International Journal of Innovative Education Research 5(4):16-23 Oct.-Dec., 2017

© SEAHI PUBLICATIONS, 2017 www.seahipaj.org ISSN: 2354-2942

Differential Effect of Cognitive Behaviour Therapy and Interpersonal Psychotherapy in the Management of Depression among Students in Tertiary Institutions in Delta State, Nigeria

***Ukamaka Obumneke Alor & Chikwe Agbakwuru, Ph.D**

Department of Educational Psychology, Guidance and Counselling,
University of Port Harcourt, Nigeria
***ukamakaalor@gmail.com**

ABSTRACT
This study investigated differential effect of cognitive behaviour therapy and interpersonal psychotherapy in the management of depression among students in tertiary institutions in Delta state, Nigeria. With this purpose in mind, one research question was posed and one corresponding hypothesis tested at 0.05 level of significance. . The population consists of 19,102 year one students in Delta State tertiary institutions. Six hundred year one students were sampled from three tertiary institutions for the study through the use of non-proportional stratified random sampling technique. The instruments for data collection were two in number: the first was a research adapted instrument called Incidence of Depression Disorder Inventory (IDDI) and second was an adapted instrument called Forms of Depression Disorder Inventory (FDDI). Face and content validity of IDDI and FDDI were established by two test experts and the researcher's supervisors. The reliability of IDDI was established using a test re-test method which produced a coefficient of 0.80, while Cronbach alpha method was used to determine the reliability for Forms of Depression Disorder Inventory which produced the following coefficients: MDD = 0.63, PDD = 0.79 ADDM = 0.83 and BD = 0.75. Two treatment groups and one control group were used; treatment groups were given CBT and IPT and the control group received placebo. Data was analyzed using mean and effect size for the research question. For the null hypotheses, pairwise comparison test significance of mean difference generated from the ANCOVA summary was used at 0.05 level of significance. Analysis of pre-test and post- test scores indicated that both CBT and IPT were effective in reducing depression but CBT was more effective in this study with effect size =0.224. Based on the findings, it was recommended that students with depression should be counselled using CBT or IPT for treatment.
Keywords: Depression, Interpersonal Psychotherapy, Cognitive Behaviour, Stress.

INTRODUCTION

Depression is as old as man and has been a serious health challenges for human beings. The word depression was first called 'melancholia' around millennium in the old Mesopotamian manuscript. During this period, all mental disorders were believed to be caused by evil spirits and persons involved were taken to priests to cast out the evil spirit. But Cornelius (25BC-50AD) suggested chaining of legs and beating as a treatment. This clearly means that people who existed then understood depression in the light of spiritual illness than physical or mental

In contrast, a Greek physician called Hippocrates indicated that there is a relationship between mental illnesses (depression, mania, brain fever) and a large amount of bile in the spleen. Cicero contradicted Hippocrate's view and stated that melancholia was caused by phobias, aggression and loss of some one (Nemade, Reiss & Dombeck, 2007). Rhazes (865-925) postulated that the mental illness and melancholia takes place in the brain and recommended bath therapy for treatment. In 1621, Robert Burton wrote a

book on the scientific study of melancholy, he stated that depression is caused by lack of psychological and social needs. Therefore he recommended good food, physical activities, distraction, music therapy, travel, herbal remedies and marriage as management/intervention strategy. In the 18th and early 19th centuries, people saw depression as an inherited problem caused by a weak temperament. Also new management strategies like water immersion, spinning stool which induces dizziness, electric shock, horseback riding and enemas were used (Nemade, Reiss & Dombeck 2017).

However in 1895, depression was first differentiated from schizophrenia by Emil Kraeplin. In 1917, Sigmund Freud in his write up described melancholia as a reaction to loss of spouse or inability to achieve an important goal. Freud believed that someone's anger over loss weakens the ego and results to self- destructive attitude. He stated that psychoanalysis helps to resolve unconscious conflicts and eliminate self- destructive thoughts. In the 1950s and 60s the medical people divided the causes of depression into two namely; Endogenous and Neurotic. Endogenous depression was caused by genetics while neurotic depression originated from a change in the environment like death of a loved one or loss of a job. People with neurotic depression usually feel deserted and make attempts to commit suicide (Nemade, Reiss & Dombeck, 2007). In 1952, doctors began a crucial search for root causes and treatment of depression. They observed that a drug (Isoniazid) used for treatment of tuberculosis was also good in treating depression. The psychiatrists, who depended on psychotherapy, started stressing on the use of drugs as primary treatments for mental illness. In the same year, psychological differences like Behaviourism, Client centred therapy, Family system therapy and Cognitive behavioural therapy evolved. These therapies merged with psychodynamic psychotherapy as current treatment alternative (Nemade, Reiss & Dombeck, 2007).

Bartolomucci and Leopardi (2009) described depression as an awful life threatening and wide spread mental disorder having an incidence of about 340 million cases. Major depression has been classified as one of the key causes of disease burden and took fifth position in the hierarchy of causes of death and by year 2030 it is envisaged to constitute one of the three leading diseases that will place financial burdens on people worldwide (WHO, 2012). American Psychiatric Association (2013) stated that depression or depression disorder is a familiar but grave illness that requires treatment and attention. From their point of view, depression disorder can lead to so many physical and emotional challenges though it can be treated. One striking thing about their definition is that they see both depression and depression disorder as one. In essence, depression disorder and depression have been interchangeably used by National Institute of Mental Health (2015)

In an extensive survey organized by the American College Health Association in 2008, 94% of the students were devastated by the stress they encountered in school (American College Health Association, 2009). University students are challenged daily with distinctive stressors inherent to the academic system and these stressors include examination phobia, worrying about failing examination, trying to cope with deadlines, isolation or rejection, financial difficulties, lack of self-confidence, and poor coping skills. Adapting to college life and being present in the university for the first time can make students encounter high stress level. This kind of stress that students face when attending university for the first time will require the use of previously developed coping mechanisms, as well as the development of new strategies to effectively adjust to university life. Because of the challenges faced when adapting to these life changes, as well as difficulty adjusting to the changes, university students are at risk of developing depression. The incidence of depressive symptoms can lead to negative life events in the lives of university students, the most significant of which is suicide.

Tertiary institution is a very important surrounding to study youth mental health (Weitzman, 2004). Tertiary institution students are repeatedly made to face different kinds of stressors such as moving away from the home for the first time, residing with other students, experiencing reduced adult supervision, the pressure of academics with an obligation to succeed, an uncertain future and difficulties of integrating in to the wider society. Students also face social, emotional, physical, family and financial problems that may affect their learning ability and academic performance and these problems may increase the risk of depression and affects general health status (Read, Wood, Davidoff, Mclackin & Campbell 2002). Para

(2008) is of the view that undergraduate students are within the population tally whose age range indicates elevated psychological distress and disorder. Failure to manage or adapt to academic life demands could be frustrating and there by activate depressive symptoms in students. Being a student has even been identified as one of the determinants that make a person vulnerable to depression (National Institute of Mental Health NIMH, 2009). While long –term studies suggested that students tend to have an increase in depression as they progress in higher education.

In spite of the fact that the real source of depression is unspecified, Scholten (2013) stated that depression runs in the family thereby making children vulnerable. He also recognized that people with a particular type of chemical in their brain are at risk of developing depression; and stressful or distressing life happenings as elements that could trigger the occurrence of depression. Normally, the most likely cause of depression has been linked to a fusion of biological, environmental, genetic and psychological factors. Looking at the genetic causes of depression, magnetic resonance imaging has proved that depressed people brains look differently from those who are not depressed just as it has been found that particular types of depression run in some families. Mentally too, stressful happenings, relationship deficit, and distressing life events could activate depression (NIMH, 2009).

Since depression is activated by irrational thinking, interpersonal discord, role change or alteration, agony due to loss of someone and interpersonal deficiency, cognitive behaviour therapy (CBT) and interpersonal therapy (IPT) were used for managing depression in this study. The two therapies were chosen because CBT has been tested and proved to be an effective psychotherapy in the western world for changing wrong or irrational/ self-defeating thinking which leads to depression. On the other hand, IPT's underlying belief is that depression is often a response to difficulties we have interacting with others. The thought process behind the therapy is that once a person is able to interact more effectively with those around them, the depressive symptoms will reduce. The researcher anchored this study on CBT and IPT because some of the literature reviewed supported their use for effective management of depression. However, there no evidence of published work available in Delta state on forms of depression and the effectiveness of CBT and IPT in depression management especially at tertiary institution level.

CBT is traceable to Aaron Beck's cognitive viewpoint in treating depressed adults and teenagers (Weersing & Brent, 2006). Beck's theory advocated that people experience depression when they develop negative schema (mental representative of self, world and future). Encountering distressing or complex life events early in life can lead to development of negative representative of self, world or future which is let out when faced with similar situations later in life. As a result, negative thought about the circumstance comes up involuntarily and the individual may encounter depression and may involve him /herself in self- destructive in behaviours (Weersing & Brent, 2006). CBT is designed to lessen involuntary negative thoughts and pessimistic life style (Kaufman, Rohade, Seeley, Clarke & Stice, 2005).

Usually, CBT is based on integrating the methods of cognitive therapy and behaviour therapy. For instance Kolko, Brent, Baugher, Bridge and Birmaner (2000) highlighted finding solution to problems, emotional readjustment, collective observation- observing and alteration of reflex negative thoughts which includes their presumptions and views. The researchers mentioned other significant parts of CBT which include: recording of mood, creating activities that gives enjoyment, training on how to relax, people skills training, cognitive rearrangement and educating the individual suffering from depression on the signs of the disorder (Kaufman, et al., 2005; Kerfoot, Harrington, Rogers and Verduyn 2004; TADS, 2004). The CBT treatment for depression lasts seven to twelve therapy sessions which are divided into four parts. Psychotherapists and counsellors using CBT for depression usually meet clients once a week for one hour (Weersing &Brent, 2006).

Interpersonal Psychotherapy (IPT) on the other hand is time bound psychotherapy set up on the proposition that there is a two-way connection between depression and interpersonal deficiency (Stuart & Robertson, 2013: Weissman, Markowitz & Klerman, 2007). IPT originated from the work of Gerald Klerman, Myma Weissman and Eugene Paykel in the 1970s when they carried out a comparative study on the effectiveness of a tricycle antidepressant alone and also merging with psychotherapy as a

sustenance therapy for depression. The principal concern of IPT is to reduce or remove signs of depression, enhance interpersonal performance and enlarge the ability to relate with people effectively and efficiently (Weismann, Markowitz & Klerman, 2007). In essence, IPT focuses on the client's interpersonal distress and problems of depression and there is a strong confirmation of its effectiveness on depression management. Mufson (2010) advocated that IPT looks at interpersonal difficulty domains like interpersonal fall-out, role shift or change, interpersonal deficiency and distress due to loss of someone. IPT therapy period is conducted between 12 -16 weeks with three parts namely beginning stage, midway stage and ending stage. Stuart &Robertson (2013) believed that IPT psychotherapist should be skillful in using counselling and psychotherapy skills. The researchers included some procedures that must be used by counsellor for a successful treatment of depression. These are nondirective and directive counselling, explanation, investigation or enquiry, stimulation of affect, training on communication skill, playact, training on how to solve problems, and therapeutic affinity.

The aim of the study is to find out the differential effect of CPT and IPT in the management of depression among students in tertiary institutions in Delta state, Nigeria. This study was guided by one research question and one corresponding hypothesis thus:

1 Which of these management strategies (CBT) and (IPT) is more effective in reducing depression among students in tertiary institutions in Delta state, Nigeria.

HO1: There is no significant difference between CBT and IPT in reducing depression among students in tertiary institutions in Delta state, Nigeria. The hypothesis was tested at 0.05 level of significance.

METHODOLOGY

This study was carried out in tertiary institutions in Delta State, Nigeria. Descriptive Survey research design and Quasi-experimental research design were employed in this study. The study adopted a descriptive survey design because the design enabled the researcher to find the incidence and various forms of depression among year one students while quasi- experimental design was used to know the effect of CBT and IPT in depression management by comparing the results of pretest and posttest of experimental and control group without randomization. A population of nineteen thousand one hundred and two (19,102) year one students in the tertiary institutions in Delta state, Nigeria. There are a total number of twenty (20) tertiary institutions in Delta State, Nigeria made up of 6 universities, 6 polytechnics, 4 colleges of Education and 4 school of nursing. A sample size of 600 students was used which is higher than the minimum sample size of 392 statistically estimated using Taro Yemen's formula for sample size. Simple random sampling and non-proportional stratified random sampling was used to compose the sample. Delta state is divided into three senatorial districts namely Delta North, Delta South and Delta Central. Firstly, Simple random sampling through balloting (without replacement) method was used to draw three tertiary institutions (one from each senatorial district) from the three senatorial districts in Delta state ,Nigeria. Secondly, non-proportional stratified random sampling technique was used to compose a sample of 600 students though 460 copies of questionnaire were properly filled and finally used for the analysis. .

The instruments for data collection were two in number. The first one is an index for knowing the incidence of depression and it is called Incidence of Depression Disorder Inventory (IDDI). While the second instrument is for diagnosing a student with any form of depression and it is known as Forms of Depression Disorder Inventory (FDDI). These were culled from Diagnostic and Statistical Manual of Mental Disorder (5) and adapted to suit the targeted group. Both were scored using Likert –type scale of 1-4 points. The IDDI is made up of two parts, A and B. Part A elicits personal information of the respondents such as age and gender. Section B consists of 40 items on dimensions of incidence of depression. The FDDI has four different sections comprising four forms of depression. The face and content validities of the questionnaires were ascertained by three lecturers. The reliability of the instrument (IDDI) was determined using Pearson Product Moment Correlation and high reliability coefficient score of 0.80 obtained certified the use of the instrument for the study and ensured its reliability. In the same vein, Cronbach alpha method was used to determine the reliability for forms of

depression, which produced the following coefficients: MDD = 0.63, PDD = 0.79 ADDM = 0.83 and BD = 0.75.

Copies of the instruments were administered directly to the respondents by the researcher and two research assistants. During the administration, instructions guiding the filling of the instrument were explained to the respondents where necessary. The researcher supervised the filling after which the completed copies of the instrument were collected from the respondent on the spot. After the scoring of the instrument (pretest), students whose mean fell between 2.5 and above 3.0 were identified as people who need treatment. They were placed into three groups for treatment and the groups were experimental groups A and B; and control group. The treatment procedure used in this study was CBT and IPT training. The students in the experimental group A received CBT training as a management strategy of depression. For the experimental group B, they were exposed to IPT while those in control group received placebo. Treatment lasted for twelve weeks and a posttest was given to all the groups. The data generated were analyzed using mean, effect size and ANCOVA in Statistical Package for Social Sciences (SPSS).

RESULTS

The result of the analyzed data for the research question and its corresponding presented on the following tables:

Research Question: *Which of these management strategies (CBT) and (IPT) is more effective in reducing depression among students in tertiary institutions in Delta state, Nigeria?*

Hypothesis: There is no significant difference between CBT and IPT in reducing depression among students in tertiary institutions in Delta state, Nigeria.

Table 1, 2 and 3: ANCOVA Summary for effect of CBT and IPT as a Management strategy for reducing depression among students

1) Descriptive

Dependent Variable: POSTTEST

GROUPS	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
IPT	2.016[a]	.028	1.960	2.072
CBT	1.805[a]	.031	1.743	1.866
CONTROL	2.462[a]	.030	2.402	2.522

a. Covariates appearing in the model are evaluated at this value: PRETEST = 2.3976.

2) Tests of Between-Subjects Effects

Dependent Variable: POSTTEST

Source of variation	**Type III Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**	**Partial Eta Squared**
Corrected Model	3.642[a]	3	1.214	77.157	.000	.805
Intercept	.161	1	.161	10.206	.002	.154
PRETEST	1.307	1	1.307	83.058	.000	.597
GROUPS	**3.529**	**2**	**1.764**	**112.140**	**.000**	**.800**
Error	**.881**	**56**	**.016**			
Total	267.655	60				
Corrected Total	4.523	59				

a. R Squared = .805 (Adjusted R Squared = .795)

3) Pairwise Comparisons

(I) GROUPS	(J) GROUPS	Mean Difference (I-J)	Std. Error	Sig.[b]	**Effect Size (d)**	95% Confidence Interval for Difference[b]	
						Lower Bound	Upper Bound
IPT - CONTROL	CBT	.211*	.042	.000	0.2248	.126	.297
	IPT	.446*	.040	.000	0.4752	.365	.527
CONTROL -	CBT	.657*	.046	.000	0.7000	.566	.749

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

The result from Table 1&3 shows the mean and effect size (magnitude or extent) that exists between CBT and IPT that reveals which is a more effective management strategy in reducing depression among students. The depression mean score of students in the CBT treatment group (X= 1.805) is lower than their counterparts in IPT treatment group (X= 2.016); and there is a small effect size (d=0.22) of CBT over IPT as a management strategy for reducing depression among students. This implies that CBT is a more effective management strategy than IPT (with a small effect size) in reducing depression among students in tertiary institutions.

To test the hypothesis, pairwise comparison or post-hoc test for significance of mean difference generated from the ANCOVA summary was used. From table 3, there is a significant mean difference between CBT and IPT at P<0.05, Effect size = 0.224. Thus, the null hypothesis is rejected, which means there is a significant difference between CBT and IPT in reducing depression among students in tertiary institutions. This implies that CBT is a more effective management strategy than IPT (with a small effect size) in reducing depression among students in tertiary institutions in Delta state, Nigeria.

DISCUSSION OF FINDINGS

The result of the study shows that there is a significant difference between CBT and IPT in reducing depression among students in tertiary institutions. The depression mean score of students in the CBT treatment group (X= 1.805) is lower than their counterparts in IPT treatment group (X= 2.016); and there is a small effect size (d=0.22) of CBT over IPT as a management strategy for reducing depression among students. This implies that CBT is a more effective management strategy than IPT (with a small effect size) in reducing depression among students in tertiary institutions in Delta state Nigeria.

To test the hypothesis, pairwise comparison or post-hoc test for significance of mean difference generated from the ANCOVA summary was used. From table 3, there is a significant mean difference between CBT and IPT at P<0.05, Effect size = 0.224. Thus, the null hypothesis is rejected, which means there is a significant difference between CBT and IPT in reducing depression among students in tertiary institutions Delta state Nigeria. On the efficacy of both IPT and CBT for the treatment of depression for children and adolescents by David-Ferdon and Kaslow (2008) advocated that both CBT and IPT have well established efficacy in treating depression. However, the work of Feijo de Mello, de Jesus Mari, Bacaltchuk, Verdei & Neugebauer (2005) disagreed with the findings of the present study. Their studies of randomized clinical trials of IPT efficacy were located by searching all available data bases from 1974 to 2002 and ran a comparison of IPT to CBT. Their findings strengthened the evidence for the efficacy of IPT in treating

depressive disorders. Also, Ryan (2005) showed a comparison of IPT to CBT, from which evidence can be made regarding the higher efficacy of IPT. Reviewed authors argued that the increased efficacy of IPT over CBT is related to its format, which emphasized linking the patient's own awareness of symptoms to awareness of an interpersonal problem (Ryan, 2005). The reason for the different result stems from the fact that IPT and CBT are applied as treatment for different forms of depression where their effect is highly felt. Thus, in comparing which of the two treatment strategies is more effective, the result gotten will only be a reflection of the predominating form of depression contained in the study.

CONCLUSION AND COUNSELLING IMPLICATIONS OF THE STUDY

Based on the findings of this study, it was concluded that there is a significant difference between CBT and IPT in reducing depression among students in tertiary institutions in Delta state, Nigeria. This implies that CBT is very helpful in cognitive restructuring. That is changing unhealthy thinking pattern or lifestyle to a more positive thinking pattern and this could be achieved through counselling. IPT is equally good because it taught students how to communicate better, relate well and resolve conflicts. So there is need for counsellors to employ these therapies to re-educate people who are depressed. Creating awareness of causes and warning signs of depression through counselling will make the depressed individual to have self-understanding as the doubts cast on his person by his/her inability to function well mentally, socially and academically might have led him or her in self-criticism. This self-criticism will now be expunged when he/she finds out that depression is a mental disorder which could still be managed with therapies.

REFERENCES

American College Health Association (2009). American College Health Association- National College Health Assessment Reference Group Data Report (abridged): the American College Health Association. *Journal of American College Health.* 57(5) 477-488

American Psychiatric Association (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Washington, DC: Author.

Bartolomucci A, Leopardi R (2009) Stress and Depression: Preclinical Research and Clinical Implications. PLoS ONE4(1): e4265. https://doi.org/10.1371/journal.pone.0004265.

David-Ferdon ,C. & Kaslow,N.,J. (2008). Evidence- Based Psychosocial Treatments for Child and Adolescent Depression. Journal of Clinical Child and Adolescent Psychology,37 (1) 62-104.

De Mello, M.F., Mari, J.J., Bacaltchuk, J., Verdeli, H., & Neugebauer, R. (2005). A systematic review of research findings on the efficacy of interpersonal therapy for depressive disorders. *Eur Arch Psychiatry Clin Neurosci, 255,* 75-82.

Kaufman NK, Rohde P, Seeley JR, Clarke GN, Stice E. (2005). Potential mediators of cognitive-behavioral therapy for adolescents with comorbid major depression and conduct disorder. J Consult Clinical Psychology.

Kerfoot M, Harrington R, Harrington V, Rogers J, Verduyn C.(2004) A step too far? depressed adolescents. European Child and Adolescent Psychiatry. 13:92–99.

Klerman, G.L., & Weissman, M.M. (1993). New Applications of Interpersonal Psychotherapy. Washington, DC, American Psychiatric Press.

Kolko, D.,J, Brent, D.,A, Baugher M, Bridge J,& Birmaher B. (2000) Cognitive and family therapies for adolescent depression: treatment specificity, mediation, and moderation. Journal Consult Clinical Psychology ,68(4):603-614.

Mufson L. Interpersonal psychotherapy for depressed adolescents (2010). Extending the reach from academic to community settings. Child and Adolescent Mental Health.15(2) 66–72.

National Institute of Mental Health NIMH, (2009). Some Facts About Suicide and Depression. Retrieved 10th March,2015 from http://www.suicidology.org .

Nemade R., Reiss N. S., Dombeck M. (2007). Current understanding of major depression-Biopsychosocial Model. Retrieved on 15th June, 2015 from http:www.mhcinc.org/poc/view doc.php?type=doc&;id=12997&cn=5Goggle Scholar.

Para, E. A. (2008). "CBT for the Treatment of Depression in Young Adults: A Review and Analysis of the Empirical Literature", Graduate Journal of Counseling Psychology:1(1) 14.

Read, J.S., Wood, M.D., Davidoff, O., J., Mclacken, . & Campbell, J.F., (2002).Making the transition from high school to college: The role of alcohol-related social influence factors in student drinking, Journal of substance Abuse, 23 (1) 53-65.

Ryan, N. D. (2005). Treatment of depression in children and adolescents. *Lancet*, *366*, 933–940.

Scholten, A. (2013). Depression (Major Depressive Affective Disorder; Unipolar Disorder; Unipolar Mood Disorder). Retrieved 19th February, 2015 from http://www.mcksc.com/apps/HealthGate/Article.aspx?chunkiid=11908

Stuart S., & Robertson M. (2013). Interpersonal psychotherapy: A clinician's guide. London: Edward Arnold.

Weitzman, E., R. (2004). Poor Mental Health, Depression, and Associations With Alcohol Consumption, Harm, and Abuse in a National Sample of Young Adults in College. Journal of Nervous & Mental Disease: 192 (4) 269-277.

Weersing, V.,R,& Brent, D.,A. (2006). Cognitive behavioral therapy for depression in youth. Child and Adolescent Psychiatric Clinics of North America. 15:939–957

Weissman, M. M, Markowitz, J. C., & Klerman, G. L. (2007).Clinician's quick guide to interpersonal psychotherapy. New York: Oxford University Press.

World Health Organization (2012). World suicide prevention day. http://www.

World Health Organization *Depression*. Retrieved September 30, 2015,