then what he says to himself or imagines, must initiate a new behavioural chain, one that is incompatible with his maladaptive behaviours. This new internal dialogue involves all of the functional properties of inner speech indicated above (affecting attentional and appraisal systems and physiological responses, and instigating new behaviour). This inner speech guided by the translation involved

in the therapy, influences the client's cognitive structures, enabling him/her to organize his/her experience around the new conceptualization in a way that leads to more effective coping.

Phase 3: Cognitions Concerning Change: The third phase has to do with the client's performing coping behaviours on a daily basis and self-talk about the outcomes of these personal experiences. It is not enough for the client to focus only on skills training as behavior therapy does. For what the client says to himself, about his newly acquired behaviours and their resultant consequences will influence whether the behavioural change process will be maintained and will be generalized, to the extent that the client changes both his behaviour and his internal dialogues, to the extent that the therapeutic change process becomes a success. Thus, the effective change process involves new behavioral skills, new internal dialogues and new cognitive structures. Different types of clients may require serious focus or emphasis on any of the three basic processes discussed, while the others are not neglected (Patterson, 1980).

The clinical interview: The clinical interview begins with an exploration of the extent and the duration of the client's problem as the client presents it, and of the client's expectations of therapy, following the outline provided by Peterson, which involves a situational analysis of the client's behaviour. Beyond this, the cognitive behavioural therapist asks the client to imagine incidents involving personal problem(s) and to report his or her thoughts, images and behaviours before, during and after these incidents. Then the therapist explores the presence of similar thoughts and feelings in other situation and / or at earlier periods in the client's life and may ask the client to look for them during the next week.

The cognitive functional assessment leads the client to recognize that part of the problem derives from what he or she says to him/herself and that a person can control and change his/her thoughts if he/she chooses to do so. The client may be unaware of what he/she has been saying to

him/herself because of the habitual nature of one's expectations and beliefs. It is likely that such thinking processes and images become automatic and seemingly involuntary (Patterson, 1980).

2.09.6 The Theory of Attitude change as applied to CBT.

Since the whole essence of the experimental process in this study focuses on attitude change, it is necessary that the theory of attitude change is reviewed to provide a general guide. Attitude is represented as having three components: affect, cognition, and behaviour (Eagly & Chaiken, 1998). The affective component consists of the kinds of feelings that a particular topic arouses. The cognitive component consists of a set of beliefs about a topic. The behavioural component consists of a tendency to act in a particular way with respect to a particular topic. Consequently, any instance of attitude change involves persuasion. Two aspects of the persuasion process have received special attention: the source of the message and the message itself. If for instance, a student who enters the classroom with a negative attitude towards the teacher, the subject, or both, he must be persuaded to change that attitude. McConnell (1980) states that there are four main elements in persuasive communication: the communicator, the message, the audience, and the audience-communicator feedback loop.

Messages tend to be more persuasive if the source is credible. Source credibility is high when the source is perceived as knowledgeable and is trusted to communicate this knowledge accurately. For example, in one study conducted by Hovland, Janis and Kelley (1953), people developed a more favourable attitude toward different types of medicine when the information appeared in the prestigious *New England Journal of Medicine* than when it appeared in the mass-circulation tabloid. In a classic study, Hovland, Janis and Kelley (1953) wrote a statement about the importance of atomic submarines and attributed it to two sources, one of high credibility, the other of low credibility. The source of the message strongly affected the subjects' attitudes; subjects given the message from the high credibility source tended to accept the argument, while

the other group rejected it. A month later, the investigators retested their subjects. They were amazed to discover that the high credibility group had become less positive, while the low credibility group had become more positive. What had happened was that the subjects began to forget the source of their information and began to concentrate on the information itself.

Aspects of the message itself are important in determining its persuasive appeal. For example, is an argument that provides only one side of an issue more effective than one that presents both sides? The answer depends on the audience. McConnell (1980) explains that if the audience either knows very little about the issue or already holds a strong position with respect to it, one-sided arguments tend to be more effective. If the audience is well informed about the issue however, two-sided arguments tend to be more effective. In this study, two-sided arguments will be used since the depressed adult learners are aware of their psychological state of mind based on the symptoms of depression. Moreover, Beck's (2004) cognitive approach suggests that the ideas held by the depressed during Cognitive Behavioural Therapy sessions are not to be disproved. Rather, the experimenter and the depressed work together to identify their irrational assumptions, beliefs, and expectations in life generally so as to formulate ways to test them. This method is a two-sided argument which was adopted in this study to change the attitude (distorted thoughts) of the depressed adult learners. The messages in the CBT sessions contained both emotional and informative (cognitive) components that made it more effective in changing the attitude of the participants.

Translating the findings from Hovland et al.'s study into suggestions for the classroom, it seems that teachers, as the sources of information, have an immediate and strong effect on students, but if it is to be long lasting, then the information itself should be accurate, pertinent and interesting. This was carefully noted in this study. The communicator in the teaching profession is the teacher. In this present study, the communicator was the experimenter. The one

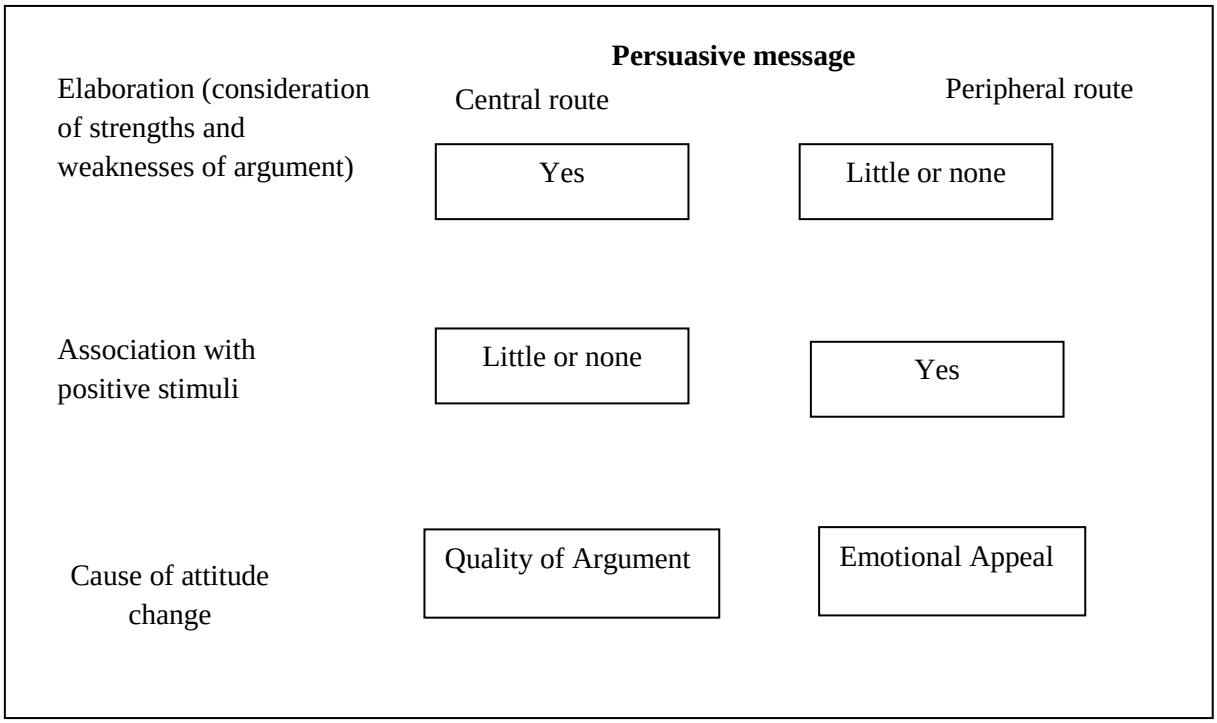
feature that seems to mark effective communicator is credibility. The experimenter thus ensured that mastery of an in-depth knowledge of the cognitive symptoms of depression, the intricacies and procedures of CBT were effectively achieved before the actual experimental process.

Messages seem to have more impact when the source is attractive. Physically attractive people are more likely than physically unattractive people to persuade others (Eagly & Chaiken, 1998). Individuals who are asked to endorse products for advertisers are almost physically attractive or appealing in other ways. Likeability of the communicator, independent of physical attractiveness has a similar effect on persuasion. In education, the message as one of the elements in persuasive communication refers to the information that the teacher transmits to the learners. Given the accuracy of the material that the teacher is presenting to the learners, the next concern should be the manner in which it is presented. This is not a matter of the methods that one selects. Rather it refers to the emotional accompaniments of the message. Does the teacher presents it with a "do it or else" attitude, hoping that fear will be a strong motivating force? If he does, consider follow-up studies to the television film titled *Scared Straight.* This film showed prison inmates telling young people in graphic detail about prison brutality. Follow-up studies showed that more of those who participated in the study later committed offenses than subjects in a control group. Yelling and frightening young people for a brief time does not provide them with the skills necessary to cope with their environment. What seems to be much more effective is teaching those skills that promise success and that promote self-esteem. This was not ignored during the experimental process in this study.

The audience as one of the elements in persuasive communication is a class of students. The individual personalities that compose a class demand careful and continuous scrutiny by the teacher so that the subject matter can be shaped in a way that captures their attention and interest. Again, we see the need to match material with ability and interest. The teacher should learn to

know the students and translate this knowledge into classroom action; For example, the teacher may identify a student with a negative attitude toward history, determine the cause of the attitude (to what does the student attribute such behavior?), arrange for successful experiences, all the while carefully shaping classroom material to the student's needs. The audience-communicator feedback loop refers to the response that a class actually makes to a teacher and is a guide to future working. It is deceptively easy to assume that because you have presented something in what you were sure was a stimulating manner that your class grasped it fully. One must take the time to determine if the students can respond cognitively (do they understand what you taught?) and what is their affective reaction (do they enjoy this work?). Seeking and reviewing feedback about one's performance is a successful communication and teaching. All these elements of persuasive communication to achieve effective attitude change were incorporated in the CBT process. The Elaboration Likelihood Model of attitude change through persuasion developed by Petty and his colleagues (2003) cited in Carlson and Heth (2010) is shown in figure 2.2:

Figure 2.2 **Elaboration Likelihood Model of Attitude Change**



Source: Carlson & Heth (2010).

Whether a persuasive message succeeds in changing attitudes depends mainly on three factors: (1) the person communicating the message, (2) the content of the message, and (3) the audience who receives it. The elaboration likelihood model of attitude change provides a framework for understanding when and how these factors affect attitude change. In Petty and colleagues' (2003) model of attitude change cited in Carlson and Heth (2010) as shown in figure 2.2, persuasion can take either a central or a peripheral route. The model predicts that the more personally involving a topic is, the more likely it is that the central route will be activated. The model is based on the idea that persuasive messages can change people's attitudes through one of two main routes. The first is called the peripheral route because when it is activated, people devote little attention to the central content of the persuasive message. People tend to be affected, instead by peripheral, or surrounding, persuasion cues, such as the confidence, attractiveness or other characteristics of the person who delivers the message.

The central route requires a person to think critically about the argument or arguments being presented, weigh their relative strengths and weaknesses and to elaborate on the relevant themes. An issue is the actual substance of the argument, not its emotional or superficial appeal. The peripheral route, on the other hand, refers to attempts at persuasion in which the change is associated with positive stimuli (e.g. an adult learner who has become outstandingly successful in his career despite all odds at adulthood) that actually may have nothing to do with the substance of the argument. Using graduates of the non-formal education system who are secularly successful to project the relevance of adult and non-formal education is an example of the use of peripheral attitude change techniques.

2.10 Mediating Factors of Depression in Adulthood.

As the young adult forms the initial attachments to the adult world, Rogers (2004) noted that exploring its possibilities, imagining oneself as a participant in it, making and testing some preliminary identities and choices for living in the adult world before becoming fully part of it can be challenging, problematic and stressful as he must overcome disappointments and setbacks and learn to accept and profit from successes. Adults' participation, learning activity and academic performance at this point may be poor.

At the era of middle adulthood, the tasks involved include termination of one life structure i.e. early adulthood, initiation of another i.e. middle adulthood, and continuation of the process of individuation starts during early adulthood. Adult learners at this stage, engaged in one form of adult learning programme or the other, will encounter learning difficulties and poor academic performance (Dietch, 1999; Etta, 2001).

At late adulthood, there is a process of decay or decline of physical and mental health, decline in intellectual abilities and social relationships (Rogers, 2004). Old people face a painful wall of discrimination that they are often too polite or too timid to attack. Psychological researches (e.g. Durkin, 1995; Craig, 1992; Dietch, 1999) revealed that prejudice against elderly people has gone very deep and that the elderly enjoy a very low status compared with both children and younger adults and this inevitably influences the self-concept of elderly people which in turn may partly determine their behavior even during adult learning activity. The resulting consequence is poor performance in academic activities.

Since all the stages of adulthood present tasks and challenges that cause stress which could result to depression, and since depression undermines the activity of the sufferer, making him less motivated to do anything hitherto considered meaningful and pleasant, no doubt the performance of depressed adult learners in Benue state agency for Mass Literacy could have

bearing with their depressive state. Specifically, mediating factors of depression in adulthood that are of concern to this study include age, gender, marital status, and employment status. Literature on the relationship between these factors and depression abound are hereby discussed.

2.10.1 Age and Depression.

Old age is often portrayed as a time of rest, reflection and opportunities to do things that were put off while raising families and pursuing careers. Unfortunately, the aging process is not always so idyllic. Negative life events associated with old age such as chronic and protracted medical disorders, loss of peers and loved ones and the inability to take part in once-cherished activities can take a heavy toll on an aging person's emotional well-being. An older adult may also sense a loss of control over his or her life due to failing eyesight, hearing loss and other physical changes, as well as external pressures such as limited financial resources. These and other issues often give rise to negative emotions such as sadness, anxiety, loneliness and lowered self-esteem, which in turn lead to social withdrawal and apathy.

As explained by Eegunius, (1992), the symptoms of depression are a side effect of many commonly prescribed drugs. That people are particularly at risk if they are taking multiple medications. While the mood-related side effects of prescription medication can affect anyone, older adults are more sensitive because, as we age, our bodies become less efficient at metabolizing and processing drugs. The author equally points out that depression in older adults and the elderly is often the result of a difficult life situation or challenge, however, depression treatment is just as effective for elderly adults as it is for younger people. It is a myth to think that after a certain age you can’t learn new skills, try new activities, or make fresh lifestyle changes. The truth is that the human brain never stops changing, so older adults are just as

capable as younger people of learning new things and adapting to new ideas. Overcoming depression often involves finding new things you enjoy, learning to adapt to change, staying physically and socially active, and feeling connected to your community and loved ones (http://www.helpguide.org/mental/depression).

According to Rivas-Vazquez (2004), depression in older adults and the elderly is often linked to physical illness, which can increase the risk for depression. Chronic pain and physical disability can understandably get the older adults and the elderly down. Symptoms of depression can also occur as part of medical problems such as dementia or as a side effect of prescription drugs on people of this age bracket. It's important to be aware that medical problems can cause depression in older adults and the elderly, either directly or as a psychological reaction to the illness. Any chronic medical condition, particularly if it is painful, disabling, or life-threatening, can lead to depression or make depression symptoms worse in older adults and the elderly.

In line with the view held by Rivas-Vazquez, (2004), Nolen-Hoeksema (2002) had earlier opined that chronic depression has both physical and mental consequences that may complicate an older adult's existing health condition and trigger new concerns. There is evidence that some natural body changes associated with aging may increase a person's risk of experiencing depression. Recent studies suggest that lower concentrations of foliate in the blood and nervous system may contribute to depression, mental impairment and dementia. Researchers also suspect that there may be a link between the onset of late-life depression and Alzheimer's disease. Regardless of its cause, depression can have alarming physical effects on older people. The mortality rate for elderly men and women suffering from both depression and feelings of loneliness is higher than for those who are report satisfaction with their lives. Treatment programs for depressed elderly patients suffering from cardiovascular disease and other major illnesses usually take longer than normal, and are less successful. In addition, the feelings of

hopelessness and isolation that often spur thoughts of suicide are more prevalent among older adults, especially those with disabilities or confined to nursing homes.

In his explanation, Terry (2002) noted that as a person grows older, he/she faces significant life changes that can put him/her at risk for depression. To the author, causes and risk factors that contribute to depression in older adults and the elderly include:

) Health problems – Illness and disability; chronic or severe pain; cognitive decline; damage to body image due to surgery or disease.

i) Loneliness and isolation – Living alone; a dwindling social circle due to deaths or relocation; decreased mobility due to illness or loss of driving privileges.

ii) Reduced sense of purpose – Feelings of purposelessness or loss of identity due to retirement or physical limitations on activities.

iii) Fears – Fear of death or dying; anxiety over financial problems or health issues.

iv) Recent bereavements – The death of friends, family members, and pets; the loss of a spouse or partner.

In his response to whether depression is more likely to strike at any particular age, Weissman, (2008) explained that one of the surprises that large epidemiologic studies have discovered is that the age of first onset of depression, is far younger than we used to believe. It used to be believed that depression was a disorder of middle-aged and women who were going through the menopause. But that is no longer true based on these large studies. Major depression has the highest risk of first developing between the ages of about 15 and 34. Now, there are many people who are older than that those who have depression, but those are usually recurrences. That many 60 year old individuals who were asked when they first got depressed, they answered that it was when they were much younger, and that this is just another episode.

However, there are some people who first get depressed when they are elderly, and they have no history of depression. And oftentimes there is some other underlying biological cause of that.

It should be noted that because elderly people tend to be less amenable to lifestyle changes than the adolescents, they may be reluctant to adopt new habits or do things that their peers find highly enjoyable. This makes the elderly to be more prone to depressive state than the adolescents. An older person with fragile self-esteem may interpret well-intentioned encouragement as further proof of his or her declining condition than the younger person. This could be a depression-related factor. Other elderly people may even resent any attempts at intervention. Depressed older adults experience higher rates of insomnia and memory loss. They also have longer than normal reaction times, increasing the hazards associated with cooking, driving, self-medication and other tasks that require full attention.

2.10.2 Gender Differences and Depression.

Depressed men are less likely than women to acknowledge feelings of self-loathing and hopelessness. Instead, they tend to complain about fatigue, irritability, sleep problems, and loss of interest in work and hobbies. Other signs and symptoms of depression in men include anger, aggression, violence, reckless behaviour, and substance abuse. Even though depression rates for women are twice or thrice as high as those in men, men are at higher suicide risk, especially older men (Nolen-Hoeksema 2002 in Oltmanns & Emery, 2007). The high rates of depression in women could be due to hormonal factors, particularly when it comes to premenstrual syndrome (PMS), Premenstrual Dysphoric Disorder (PMDD), postpartum depression, and perimenopausal depression. Nolen-Hoeksema (2002) cited in Oltmanns & Emery, (2007) noted that as for signs and symptoms, women are more likely than men to experience pronounced feelings of guilt, sleep excessively, overeat, and gain weight. Women are also more likely to suffer from seasonal

affective disorder. This pattern has been reported in study after study, using samples of treated patients as well as community surveys and regardless of assessment procedure employed.

The increased prevalence of depression among women is apparently limited to unipolar disorders. In Epidemologic Catchment Area (ECA) study for example, the lifetime prevalent rates for major depression were 7 percent in women but only 2.6 percent in men. Relatively large gender differences were also observed for dysthymia with lifetime prevalence rates of 4.1 percent in women and 2.2 percent in men. Gender differences were not observed however for bipolar mood disorders. The lifetime prevalence rates for bipolar 1 disorder were 0.9 percent for women and 0.7 percent for men (Weissman et al., 1991 in Oltmanns & Emery, 2007).

In the United States, statistics similarly show that depressed women are three times more likely to attempt suicide but men are three to four times more likely to succeed. This difference reflects the fact that men often put a bullet to the head, while women are more likely to overdose in sleeping pills- a slower and less certain method. In the same vein, Cubertson, (1997) in Kassin (2001) observed that about twice as many women as men seek treatment for depression, though the disparity is smaller in less developed nations. He noted that the sex difference first begins to appear in adolescence. In fact, it reflects the facts that women tend to confront their feelings, while men result to alcohol, physical activity and other means of distraction.

According to Kessler et al (1994), Hockenbury and Hockenbury (2002), women are about twice as likely as men to be diagnosed with major depression. Kessler et al., (2003) in a current estimate suggested that approximately 16% of people in the United States suffer from Major Depression Disorder (MDD) at some point during their lives, with women diagnosed with depression almost twice as often as men. If you are a female, the lifetime odds are approximately 1 in 4 that you will experience major depression. If you are male, the lifetime odds are about 1 in 8. This shows a striking gender difference in the prevalence of major depression.

In a related submission, Rosenthal (1998) in Hockenbury & Hockenbury (2002), agree that stress experiences and stress reactivity contribute directly to women's greater rates of depression compared with men. The more stress women suffer, the more hyper responsive they may be to stress both biologically and psychological. Theories in this school of thought depose that major depression is diagnosed about twice as often in woman as in men. Even after accounting for differences in income and socio-economic level. What accounts for this accounting for this difference? It cannot be known for certain, but there are several possibilities. Some are biological. Women may suffer more from depression because of hormonal factors, such as drops in estrogen and progesterone levels during the premenstrual period, the postpartum period and menopause. Men's hormonal makeup, in contrast, may lead them to "act out" distress rather than to manifest it in depression (Gleitman, 1996).

Some other factors are behavioral. According to a recent study, when men are depressed, they try to distract themselves: "I avoid thinking of reasons why I am depressed", or "I do something physical". In contrast, woman who are depressed seem to dwell on their despondency: "I try to determine why I am depressed" or "I talk to other people about my feelings", and "I cry to relieve the tension". The result of these different ways of dealing with one's own feeling is that the initial depression is more likely to escalate and last longer in women than in men (Nolen-Hoeksema, 1987). These differences in the ways in which men and women try to cope with difficult life situations are probably based on cultural factors. The culture expects men to be self-reliant active, while women are supposed to be more passive and dependent. To the extent that women follow this cultural expectation, they may gradually come to believe that they cannot control their own fate and should not even try the very condition that renders them liable to learned helplessness and depression.

In agreement with other researchers, Bell (1983) as reported by Newman & Newman (1991), asserted that women experience more stress and depression in adjusting to marriage than men. This observation can be explained in at least two ways. First, when many women enter marriage, they have completed less work on their identities than their husbands; have had little or no preparation for child bearing and child rearing; and depend on their husbands for financial security and social status. The differential strength of the partners early in marriage causes women to experience more emotional strain than men. Second, women are more adequately prepared for an intimate, open relationship than men. They expect and desire a degree of closeness that is often not reciprocated. Men on the other hand are quite satisfied with the degree of intimacy they find in marriage and have fewer expectations or less desire for greater closeness.

Some observers have suggested that the high rates for unipolar disorders in women reflect shortcomings in the data collection process. Women simply might be more likely than men to seek treatment or to be labeled as depressed. Another argument holds that culturally determined sanctions make it more difficult for men to admit to subjective feelings of distress such as hopelessness and despair. However, none of these alternatives have been substantiated by empirical evidence. Research studies clearly indicate that the higher prevalence of depression among women is genuine. Possible explanations for this gender differences have focused on a variety of factors including sex hormones, stressful life events, and childhood adversity as well as response styles that are associated with gender roles (Hankin & Abramson, 2001; Kuehner, 2003 in Oltmanns & Emery, 2007).

2.10.3 Marital Status and Depression

According to Gross (1999), it is not so much being married that is the issue but rather, the qualities and pattern of the relationship, characteristics of the partner and the consequences of

marriage for the individual's lifestyle that matter. It seems that married young adults (and those who are cohabiting) are happier, healthier, live longer and have lower rates of various psychiatric disorders than those without a partner. Those who seem to benefit most are married men (compared with single, divorced and widowed men and women) while unmarried men are the worst off. Gross emphasizes that married women are slightly better off than unmarried women, but unmarried women are considerably healthier and happier than unmarried men.

In contributing to literature with respect to marriage and depression, Bee (1994) as cited in Gross (1999) suggested that married adults are less vulnerable to both disease and depression because they are buffered by support from their attachment to their partner. Men seem to benefit most of all from the protective nature of marriage partly because they are less likely to have close confidants outside marriage and because wives (more than husbands) provide emotional warmth/support to their spouse. For women, marriage is not as obviously psychologically protective as it is for men, not because a close, confiding, harmonious relationship is any less important for women (indeed, if anything it is more important) but because many marriages don't provide such a relationship and because other consequences of marriage differ between the sexes. For women, the potential benefits of a harmonious marriage relationship may be counterbalanced by the stresses involved in giving up their job or being handicapped in a career progression or promotion through having to combine a career and parenthood.

In discussing the risk factors of depression, Rogers (2011) is equally of the opinion that married people have relatively low vulnerability to depression because they are socially attached to a loved one; someone who shares their emotions; someone they can think together, plan together and execute together. In fact, the author argues that marriage helps in suppressing depression because the married individual has a helper who shares in his/her everyday stress of life. However, other psychologists (e.g. Andrade, 2003) have a contrary view, that more is involved in the issue of marital status and depression. Studying a sample of role strains, Andrade

concludes that emotional impact of these strains is less damaging than they are for the unmarried. Analysis reveals that several different social and intrapsychic resources are implicated in this comparatively low emotional responsiveness.

In contributing to literature in the area of relationship between marital status and depression, Gross (1996) noted that although many psychologists suggest that married people tend to exhibit better mental health than their unmarried counterparts, there is little evidence to suggest that the psychological benefits of marriage extends to low-income urban women with children.

2.10.4 Employment Status and Depression

According to Gross (1999), the unemployed have higher rates of mental ill health and distress of several kinds. The author suggests that depression is usually higher among the unemployed and the level increases with the period of unemployment. After a long period of unemployment, people increasingly blame themselves, get into a stage of "learned helplessness" where aspects of themselves are seen as the main cause of their unemployment and cannot be changed. They make an internal (self-) attribution in a situation that has gone badly which is a fairly typical depressive response. In addition to the material hardships of the unemployed, there is loss of self-esteem because unemployed people may feel inferior and stigmatized and even ostracized by their employed friends. The bonds between unemployed people are weak: it is a group to which they do not want to belong. Financial strain is likely to be greater when there are dependent children and financial problems are a major source of emotional distress.

Witters (2012) noted that the most attached or committed to their jobs are more distressed by losing them. This probably explains why unemployment is more distressing for middle-aged men than for young people or married women. Witters opines that at work, people are part of a complex set of complementary relationships which convey identity and status, both

of which are lost in unemployment. Baddeley (2009) noted that even during an economic recession, to be out of work may still be seen as sign of failure. It is a social stigma that causes distress to the individual.

According to Kelvin (1981) as cited in Gross (1999), work can be a good thing for people with depression but it can also be a source of stress. Work can help one's depression depending on the severity of the symptoms and the nature of the working environment. However, work can also be a source of stress for people and bad working environments can be a cause of depression. This means that depression might not be caused by one's job. There is usually more than one thing that causes depression. But work can be a contributing factor for some people. The following problems in the workplace are often a cause of stress and worry:

) Excessive workload and too much pressure with deadlines and overtime.

i) Unsociable hours.

ii) Unsupportive working environment.

iii) Bullying and harassment.

iv) Problems with colleagues.

v) Having too much responsibility beyond your job level, or not having enough responsibility.

vi) Lack of job security, redundancies, cut backs in pay or hours.

vii) Lack of job satisfaction, either from repetitive work or not getting positive feedback.

viii) Personal crises or problems, such as bereavement, financial problems, relationship difficulties, health concerns or illness, or problems with housing

Witters, (2012) pointed out that highly engaged workers tend to have better emotional health than people who are disengaged. Though "engagement", Witters explained, has become a

nearly-meaningless buzzword, it is relevant to any discussion of depression. Engaged workers feel like their opinions count, they have a mentor that encourages their development, they get routine, regular recognition and they work in jobs that are aligned with their natural aptitudes. In the words of Witters, (2012), "Just engaging the employee is a very smart, low-cost way for employers to reduce the chance that the employee will be depressed."

Psychologists such as Etta, (2001); Rogers, (2011) are of the view that engaging in work while depressed is helpful. While most people work because they need the money, there are other benefits to working when one has depression such as:

) It gives one's day a structure and something to focus on. Basically, it gets one out of bed in the morning.

i) It is social and creates opportunities for talking with other people.

ii) It gives one a sense of achievement.

The authors however argued that full-time paid work might not be the best option for some, especially if one is going back to work. Think about different ways of working – part-time, job-sharing, voluntary work, temping, and working from home for some of the time or being self-employed.

2.11 Review of Related Empirical Studies.

Gregory, Clarke, Rohde and Lewinsohn, (2011) examined the effects of both acute and maintenance cognitive-behavioral therapy (CBT) for depressed adolescents. Adolescents with major depression or dysthymia (N = 123) were randomly assigned to 1 of 3 eight-week acute conditions: adolescent group CBT (16 two-hour sessions); adolescent group CBT with a separate parent group; or waitlist control. Subsequently, participants completing the acute CBT groups

were randomly reassigned to 1 of 3 conditions for the 24-month follow-up period: assessments every 4 months with booster sessions; assessments only every 4 months; or assessments only every 12 months. Acute CBT groups yielded higher depression recovery rates (66.7%) than the waitlist (48.1%), and greater reduction in self-reported depression. Outcomes for the adolescent-only and adolescent + parent conditions were not significantly different. Rates of recurrence during the 2-year follow-up were lower than the rates of recurrence found with the treated adult depression. The booster sessions did not reduce the rate of recurrence in the follow-up period but appeared to accelerate recovery among participants who were still depressed at the end of the acute phase. Although this study is relevant, it failed to take into consideration if the mediating factors of depression could affect the effectiveness of CBT in helping the depressed adolescents to recover. This present study covers this gap.

Brown and his colleagues (2001) used cognitive behavioral therapy to help people with a history of depression to quit smoking. Both smoking behavior and depressive symptoms were targeted in the therapy. Behavioural elements of the treatment programme included the following: participants monitored their smoking behavior, identified common cues for smoking, and learnt how to alter their responses to such cues. Modeling and role playing were used to help the participants develop better social skills and to help them overcome the urge to smoke in social situations. On the cognitive sides, participants monitored their positive and negative thoughts. They were also taught how to identify and combat negative thinking using Ellis ABC techniques and Beck's identification of cognitive distortions. The results show that heavy smokers and smokers with recurrent depressive episode were most likely to benefit from the treatment. This study exemplifies the flexible integrated use of diverse techniques that characterizes cognitive behavioral therapy. This study, though relevant in its own right, is limited because its focus was merely on how to help the depressed to quit smoking which is just an

aspect of reaction to depression but did not aim at reducing the level of depression. The present study seeks to fill this gap.

The study of March and Jones (2006) sought treatment for depression using cognitive behavioural therapy. Randomized controlled trial of a volunteer sample of 439 patients between the ages of 12 to 17 years with a primary Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, was used for diagnosis of major depressive disorder. The trial was conducted at 13 US academic and community clinics between spring 2000 and summer 2003. Twelve weeks of (1) fluoxetine alone (10 to 40 mg/d), (2) CBT alone, (3) CBT with fluoxetine (10 to 40 mg/d), or (4) placebo (equivalent to 10 to 40 mg/d). Placebo and fluoxetine alone were administered double-blind; CBT alone and CBT with fluoxetine were administered unblinded. Results showed that compared with placebo, the combination of fluoxetine with CBT was statistically significant (P =.001) on the Children's Depression Rating Scale-Revised. Compared with fluoxetine alone (P =.02) and CBT alone (P =.01), treatment of fluoxetine with CBT was superior. Fluoxetine alone was a superior treatment to CBT alone (P =.01). Rates of response for fluoxetine with CBT were 71.0% (95% confidence interval [CI], 62%-80%); fluoxetine alone, 60.6% (95% CI, 51%-70%); CBT alone, 43.2% (95% CI, 34%-52%); and placebo, 34.8% (95% CI, 26%-44%). On the Clinical Global Impressions improvement responder analysis, the 2 fluoxetine-containing conditions were statistically superior to CBT and to placebo. Clinically significant suicidal thinking, which was present in 29% of the sample at baseline, improved significantly in all 4 treatment groups. Fluoxetine with CBT showed the greatest reduction (P =.02). Seven (1.6%) of 439 patients attempted suicide; there were no completed suicides. The combination of fluoxetine with CBT offered the most favorable tradeoff between benefit and risk for adolescents with major depressive disorder. No doubt, this study is significant in its own right, but limited to only adolescents between 12 to 17 years of age which made it difficult to

generalize the results to other age groups. The present study covers this gap by involving depressed adults between 30 to 60 years of age.

Parker (1989) reviewed meta-analyses and primary studies in the area of CBT and depression and concluded that CBT is not as effective as proponents of the therapy suggest. However, they excluded from their review high-quality clinical trials showing cognitive-behavioral therapy to be superior to alternative treatments at follow-up. Since Parker et al. did not report the criteria by which they selected research studies for their review, it was difficult to interpret their conclusions. Given the failure of Parker et al. in this direction, Dobson (2003) conducted the first meta-analysis on the effectiveness of CBT in reducing depression symptoms and found CBT to be superior to untreated controls, wait list, pharmacotherapy, behavior therapy, and a heterogeneous group other therapies . Gaffan, Tsaousis, and Kemp-Wheeler (2009) hypothesized that Dobson's findings were positively biased toward CBT by researcher allegiance; the tendency for authors to prefer one therapy to another. They reanalyzed the same set of studies reviewed by Dobson while controlling for researcher allegiance and found that researcher allegiance accounted for half the difference between CBT and other treatments. They also analyzed a later set of 37 studies on CBT for depression and found no evidence of researcher allegiance. A possible explanation for the difference in findings is that researcher allegiance influences study outcomes when a new treatment is first tested, but its influence fades over time. In the second analysis, CBT was still found to be superior to waiting list, attentional controls, and a group of other various psychotherapies.

Gloaguen and Paul (1998) also compared CBT to a group of therapies categorized as miscellaneous and found that CBT was modestly superior (ES = 0.24). However, Wampold (2002) pointed out that some of the therapies in the Gloaguen and Paul's miscellaneous category (e.g., progressive muscular relaxation) do not represent comprehensive treatments for depression.

Based on criteria that they developed, Wampold (2004) further categorized these miscellaneous therapies into bona fide and non-bona fide therapies for depression. They then compared CBT to the group of therapies they identified as bona fide and found that CBT was only marginally superior (ES = 0.16, $p < .06$). This study of Gloaguen et al. is significant in its own right. However, a comparison of CBT (or any psychotherapy) with a control group consisting of a heterogeneous collection of miscellaneous therapies, as done by Gloaguen et al., can at best provide limited information. Future meta-analyses are needed that provide direct comparisons between CBT and specific alternative therapies. Due to the large number of practitioners of psychodynamic therapy, comparisons between CBT and psychodynamic therapy for depression are of particular interest. There are relatively few direct comparisons and not enough to provide the basis for a meaningful meta-analysis. Two large well-controlled trials have been conducted.

The Treatment of Depression Collaborative Research Project TDCRP (1980) conducted a study to compare the efficacy of CBT, interpersonal psychotherapy, and pharmacotherapy for depression. Outcomes for CBT and interpersonal therapy were generally equivalent although CBT did not fare as well as IPT or antidepressant medication among the more severely depressed patients in this study. In the 1990s, Shapiro et al. conducted a major study comparing the efficacy of CBT and psychodynamic-interpersonal (PIT) for depression. This study also experimentally manipulated the duration of treatment (8 sessions versus 16 sessions). At the end of treatment CBT and PIT were equally effective. However, 1 year after completing treatment, patients who had received 8 sessions of PIT did worse on almost all measures compared with the other three treatment conditions (8-session CBT, 16-session PIT, and 16-session CBT). This study is significant in its contribution to knowledge and providing an insight for the present study but lacked novelty in the area of testing the efficacy of CBT in treating severely depressed patients. Suggestions by psychotherapists abound in literature (e.g. Beck, 2004; Fara, et al.,1998;

Clarke et al., 2006) discouraging the use of psychotherapeutic measures for severe depression. The present study thus directed the CBT treatment at adult learners with mild and moderate cases of depression.

The effectiveness of CBT in preventing relapse of depression was evaluated by Gloaguen (1999). In his meta-analysis, he examined a subset of eight studies that compared relapse rates for CBT versus antidepressants at least a year after discontinuation of treatment. They concluded that CBT was associated with a "preventative" effect in five of the eight studies. On average, only 29.5% of CBT patients relapsed versus 60% of patients treated with antidepressants. Similarly, in a treatment of depressed adolescents, Reinecke (1998) found that the superiority of CBT to wait list, relaxation, and supportive therapy was maintained at 6–12 weeks follow-up. Although the study is significant, it failed to take cognizance of possible factors that could be responsible for relapse of depression. The present study was mindful of this by examining the mediating factors of depression in adulthood and creating allowance for this in the statistical test and analysis.

In their review of the efficacy of CBT and the treatment of depression, DeRubeis and Crits-Cristoph (1998) obtained high figures by averaging 1-year relapse rates across three large-scale clinical trials, finding a substantial difference between CBT (26%) and pharmacotherapy (64%). The authors examined whether16 sessions of CBT would help prevent relapse among depressed patients who had responded partially to pharmacotherapy. They found that the cumulative relapse rate at 68 weeks was significantly lower for antidepressant plus CBT patients.

In his study, Hollon (2005) in a large multi-site clinical trial found that cognitive therapy had an enduring effect for moderate-to-severely depressed patients that extended beyond the end

of treatment and was equivalent to the effect of keeping patients on antidepressant medication. In the study, patients who responded to cognitive therapy in a randomized controlled trial were withdrawn from treatment and compared during a 12-month period with medication responders who had been randomly assigned to either continuation medication or placebo withdrawal. Patients withdrawn from CBT were significantly less likely to relapse during the 12-month follow-up period than patients withdrawn from medications (31% versus 76%), and no more likely to relapse than patients who kept taking continuation medication (31% versus 47%).

The effectiveness of CBT for cognitive depressive symptoms among young adults was investigated in a meta-analysis by Gould, Otto, Pollack, and Yap (1997). The preliminary results were strong, with CBT being substantially superior to wait list or no-treatment controls, nondirective therapy, and pill placebo. Gould et al. reported that CBT and pharmacotherapy showed similar levels of improvement from pre- to post-treatment ($ES_u = 0.70$ and 0.61, respectively). Benzodiazepines ($ES_u = 0.70$) were the most commonly evaluated medications in these clinical trials. In another investigation, Gould et al. (1995) conducted a meta-analysis comparing cognitive interventions with exposure treatments and various control conditions to reduce depression among middle-aged adults. Among the cognitive-behavioral treatments, those that combined cognitive restructuring with interoceptive exposure showed the strongest effect (ES = 0.88). Cognitive-behavioral treatments in general had the highest effect size (ES = 0.68) compared to pharmacological treatments (ES = 0.47) or combination treatments (ES = 0.56). Perhaps most impressive is that the CBT treatment showed virtually no "slippage" in effect size, (− 0.07) by 1-year follow-up as compared to sizable slippage (− 0.46) for pharmacological treatment. Importantly, there was also a significantly lower attrition rate among cognitive-behavioral treatments (5.6%) compared to pharmacological treatments (19.8%).

Dunn and Schwebel (1995) conducted a meta-analytic research on the effectiveness of cognitive behavioural therapy in eliminating depression episode caused by work-related stress and worries of joblessness. They found a post-treatment ES of 0.71 for cognitive-behavioral therapy (CBT) when compared to no treatment. This effect size was not significantly different from that of behavior therapy (BT; ES = 0.78) but was significantly less than that of interpersonally oriented therapy (IOT; ES = 1.37). The differences in effectiveness between CBT, BT, and IOT narrowed at follow-up and were not statistically significant (ES's = 0.54, 0.54, and 1.04, respectively). With respect to behavior change in treated employed and unemployd, there were no significant differences in effect sizes for CBT, BT, and IOT (ES = 0.79, 0.54, and 0.87, respectively). Similarly, no significant differences were found at follow-up (ES = 0.52, 0.75, 0.69), though it is interesting to note that the observed effect size for CBT increased between termination and follow-up.

The study of Fara, Rafanelli, Grandi, Conti and Belluardo, (1998) centered on Cognitive Behavioral Treatment (CBT) of residual symptoms after successful pharmacotherapy yielded a substantially lower relapse rate than did clinical management in patients with primary major depressive disorders. The aim of this study was to test the effectiveness of this approach in patients with recurrent depression (≥3 episodes of depression). Forty patients with recurrent major depression who had been successfully treated with antidepressant drugs were randomly assigned to either CBT of residual symptoms (supplemented by lifestyle modification and well-being therapy) or clinical management. In both groups, during the 20-week experiment, antidepressant drug administration was tapered and discontinued. Residual symptoms were measured with a modified version of the Paykel Clinical Interview for Depression. Two-year follow-up was undertaken, during which no antidepressant drugs were used unless a relapse ensued. The result indicated that the CBT group had a significantly lower level of residual

symptoms after discontinuation of drug therapy compared with the clinical management group. At 2-year follow-up, CBT also resulted in a lower relapse rate (25%) than did clinical management (80%). This difference attained statistical significance by survival analysis. These results challenged the assumption that long-term drug treatment is the only tool to prevent relapse in patients with recurrent depression. Although maintenance pharmacotherapy seems to be necessary in some patients, CBT offers a viable alternative for other patients. Amelioration of residual symptoms may reduce the risk of relapse in depressed patients by affecting the progression of residual symptoms to prodromes of relapse.

Rebecca, Richard, Philip, Terri and David's (2012) study tested the comparative efficacy of religious and nonreligious Cognitive Behavioral Therapy (CBT) for the treatment of clinical depression in religious individuals. Two versions of cognitive behavioral therapy, one with religious content (RCT) and one with standard protocol (NRCT), were used to treat 19–20 religious patients each. 59 religious patients who met the Research Diagnostic Criteria for nonpsychotic, nonbipolar depression were treated in 18–20 1-hr sessions over 3 mo. Religious and nonreligious therapists were used in each CBT group. Pastoral counseling (PCT) treatment-as-usual and waiting-list control (WLC) conditions each contained 10–21 patients. RCT and PCT patients reported significantly lower posttreatment depression and adjustment scores than did either the NRCT or the WLC condition. The CBT difference was due largely to superior performance of the nonreligious therapists (with dissimilar values to the patients) in the RCT over the NRCT condition. Improvement in the 3 treatment conditions was equal at 3-mo and 2-yr follow-ups and greater than posttreatment WLC improvement levels.

In their own study, Safren, Conall, and Mayer (2009) conducted a randomized controlled trial of Cognitive Behavioral Therapy for adherence and depression (CBT-AD) in HIV-infected individuals. A two arm, randomized, controlled, cross-over trial comparing CBT-AD to

enhanced treatment as usual only (ETAU). ETAU, which both groups received, included a single-session intervention for adherence and a letter to the patient's provider documenting her or his continued depression. The intervention group also received 10 to 12 sessions of CBT-AD. Main Outcome Measures: Adherence to antiretroviral therapy as assessed by Medication Event Monitoring Systems (MEMs) and depression as assessed by blinded structured evaluation. At the acute outcome assessment (3-months), those who received CBT-AD evidenced significantly greater improvements in medication adherence and depression relative to the comparison group. Those who were originally assigned to the comparison group who chose to cross over to CBT-AD showed similar improvements in both depression and adherence outcomes. Treatment gains for those in the intervention group were generally maintained at 6- and 12-month follow-up assessments. By the end of the follow-up period, those originally assigned CBT-AD demonstrated improvements in plasma HIV RNA concentrations, though these differences did not emerge before the cross-over, and hence there were not between-groups differences. It was concluded that CBT-AD is a potentially efficacious approach for individuals with HIV struggling with depression and adherence.

In their own investigation, Carney, Segal, Edinger and Krystal (2007) made a comparison of rates of residual insomnia symptoms following pharmacotherapy or cognitive behavioral therapy for major depressive disorder. Their study was triggered by the fact that a number of pharmacologic studies have documented that insomnia is among the most commonly reported residual symptoms after remission from depression. Residual symptoms after remission are particularly relevant because these symptoms confer greater risk for subsequent depression. This study thus examined residual insomnia after Cognitive Behavioral Therapy (CBT) for depression and to compare CBT with pharmacotherapy for depression on residual insomnia rates. The study examined rates of post-treatment insomnia complaints in patients (N = 94) who had been

diagnosed with major depressive disorder (MDD), according to DSM-IV criteria, and who remitted from MDD after completing at least 20 weeks of either CBT or pharmacotherapy at an outpatient clinic specializing in mood disorders. Participants were randomly assigned to the treatment conditions, but only the data from those who completed treatment and remitted were analyzed. Primary outcome measure was the 17-item Hamilton Rating Scale for Depression. Data were collected from October 1, 1999, to September 23, 2003. Groups were compared using a chi (2) for nominal data. The rate of post-treatment insomnia was 22% for sleep-onset insomnia, 26% for sleep-maintenance insomnia, and 17% for early morning awakenings, and the rates did not statistically differ across the 2 treatment groups. Although CBT and pharmacotherapy effectively addressed depression in these patients and addressed insomnia symptoms for many, there were a number of patients with residual insomnia. Whereas there appears to be no difference between CBT and pharmacotherapy with regard to rates of residual insomnia, the rates of such insomnia remaining after these treatments suggest that adjunctive sleep treatment to specifically address insomnia may be necessary for some MDD patients.

In a classic study by Sloane and colleagues, (2001), 90 patients who had moderate difficulties with anxiety, depression or similar problem were assigned at random to receive either psychodynamic psychotherapy, Cognitive Behavioral Therapy or no treatment. The different therapies were delivered by three psychodynamic and three behavioural therapists, all of whom were highly experienced in their preferred form of treatment. Both treatments lasted for an average of 14 sessions. To ensure that the treatments were offered as planned, the differences between the two group therapies were clearly defined and tape recordings of the fifth therapy sessions were made and coded so that the actual treatments could be compared. All three groups including the no treatment group improved over time but the treated groups improved significantly more than the untreated group. Cognitive Behavioral Therapy was more effective in

a few instances but on most measures, there were no differences between the two treatment groups. This study is relevant to the present study in the sense that it used therapeutic measures including CBT to experiment helping patients with anxiety, depression or similar problem. However, the study did not concentrate solely on CBT treatment which the present study focuses on.

In the study of Weersing and Brent (2010), it was reported that CBT appeared to be an efficacious short-term intervention for the treatment of depression in adolescents and older adults. In the original clinical trial conducted by Brent, Holder Kolko, Birmaher, Baugher and Roth (1997), it was found out that 60% of teens and adults treated with CBT experienced clinical remission of depression, a significantly higher percentage than in Systemic-Behavioural Family Treatment SBFT (38%) or Non-Supportive Treatment NST (39%). Outcomes on dimensional measures of depression symptoms in both youth and adults also supported the superiority of CBT. In a similar study, Barbe, Bridge, Birmaher, Kolko and Brent (2004) affirmed that CBT was more efficacious in the treatment of such disorders like hopelessness, suicidality and comorbid anxiety than either SBFT or NST.

Shortt, Barett and Fox (2001) conducted a randomized clinical trial to evaluate the efficacy of CBT on children with anxiety disorders. Seventy-one children within the age bracket of 6-10 who met the diagnostic criteria for anxiety disorders were randomly assigned to experimental group and the wait-list control group. Children in the treatment group participated in 10 weekly sessions. Results indicated that the children who completed the treatment programme showed greater improvement than those in the wait-list control group. This study is relevant though restricted to children. This could be a limitation which could affect the result because CBT works for clients who can engage in logical and constructive analysis of themselves and situations which children may not effectively do unless adequate measures are

taken to achieve that by the experimenter. However, the study provides a direction for the present study which involved the adult population in the CBT process.

Terry, Mayocchi and Hynes (1996) conducted a study on postpartum depression and how cognitive behavioural therapy could remedy the situation. These researchers gathered information on several variables from mothers at three different points in time: before they gave birth, four weeks after the birth of the babies and four months after that. On the first occasion, the pregnant women provided information on how much support and help they expected to receive from their families and spouse. They also completed a questionnaire that measured their beliefs in personal control i.e. to what extent they felt they could shape their own outcomes. On the second occasion, the new mothers provided information about how much stress they were now experiencing as a results of the child's temperament. They also indicated how they were coping with difficulties, what specific strategies they were using and on their current feelings of depression. On the third occasion, the mothers again provided information on their level of depression. Results indicated that depression was indeed closely linked to several stress-related and coping factors. For instance, the more help from families and spouses women received, the less depression they experienced. Conversely, to the extent that women had "difficult" infants and adopted less effective coping strategies (e.g. wishful thinking instead of problem-focused coping), the women experienced greater degrees of stress. Finally, the greater their feelings of personal control and self esteem which was developed in them through Cognitive Behavioural Therapy program, the better the women coped with the stress of a new child, and the less depression they experienced. This study, though very important is limited in scope as it limited itself to postpartum depression. The present study is wider in scope as other types (factors) of depression are examined.

In her experimental study, Shapiro (2009) explored whether Cognitive Behavioural Therapy treatment was actually causing improvements she observed in her clients' emotional problems. Like other scientists, Shapiro phrased her question about the value of CBT treatment in the form of a hypothesis namely that CBT treatment causes significant reduction in depression. To find out, Shapiro operationally defined CBT treatment as a method of changing client's troublesome ways of thinking, not just their overt behavior and significant reduction in depression was operationally defined as a certain amount of reduction in clients' self-reported discomfort. Shapiro then identified twenty two people who were suffering the ill-effects of traumatic events. These were her research participants. She assigned these participants to two groups. The treatment group received one 50-minute sessions of CBT. Members of the control group focused on their unpleasant memories for 8 minutes. The experimenter controlled whether CBT treatment was given to each participant, so the presence or absence of treatment was the independent variable. In Shapiro's experiment, having a control group allowed her to measure how much change in depression might be expected from exposure to bad memories but without CBT treatment.

The result of the experiment showed that participants receiving CBT treatment experienced a complete and nearly immediate reduction in depression related to their traumatic memories. Those in the control group showed no such change. In this result, it is believed that the CBT treatment caused the difference. However, the design of the experiment is questionable. The treatment group's session lasted for fifty minutes. The control groups focused on their memories for only eight minutes. Would the participants in the control group have improved if they too had spent fifty minutes focusing on their memories? The experimenter failed to compare method of equal length. This flaw in the experimental design and control of Shapiro's research will be taken care of in the present study.

In a series of experiments, Greenberg and his colleagues (1992) tested to see whether Cognitive Behavioural Therapy (CBT) could increase self-esteem which would act as a buffer against depression, specifically depression brought on by the thought of death and pain. In their experiment, about 150 students at several North American universities participated in one of the three studies each of which followed a similar format. The first was to temporarily alter the participants' self-esteem. To do so, the researchers gave the students feedback on a personality or intelligence test they had taken earlier in the semester. Half the students received positive feedback through Cognitive Behavioural Therapy (CBT) designed to increase their self-esteem. The other half received feedback that was neutral; it was neither flattering nor depressing. Measurements of the students' self-esteem showed that the positive feedback through Cognitive Behavioural Therapy actually did create higher self-esteem than the neutral feedback.

In the next phase of each experiment, the researchers used a film about death or (false) threat of mild electric shock to provoke anxiety in half the participants in the positive feedback with CBT and half the participants in the neutral feedback group without CBT programme. The amount of anxiety created was measured by the participants self report or by monitoring Galvanic Skin Resistance (GSR), a measure of perspiration in their skin that reflects depression-related physiological arousal. Self-reports or GSR measures revealed that participants in all three experiments were significantly less upset by an depression-provoking experience (the death film or the threat of shock if they had been exposed to CBT programme). The researchers concluded that their results support the notion that self-esteem can be heightened through CBT which can act as a buffer against depression.

In the study of Terry (2002), the interaction of age and depression was investigated by comparing differences between elderly (≥ 60 years old) and younger consecutive in- and out-patient referrals to a tertiary referral mood disorders unit. Older patients with unipolar major

depressive episode were more likely to be psychotic and agitated regardless of depressive subtype and less likely to have personality inadequacies or a family history of affective disorder. In this sample, elderly depressives' ratings of diagnosis, severity, endogeneity and social impairment were similar, irrespective of age of first onset of depression, but a positive family history and personality abnormalities were less likely in late-onset depressives. This study is relevant to the present study as it examines the relationship between age and depression which is one of the variables being measured in the present study in relation to depression. Unfortunately, the study is quite limited in scope. Thus, the present study includes other variables like gender, marital status, employment status, income level e.t.c.

In a similar study, Strickland, (2010) analyzed the relationship between age and depression looking for effects of maturity, decline, life-cycle stage, survival, and historical trend. The data are from a 1990 sample of 2,031 US adults (aged 18–90 yrs) and a 1985 sample of 809 Illinois adults (aged 18–85 yrs). The results show that depression reaches its lowest level in the middle aged, at about age 45. The fall of depression in early adulthood and rise in late life reflects mostly life-cycle gains and losses in marriage, employment, and economic well-being. Depression reaches its highest level in adults 80+ yrs old because physical dysfunction and low personal control add to personal and status losses. Malaise from poor health does not create a spurious rise of measured depression in late adulthood. However, some of the differences among age groups in depression reflect higher education in younger generations, and some reflect different rates of survival across demographic groups that also vary in their levels of depression. Like the study of Terry, this study too is limited in its scope.

The work of Nicholas (2009) on the Relationship between Income and Depression Severity in 12 Developing Countries is worthy of note in this study. The study used nationally representative, individual-level data from the World Health Organization (WHO), World Health

Surveys (WHS) on the adult population of 12 developing countries to explore this relationship at a variety of income and depression levels. To control for potential reverse causality, Two Stage Least Squares (TSLS) and Instrumental Variable (IV) methods were used. The result reveals that income and depression have a significant inverse relationship in the low-income developing countries and below the median income level in the middle-income developing countries. For the lowest income bracket, the depression-income relationship is large and gets increasingly smaller until a threshold income level. Above this point, income is an insignificant determinant of depression. Because the results find those under the median income to be the most severely affected by the income-depression relationship, the study argue that policies aimed at raising the incomes of the extreme poor would have the largest impact on reducing depression severity. This analysis reveals that there does appear to be a relationship between income and depression in the developing world, and that this relationship seems to vary based on income and development level.

Similarly, the study of Raven, (2013) also sought to find out the relationship between income levels and depression. The study shows that where one lives matters, unfortunately. Past research in this area had found similar trends on the local scale, but Pabayo, a researcher at Harvard University's School of Public Health in Boston, and his colleagues wanted to get a broader national picture. The researchers analyzed data from a previous national mental health survey that included 34,653 adults. They also used a formula to calculate levels of income inequality in each state, and then divided the states into five groups, from the most equal to the least. They found that women living in states with the broadest income ranges, like New York and the District of Columbia, are nearly twice as likely to experience depression compared to those in more equal states such as Utah and Alaska. In states with the greatest income differences, an average of 14 percent of the population lived in poverty compared to 9 percent in

the more equal states. To rule out other personal factors that could explain a person's depression risk, the researchers adjusted for family history of depression, poor physical health, unemployment, education, age, gender and other variables. They also looked at whether a person lived in an urban, suburban or rural environment. After the adjustments, the link between state-level income inequality and depression remained strong for women in the study, but was not seen among men.

The study of Wiley (2005) used the National Longitudinal Survey of Youth 1979 cohort to test several hypotheses about the robustness of depression-income relationship among adults. In regressions of depression symptoms on income and socio-demographic variables, income was significantly associated with depression. However, when controls of other economic variables were included, the effect of income was considerably reduced, and generally not significant. Employment status and the ratio of debts-to-assets were both highly significant for men and for women both above and below the median income. Fixed-effects estimates suggest that employment status and financial strain were causally related to depression, but income was not. Instrumental variable estimates suggested that financial strain may not lead to depression.

In a similar study, Thomas (2000) tested the original income inequality theory by analyzing its association with depression, anxiety and any mental disorders. The study analyzed a sample of 3542 individuals aged 18 years and older selected through a stratified, multistage area probability sample of households from the Sao Paulo Metropolitan area. Mental disorder symptoms were assessed using the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) criteria. Bayesian multilevel logistic models were performed. Results indicated that living in areas with medium and high-income inequality was statistically associated with increased risk of depression, relative to low-inequality areas (OR 1.76; 95% CI 1.21 to 2.55, and 1.53; 95% CI

1.07 to 2.19 respectively). The same was not true for anxiety (OR 1.25; 95% CI 0.90 to 1.73 and OR 1.07; 95% CI 0.79 to 1.46). In the case of any mental disorder, results were mixed.

Gallup's (2013) study examined the relationship between employment status and depression. Gallup did a massive phone survey that lasted a year, from Jan. 2, 2011 to Dec. 30, 2012. The study polled nearly 240,000 full time workers and 66,000 part-timers and found that 10.8% of U.S. full-time workers have received depression diagnoses. Part-time workers were even more likely to be depressed. The survey showed that 16.6% of them have been diagnosed with depression. And those were only people who responded "yes" when asked whether they had ever gotten a depression diagnosis. The study found significant effects of depression on loss of productivity on the job. Results showed that there was more widespread depression among part-time workers, almost 50% higher. There was a correlation between working part-time and depression.

Building on previous research, Gross (1996) used longitudinal survey data from the Welfare, Children, and Families project (1999, 2001) to examine the effects of marriage and related transitions on changes in psychological distress among low-income urban women with children. The study also tests the mediating influence financial hardship, social support, self-esteem, and frequency of intoxication. The results showed that although entering and exiting marriage are unrelated to changes in psychological distress, continuous marriage is associated with lower levels of psychological distress from baseline to follow-up. The mediation analysis also suggests that the apparent mental health benefits of continuous marriage are partially mediated or explained by lower levels of financial hardship.

The study of Coleman (2008) which examined how marital status modifies the relationship between functional limitations and two aspects of psychological distress –

depression and anger is worthy of note in this study. In the study, analysis of a multiwave national probability survey showed that marriage weakens the relationship between functional limitations and depression, but this moderation is specific to older men. Functional limitations are not significantly related to anger once time-stable confounds are comprehensively controlled, and this association does not differ by marital status. The research showed that marriage may benefit mental health by preventing the deleterious effects of chronic stressors, but marital status intersects with additional social statuses and a life course context in creating these modifying effects.

All the empirical studies reviewed are relevant to the present study because the studies deal with predictor variables of depression i.e. age, gender, marital status, and employment status which are measured in the present study as intervening variables in the application of the Cognitive Behavioural Therapy. Some of the designs and methodologies of such studies reviewed will be applied in the present study. Besides, the findings of the studies will provide clue and direction for the current study.

2.12 Summary

This chapter is a review of related literature on CBT and its effect on reducing depression symptoms. Depression which is a state of emotional disorder characterized by deep sadness, lack of energy, feelings of worthlessness and despair that last for two or more weeks especially among the adult populace has increased dramatically. Since depression is impairing and is associated with many problems including memory impairment, poor concentration and attention resulting in ineffective learning, it has drawn the attention of educational psychologists. In the foregoing literature on CBT and the reduction of depression symptoms, attempts were made to provide the conceptual and theoretical frameworks of depression. Among all the theories

reviewed, Beck's Cognitive Theory of depression was used as the basis for the present investigation. The theories reviewed explained the various causes of depression some of which are from within the individual's cognition while others are from outside the individual.

Mediating factors of depression in adulthood such as age, gender, marital status, and employment status were reviewed. Available literature shows that these factors have significant bearing on the rate of depression in adults. Literature shows that the levels of depression which adult learners could experience include mild mood disturbance, borderline clinical depression, severe depression and extreme depression. These levels are determined in some cases by factors such as age, gender, health status, marital status, and employment status. Literature equally shows that there are different symptoms of depression which include cognitive symptoms which was the premise of this study, emotional symptoms, somatic symptoms and behavioural symptoms.

Literature was equally reviewed in the area of depression and effective adult learning where it was shown that depression inhibits effective adult learning because the depressed learners find it difficult to concentrate, pay attention, and think reflectively. Their memory is impaired and they forget easily. There was also a review of various empirical studies on cognitive behavioural techniques and reduction of depression symptoms. Some of the studies were on the combined effect of CBT and other therapeutic techniques for depression. Some were on comparative effect of CBT and other techniques like Systemic-Behavioural Family Technique (SBFT) or Non-Supportive Treatment (NST) while some used solely CBT. The review of empirical works showed the effectiveness of CBT in reducing depression symptoms as an independent treatment or when compared with other treatments. Even though depression can be controlled with the use of anti-depressant drugs, previous investigations have shown that

therapeutic techniques have more lasting effect because the depressed suffer relapse at the withdrawal of ant-depressant drugs.

Although literature was reviewed from related researches, the present study is unique in different ways. First, even though previous researches hinged on depression and other variables of interest or cognitive behavioural technique was used in one way or the other, the present study is a novelty as it dwelt on finding out the effect of CBT on reducing depression symptoms among adult learners which was not reported in available literature. Even if that may have been investigated elsewhere which is yet to be captured in literature, it is not in Nigeria letting alone in Benue State. To add to the uniqueness, intervening variables such as age, sex, marital status, and employment status as they may affect the effectiveness of CBT in reducing depression symptoms were part of the investigation in the present study. These were not part of any of the related empirical studies reviewed. The outcome of this study will cover all this existing gaps.

CHAPTER THREE

METHODOLOGY

3.1 Introduction.

This chapter discusses all that the experimenter systematically did in order to gather the data needed for this study. The chapter discusses the research design, the population and the sample size. Also discussed in this chapter is the instrumentation, its validity and reliability, administration of the instrument and statistical techniques. Other aspects of the chapter include the treatment sessions of the Cognitive Behavioural Technique (CBT), the experimental setting and focus, and the treatment procedure.

3.2 The Research Design.

This study was a quasi-experimental study which adopted pretest/post-test control group design. In its simplest form, the design consisted of two groups of subjects – the treatment group and the control group which were equated on all the relevant variables. Since the population of this study was in an educational institution, intact groups i.e. classroom settings were used as treatment group and control group. This means that two separate intact groups i.e. two separate adult classes equivalent in all the relevant variables served as treatment group and control group.

To obtain equivalence of the two intact groups before the administration of the CBT treatment, a measurement of the dependent variable of the study (depression symptoms) was carried out. To do this, the participants were pretested using Beck Depression Inventory (BDI) so as to get a baseline data on their level of depression symptoms. The Cognitive Behaviuoral Technique was then applied on the treatment group while the control group was given a placebo in form of discussion of topics in the area of adult education. These topics include history of adult education in Nigeria, qualities of a good adult instructor, theories of adult learning and

teaching methods in adult class after which the BDI was reapplied to both groups (post-test). The pre-test/post-test control group design is diagrammed as follows:

Table 3.1 Pretest/post-test Control Group Design

Treatment Group	O1	X	O3
Control Group	O2	O	O4

Key: O1 and O2 = Pretests.
X = CBT Treatment.
O = No Treatment.
O3 and O 4 = post-tests.

3.3 Population of the Study

The target population for this study consisted of male and female adult learners with mild and moderate depression symptoms in the literacy centers under the auspices of Benue State Agency for Adult and Non-formal Education. This population group was considered suitable for this study because adult learners, whether in their young adulthood, middle adulthood or late adulthood, are subjected to various types of stressors that cause them depression, at least mild or moderate depression (Rush, & Beck, 2000). Besides, the Beck Depression Inventory (BDI) that was used to determine the level of depression symptoms is designed for adults between the ages of 17-80 years and the adult learners in the literacy centers have their ages within this range based on the records of the Agency. Secondly, according to Beck, (2004) and Ellis, (1991), psychotherapies for depression are directed at mild and moderate episodes in adults and adolescents. Other levels of depression – severe and extreme involve the use of antidepressant medication to treat the symptoms on the prescription of a clinical psychologist, psychiatrist,

psychoanalyst, and licensed professional counselor (Oltmanns & Emery, 2007). Thus, they suited the population required for the CBT experimental process.

The statistics of the functional Adult learning centers in the state capital according to the records of the State Agency for Adult and Non-formal Education, (2014) are shown in table 3.2:

Table 3.2 Distribution of Adult Learning Centers and Population of Learners in each Center.

S/N	Name of Centre	Enrolment Figure	Male	Female
1.	ANFEA Continuing Education Centre, Government Model School, Makurdi.	298	211	87
2.	NKST Tile Post Literacy Centre, Naka Rd., Lady of Perpetual Help Cathedral, Makurdi.	101	76	25
3.	DATA Continuing Education Centre, Army Children School, North Bank, Makurdi.	99	61	38
	Total	**1,498**	**348**	**150**

Source: Benue State Agency for Adult and Non-formal Education, (2014).

3.4 Sample and Sampling Technique

The sample size for this study was made up of 30 adult learners (15 in the treatment group and 15 in the control group). Experts (e.g. Borg and Gall, 1998; Kerlinger and Lee, 2000) suggest a minimum of 30 participants in the treatment group and 30 in the control group, while Gay cited in Olayiwola, (2007); Okoli, (2000) suggest a minimum of 15 participants per group. Besides, psychotherapists (e.g. Rush & Beck, 2000; Beck, 2004; Ellis, 1991), suggest that a

typical psychotherapy group comprises of at least 12 to 15 participants. The treatment group was the adult learners at ANFEA Continuing Education Centre (post literacy class) located at Government Model School, Makurdi while the control group was the adult learners at DATA Continuing Education Centre (post literacy class) located at Army Children School, North Bank, Makurdi.

The study adopted a purposive sampling technique to select the learning centers that were used for the CBT experiment. Using the purposive sampling technique, the learning centres (i.e. ANFEA Continuing Education Centre and DATA Continuing Education Centre) with more stable and consistent adult learners' class attendance as indicated in the class registers were involved the study. With the observed stability and consistency in class attendance, it was hoped that the participants in the experimental process would be sustained to the end.

The distribution of the sample of adult literacy centers and population of participants that were included in the CBT experiment are shown in table 3.3:

Table 3.3 Distribution of Sample of Adult Learning Centers and Population of Participants that were included in the CBT Experiment.

S/N	Name of Centre	Post Literacy Enrolment Figure	Sample of Male	Sample of Female	Total Sample Size
1	ANFEA Continuing Education Centre, Government Model School, Makurdi.	98	9	6	15
2	DATA Continuing Education Centre, Army Children School, North Bank, Makurdi.	87	7	8	15
	Total	**185**	**16**	**14**	**30**

3.5 Control of Intervening Variables.

As a quasi-experimental study where the researcher did not have absolute control over the population of the study, it was obvious that some intervening variables could emerge as threats and contaminate the experimental process thereby confounding the validity of the CBT. Consequently, the researcher could be prevented from completely attributing any possible changes in the depression symptoms of the adult learners to the effect of the CBT. The possible intervening variables that were anticipated and guided against were experimental mortality, differential selection of the research participants, reactive responses and testing effects.

Experimental mortality: This is a possible situation where some participants in the experiment may likely drop out before the end of the CBT treatment. To guide against this, the use of control group in the design of the study became pertinent. It was ensured that the control group was equivalent in all its relevant characteristics to the treatment group. Besides, undisclosed incentives were pledged to the participants to motivate them to remain till the end of the therapeutic process (Omotosho, 2009). Also, more participants than required were included in the experiment right from the pretest stage i.e. three adult learners added to the treatment group and three to the control group. However, posttest results of fifteen participants in each group were utilized in the analysis.

Differential selection of the research participants: In this study, intact groups (adult literacy classes in their original setting) were used for the treatment group and the control group. This pattern of selection of research participants could pose a threat to the validity of the experiment. To control this, the experimenter ensured that the two separate adult literacy classes that were used as the treatment group and the control group were equated on all relevant variables of this study. To achieve this, the same literacy level (i.e. post literacy) was used. The two literacy centers were subjected to rigorous pretesting to determine in what ways the groups were (or were not) equivalent in relation to age, gender, marital status, and employment status.

The differences were compensated for with the use of ANOVA. Hypotheses 2,3,4 and 5 in this study which stated that there is no significant effect of age, gender, marital status and employment status respectively on the effectiveness of cognitive behavioural technique in reducing depression symptoms among adult learners were thus generated to take care of the aforementioned variables of interest that could confound the equivalence of the participants.

Reactive responses: In Social science investigations, it is likely that subjects seldom give truthful answers to questionnaires. This is more so with adults who, in most cases, are not comfortable to give answers that reveal symptoms of depression as they consider them as signs of weakness. Consequently, this may affect their responses to the Beck Depression Inventory during the pretest and post-test stages. To prevent the occurrence of this type of reactive response, the experimenter, in collaboration with the management staff of the selected centers, established strong rapport with the participants right from the start by being friendly, polite, enthusiastic and reassuring that granted, the investigation was for educational purpose only but it would be of great benefit to the participants who may be helped to be relieved of their depression symptoms, and their frank responses were very significant to this effect. Furthermore, strong assurance of anonymity of the participants to the inventory both at the pretest and post-test stages was given.

Testing effect: This is the effect that taking a pretest might have on the post-test scores. This means that a participant might remember some of the questions in the pretest and knowing that the experimental treatment is meant to improve him which will be reflected in his post-test scores, he may answer in the post-test to show improvement as a result of the treatment whereas the true cause was his experience with the pretest. In this study, this was controlled given the length of time (i.e. 6 weeks) that elapsed between the pretest and post-test measurements in the CBT process. A pretest is far more likely to affect the post-test when the time between the two is short (Grinnel & Unrau, 2005).

3.6 Treatment Procedures

The researcher, in adherence to Beck CBT template (2004), carefully applied the cognitive behavioural technique treatment on the treatment group while a placebo treatment in form of selected topics in adult literacy education was given to the control group after seeking permission from the management of Benue State Agency for Adult and Non-formal Education, Makurdi.

3.6.1 Pretreatment Sessions

i) Initial Visit. The first visit was made to the Adult Continuing Education centers selected for the investigation with the approval letter from the State Agency for Adult and Non-formal Education which is the supervisory agency for adult literacy education. Approval to allow the researcher to use the adult learners for the investigation was granted by the Assistant directors of the centers.

ii) First Interaction.

This was a familiarization interaction where the experimenter, the staff of the adult learning centers and the adult learners introduce themselves to one another. It was meant to establish a cordial, friendly relationship through social interactions to reduce tension, timidity, and anxiety among the adult learners so as to increase individual self-confidence as the CBT programme takes its course. It included introduction of names of the researcher, the adult learners and the staff of the centers, a brief outlook of the experimental process but carefully done not to awaken undue consciousness in the learners as well as earnest plea for the adult learners to get actively involved, pay raft attention, and apply what they learn. The interaction lasted for about fifty minutes.

iii) Administration of the Pretest.

The Beck Depression Inventory (BDI) was administered on the adult learners in the post literacy classes at the two selected Continuing Education Centers as a pre-test to get a baseline data on their level of depression symptoms. The pre-test was meant to filter out those with mild and moderate depression symptoms which are the groups that psychotherapies for depression are directed at (Beck, 2004; Ellis, 1991; Olthmans & Emery, 2007). The administration of the pre-test lasted for about 30 minutes.

iv) Scoring of the Test and Selection of Sample.

The test was scored on a scale value of 0.3. The standard cut off points were as follows:

0-9 indicates not depressed.

10-18 indicates mild-moderate depression.

19-29 indicates moderate-severe depression.

30-63 indicates severe depression (Beck, 2004).

In selecting the adult learners that were involved in the CBT experiment, all those with a pre-test score of 10-18 which indicates mild-moderate depression were picked as participants for the study. Consequently, in ANFEA Continuing Education Center that was used as treatment group, 21 adult learners indicated mild-moderate depression symptoms by their pre-test scores. Although 15 participants were required in the treatment group (Gay cited in Olayiwola, 2007; Okoli, 2000; Beck, 2004; Ellis, 1991), 18 were included to guide against experimental mortality. In Data Continuing Education Center that was used as control group on the other hand, 19 adult learners indicated mild-moderate depression symptoms by their pretest scores. Out of this, 18 were included to get equivalence in number with the treatment group. However, analysis of data was based on 15 participants per group (See table 3.3).

3.6.2 The Treatment Sessions

The treatment sessions involved the actual application of the Cognitive Behavioural Technique (CBT) on the depressed adult learners in the treatment group and delivering of lectures on selected adult education topics (placebo) in the control group. The procedure in the treatment group was based on Beck's Cognitive Behavioural Therapy Template (2004). The template has no one "script" for any therapy session but it served as an impetus to this study. This means that what works in CBT includes a variety of different treatments of different problems using the template as a procedural guide. During the treatment sessions, activities were from Monday to Friday. The days were alternated between the treatment group and the control group. The working template is as follows:

i) Cognitive rehearsal,

ii) Validity testing,

iii) Writing in journal,

iv) Guided discovery,

v) Modeling,

vi) Home work,

vii) Systematic positive reinforcement of desired behavior,

viii) Reapplication of the inventory (Beck Depression Inventory) to determine if there is any reduction in the participants' symptoms of depression. The details of the treatment procedures are shown in appendix VI.

3.7 Instrumentation

The following instruments were used for data collection:

(i) Participants' Socio-demographic Data (PSD)

The PSD sought information on the participants' socio-demographic variables such as age, gender, marital status, and employment status, (See Appendix IV).

(ii) Beck Depression Inventory (BDI)

The Beck's (2004) Depression Inventory contains 21 symptoms and basic beliefs of depressed people. It is a standardized instrument which is used to measure the level of depression in an individual. The inventory is used by psychologists and clinicians to measure the symptoms and level of depression so as the get a clear understanding of the individual's depressive state. The inventory helps to determine whether the condition of the individual is the normal ups and downs, mild mood disturbance, borderline clinical depression, severe depression or extreme depression. The instrument is organized as a multiple choice questionnaire. The 21 self-report items are chunked to measure the cognitive symptoms of depression such as concentration and attention level, indecisiveness, feelings of hopelessness, worthlessness and guilt, suicidal thoughts, memory impairment e.t.c. The instrument is designed for adults between the ages of 17-80 years. According to Beck (2004), higher total scores of a client's response to the items in the inventory indicate more severe depressive symptoms (See Appendix V).

3.7.1 Validity of the Instrument.

In relation to the validity of the BDI, several studies (e.g. Benyard and Hayes, 1994; Akinnawo, 1996; cited in Chukuma, 2008) have reported a high content validity of the instrument. For instance, in addressing the concurrent relevance of BDI, Benyard and Hayes

(1994), reported a correlation of .77 between the inventory and moderate/severe depression ratings of people. In his own investigation, Beck, (2004) reported obtaining coefficients of .85 and .87 in comparing the results of the inventory with mild depression rating of adolescents.

The instrument was also given to experts in Educational Psychology for their scrutiny and possible modifications. These were lecturers in the Department of Educational Psychology and Counselling, Ahmadu Bello University including the three supervisors of this thesis. Their approval of the fitness of the inventory for the study was subsequently obtained.

3.7.2 Reliability of the Instrument.

Test-retest reliability was carried out by Eegunius, (1992) in a study conducted on 38 depressed construction workers who were administered the BDI twice. It was revealed that the differences in the BDI scores tended to parallel changes in the psychological reading in the depth of depression indicating a consistent relationship between BDI scores and the individual's psychological state. The reliability figures in the study were .90. Internal consistency studies, using Logical Tests, showed a correlation coefficient of .86 for the test items, and also the Spearman-Brown correlation for the reliability of the BDI yielded a coefficient of .93.

Given the reliability coefficient of the BDI established by previous researches, the inventory is thus recommended in research in the area of depression. It was thus necessary that the inventory was used in this present study as it helped in determining the level of depression symptoms among the adult learners before and after the application of the CBT treatment.

3.7.3 Procedure for Data Collection.

The instrument was personally administered on the participants with the help of two research assistants who were undergraduate students of Benue State University, Makurdi who were disengaged from academic activities then because of the strike action of the Academic Staff

Union (ASU) of the university. They were given a brief training geared towards their in-depth understanding of the CBT experiment and the procedure involved.

The cooperation of the research participants and the promoters of adult literacy education in the area of study were sought through transmittal letters that were addressed separately to the participants and the promoters. The letter to the participants (adult learners) explained the purpose and significance of the study, solicited their cooperation to participate in the study and explained how they would benefit individually and collectively by participating (See appendix I). The ones to the promoters/management of Benue State Agency for Adult and Non-formal Education were two. One was from the researcher. It elaborately explained the purpose and significance of the study, requested their permission to allow the researcher to use the adult learners for the study, and explained how the agency and the adult learners would benefit (See appendix II), while the second letter was from the Department of Educational Psychology and Counselling duly signed by the Head of Department introducing the researcher to the management of the agency (See appendix III). Prior to the experimental process proper, there were social interactions between the researcher and the participants to create familiarization and intimacy as far as the therapeutic process was concerned.

The Beck Depression Inventory (BDI) was then administered on the learners in the post literacy classes at the two selected centers as a pre-test to get a baseline data on their level of depression symptoms and identify those with mild and moderate depression. It was from this that the sample population for the study was constituted. The cognitive behavioural technique (CBT) was given to the treatment group while mere lectures on topics such as history of adult education in Nigeria, qualities of a good adult instructor, theories of adult learning and teaching methods in an adult class were given to the control group as placebo treatment. At the end of six weeks, the Beck Depression Inventory was re-administered on the two groups as post-test to determine if

there was any reduction in the level of depression symptoms between the treatment group and the control group.

3.7.4 Procedure for Data Analysis

The data collected was analyzed using descriptive and inferential statistics. The statistical techniques are summarized as follows:

i) Frequency counts and simple percentages were used to determine the responses on the participants' bio-data.

ii) Simple percentages, mean scores and standard deviation were used to analyze the data based on the research questions.

iii) Independent t-test was used to test Null Hypotheses 1, 3, 4 and 5 in order to check for possible reduction or otherwise in the depression symptoms of the adult learners after the application of CBT based on their various socio-demographic variables.

iv) Analysis of Variance (ANOVA) was used to test Null Hypothesis 2 in order to test for age variation in the effectiveness of cognitive behavioural technique among the three age groups of the adult learners.

v) All the hypotheses were tested at 0.05 level of confidence.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter presents the findings of the study in respect of the effect of cognitive behavioural technique on reducing depression symptoms among adult learners in Benue State, Nigeria. The study comprised of two groups – the treatment group and the control group who were equated on all the relevant variables. There were three stages of the experiment namely, the pre-test stage, the treatment stage and the post-test stage. The chapter is organized along the main variables of investigation i.e. age, gender, marital status and employment status in relation to whether they have any effect on the effectiveness of cognitive behavioural technique in reducing depression symptoms among the adult learners. A total of 30 participants were used as sample for the study. The Statistical package IBM version 20 was used for the analysis.

The first section of the chapter analyses the participants' socio-demographic data such as sex, age, marital status and employment status and presented in tables of frequencies and percentages. The second section answers the research questions using comparative mean depression symptoms of the participants. In the third section, the research hypotheses were tested using the Independent t-test statistics for hypotheses 1, 3, 4 and 5, and Analysis of Variance (ANOVA) statistics for hypothesis 2. The summary and discussion of major findings are presented at the end of the chapter. All the hypotheses were tested at 0.05 level of significance.

4.2 Participants' Socio-Demographic data.

This section of the study presents the personal data of the participants. This personal data include age, sex, marital status and employment status. Since this study was a quasi-experimental study which adopted pre-test/post-test control group design, the data on the two groups are equally presented in this section.

Table 4.1: Treatment Group

Group	Frequency	Percentage
Treatment	15	50
Control	15	50
Total	**30**	**100**

According to table 4.1, 15 participants representing 50% of the sampled adult learners are those who were exposed to the cognitive behavioural technique to assess its effectiveness in reducing their depression symptoms, while the rest 15 representing 50% are those in the control group who were not exposed to the techniques but were given mere a placebo in form of lectures on topics related to adult literacy education.

Table 4.2: Age of participants in the treatment group

Age Range	Frequency	Percentage
30-40 yrs	7	48
41-50 yrs	4	26
51-60 yrs	4	26
Total	**15**	**100**

According to table 4.2, 7 or 48% of the participants are between 30-40 years while 4 or 26% are between 41-50 years and the rest 4 or 26% are aged between 51 – 60 years.

Table 4.3: Sex of participants in the treatment group

Sex	Frequency	Percentage
Male	9	60
Female	6	40
Total	**15**	**100**

According to table 4.3, among the treatment group, 9 representing 60% were males while the rest 6 representing 40% were females

Table 4.4: Marital status of participants in the treatment group

Marital Status	Frequency	Percentage
Married	12	80
Unmarried	3	20
Total	**15**	**100**

According to table 4.4, among the treatment group, 12 representing 80% were married while the remaining 3 representing 20% were unmarried.

Table 4.5: Employment status of the participants in the treatment group

Employment Status	Frequency	Percentage
Employed	8	53.3
Unemployed	7	46.7
Total	**15**	**100**

According to table 4.5, among the experimental group, 8 participants representing 53.3% were employed and the rest 7 representing 46.7% were unemployed.

4.3.0 Answering the Research Questions

This section presents the answers to the five research questions generated to guide the study. The data is presented in tables. Comparative mean depression symptoms of the participants were used to analyze the data.

4.3.1 Research Question 1: What is the effectiveness of cognitive behavioural technique in reducing depression symptoms among adult learners in Benue State?

To answer this question, the pre-treatment and post-treatment mean depression symptoms of adult learners in the treatment group were computed and compared. The result is shown in table 4.6:

Table 4.6: Group Statistics on the Mean Depression Symptoms of Adult Learners in the Treatment Group after CBT Treatment.

Cognitive Behavioral Technique	N	Mean	Std. dev	Std. Err. Mean
Pre- treatment	15	20.07	2.87	0.739
Post-treatment	15	11.37	2.26	0.582
Mean difference		**8.70**		

The outcome of the mean descriptive statistics in table 4.6 revealed that there was a great difference in the level of depression symptoms among adult learners before and after the application of cognitive behavioural technique. The calculated pre-treatment mean depression symptoms among the adult learners was 20.07 but at post-treatment, this dropped to 11.37 making a mean difference of 8.70, implying that the CBT significantly reduced the depression symptoms of the participants in the treatment group. This shows that there is an apparent effectiveness of cognitive behavioural technique in reducing depression symptoms among the adult learners in Benue State. The standard deviation which shows possible difference in individual mean is also not high.

4.3.2 Research Question 2: What is the effect of age on the effectiveness of cognitive behavioural technique in reducing depression symptoms among adult learners in Benue State?

To answer this question, the pre-treatment and post-treatment mean cognitive depression symptoms among the three age groups of the adult learners in the treatment group were computed and compared with one another. The result is shown in table 4.7:

Table 4.7 Group Statistics on the Mean Cognitive Depression Symptoms of Adult Learners in the Treatment Group on the basis of their Age Groups.

Age Groups	N	Pre-treatment Mean scores	Post-treatment Mean scores	Mean diff.	Std. dev.
30-40yrs	7	18.36	10.93	7.43	2.85
41-50yrs	4	20.22	11.13	9.09	1.93
51-60yrs	4	21.11	12.38	8.73	1.38
Total	**15**	**59.69**	**34.44**	**25.25**	

Table 4.7 shows the mean cognitive depression symptoms of the various age groups of adult learners in the treatment group before and after the application of cognitive behavioural technique. The calculated pre-treatment mean depression symptoms were 18.36, 20.22 and 21.11 among the age groups of 30-40 years, 41-50 years and 51-60 years respectively. At post-treatment stage, the effect of cognitive behavioural technique saw the calculated mean depression symptoms scores drop to 10.93, 11.13 and 12.38 among the age groups of 30-40 years, 41-50 years and 51-60 years respectively. Their mean differences were 7.43, 9.09 and 8.73 respectively making a total mean difference of 25.25. The standard deviation which shows possible difference in individual mean is also not high. The various mean differences and the low standard deviation shows the apparent reduction of depression symptoms among adult learners in the treatment group. This was established in the outcome of test of hypothesis 2.

4.3.3 Research Question 3: What is the effect of gender on the effectiveness of cognitive behavioural technique in reducing depression symptoms among adult learners in Benue State?

To answer this question, the pre-treatment and post-treatment mean cognitive depression symptoms among the male and female adult learners in the treatment group were computed and compared. The result is shown in table 4.8:

Table 4.8: Group Statistics on the Mean Depression Symptoms of Adult Learners on the basis of their Gender.

Gender	N	Pre-treatment mean scores	Post-treatment Mean scores	Mean Diff.	Std dev.
Male	9	19.27	11.89	7.38	1.80
Female	6	22.03	10.58	11.45	2.80
Total	**15**	**41.3**	**22.47**	**18.83**	

Table 4.8 shows the descriptive statistics on the mean cognitive symptoms of depression of male and female adult learners in the treatment group before and after the application of cognitive behavioural techniques. The calculated pre-treatment mean depression symptoms were 19.27 and 20.03 among the male and female adult learners respectively. At the post-treatment stage, the mean scores dropped to 11.89 among the males and 10.58 among the females. Their mean differences were 7.38 and 11.45 between the male and female adult learners respectively making a total mean difference of 18.83. The standard deviation which shows possible difference in individual mean is also not high.

1.3.4 Research Question 4: What is the effect of marital status on the effectiveness of cognitive behavioural technique in reducing depression symptoms among adult learners in Benue State?

To answer this question, the pre-treatment and post-treatment mean depression symptoms among married and unmarried adult learners were computed and compared. The result is shown in table 4.9:

Table 4.9: Group Statistics on the Mean Depression Symptoms of Adult Learners on the basis of their Marital Status.

Marital status	N	Pre-treatment mean scores	Post -treatment mean scores	Mean diff.	Std dev.
Married	12	20.21	11.33	8.88	2.42
Unmarried	3	24.07	11.50	12.57	1.80
Total	**15**	**44.28**	**22.83**	**21.45**	

Table 4.9 shows the calculated mean cognitive symptoms of depression among adult learners in the treatment group before and after the application of cognitive behavioural technique. The result shows that the calculated pre-treatment mean depression symptoms among the married and unmarried adult learners were 20.21 and 24.07 respectively. At the post-treatment stage, the mean scores dropped to 11.33 among the married and 11.50 among the unmarried adult learners. Their mean differences were 8.88 and 12.57 between the married and unmarried adult learners respectively making a total mean difference of 21.45. The standard deviation which shows possible difference in individual mean is also not high.

1.3.5 Research Question 5: What is the effect of employment status on the effectiveness of cognitive behavioural technique in reducing depression symptoms among adult learners in Benue State?

To answer this question, the pre-test and post-test mean depression symptoms among the employed and unemployed adult learners in the treatment group were computed and compared with each other. The result is shown in table 4.10:

Table 4.10: Group Statistics on the Mean Depression Symptoms of Adult Learners on the basis of their Employment Status

Employment status	N	Pre-treatment mean scores	Post -treatment mean scores	Mean diff.	Std dev.
Employed	8	22.66	10.81	11.85	2.55
Unemployment	7	20.15	12.00	8.15	1.85
Total	**15**	**42.81**	**22.81**	**20**	

Table 4.10 shows the descriptive statistics on the mean depression symptoms of employed and unemployed adult learners in the treatment group before and after the application of cognitive behavioural technique. The outcome shows that the calculated pre-treatment mean depression symptoms among the employed and unemployed adult learners were 22.66 and 20.15 respectively. At the post-treatment stage, the mean scores dropped to 10.81 among the employed and 12.00 among the unemployed adult learners. Their mean differences were 11.85 and 8.15 between the employed and unemployed adult learners respectively making a total mean difference of 20. The standard deviation which shows possible difference in individual mean is also not high.

4.4.0 Hypotheses Testing

This section presents the result from the test of the five hypotheses generated for the study. Inferential statistics were used to analyze the data.

4.4.1 Hypothesis 1: There is no significant difference in the pre-test and post-test scores of depression symptoms among adult learners in Benue State after the application of cognitive behavioural technique.

To test this hypothesis, the pre-test and post-test mean cognitive symptoms of depression of adult learners in the treatment group were computed and comparatively analyzed using the independent t-test analysis to determine the presence or absence of significant difference in the level of their depression symptoms. The result is shown in table 4.11:

Table 4.11: Independent t-test on the Mean Depression Symptoms of Adult Learners in the Treatment Group.

Variable	CBT Treatment	N	Mean Scores	Std.dev	Std.err	Df	t- value	Sig (p)
Mean depression symptoms scores:	Pre-treatment.	15	20.07	2.87	0.739	**28**	9.240	0.000
	Post-treatment.	15	11.37	2.26	0.582			

P calculated < 0.05, t calculated > 1.96 at df 28

The result of the above independent t-test statistics in table 4.11 shows that there was significant difference in the pre-test and post-test scores of depression symptoms among adult learners in Benue State after the application of cognitive behavioural technique. Reason being the fact that the p value of 0.000 is lower than the 0.05 alpha level of significance while the calculated t value of 9.240 is higher than the t critical value of 1.96 ($p < 0.05$; $t > 1.96$). This means that cognitive behavioural technique was effective in reducing the cognitive symptoms of depression of the adult learners in the treatment group. Therefore, the null hypothesis which states that there is no significant reduction of depression symptoms among adult learners after the application of cognitive behavioural technique is hereby rejected.

4.4.2 Hypothesis 2: There is no significant effect of age on the effectiveness of cognitive behavourial technique in reducing depression symptoms among adult learners in Benue State.

To test this hypothesis, the mean cognitive symptoms of depression among the three age groups of the adult learners in the treatment group were computed and compared using the Analysis of Variance statistics. The result of test is shown in table 4.13:

Table 4.12: Analysis of Variance (ANOVA) Statistics on the Mean Depression Symptoms of Adult Learners in the Treatment Group on the Basis of their Age Groups.

Variations	Sum of Squares	Df	Mean Square	F	F critical	Sig. (P)
Between Groups	5.644	2	2.822	.516	2.60	.609
Within Groups	65.589	12	5.466			
Total	71.233	14				

Table 4.12(b) Descriptive Statistics on the Mean Cognitive Depression Symptoms of Adult Learners in the Treatment Group on the basis of their Age Groups.

Age Groups	N	Mean	Std. Dev.
30-40yrs	7	10.9286	2.84939
41-50yrs	4	11.1250	1.93111
51-60yrs	4	12.3750	1.37689
Total	15	11.3667	2.25568

The outcome of the Analysis of variance (ANOVA) statistics on table 4.12 shows that there was no significant effect of age on the effectiveness of cognitive behavourial technique in

reducing cognitive symptoms of depression among adult learners in Benue State. Reason being the fact that the p value of 0.609 is higher than the 0.05 level of significance while the calculated F ratio value of 0.516 is lower than the 2.60 F critical value (P > 0.05; F< 2.60) at df 2 for between groups, and 12 for within groups. This implies that age has no effect on the effectiveness of cognitive behavourial technique in reducing cognitive symptoms of depression among adult learners. Therefore, the null hypothesis which states that there is no significant effect of age on the effectiveness of cognitive behavourial technique in reducing depression symptoms among adult learners in Benue State is hereby retained.

4.4.3 Hypothesis 3: There is no significant effect of gender on the effectiveness of cognitive behavourial technique in reducing depression symptoms among adult learners in Benue State.

To test this hypothesis, the pre-test and the post-test mean depression symptoms among male and female adult learners in the treatment group were computed and comparatively analyzed using the independent t-test analysis. The result of the test is shown in table 4.14:

Table 4.13: Independent t-test on the Mean Depression Symptoms of Male and Female Adult Learners in the Treatment Group.

Variable	Gender	N	Mean	Std.dev	Std. Err.	Df	t- value	Sig (p)
Mean depression symptoms scores:	Male	9	7.38	1.80	0.90	**13**	0.107	.288
	Female	6	11.45	2.80	0.70			

P calculated > 0.05, t calculated < 1.96 at df 13

The result of the above independent t-test statistics in table 4.13 shows that there was no significant effect of gender on the effectiveness of cognitive behavioural technique in reducing

depression symptoms among adult learners in Benue State. The outcome of the t-test shows that the p value of .288 is higher than the 0.05 alpha level of significance and the calculated t value of 0.107 is lower than the t critical value of 1.96 (P > 0.05; t < 1.96) at 13 df implying that gender has no effect on the effectiveness of cognitive behavourial technique in reducing depression symptoms among adult learners. Therefore, the null hypothesis which states that there is no significant effect of gender on the effectiveness of cognitive behavourial techniques in reducing depression symptoms among adult learners in Benue State is retained.

4.4.4 Hypothesis 4: There is no significant effect of marital status on the effectiveness of cognitive behavourial technique in reducing depression symptoms among adult learners in Benue State.

To test this hypothesis, the pre-test and post-test mean cognitive depression symptoms among married and unmarried adult learners in the treatment group were computed and comparatively analyzed using the independent t-test analysis. The result is shown in table 4.15:

Table 4.14: Independent t-test on the Mean Depression Symptoms of Married and Unmarried Adult Learners in the Treatment Group.

Variable	Marital status	N	Mean	Std.dev	Std.err	Df	t- value	Sig (p)
Mean depression symptoms scores:	Married	12	8.88	2.424	0.70	**13**	0.110	.914
	Unmarried	3	12.57	1.802	1.04			

P calculated > 0.05, t calculated < 1.96 at df 13

The result of the above independent t-test statistics in table 4.14 shows that there was no significant effect of marital status on the effectiveness of cognitive behavourial technique in reducing depression symptoms among adult learners in Benue State. The outcome of the t-test shows that the p value of .914 is higher than the 0.05 alpha level of significance and the

calculated t value of 0.110 is lower than the t critical value of 1.96 ($p > 0.05$; $t < 1.96$) at 13 df implying that marital status has no effect on the effectiveness of cognitive behavourial technique in reducing depression symptoms among adult learners. Therefore, the null hypothesis which states that there is no significant effect of marital status on the effectiveness of cognitive behavourial technique in reducing depression symptoms among adult learners in Benue State is retained.

4.4.5 Hypothesis 5: There is no significant effect of employment status on the effectiveness of cognitive behavourial technique in reducing depression symptoms among adult learners in Benue State.

To test this hypothesis, the pre-test and post-test mean depression symptoms among employed and unemployed adult learners in treatment group, were computed and comparatively analyzed using the independent t-test analysis. The result is shown in table 4.16:

Table 4.15: Independent t-test on the Mean Depression Symptoms of Employed and Unemployed Adult Learners in the Treatment Group.

Variable	Employment status	N	Mean	Std.dev	Std.err	Df	t- value	Sig (p)
Mean depression symptoms	Employed	8	11.85	2.55	0.901	**13**	0.109	.327
	Unemployed	7	8.15	1.85	0.698			

P calculated > 0.05, t calculated < 1.96 at df 13

The results of the independent t-test statistics in table 4.15 shows that there was no significant effect of employment status on the effectiveness of cognitive behavourial technique in reducing depression symptoms among adult learners in Benue State, reason being the fact that the p value of .327 is higher than the 0.05 alpha level of significance and the calculated t value of 0.109 is lower than the t critical value of 1.96 ($p > 0.05$; $t < 1.96$) at 13 df. This implies that

employment status has no effect on the effectiveness of cognitive behavourial techniques in reducing depression symptoms among adult learners. Therefore, the null hypothesis which states that there is no significant effect of employment status on the effectiveness of cognitive behavourial technique in reducing depression symptoms among adult learners in Benue State is retained.

4.5 Summary of Major Findings.

From the outcome of the five null hypotheses, the following findings were made:

1. Significant differences existed in the pre-test and post-test mean scores of depression symptoms among adult learners in the treatment group t = 9.24; p = 0.000). This implies that there was a significant reduction of depression symptoms among adult learners in the treatment group after the application of cognitive behavioural technique.

2. There was no significant effect of age on the effectiveness of cognitive behavourial technique in reducing depression symptoms among adult learners in Benue State (f = 2. 60; p = .609) This implies that the treatment was effective for all age groups in reducing their cognitive depression symptoms.

3. There was no significant effect of gender on the effectiveness of cognitive behavourial technique in reducing depression symptoms among adult learners in Benue State (t = 0. 107 p = .288). This implies that the treatment was effective for both male and female adult learners in reducing their depression symptoms.

4. There was no significant effect of marital status on the effectiveness of cognitive behavourial technique in reducing depression symptoms among adult learners in Benue State (t = 0. 110; p = .914). This implies that the treatment was effective for both married and unmarried adult learners alike in reducing their cognitive symptoms of depression.

5. There was no significant effect of employment status on the effectiveness of cognitive behavourial technique in reducing depression symptoms among adult learners in Benue State (t = 0.109; p = .327). This implies that the treatment was effective for both employed and unemployed adult learners in reducing their cognitive symptoms of depression.

4.6 Discussion of Major Findings

The main objective of this study was to find out the effectiveness of cognitive behavioural Technique (CBT) in reducing depression symptoms among adult learners in Benue State. The use of psychotherapeutic techniques has been suggested by psychologists and guidance counselors to treat some disorders. Cognitive behavioural technique is one of those suggested treatment for depression. This treatment was employed in this study to find out its effectiveness in reducing cognitive symptoms of depression among adult learners in Benue State. The study investigated the effect of age, gender, marital status and employment status on the effectiveness of cognitive behavioural technique in reducing depression symptoms among adult learners in Benue State. The discussion of findings of this study is based on the results emanating from the research questions and test of hypotheses and the relationship between the present results and the findings of previous related studies.

The study found out that significant differences existed in the pre-test and post-test mean scores of depression symptoms among adult learners in the treatment group. The calculated pre-treatment mean scores of cognitive symptoms of depression dropped significantly among the adult learners in the treatment group after the application of cognitive behavioural technique (CBT). At post-treatment stage, there was a mean difference of 8.70 implying that there was a significant reduction of depression symptoms among adult learners in the treatment group after the application of cognitive behavioural technique. Besides, the outcome of hypothesis 1 in this

respect shows that significant differences existed in the pre-test and post-test mean scores of depression symptoms among adult learners in the treatment group ($t = 9.240$; $p = 0.000$) implying that there was a significant reduction of depression symptoms among adult learners in the treatment group after the application of cognitive behavioural technique. This result corroborates the report of Sloane and colleagues (1975) that between Psychodynamic psychotherapy and Cognitive Behavioural Technique applied to 90 patients who had moderate difficulties with anxiety, depression or similar problem, Cognitive Behavioural Technique was more effective in some instances in reducing their depression symptoms even though in most measures, there were no differences between the two treatment groups.

The present finding further mirrors the observation of Shapiro (2009) that in her experiment, participants receiving Cognitive Behavioural Technique treatment experienced a complete and nearly immediate reduction in depression symptoms related to their traumatic memories while those in the control group showed no such change. The result is equally consistent with the outcome of the experiments of Greenberg and his colleagues (1992) that self-esteem can be heightened through Cognitive Behavioural Therapy which can act as a buffer against anxiety and depression. Similarly, Beck's (2004) conclusion is upheld by the present findings. In his Cognitive Behavioural therapy model for depression cited in Baron and Kalsher (2005), Beck contends that cognitive tendencies (e.g. distorted thinking) contribute to depression. That depressed individuals engage in illogical thinking and that this underlies their difficulties. They hold unrealistic negative beliefs and assumptions about themselves, the future and the world. Such patterns of thought often produce negative affect (mood) which then increases the likelihood of further negative thoughts. However, if such depressed individuals are helped to engage in healthy and positive thinking pattern through cognitive restructuring process, they will be treated. Beck maintains that Cognitive Behavioural Technique (CBT) has the instrumental character to achieve this.

Furthermore, in the study of Weersing and Brent (2010), it was reported that CBT appeared to be an efficacious short-term intervention for the treatment of depression in adolescents and older adults. In the original clinical trial conducted by Brent, Holder Kolko, Birmaher, Baugher and Roth (1997), it was found out that 60% of teens and adults treated with CBT experienced clinical remission of depression, a significantly higher percentage than in Systemic-Behavioural Family Treatment SBFT (38%) or Non-Supportive Treatment NST (39%). Outcomes on dimensional measures of depression symptoms in both youth and adults also supported the superiority of CBT.

Similarly, Parker et al. (2003) reviewed meta-analyses and primary studies in the area of CBT and depression and concluded that CBT is not as effective as proponents of the therapy suggest. However, they excluded from their review high-quality clinical trials showing cognitive-behavioral therapy to be superior to alternative treatments at follow-up. Since Parker et al. did not report the criteria by which they selected research studies for their review, it is difficult to interpret their conclusions. Given the failure of Parker et al. in this direction, Dobson (1989) conducted the first meta-analysis on the effectiveness of CBT in reducing depression symptoms and found CBT to be superior to untreated controls, wait list, pharmacotherapy, behavior therapy, and a heterogeneous group other therapies .

The result of this study also revealed that that there was no significant effect of age on the effectiveness of cognitive behavourial technique in reducing depression symptoms among adult learners in Benue State as indicated by the outcome of hypothesis 2 (f=2.60;p=.609). This implies that the treatment was efficacious for all age groups in reducing their cognitive depression symptoms. This result supports the theoretical assumption of Wesler (1986) who opined that Cognitive Behavioural Therapy is scientifically established for low self-concept and depression. That the therapy offers both group and individuals, whether young or old (provided

they can engage in logical and constructive analysis of themselves and situations) with experienced and well-trained clinicians or psychologists who can help them out of their depressed state especially in mild to moderate cases. The result also tallies with Wikipedia (2009), while analyzing the characteristics of most Cognitive Behavioural Therapists, pointed out that CBT can change the way we think or feel/act better whether one is an adolescent or an adult even if the situation does not change. That age is not a factor in the effectiveness of CBT. It also confirms the outcome of the study of Weersing and Brent (2010) that CBT appeared to be an efficacious short-term intervention for the treatment of depression in adolescents and older adults. It also lends credence to the result of the original clinical trial conducted by Brent, Holder Kolko, Birmaher, Baugher and Roth (1997) that 60% of teens and adults treated with CBT experienced clinical remission of depression, a significantly higher percentage than in Systemic-Behavioural Family Treatment SBFT (38%) or Non-Supportive Treatment NST (39%). Outcomes on dimensional measures of depression symptoms in both youth and adults also supported the superiority of CBT. In a similar study, Barbe, Bridge, Birmaher, Kolko and Brent (2004) affirmed that CBT was more efficacious in the treatment of such disorders like hopelessness, suicidality and comorbid anxiety than either SBFT or NST.

Results also showed, by the outcome of hypothesis 3 ($t = 0.107$; $p = .288$) that there was no significant effect of gender on the effectiveness of cognitive behavioural technique in reducing depression symptoms among adult learners in Benue State. This result lends credence to the theoretical opinion of Beck (1999) that the goal of cognitive behavioral Technique is to help a person, whether male or female learn to recognize negative patterns of thought, evaluate their validity, and replace them with healthier ways of thinking. Beck argues that CBT is a practical approach oriented to changing the behaviour of the oppressed, irrespective of gender rather than trying to alter the dynamics of personality. The finding equally upholds the

theoretical claim of Oltmanns and Emery (2007) who towed the same lines of Beck that CBT does not offer an elaborate theory about the nature of human personality rather, it is a practical approach oriented to changing the negative behaviour of depressed male and female individuals rather than trying to alter the dynamics of personality. Furthermore, the result echoes the theoretical opinion of Wesler (1986) that CBT is a form of psychotherapy that attempts to counsel the depressed in order to help him or her get out of depression.

Based on the outcome of hypothesis 4 ($t = 0.110$; $p = .914$), the study also found out that there was no significant effect of marital status on the effectiveness of cognitive behavioural technique in reducing depression symptoms among adult learners in Benue State. This result is a reflection of the theoretical opinion of Murdock (2009) who noted that a variety of techniques are associated with CBT, and most have been found effective for both male and female, married and unmarried, young and old. Murdock explained that CBT approaches are congruent with a preventive orientation to adult learners' adjustment and learning. Its emphasis on competence versus remediation of dysfunctional behaviours and self-regulatory mechanisms versus external control extend its impact to all categories of adult learners (including married and unmarried). It also confirms the observation of Beck (1999) that whether married or unmarried, the onset of mild or moderate symptoms of depression can be remedied through CBT.

The fact that there is no significant effect of employment status on the effectiveness of cognitive behavourial technique in reducing depression symptoms among adult learners in Benue State as indicated by the outcome of hypothesis 5 ($t = 0\text{-}109$; $p = .327$), is in consonance with Beck's (2004) findings that negative feelings of joblessness could trigger depression while other causative factors are associated with depression among those who are employed, however when carefully applied and varying the approach according to each category of client whether employed or unemployed, cognitive behavioural therapy could produce similar effects on the

client. Beck maintains that if carefully administered, both the employed and unemployed, lower income earners and higher income earners and so on who are mildly and moderately depressed can be helped through Cognitive Behavioural Therapy.

The outcome of hypothesis 5 also corroborates the result of the investigation of Dunn and Schwebel (1995) of the effectiveness of cognitive behavioural therapy in eliminating depression episode caused by work-related stress and worries of joblessness. They found a post-treatment ES of 0.71 for cognitive-behavioral therapy (CBT) when compared to no treatment. This effect size was not significantly different from that of behavior therapy (BT; ES = 0.78) but was significantly less than that of interpersonally oriented therapy (IOT; ES = 1.37). The differences in effectiveness between CBT, BT, and IOT narrowed at follow-up and were not statistically significant (ES's = 0.54, 0.54, and 1.04, respectively). With respect to behavior change in treated employed and unemployd, there were no significant differences in effect sizes for CBT, BT, and IOT (ES = 0.79, 0.54, and 0.87, respectively). Similarly, no significant differences were found at follow-up (ES = 0.52, 0.75, 0.69), though it is interesting to note that the observed effect size for CBT increased between termination and follow-up.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter is the concluding chapter in this research report. It provides the summary of the study, conclusions drawn from the results of the study, recommendations that could enhance the use of cognitive behavioural technique in reducing depression symptoms among adult learners in Benue State. Suggestions for further researches are also presented in this chapter.

5.2 Summary

This study was a quasi-experimental study which adopted pretest/posttest control group design. The study investigated the effect of cognitive behavioural technique (CBT) in reducing depression symptoms among adult learners in Benue State. In testing the technique, two adult literacy centers were purposefully selected for the experiment and used as treatment and control groups. 18 adult learners participated in each group to guide against experimental mortality but the analysis of data was based on 15 participants per group. Beck Depression Inventory (BDI) was used in the pretest to identify adult learners with depression symptoms and also filter out those with mild and moderate depression symptoms – the category that was required for the study. Cognitive behavioural technique was administered to the treatment group while placebo (lectures in selected adult literacy education topics) was given the control group. After the treatment, the BDI was again re-administered to both groups to determine possible differences in the pre-treatment and post-treatment scores. Independent t-test and ANOVA were the statistical tools used for data analysis.

The following findings were made in the study:

1. Significant differences existed in the pre-test and post-test mean scores of depression symptoms among adult learners in the treatment group (t = 9.24; p = 0.000). This implies that there was a significant reduction of depression symptoms among adult learners in the treatment group after the application of cognitive behavioural technique.

2. There was no significant effect of age on the effectiveness of cognitive behavourial technique in reducing depression symptoms among adult learners in Benue State (f = 2.60; p = .609) implying that the treatment was effective for all age groups in reducing their cognitive depression symptoms.

3. There was no significant effect of gender on the effectiveness of cognitive behavourial technique in reducing depression symptoms among adult learners in Benue State (t =0.107; p = .288) implying that the treatment was effective for both male and female adult learners in reducing their depression symptoms.

4. There was no significant effect of marital status on the effectiveness of cognitive behavourial technique in reducing depression symptoms among adult learners in Benue State (t =0.110; p = .914). This implies that the treatment was effective for both married and unmarried adult learners alike in reducing their cognitive symptoms of depression.

5. There was no significant effect of employment status on the effectiveness of cognitive behavourial technique in reducing depression symptoms among adult learners in Benue State (t = 0.109; p = .327) implying that the treatment was effective for both employed and unemployed adult learners in reducing their cognitive symptoms of depression.

The five null hypotheses generated were tested at 0.05 level of significance. Hypothesis 1 was rejected while hypotheses 2, 3, 4 and 5 were retained.

5.4 Conclusions

Based on the result of the study, it is concluded that the use of cognitive behavioural technique is effective in reducing cognitive symptoms of depression of the adult learners with mild and moderate episodes given the significant drop in the mean scores of the adult learners' symptoms of depression after the treatment. It is also concluded that age, gender, marital status and employment status do not affect the effectiveness of cognitive behavioural technique in reducing cognitive symptoms of depression.

5.5 Recommendations from the Study

The following recommendations are made based on the findings of the study:

1) Since it was found out that CBT is effective in reducing depression symptoms among the adult learners, adequate provisions should be made by promoters of adult literacy education in Benue State for regular application of cognitive behaviuoral technique by experienced educational psychologists and guidance counselors so that they can treat adult learners who may show symptoms of depression especially as the causative factors of depression among the adults are on the increase.
2) The findings of the study proved that age had no significant effect on the effectiveness of cognitive behavioural technique in reducing depression symptoms among adult learners. It is thus recommended that promoters of adult literacy education in Benue State should be mindful of possible occurrence of cognitive depression among the adult learners irrespective of their age, and use cognitive behavioural technique directed at all age groups to treat them of depression symptoms if they manifest.
3) Since gender had no significant effect on the effectiveness of cognitive behavioural technique in reducing depression symptoms among adult learners, it is recommended that CBT programmes should be accessible to both male and female adult learners. The State

Agency for Adult and Non-formal Education centre should employ competent educational psychologists/psychotherapists and provide enabling environment and facilities for regular cognitive behavioural change programme for both young and older adult learners who may be cognitively depressed.

4) Marital status had no significant effect on the effectiveness of cognitive behavioural technique in reducing depression symptoms among adult learners in Benue State. Given this outcome, it is recommended that adult learners, whether single, married, divorced, widow or widower but have symptoms of depression should be exposed to cognitive behavioural techniques to help them reduce their depression symptoms.
5) The outcome of the investigation also proved that employment status had no significant effect on the effectiveness of cognitive behavioural technique in reducing depression symptoms among adult learners in Benue State. It is thus recommended that the promoters of adult literacy education should therefore direct CBT treatment to all adult learners irrespective of whether they are employed or unemployed. If it is the stress of working and schooling at the same time that causes depression among the employed, CBT should be applied to treat it. If on the other hand it is joblessness that is making the unemployed depressed, they should be exposed to cognitive behavioral techniques

5.3 Suggestions for Further Researches

The researcher suggests as follows:

a) Since this study was directed at cognitive symptoms of depression, a similar study should be conducted to test the effectiveness of CBT in reducing emotional, somatic or behavioural symptoms of depression.
b) The study should also be replicated using other therapies like Systemic-Behavioural Family Treatment (SBFT), Psychodynamic Interpersonal Therapy (PIT) or Non-supportive Treatment (NST) to see if the same results will be obtained.

c) This study should be extended to adult learners in rural locations who are confronted with different environmental characteristics to find out if similar results will be produced.

d) A similar study should be carried out among secondary school students who are younger but may be experiencing episodes of adolescent depression.

e) A similar study should be carried out on adult learners with severe depression symptoms to find out if cognitive behavioural technique will be effective in reducing their depression symptoms.

f) It is also suggested that a separate study should be conducted to find out the academic performance of cognitively depressed adult learners before and after the application of cognitive behavioural technique.

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APPENDIX I

Dept. of Educ. Psychology & Counselling,
Ahmadu Bello University,
Zaria.

Dear Participant,

EFFECT OF COGNITIVE BEHAVIOURAL TECHNIQUE IN REDUCING DEPRESSION SYMPTOMS AMONG ADULT LEARNERS IN BENUE STATE, NIGERIA.

I am a post graduate student of Ahmadu Bello University, Zaria. I am conducting a quasi-experiment study on the topic above in partial fulfillment of the requirements for the award of Ph.D in Educational Psychology.

I request you to please kindly complete the attached questionnaire meant for the above purpose. I assure you that your responses will be used for this educational purpose only and will be treated confidentially.

It is hope that you will benefit yourself maximally by participating actively in this study.

Yours faithfully,

OGBU, Joseph Egede.

APPENDIX II

Dept. of Educ. Psychology & Counselling,
Ahmadu Bello University,
Zaria.

Dear Sir,

EFFECT OF COGNITIVE BEHAVIOURAL TECHNIQUE IN REDUCING DEPRESSION SYMPTOMS AMONG ADULT LEARNERS IN BENUE STATE, NIGERIA.

I am a post graduate student of Ahmadu Bello University, Zaria. I am conducting a quasi-experiment study on the topic above in partial fulfillment for the award of Ph.D in Educational Psychology.

I request you to please kindly allow me to use the adult learners in your literacy center for the therapeutic process. The therapy involves a friendly cognitive restructuring process through teaching, motivation, and discussion to help the mildly and moderately depressed learners out of their depressive state.

This study will create awareness about the symptoms of depression in adult learners and their effects on the extent of their participation and retention in literacy programme as well as their efficiency in literacy acquisition. By this, all stake holders in adult literacy education in the state will see the need to ensure that adult learners are carefully handled, supported, and motivated in order to control or reduce those symptoms of depression so as to enhance effective adult learning in Benue state.

Yours faithfully,

OGBU, Joseph Egede.

APPENDIX III

PARTICIPANTS' SOCIO-DEMOGRAPHIC DATA

Sex: Male [ ] Female [ ]
Employment status: Employed [ ] Unemployed [ ]
Marital status: Married [ ] Unmarried [ ]
Age: _____

APPENDIX IV

BECK DEPRESSION INVENTORY

Choose one statement from among the group of four statements in each question that best describes how you have been feeling during the past few days. Circle the number beside your choice.

1.	0. I do not feel sad. 1. I feel sad. 2. I am sad all the time and I can't help it. 3. I am so sad or unhappy that I can't stand it.
2.	0. I am not particularly discouraged about the future. 1. I feel discouraged about the future. 2. I feel I have nothing to look forward to. 3. I feel that the future is hopeless and that things cannot improve.
3.	0. I do not feel like a failure. 1. I feel I have failed more than the average person. 2. As I look back on my life, all I can see is a lot of failure. 3. I feel I am a complete failure as a person.
4.	0. I get as much satisfaction out of things as I used to. 1. I don't enjoy things the way I used to. 2. I don't get any real satisfaction out of anything anymore. 3. I am dissatisfied or bored with everything.
5.	0. I don't feel particularly guilty. 1. I feel guilty a good part of the time. 2. I feel quite guilty most of the time. 3. I feel guilty all of the time.
6.	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.	0. I don't feel disappointed in myself. 1. I am disappointed in myself. 2. I am disgusted with myself. 3. I hate myself.
8.	0. I don't feel I am worse than anybody else. 1. I am responsible for my weaknesses or mistakes. 2. I blame myself all the time for my fault. 3. I blame myself for everything bad that happens.
9.	0. I don't have any thoughts of killing myself. 1. I have thoughts of killings myself, but I would not do it. 2. I would like to kill myself. 3. I would kill myself if I had the chance.
10.	0. I don't cry any more like before. 1. I cry more now than I used to. 2. I cry all the time now. 3. I used to cry easily, but now I can't cry even though I want to.
11.	0. I am no more annoyed by things like before. 1. I feel a little more annoyed by things now than before. 2. I feel annoyed most of the time. 3. I feel annoyed all the time now.
12.	0. I have not lost interest in other people. 1. I am less interested in other people than I used to be. 2. I have lost most of my interest in other people. 3. I have lost all of my interest in other people.
13.	0. I make decisions about things as much as I can. 1. I put off making decisions more than before. 2. I find it difficult making decisions than before. 3. I can't make decisions at all anymore.
14.	0. I don't feel that I look worse than I used to. 1. I am worried that I am looking old. 2. I feel that there are permanent changes in my appearance that make me look unattractive. 3. I believe that I look ugly.
15.	0. I can walk about as well as before. 1. It takes me an extra effort to start doing something. 2. I have to push myself very hard to do anything. 3. I can't do any work at all.
16.	0. I can sleep well as usual. 1. I don't sleep well as I used to. 2. I wake up 1-2 hours earlier than usual and find it difficult to get back to sleep. 3. I wake up several hours earlier than usual and find it difficult to get back to sleep.
17.	0. I don't get more tired than usual.

	1. I get tired more easily than I used to. 2. I get tired from doing almost anything. 3. I am too tired to do anything.
18.	0. My appetite is no worse than usual. 1. My appetite is not as good as it used to be. 2. My appetite is much worse now. 3. I have no appetite at all anymore.
19.	0. I haven't lost much weight in the recent times. 1. I have lost more than five pounds. 2. I have lost more than ten pounds. 3. I have lost more than fifteen pounds. (Score 0 if you have been purposely trying to lose weight).
20.	0. I am no more worried about my health like before. 1. I am worried about my health problems like aches and pains, stomach upset, or constipation. 2. I am very worried about my physical problems, and it's hard to think of much else. 3. I am so worried about my physical problems that I cannot think about anything else.
21.	0. I have not experienced any recent change in my interest in sex. 1. I am less interested in sex than I used to be. 2. I am much less interested in sex now. 3. I have lost interest in sex completely.

SCORING

1-10: These ups and downs are considered normal.

11-16: Mild depression.

17-20: Moderate depression.

21-30: Borderline clinical depression.

31-40: Severe depression.

Over 40: Extreme depression.

Source: Beck, (2004)

APPENDIX V

THE CBT TREATMENT PROCEDURE

Week 1: Introduction/ Preparation Session (Duration: 1 week of 1 contact in each group x 50 minutes each).

Objectives:

i) Introduction of selves by both the experimenter and the adult learners.

ii) Introduction of the treatment programme and explaining the meaning and purpose of CBT.

iii) Establishing a cordial and friendly relationship with the adult learners.

Step 1: The clients are received in a supportive, permissive and warm manner by the experimenter. The experimenter and the participants introduce themselves to one another.

Step 2: The experimenter introduces the treatment programme and explains the meaning and purpose of the therapy to the clients and what they will benefit as they get actively involved, pay raft attention, and apply what they learn.

Step 3: The experimenter explains his responsibilities and the responsibilities of the adult learners throughout the duration of the CBT process.

Step 4: The experimenter entertains questions from the learners in order to establish a cordial, friendly relationship between the experimenter and the participants to reduce tension, timidity, and anxiety so as to increase individual self-confidence as the CBT programme takes its course.

Weeks 2: Cognitive Rehearsal: Sessions 2 & 3 (Duration: 1 week of 2 contacts x 50-60 minutes each).

Objectives:

i) To help the adult learners recall a problem they had in the past which could have triggered their depressive state.

ii) To monitor the illogical, negative thoughts of the adult learners that underlies their depression.

iii) To work out strategies to the problem so that if it occurs again in the future, the adult learners have a plan to tackle it.

Step 1: The experimenter welcomes the participants to the session.

Step 2: He helps them to recall their past illogical, negative or distorted thoughts as a result of the challenges of adulthood, adult learning, family responsibilities, job challenges, marital problems, health challenges, losses, death of a loved one e.t.c.

Step 3: The participants are asked to freely express how they feel about their various past problems and challenges while the experimenter listens empathically and explains to them that how they look at their challenges determine their thought patterns about themselves, their future and the world.

Step 4: The experimenter expresses his heart-felt feelings for the adult learners and explains that there is need for them to think positively about their past, present and the future.

Step 5: The experimenter closes the session by giving them homework to list the problems/challenges that that have been constant source of worry to them as individuals in the past few weeks.

Week 3: Empirical validity testing of the participants' negative, illogical thoughts: Sessions 4 & 5 (Duration: 1 week of 2 contacts x 50-60 minutes each).

Objectives:

i) To test the adult learners' illogical, negative thought patterns.

ii) To give each adult learner chance to defend his/her viewpoint.

iii) To help the adult learners understand that their illogical, negative thought patterns are unfounded and invalid.

Step 1: The experimenter welcomes the participants to another session of the CBT.

Step 2: The participants are asked to mention practical negative events or situations in their lives that really call for extreme worry.

Step 3: The participants are asked to explain why they feel that their situation is peculiar and it can never be remedied or has made them worse than any other person.

Step 4: The participants are helped to understand that adulthood is generally characterized by challenges either physiologically, socially or economically.

Step 5: The participants are helped to have a deeper understanding of how adults' automatic, illogical, negative or distorted thought patterns trigger unjustifiable worry resulting in depression.

Step 6. The experimenter gives practical examples of how automatic illogical thoughts can cause depression.

Step 7: The experimenter closes the session by giving the participants homework to list the daunting challenges they have had in the past and how they were surmounted at last.

Week 4: Writing in a journal: Sessions 6 & 7 (Duration: 1 week of 2 contacts x 50-60 minutes each).

Objectives:

i) To train the adult learners to journal (record) thoughts and situations that occur in their lives daily.

ii) To review the journal in order to figure out any maladaptive thought patterns that can cause the adult learners depression.

Step 1: The experimenter teaches the participants how to record their negative thought patterns in a book as soon as they occur.

Step 2: The experimenter teaches the participants how to record situations they consider negative and unfortunate in their lives as they occur.

Step 3: The experimenter, together with the participants, reviews the journal giving careful consideration to each thought pattern and situation of the participants.

Step 4: The participants are helped to breakdown their negative and distorted thoughts as revealed in their journal and how this could lead to depression.

Step 5: Through teaching and persuasion, the experimenter picks each thought pattern and exposing its invalidity and substituting them with more valid ones.

Step 6: The clients are given the opportunity to ask questions in any aspect of the session that they did not understand.

Step 7: The session closes with homework where the participants are given a case scenario of a problem situation. They are asked to generate several positive and logical thoughts about the situation.

Week 5: Guided Discovery: Sessions 8 & 9 (Duration: 1 week of 2 contacts x 50-60 minutes each).

Objectives:

i) To guide the participants through case scenarios.

ii) To help them to understand any cognitive distortions once they occur.

iii) To gradually help them to generate positive thoughts against negative incidences.

Step 1: Several case scenarios are given of problems and challenges common to adults and how to develop a positive attitude towards them through positive thoughts in retrospect.

Step 2: The experimenter teaches the participants how to recognize cognitive distortions as soon as they occur and quickly replace them with rational positive thoughts (cognitive shifting). He teaches them the following cognitive shifting steps: 1. Take control of your brain. (2) Find guidance. (3) Write the list of everything you are thankful for. (4) Live in the present. (5) Stop using words in your mind such as "won't" and can't". (6) See each day as a new day. (7) Accept change.

Step 3: The experimenter helps the participants to appreciate the fact that they can't change the past, but they have a large amount of control over what they do in the present which will give them a better future. He asks the participants to write down the following words of wisdom and always reflect on them:

1. "You cannot walk backwards into the future".
2. "At the end of every dark tunnel, there is light".
3. "The problem is not falling but getting up each time you fall".

Step 4: Through teaching and persuasion, the participants are helped to appreciate the present and look more hopefully at their future. He motivates them that some challenges prepare one for the future. Moreover, tough times do not last but tough people do. He

asks the participants to write down the following words of wisdom and reflect on what they mean to each of them based on their individual situations:

1) "Yesterday has gone, forget it; today is here, use it; tomorrow has not come, don't worry about it".

2) "When there is life, there is hope; when there is hope, there is everything".

3) "Losers see problems, winners see answers".

Step 5: The experimenter asks the participants if they have any questions regarding the activities for the session. He closes the session with assignment asking the participants to think of three negative maladjusted thoughts, one each on their past, present and the future and explain what positive logical thoughts could be used to replace them.

Weeks 6: Modeling: Sessions 10 & 11 (Duration: 1 week of 2 contacts x 50-60 minutes each).

Objectives:

1) To carryout role playing exercises in form of dramas to teach the participants common problems and challenges of adulthood.
2) To teach participants new ways of responding to certain situations that could cause depression.

Step 1: Different drama performances are organized and displayed by the adult learners themselves to teach lessons on the effects of positive, logical thoughts of events or situations and the effects of negative, distorted thoughts of events or situations.

Step 2: The participants are taught how to quickly dispel their automatic, irrational and negative thoughts and replace them with rational and positive thoughts.

Step 2: Through teaching and persuasion, the experimenter helps the participants to view their past, present and the future in a positive light amidst all odds.

Step 3: The experimenter uses teaching, discussion and persuasion to help the participants to have a calm, relaxed spirit, feel more joyful, full of life and enthusiastic. This session closes with homework asking the participants to do a list of things, no matter how small or big that they are thankful for in their lives The list to include their family, their job/business, social relationship, health, position in society e.t.c.

Step 4: The experimenter informs the participants of arrangements concluded to take them on excursion the following week to General Hospital, Makurdi, Benue State Special Education School and Makurdi Convict Prisons

Week 7: Systematic positive reinforcement: Session 12 (Duration: 1 week of 1 contact x 50-60 minutes)

Objectives:

1) To give further encouragement and commendation to the participants.
2) To provide pleasant reinforcement or reward to the participants.

Step 1: The experimenter welcomes the participants to the session and commends them for their cooperation and participation so far.

Step 2: The participants are encouraged to believe and internalize a stronger spirit of calm and relaxed mind despite their situation, pressures and challenges as adults. They are taught and persuaded to re-organize their thoughts and beliefs using cognitive restructuring techniques.

Step 3: The experimenter persuades the participants to understand and appreciate their condition and challenges as minor compared to what other people are facing in life.

Step 4: The participants are taken on excursion to General Hospital, Makurdi, Benue State Special Education School, and Makurdi Convict Prison to see adults with various challenges. Thus, they are helped to see their own situation comparatively as minor.

Week 8: Termination of the CBT Session 13 (Duration: 1 week of 1 contact x 50-60 minutes)

Objectives:

1) To reapply the Beck Depression Inventory as posttest.
2) Thank the adult learners for participating in the experiment.
3) Appreciate the staff and management of Benue State Agency for Adult and Non-formal Education.

Step 1: The experimenter earnestly welcomes the participants and thanks them for the entire exercise.

Step 2: He re-administers the Beck Depression Inventory (BDI) to the treatment group and the control group to determine if there is any difference in their current level of the depression symptoms after the application of the CBT.

Step 3: Exchange of pleasantries with the staff members and all the participants in the treatment group and the control group.