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# EFFECTIVENESS OF METACOGNITIVE THERAPY IN MANAGING DEPRESSION SYMPTOMS AMONG SECONDARY SCHOOL STUDENTS IN ZARIA METROPOLIS, KADUNA STATE, NIGERIA

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## ABSTRACT

*This study investigated effect of metacognitive therapy on depression symptoms among secondary school students in Zaria metropolis, Kaduna State, Nigeria. The study was guided by two objectives and hypotheses. The study employed pre-test post-test quasi-experimental research design with the population of 79 students who exhibited moderate depression as identified using Depression Symptoms Checklist by Robert, Williams and Williams, (2020). A sample of 20 was drawn randomly for the purpose of this study. The instrument used for data collection in this study was Burns Depression Questionnaire (as adapted). It has a total of 23 items measuring cognitive, physical, emotional symptoms of depression and suicidal ideation. The instrument was measured on five point-Likert scale with a reliability coefficient of 0.808. Data were collected at the pre-test, treatment sessions and post-test respectively. Paired sample t-test was the statistical tool used to analyze the data collected in the study Findings of the study revealed that there is significant effect of metacognitive therapy on cognitive and physical symptoms of depression, p = .000. It is concluded that metacognitive therapy was effective managing cognitive and physical symptoms of depression among secondary school students. It is recommended that Educational Psychologists, Counsellors and teachers should employ metacognitive therapy in managing symptoms of depression for better mental health, school adjustment and academic performance among secondary school students.*

**Keywords:** Metacognition; Therapy; Depression Symptom; Students

## Introduction

Depression is prevalent among all age groups in almost all walks of life. Mental health disorders such as depression according to the World Health Organization (2008) are among the leading causes of disability worldwide. Depression is a common mental health problem, ranking third after cardiac and respiratory diseases as a major cause of disability. Depression is a debilitating and pernicious cluster of symptoms that may persist for a period of weeks, months, or even years. It is an affective disorder that presents with negative mood, loss of interest or pleasure, decreased energy, feelings of guilt or low self-worth, disturbed sleep or appetite, and poor concentration. It is also characterized by changes in mood status presenting as feelings of sadness which may fluctuate

from slight hopelessness to severe feelings of disappointment. It is a disorder that can be reliably diagnosed and treated by psychological techniques. If left untreated in the early age of occurrence, it may lead to different problems such as school failure, conduct disorder, delinquency, eating disorders such as anorexia and bulimia, school phobia, panic attacks, substance abuse, problem of thinking and making decisions, and, in an extreme case if not checked it leads to recurring thoughts of death or suicide (Yalemwork, 2015).

Depressive episodes can be categorized as mild, moderate, or severe depending on the number and severity of symptoms. An individual with a mild depressive episode will have some difficulties in continuing with ordinary work and social activities but will probably not cease to function completely. On the other hand, it is very unlikely that the individual with severe depressive episode will be able to continue with social, work, or domestic activities, except to a very limited extent. As for moderate depression, the individual would normally have many symptoms that are needed to make the diagnosis of depression. Moderate episodes have a severity that is intermediate between mild and severe depressions (World Health Organization, 2008).

Depression has many possible causes, including mood disturbance, genetic vulnerability, chronic stressful life, use of psychoactive substances, and medical problems. It is believed that several of these forces interact to bring depression (Marcus, Yasamy, Ommeren, Chisholm & Saxena, 2012). Areas in the brain that are affected in cases of depression are the prefrontal cortex, cingulated gyrus, amygdala, hippocampus, thalamus, and hypothalamus. Neurotransmitters that are depleted in clients with depression are serotonin that helps regulate sleep, appetite, and mood and inhibits pain. Reduced serotonin secretion is recorded in patients with depression. Norepinephrine triggers anxiety and is involved in some types of depression. It determines motivation and reward. Norepinephrine and serotonin (5-HT) modulate subcortical and cortical functions that their shortage in states of depression and anxiety contributes to abnormalities in sleep, concentration, attention and memory, arousal states, appetite, and libido (Marcus, Yasamy, Mark, Dan & Shekhar, 2012).

Depression is one of the most prevalent problems in the mental health of students at different educational levels, such as high school, college and university (Arslan, 2009 as cited by Faeq 2016). Many studies have proposed that psychological morbidity, particularly depression, is a common disorder among students. Studies of psychological problems encountered by counselling centres revealed that depression was one of the five most common problems among college students. They highlighted that depression accounted for 39% of problems, a higher rate than anxiety and the self-esteem of students across different settings (Erdur-Baker, Aberson, Borrow &Draper, 2006; cited by Faeq 2016).

Depression manifests it's self through a number of symptoms which includes cognitive, physical and emotional, to some extent suicidal urges. Cognitive symptoms includes guilt and shame, difficulty making

decision, criticizing oneself and blaming others, loss of interest in family, friends/peer group, loneliness, loss of motivation, lack of interest in work and other activities. Physical symptoms includes feeling tired, difficulty sleeping or over sleeping, decreased appetite, frequent headache and worrying about one's health. Emotional symptoms includes feeling sad or down in the dumps, crying spells or tearfulness, loss of pleasure or satisfaction in life, feeling hopeless, worthless and inadequate, low self-esteem, spending less time with family and friends. At extreme level, depressed people develop suicidal urges which encompasses the thinking of ending one's life. This situation calls for concerted efforts to be put in place so as to manage depressive symptoms among secondary school students in Zaria metropolis.

Several forms of treatment have been applied to depression. In this study, metacognitive strategy which adopts Wells metacognitive therapy procedures was employed on students with depression symptoms. Many treatments appear to be promising. However, a clear indication of the best alternative methods has not yet been provided by the literature. Primary psychological treatments for depression include metacognitive therapy, emotion regulation, prolonged imaginary exposure to traumatic memories and cognitive restructuring of appraisals and beliefs emerging from trauma experiences. Meta-analyses demonstrate that clients' depression improves with the mentioned treatments. However, a significant percentage of clients fail to respond to the treatment, indicate a partial improvement, or even discontinue the treatment (Sherman, 2016). Ineffectiveness of some behaviour modification techniques in the treatment of depression is possible due to poor skills in the administration of the technique or incompatibility of the technique in managing the depression symptoms. Wells and Sembi (2014) believes that for a treatment to be more widely effective, it should be accessible, brief, less demanding, and less potentially distressing interventions; the metacognitive therapy on depression is such an intervention. The goal of this treatment is to allow clients to develop flexible metacognitive awareness and control, and also to free them from worry/rumination, and threat monitoring.

Metacognitive strategy is a recent development in understanding the causes of mental health problems and in treating them. The approach is based on a specific theory proposed by Wells and Matthews (1994), initially used to treat Generalised Anxiety and subsequently expanded as a general treatment approach. The approach is backed by scientific evidence from a wide range of studies. Metacognition is the aspect of cognition that controls mental processes and thinking. Most people have some direct conscious experience of metacognition. For instance, when unable to remember a name a person may feel sure that the name is stored in memory. This gives rise to a metacognitive state that occurs as a strong feeling called the 'tip-of the tongue-effect. This is an example of metacognition working to inform the person that an item of information is somewhere in memory even though the person is unable to remember it. Metacognition can even go further by retrieving this name and pushing into

consciousness often when least expected. Although we are aware of some metacognitions operating like in this example most of the metacognitions that control our thinking and conscious experience operate in the background.

One of the features of psychological disorders such as depression is that thinking becomes difficult to control and biased in particular ways that lead to a worsening and maintenance of emotional suffering. Many clients report that they feel that they have difficulty controlling their thoughts and behaviours. Another important feature is that the persons' thinking and attention becomes fixed in patterns of brooding and dwelling on the self and threatening information. Metacognitive strategy recognizes this change in thinking patterns and believes it is very important. It gives it a name: the Cognitive-Attentional Syndrome (CAS). This pattern consists of worry, rumination, fixation of attention on threat, and coping behaviours that the person believes are helpful but many of which backfire and keep emotional problems going. The CAS is controlled by metacognitions and it is necessary to remove the CAS by helping clients develop new ways of controlling their attention, new ways of relating to negative thoughts and beliefs, and by modifying metacognitive beliefs that give rise to unhelpful thinking patterns. This approach has been developed into specific ways of understanding and treating psychological problems such as depression.

Depression may be resistant to pharmacological treatment but may respond well to a metacognitive treatment; and this therapeutic effect could remain for a long time. Metacognitive movement insists on beliefs and negative thoughts as outcome of metacognitive control on cognition. It tries to change metacognitive thoughts which are effective on maladaptive style of thoughts or change the cause of increasing general negative thoughts (Wells, 2009).

Dugas (2012) conducted a study on metacognitive therapeutic strategies for major depressive disorder: Development and clinical potential**.** Metacognitive model of psychological dysfunction shows clinical promise for treating multiple Axis I disorders. This study explores the fundamentals of this model and the self-perpetuating cycle of counterproductive coping behaviors underlying it. Specifications of the general model for rumination and depression were treated, and empirical tests of a clinical metacognitive model of major depressive disorder (MDD) were conducted. The metacognitive therapy (MCT) treatment package for MDD was employed. Quasi-experimental research design was employed with a sample of 12 clients diagnosed with depression. Beck Depression Inventory and Beck Anxiety Inventory were the instruments for data collection. Finally, results show that metacognitive therapy appears potent and efficient for reducing depression, and this treatment package is a novel approach to combating Major Depressive Disorder.

It is clear that depression has a substantial negative consequence for students as individuals in society. Few studies have been conducted about the impact of depression on students' personal ability and academic career. It is suggested that

depression can lead to many mental and physical disorders, which are big threats for students who make up an important part of the population in the community. Depression might cause problems for the future occupations of students by delaying access or difficulties in choosing a career. It could be deduced that depression may bring about various mental problems which may lead to psychological, social and physical problems for students during and after their academic life. It is believed the major problems in students' depression include poor self-assessment, lack of pleasure and interest in everyday life, problems in eating and sleeping, and suicidal thoughts. Additionally, this disorder has many negative effects associated with personal, cognitive, and emotional problems, notably, decision making and problems of time management poor academic achievement and low level of exam performance, decreased attention and drug abuse; over consumption of alcohol and increased, levels of smoking in adults and university students and negative effects, on everyday work and achievements (Chen et al., 2013)

A number of studies have indicated a high prevalence of depression among students compared to the rest of the population. More importantly, incidence of suicidal ideation and practices among students at different levels indicates that the psychological and mental problems of students continue to increase.

The researchers observe through interaction with students as a teacher that students with symptoms of depression achieve lower grades and are less active in the classroom relative to students who do not have these symptoms. This suggests that depression is a serious problem that requires psychological support for students who manifest the symptoms so as to adjust and acquire knowledge, skills and values that would make them socially acceptable, personally adjusted and emotionally responsible individuals in the society. By so doing, the goals of secondary education would be accomplished thereby having healthy, adjusted and resounding brains ready to pursue university education.

**Objectives of the Study**

The objectives of this study were to determine the:

1. effect of metacognitive strategy on cognitive symptoms of depression among secondary school students in Zaria metropolis.
2. effect of metacognitive strategy on physical symptoms of depression among secondary school students in Zaria metropolis.

**Hypotheses**

The following hypotheses were formulated and tested at 0.05 level of significance:

1. There is no significant effect of metacognitive strategy on cognitive symptoms of depression among secondary school students in Zaria metropolis.
2. There is no significant effect of metacognitive strategy on physical symptoms of depression among secondary school students in Zaria metropolis.

## Research Method

This research employed pre-test post-test quasi-experimental design in investigating effect of metacognitive therapy on depression symptoms among secondary school students in Zaria metropolis. Pre-test post-test quasi-experimental design is one of the most frequently used quasi experimental research designs in which group of research participants or subjects is pretested, given some treatment or independent variable manipulation, then post tested. If the pre-test and post test scores differ significantly, then the difference may be attributed to the independent variable (Colman, 2015). Population of the study comprised of 79 SS 2 students who were identified with moderate cognitive and physical symptoms of depression using Depression Symptoms Checklist by Robert, Williams and Williams, (2020). A sample of 20 students who were identified with moderate level of depression symptoms was randomly selected from the population. The instrument used for data collection was Burns Depression questionnaire. It has a total of 28 items measuring cognitive, physical, emotional symptoms of depression and suicidal ideation. The instrument was measured on five point-Likert scale ranging from not at all (0), somewhat (1), moderately (2), a lot (3), to extreme (4) which rates the level of depression symptoms among secondary school students In Zaria metropolis. The instrument was validated by professionals in the Department of Educational Psychology and Counselling, Ahmadu Bello University, Zaria. It has the reliability of .808. Componential analysis of the instrument revealed that cognitive symptoms has the reliability of .953, physical symptoms has .853.

**Treatment Sessions**
**Metacognitive Strategy**

**Table 1: Key Elements of Metacognitive Strategy**

**1. Week one: Introduction and Planning Stage:** Introduction and establishing rapport and cordial relationship with the participants.
**2. Week two: Monitoring of Worry Postponement:** Reinforce awareness of the problematic nature of perseveration and to facilitate alternative response to symptoms.
**3. Week three: Self-regulation of Detached Mindfulness:** Training detached mindfulness.
**4. Week Four: Evaluation and Monitoring Progress:** Monitoring progress with detached mindfulness homework and worry-postponement and facilitates continued practice and generalization of the techniques
**5. Week Five: Attentional Modification:** Changing attention pattern of the clients.
**6. Week Six: Termination:** Application of the experiences acquired during the sessions and applying them during the client's normal daily routine.

After the treatment sessions, post-test was conducted to compare the pre-test and post-test scores to measure the effect of metacognitive therapy on depression. The data collected were subjected to statistical analyses using paired sample t-test.

## Presentation of Results

**Hypothesis 1:** There is no significant effect of metacognitive strategy on cognitive symptoms of depression among secondary school students in Zaria metropolis.

**Table 2: Paired Sample t-test on Effect of Metacognitive Strategy Intervention on Cognitive Symptoms of Depression**

| Variables | N | Mean | SD | t | df | P |
|---|---|---|---|---|---|---|
| Pretest | 20 | 13.43 | 6.44 | 6.08 | 19 | .000 |
| Posttest | 20 | 4.26 | 3.48 | | | |

Table 2 shows significant effect of metacognitive strategy on cognitive symptoms of depression among secondary school students in Zaria metropolis as vindicated by the mean of 13.43 for pre-test and the mean of 4.26 for post-test; t= 6.08 and p= 0.000 which is lower than 0.05 level of significance. Thus, the null hypothesis which states that there is no significant effect of metacognitive strategy on cognitive symptoms of depression among secondary school students in Zaria metropolis is hereby rejected.

**Hypothesis 2:** There is no significant effect of metacognitive strategy on physical symptoms of depression among secondary school students in Zaria.

**Table 3: Paired Sample t-test on Effect of Metacognitive Strategy Intervention on Physical Symptoms of Depression**

| Variables | N | Mean | SD | t | df | P |
|---|---|---|---|---|---|---|
| Pretest | 20 | 11.69 | 4.78 | 6.21 | 19 | .000 |
| Posttest | 20 | 4.65 | 3.06 | | | |

Table 3 shows significant effect of metacognitive strategy on physical symptoms of depression among secondary school students in Zaria metropolis as shown by the mean of 11.69 for pre-test and the mean of 4.65 for post-test; t= 6.21 and p= 0.000 which is lower than 0.05 level of significance. Thus, the null hypothesis which states that there is no significant effect of metacognitive strategy on physical symptoms of depression among secondary school students in Zaria metropolis is hereby rejected.

**Discussion of Findings**

This study examined the effect of metacognitive therapy on depression symptoms among secondary school students in Zaria metropolis. The result of this study revealed significant effect of metacognitive strategy on cognitive and physical symptoms of depression among secondary school students in Zaria metropolis. These findings are in congruence with Dugas (2012) who conducted a study on metacognitive therapeutic strategies for major depressive disorder: Development and clinical potential**.** Metacognitive model of psychological dysfunction shows clinical promise for treating multiple axis I disorders including cognitive symptoms. The study explores the fundamentals of this model and the self-perpetuating cycle of counterproductive coping behaviours underlying it. The results show that metacognitive therapy/strategy appears potent and efficient for reducing depression, and this treatment package is a novel approach to combating Major Depressive Disorder. The finding also corroborates with many studies in the

literature which prove the efficacy of metacognitive therapeutic processes of challenging and modifying negative thinking patterns which leads to cognitive and physical depression.

**Conclusion**

Based on the findings of the study, it was concluded that metacognitive therapy was significantly effective in reducing cognitive and physical symptoms of depression among secondary school students in Zaria metropolis.

**Recommendations**

Based on the findings and conclusions of the study, it is recommended that educational psychologists, counsellors and social workers should use metacognitive therapy in handling cognitive attentional syndrome leading to cognitive and physical symptoms of depression and suicidal ideation among secondary school students.

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