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# Internet-based technique and social support in the management of depression among secondary school teachers in Oyo State, Nigeria

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#### **Abstract**

Depression represents one of the major health concerns in the recent time and affects deeply individuals, families and has tremendous effects for the society. This study therefore examined the internet-based technique and social support in the management of depression among secondary school teachers in Oyo State, Nigeria. Pretest-posttest, control group quasi-experimental design with a 2 x 2 factorial matrix was used in the study. Simple random sampling technique was used in sampling 77 participants from 4 local government area in Oyo State, Nigeria. The respondents were measured with validated instrument of .95 and the data obtained was analyzed using t-test statistical analysis. Two research hypotheses were formulated and tested at 0.05 level of significance. The result showed that there was significant difference in the depression of secondary school teachers exposed to internet-based technique and those in the control group (t = 76.91; p < 0.05) and there was significant difference in the depression of secondary school teachers with high social support and those with low social support (t = 37.82; p < 0.05). In view of these findings, the study recommended that educational stakeholders should intensify their effort to organize conferences on the implications of internet-based technique and social support as effective interventions towards managing the depression and that curriculum planner should try as much as possible to include in the scheme of teacher training, skills on internet-based technique.

Keywords: depression management, internet-based technique, social support, teacher

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### INTRODUCTION

An educational system that is sound is usually considered to be the bedrock of a developing country. Quality teachers are indispensable for the attainment of such educational system. This high depression of teachers has made teaching profession to be extremely challenging and demanding. The situation has forced teachers into a hectic and busy schedule which has made them to experience high level of depression, unhappiness and job dissatisfaction in recent time (Al-Musawi, 2001; Beck & Steer, 1993). One of the job-related topics that received greater attention of educational psychologists in Nigeria in the past years is depression of secondary school teachers. Many studies carried out within the last decades revealed a high rate of depression among teachers (Muraina, 2015).

Depression represents one of the major health concerns in the recent time. It affects deeply individuals, families and has tremendous effects for the society (Addis & Mahalik, 2013). According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-V), the core symptoms of depression include depressed mood and loss of interest, with a minimum duration of two weeks (American

Psychiatric Association, 2013). In addition, at least five other symptoms must be present in order to fulfill the diagnostic criteria for a depressive disorder, such as increase or decrease of appetite; insomnia or hypersomnia; psychomotor agitation or retardation; fatigue or loss of energy; feeling of worthlessness or guilt; diminished ability to concentrate or indecisiveness; or recurrent thoughts of death. In addition, the symptoms cause significant distress or impairment for the individual, and cannot not be accounted for by substance use, medical conditions or bereavement (Arnault et al., 2016; Beck, 1996).

The prevalence of depression and its recurrent nature highlight the need for preventive and early intervention efforts. Prevention efforts may be universal, including interventions aimed at a whole population group, selected, targeting subgroups of the population that are at risk, or indicated, targeting individuals with minimal symptoms or markers indicating a predisposition for the disorder (Al-Issa, 2017; Muraina, 2015). Considering the steep increase in depression rates during adolescence and the risk of recurrence (Addis, 2008), the gains of successful preventive interventions targeting this group can be substantial. Schools have become one of the most important settings for preventive interventions that aim for both enhancing resilience and reducing internalizing and externalizing problems (American Psychiatric Association, 2013; World Health Organization, 2016).

Delivering preventive interventions in the school environment have advantages such as a highly structured setting and a potential of reaching a cross section of the normal population of adolescents. This includes reaching individuals across socio-economic statuses, people in risk of depression, and the opportunity to impact on effectiveness and patient perspective knowledge about mental health issues and prejudice against people with mental health problems (Al-Musawi, 2001). On the other hand, extra-curricular activities can take up precious time and teacher resources, an issue that may prevent schools from implementing preventive interventions. There are a number of depression prevention programmes that vary in content, although most include some components of cognitive behavioural therapy (Addis & Mahalik, 2013). Previous research has yielded mixed results regarding the effectiveness of depression prevention interventions among adolescents. This study therefore focuses on effects of internet-based technique and social support on depression of secondary school teachers in Oyo State, Nigeria.

The term internet-based technique refers to the treatment provided through computer system in order to solve psychological and social challenges among teachers in the school. This includes computers placed within a school system or applications used at home computers. The term internet-based intervention refers to the treatment delivered over the internet and is as such, an integral part of computerised intervention. Such mental health interventions range from educational interventions with largely generic content, to therapeutic interventions with or without human support aimed at promoting positive changes in the users (Addis, 2008; Okasha et al., 2012). The key components of internet-based technique include the content of the programme, use of multimedia, interactive online activities and provision of feedback. More than two decades of research on internet-based depression intervention had sought to establish effectiveness in reducing various emotional and behavioural problems, most commonly anxiety, disorders, eating problems and depression (Abe, 2014; Arnault et al., 2016).

A growing body of research on internet-based technique supports their effectiveness in reducing depressive symptoms among participants (Kirmayer, 2011; Taras et al., 2012). Research on internet-based technique can be divided into two branches where studies within one branch provide some professional support to the participants during treatment (guided intervention), whereas studies in the other offer fully self-guided programmes, except perhaps an initial assessment at baseline. The majority of studies have tested internet-based technique in community samples with randomized controlled trials of depressed primary care patients and found to be effective (Al-Issa, 2017). Evidence supports the effectiveness of internet-based technique in reducing symptoms of depression and anxiety (Addis & Mahalik, 2013). Findings also indicated that internet-based technique are no more effective than usual care in patients with moderate to severe depression (Al-Nsour et al., 2009; Kashima, 2010).

Social support as the moderating variable in this study involves the level at which secondary school teachers were assisted both socially and emotionally in resolving depressive situation. According to Kirmayer (2011), depressed patients show negative long and short-term expectations that play a significant role in perception of social activities and preserved support. Another way to think about the role of social support in depression is that social environment could play a role in either generating depression, or act as protection for the individual from depression (Addis, 2008). Avoidance of people surrounding a person might result in him developing clinical depression, ultimately pushing the patient into further isolation. This performance could go on to such an extent that the patient would resist any form of external help or sympathetic support by family, friends, or relatives (Beck, 1996). There are various forms of powerful social links that can be applied which are known to be beneficial to treat depression, for instance; those developed in couples therapy, marriage counselling, or family therapy (Okulate et al., 2007). Studies have found that low levels of social support are associated with greater depression. Kashima (2010) showed that in the follow-up period, social support from husband, lover, or a very close contact is essential to make mobilization, and lack of support was highly associated with depressive symptoms.

According to Okulate et al. (2007), little attention has been paid to the psychological processes by which support is derived from environmental events. Kirmayer (2011) examined the importance of social support in the etiology of depression, and the nature of depressive insufficiency in perceived support. Strong relationships between support and symptoms of depression were found, in cross-sectional analyses, but evidence from longitudinal analyses was unclear. Depression was consistently associated with a discrepancy between needed support and the support thought to be provided. The influence of social support on the outcome of major depression was investigated by Al-Nsour et al. (2009) found that both the size of social network and subjective social support were significantly predictors of depression. Study had addressed the function of family and its relation to major depression. Okasha et al. (2012) found that family functioning was associated significantly with recovery from major depression. Kirmayer (2011) also carried out a study to identify factors associated with recovery from depression, specifically, support from family, friends, and spiritual beliefs. Support from family and a composite measure of emotional support were both significantly predictors of depression (Allam, 2011; Muraina & Oyadeyi, 2014).

Depression affects peoples' psychological health. Individuals with depression tends to report sadness, loss of pleasure, loss of interest, loss of

interest in sex, fatigue, worthlessness, indecisiveness, crying, self-dislike, pessimism, irritability, inability to sleep well, to eat, to concentrate, and feeling too exhausted to achieve anything. Individuals with depression shows increased suicide ideas and a substantial risk of death if suicide is attempted (Muraina, 2015; Muraina & Oyadeyi, 2014). Most of the literature in resolving depression is shaped by Europe and North America (Abe, 2014; Allam, 2011) and studies in different nations may shine a spotlight on how psychological phenomena work in African cultures. The choice of using Oyo State, Nigeria may contribute to the field of research in depression so as to update research on depression. In order to fill the gaps in the previous study and add more to the existing literatures, the present study intends to examine the internet-based technique and social support in the management of depression among secondary school teachers in Oyo State, Nigeria.

#### **Problem statement**

Mental health is fundamentally important for secondary school teachers and other people around the world, and according to the World Health Organisation's constitution health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity so mental health does not indicate just the absence of mental illness. In other words, people can become unhealthy because of social problems, psychological factors, life events, or economic factors. Maintaining mental health is essential for an individual to be socially effective in different dimensions of life, thus depression significantly affect an individual's condition, and may include functional impairments; loss of ability to work or study; and breakdown of personal relationships among other. This study therefore concentrates on the internet-based technique and social support in the management of depression among secondary school teachers in Oyo State, Nigeria.

# Objectives of study

The main objective of this study is to examine the internet-based technique and social support in the management of depression among secondary school teachers in Oyo State, Nigeria. Specifically other objectives include: (1) to find out the difference in the depression of secondary school teachers exposed to internet-based technique and those exposed to conventional lecture method, (2) to investigate the difference in the depression among secondary school teachers with high social support and those with low social support.

# **Hypotheses**

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

HO1: There is no significant difference between the depression of secondary school teachers exposed to internet-based technique and those exposed to conventional lecture method.

HO2: There is no significant difference between the depression among secondary school teachers with high social support and those with low social support.

# RESEARCH METHOD

The study adopted the pretest-posttest, control group quasi-experimental design with a  $2 \times 2$  factorial matrix. In essence, the row consists of internet-based technique and the control. The row was crossed with social support varied

at two levels (high and low). The population for this study comprised of all secondary school teachers in public and private secondary schools in Oyo State, Nigeria. As at 2018, there are 3,429 secondary school teachers in Oyo State, Nigeria.

Simple random sampling technique was used to select the participants for the study. The participants were selected from public and private secondary schools in Oyo State, Nigeria. Four local government areas (LGAs) were selected randomly in the State. Two public and 2 private secondary schools were however selected randomly in each LGA. In each selected secondary school, 5 secondary school teachers were selected through balloting. On the whole, 80 secondary school teachers were drawn for the study. However, the sampled participants were divided into 2 groups (40 in each group), one group formed internet-based technique class and the remaining one served as control group. Out of 80 sampled participants only 77 completed the treatment activities.

#### **Instruments**

#### Depression scale

Beck Depression Inventory (BDI) developed by Beck and Steer (1993) was used and administered to assess depression among participants. It is 21-item BDI-II scale that assesses aspects of depression which have occurred in the past 4 weeks. The BDI-II items assess the following symptoms: Sadness; Pessimism; Past failure; Loss of pleasure; Guilty feeling; Punishment feeling; Self-dislike; Self criticalness; Suicidal wishes; Crying; Agitation; Loss of interest; Indecisiveness; Worthless; Loss of energy; Change in sleeping pattern; Irritability; Changes in appetite; Concentration difficulty; Tiredness; and Loss of interest in sex. Each category is rated with four possible responses ranging from 0 normal to 3 severe and the total score can range between 0 and 63, higher scores being representative of more severe depression. Respondents are asked to indicate which statements best characterise the way they have been feeling during the past 4 weeks. The cut-off scores for the BDI suggested in the version are as follows: Scores of 0-9 are considered as "Minimal"; scores of 10-16 are described as mild depression; scores of 17-29 are referred to the moderate range, and scores of 30-63 indicate severe depression. The scale had 0.79 reliability coefficient according to the authors.

## Social support scale

Social support scale (SSS) developed by Kirmayer (2011) was used as a measure of social support among participants. It consists of 15 items with a 4- point scale in which respondents were rated base on the support they receive form their family. The responses were from always (4) to never (1). The cut-off scores for the SSS suggested in the version are as follows: Scores of 0-30 are considered as "Low" while the scores of 31-60 indicate High. The scale had 0.84 reliability coefficient according to the authors.

For content and face validity of the instruments designed for the study, the researchers gave the instruments to experts in the field of Guidance and Counselling and experts in the area of research. After all these people had given their suggestions and made necessary correction on the instrument, the researcher then submitted them to the reviewers who made the final corrections. After content and face validity of the instruments, twenty (20) copies of the instruments were administered to secondary school teachers in Kerewan local council (who are not part of the sample size) in order to re-establish the psychometric properties of the instrument. The test retest analysis of reliability

was then used to test their reliability to ensure that they are consistent in measuring what they were designed to measure. The results from the analysis carried out yielded 0.95 reliability value.

The study was carried out in four phases: pre-sessional activities, pre-test, treatment and post-test. At the pre-session, activities included the screening, recruitment and assignment of participants to the experimental and control group. Advertisement was made to request for participants in the school. A preliminary meeting was organised to familiarise with the interested participants and to solicit their willingness to participate in the study. At the pre-test stage, depression scale was administered to the participants. Participants in the experimental group only were exposed to 6 sessions of treatment. Each session spanned for an average of 60 minutes. Though the control group was not treated, they were exposed to a lecture titled "Roles of Education". The post-test was administered following the conclusion of the programme. T-test statistical analysis was employed to analyse the data in this study. T-test was used so as to establish any significant difference in the depression of participants in treatment group and control as well as social support level.

# **RESULTS AND DISCUSSION**

The study examined the effects of internet-based technique on depression among secondary school teachers in Oyo State, Nigeria. Two (2) null hypotheses were formulated and tested at 0.05 level of significance. The results are presented in tabular form.

#### **Results**

Hypothesis 1

There is no difference between the depression of secondary school teachers exposed to internet-based technique and those in the control group.

The summary of t-test results between the students exposed to the internet-based technique and conventional learning method is presented in Table 1.

<b>Table 1.</b> Summary of t-test of students exposed to internet-based technique
and those exposed to conventional lecture method

Groups	N	Mean	SD	Std.	df	T	p	Remark
				Error				
Internet- based technique	37	64.14	21.27	11.72	76	76.91	0.000	*Significant
Lecture method	40	29.68	11.82	5.41				

<sup>\*</sup>Significant at p < 0.05

The result in table 1 showed that there was significant difference between the depression of secondary school teachers exposed to internet-based technique and those in the control group (t= 76.91; p<0.05). The mean value of the table further revealed that the students in internet-based technique had higher depression than their counterpart in the control group. This further meant that the treatment had significant influence on depression among secondary school teachers.

# Hypothesis 2

There is no difference between the depression of secondary school teachers with high social support and those with low social support

The summary of t-test results between the students with high social support and those with low social support is presented in Table 2.

**Table 2.** Summary of t-test of students with high and low social support

Groups	N	Mean	SD	Std. Error	df	t	P	Remark
High	32	43.78	11.47	9.19	76	37.82	0.002	*Significant
Low	45	29.98	23.32	14.84				

<sup>\*</sup>Significant at p < 0.05

Table 2 showed that there was significant difference between the depression of secondary school teachers with high social support and those with low social support (t= 37.82; p<0.05). The mean value of the table further revealed that the teachers with high social support had lower depression than their counterpart with low social support. This further meant that social support had significant influence on depression of secondary school teachers.

#### **Discussion**

The result in Table 1 showed that there was significant difference in the depression of secondary school teachers exposed to internet-based technique and those in the control group. The mean value of the table further revealed that the students in internet-based technique had higher depression than their counterpart in the control group. This further meant that the treatment had significant influence on depression among secondary school teachers. This is in line with the finding of Abe (2014); Arnault et al. (2016) who found that internetbased depression intervention had sought to establish effectiveness in reducing various emotional and behavioural problems, most commonly anxiety, disorders, eating problems and depression. A growing body of research on internet-based technique supports their effectiveness in reducing depressive symptoms among participants (Kirmayer, 2011; Taras et al., 2012). Findings also indicated that internet-based technique are no more effective than usual care in patients with moderate to severe depression (Al-Nsour et al., 2009; Kashima, 2010). However, majority of studies have tested internet-based technique in community samples with randomized controlled trials of depressed primary care patients and found to be effective (Al-Issa, 2017). Evidence supports the effectiveness of internet-based technique in reducing symptoms of depression and anxiety (Addis & Mahalik, 2013).

The result in the Table 2 showed that there was significant difference in the depression of secondary school teachers with high social support and those with low social support. The mean value of the table further revealed that the teachers with high social support had lower depression than their counterpart with low social support. This further meant that social support had significant influence on depression of secondary school teachers. In consistent with this finding, Kirmayer (2011) found that depressed patients show negative long and short-term expectations that play a significant role in perception of social activities and preserved support. Okulate et al. (2007) found that little attention has been paid to the psychological processes by which support is derived from environmental events. Kirmayer (2011) examined the importance of social support in the aetiology of depression, and the nature of depressive insufficiency

in perceived support. Strong relationships between support and symptoms of depression were found, in cross-sectional analyses, but evidence from longitudinal analyses was unclear. Al-Nsour et al. (2009) found that both the size of social network and subjective social support were significantly predictors of depression. Study had addressed the function of family and its relation to major depression. Okasha et al. (2012) found that family functioning was associated significantly with recovery from major depression. Kirmayer (2011) also carried out a study to identify factors associated with recovery from depression, specifically, support from family, friends, and spiritual beliefs. Support from family and a composite measure of emotional support were both significantly predictors of depression (Allam, 2011).

#### Recommendation

Based on the findings in this study, the following recommendations were made. First, counselling/educational psychologists should intensify their effort to organize seminars on the implications of internet-based technique as effective interventions towards managing depression of secondary school teachers. Second, secondary school teachers and other stakeholders in the school system are to be trained on how to improve on their social support. This will serve as collaborative efforts to assist in reducing depression of teachers. Third, teachers should be encouraged and trained on the effective usage of internet-based technique. This will make the teachers to adopt effective skills and principles in solving depressive disorder among teachers. Finally, the curriculum planners should try as much as possible to include in the scheme of teacher training, skills on internet-based technique. This will help in reducing the level of depression among teachers.

# CONCLUSION

The need to evaluate the depression of secondary school teachers is of paramount importance in the practice of teaching profession. Identification of internet-based technique and social support in the management of depression has a practical value, specifying some of the sensitive issues that may affect the delivery of psychotherapy for Oyo State, Nigeria population. The present study focused on the internet-based technique and social support in the management of depression among secondary school teachers in Oyo State, Nigeria. Depression can be better understood in the context of a population's own perspectives.

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