Comparing the Effects of Group and Individual Cognitive Behavioral Therapy on Depressive Symptoms Among HIV-Positive Adults at Bingham University Teaching Hospital, Jos.

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ABSTRACT

Background

Depression is a mental health problem that has been associated with non-adherence to antiretroviral drugs and is also a major barrier to HIV preventive efforts. Cognitive behavioural therapy (CBT) as a non-drug treatment for the management of depression has been documented but there are limited studies comparing the effect of group and individual formats of CBT on depression levels among HIV-infected population in this setting.

Objectives

The objective of this study was to compare the effect of group versus individual CBT on depression scores among a cross section of HIV infected patients attending the adult ART clinic of Bingham University Teaching Hospital, Jos.

Method

This study was a hospital based randomized control study comprising, 30 depressed patients randomly assigned to the Group and Individual arms of the study. This was done using a computer-generated table of random numbers. The Group arm was offered CBT in group format while the Individual arm was offered CBT on individual basis. They had one session every month for three months. Data was collected using the Patient Health Questionnaire-2 and Patient Health Questionnaire-9 (PHQ-9). To maintain the fidelity of the sessions the CBT sessions were done using a manual by Steven Safren. Ethical approval was obtained and informed

consent was secured. Two participants dropped from the study. The data of 28 participants who completed the study was analyzed using SPSS version 25.0. Statistical significance was set at $p < 0.05$.

Result

Within the Group, both the intervention arm ($Z = -3.446$, $p = 0.001$) and control arm ($Z = -2.913$, $p = 0.004$) showed statistically significant difference. However, there was no statistically significant difference between the change in the mean PHQ-9 scores of the two groups ($Z= -0.154$, $p= 0.607$).

Conclusion

With caution to the small size of the sample, there was no statistically significant difference between the effects of group versus individual CBT in the reduction of depression among people living with HIV (PLWHIV), hence, CBT in the group format is advocated in the ever-busy adult HIV clinic.

Keywords: CBT, HIV, Depression, PH-9

INTRODUCTION

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. While Mental Health is a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life and can work productively and fruitfully, it has depression (depressive disorder) as a very common disorder. (WHO,2022)

Depression is a prevalent mental health condition characterized by persistent feelings of sadness, loss of interest or pleasure, fatigue, guilt or low self-esteem, sleep or appetite disturbances, and difficulty concentrating for a minimum of two weeks. (WHO, 2025) If left untreated, these symptoms can become chronic or recurrent, significantly impairing an individual's ability to manage daily responsibilities. In severe cases, depression can lead to suicidal thoughts or behaviors. (WHO, 2017)

Globally, approximately 280 million people have been reported with the diagnosis of depression. (Institute of Health Metrics and Evaluation (GHDx)) Although the WHO reports that 14% of the global burden of disease is attributed to mental health disorders, it also states that 75% of the people affected are found in low-income countries. (WHO, 2018) In the African region where most of the countries fall under the low-income categories, depression has been noted to affect 5.9% of the general population. The same source reports that in Nigeria, depression has a prevalence of 3.9%, that is slightly over seven million people of the total population. (WHO, 2017) However most of the hospital-based prevalence studies done among general population in Nigeria show higher prevalence rates of depression: Salihu and colleague in their study on the prevalence and associated factors of depression among general outpatients in a tertiary institution in Kano, North-Western Nigeria, found depression prevalence of 49.8% (Auwal and Owhoidoho, 2016). Similarly, a study done in a primary care setting in Ado-Ekiti in Nigeria showed a prevalence of 47.8% (Adetunji et al, 2015)

Studies have shown that the prevalence of depression among PLWHIV is approximately twice higher than in the normal population (Bhatai, 2014; Sherr, 2011), while in Nigeria, Chikezie and colleagues found that depression is 5 times more common among PLWHIV than in apparently healthy populations (Chikezie, 2013). This increase has been attributed to factors such as social stigma, occupational disability, isolation from social support, long term physical discomfort, illness and stigmatization (Obadeji, 2014).

Furthermore, the feelings of depression can be exacerbated by factors such as the reception of the initial emotionally distressing HIV diagnosis, and subsequent challenges related to managing the illness, disclosing their status, adhering to treatment, and navigating relationships and sexual health. (Bravo et al, 2010). Lifelong commitment to antiretroviral treatment can also trigger mental health crises, with some medications, such as Efavirenz, contributing to depression or worsening mental health symptoms. Additionally, side effects like changes in body weight can impact mood and self-image, further complicating mental health. (Best et al, 2010). These are part of the reasons why the prevalence of depression is higher in PLWHIV.

Although there is strong evidence that depression is high in the population, it is often reported as underdiagnosed. Its detection rate is noted to be low (Adetunji, 2015; Ibrahim, 2014; Olisah, 2011). The study by Ibrahim et al, (2014) showed that detection rate among HIV positive subjects was zero percent. They attributed this to the lack of routine assessment of the patients by the internist or General Physician. Another reason was the absence of functional-liaison psychiatric services in the institution (Ibrahim, 2014). Other possible reasons for the low detection rate include lack of trained healthcare providers and social stigma associated with mental disorders (WHO,2017; Onyebuchi-Iwudibia, 2014).

Untreated depression negatively influences adherence to Anti-retroviral drugs and hence worsens and complicates HIV infection and its management (Sale, 2009). Depression is one of the factors associated with poorer health related quality of life in PLWHIV (Adewuya, 2008). Addressing depression in HIV-positive individuals is essential for optimizing treatment adherence and improving health outcomes.

The implications of this for Public Health intervention include high prevalence rates that indicate a significant burden of depression in Nigeria. These high prevalence rates in hospital settings suggest that depression may be a significant contributor to healthcare utilization, potentially overwhelming the healthcare system (Goar, 2012). A potential solution to this issue lies in the integration of mental health services into primary care settings, which could significantly mitigate the high prevalence of depression and enhance overall healthcare outcomes One of the mental health services is psychotherapy, of which Cognitive behavioural therapy (CBT) is a type.

Cognitive behavioral therapy, which was invented by a Psychiatrist, Aaron Beck, in 1967, is a time-sensitive, structured, present-oriented psychotherapy directed toward solving current problems and teaching clients skills to modify dysfunctional thinking and behaviour. Through exercises in the session as well as “homework” exercises outside of sessions, patients are helped to develop coping skills, which if learned, can change their own thinking, problematic emotions and behavior. CBT is used in the treatment of depression, generalized anxiety disorder, social phobia, panic disorder, agoraphobia, post-traumatic stress disorder. (Beck, 2018). For depression, CBT is effective in the management of mild to moderately depressed patients (Ng, 2017; Adina, 2017; Jayavasti, 2011).

Research has shown that increased pill burden leads to reduced medication adherence (An, 2019) However, the use of CBT in the management of depression in PLWHIV, does not add medication to the patient’s prescription therefore medication cost is cut down, drug-drug and drug-food interactions are also significantly reduced. Moreover, with a population of over 216 million, Nigeria's mental health system is severely understaffed, with fewer than 250 psychiatrists available to meet the needs of its vast and diverse population (Dennis, 2022)

Several studies have shown the efficacy of CBT on depression (Bella-Awusah,2016; Akena, 2016). This efficacy has been replicated in HIV positive patients with depression (Adina, 201; Jayavasti, 2011; Safren, 2012; Safren, 2016). In some of these studies, the effect of CBT on depression in HIV-positive patients has been sustained for up to 6 months post CBT. The evidence relevant to the application of CBT is rarely found in low- and middle-income countries and this is partly because depressed patients in these countries are financially impoverished and have different perceptions, cultures, and values (Barth, 2013)

The Patient Health Questionnaire

The Patient Health Questionnaire-2 (PHQ-2) is a tool used for screening depression. It does not establish final diagnosis or monitor depression severity. The PHQ-2 comprises of 2 items and inquiries about the degree to which an individual has experienced depressed mood and anhedonia over the previous two weeks. A score of three or more points is considered a positive screen. (Kroenke, 2003)The PHQ-9 is a multi-purpose instrument for screening, diagnosing, monitoring and measuring the severity of depression (Kroenke, 2002) It is brief and useful in clinical practice. The score ranges from 0-27 with the PHQ-9 scores of 5, 10, 15, and 20 representing mild, moderate, moderately severe and severe depression.

The current practice in the hospital is to provide unstructured counseling on a one-on-one basis for patients that have depressive disorders. Given the shortage of mental health professionals and the high prevalence of depression among people living with HIV (PLWHIV), coupled with the potential side effects of antidepressant medication, if this study reveals no significant difference between group and individual cognitive behavioral therapy (CBT), it would be prudent to opt for the modality that can efficiently serve a larger population. So, this study was conducted to explore the differential impact of these two CBT modalities, to inform evidence-based practice and optimize mental health interventions for this vulnerable population. Ultimately, the findings of this study will contribute to improving the overall well-being and quality of life of HIV-positive individuals in Nigeria, highlighting the critical role of CBT in comprehensive HIV care.

MATERIALS AND METHOD

This study was a single-site, hospital-based randomized controlled trial conducted over 16 weeks, from January to April 2019, at the APIN Clinic of Bingham University Teaching Hospital, Jos, Plateau State, Nigeria.

The study population was drawn from 281 patients who consented and were screened using the PHQ-2 questionnaire. They all had unique identifiers. 72 had depressive symptoms. These 72 were further classified using the PHQ-9 tool into mild, moderate, moderately severe and severe depression. Using the Rand function of SPSS 25, a computer-generated table of random numbers was used to randomly select 15 males and 15 females. Another randomization procedure was employed, wherein the unique identifiers of the 15 female participants were folded and placed in a container. The research assistant then randomly selected one identifier at a time, allocating it to either the group or individual arm by placing it in respective containers. This process was repeated until all 15 female identifiers were exhausted. An identical procedure was conducted for the 15 male participants."

The 42 patients, including the one severely depressed patient, who were not selected were referred to the Psychiatric unit. One arm received group CBT while the other arm received individual CBT. They had a session once every month. This lasted for 3 months. Each session lasted between 45 minutes to 1 hour. In the Group arm, participants in were stratified into four groups, consisting of two male groups with four members each and two female groups with four and three members, respectively. This division was informed by logistical considerations, as the meeting venue could accommodate a maximum of five individuals, including the Principal Researcher. The gender-based grouping facilitated open discussion of gender-sensitive issues. Ground rules were established at the outset, emphasizing respect, confidentiality, and active participation. Each group session followed a structured format: Introduction of the topic, discussion and sharing of personal challenges as it relates to the topic, guided problem-solving by participants and homework assignments based on identified problems. In the Individual Arm participants engaged in one-on-one cognitive behavioral therapy (CBT) sessions with the Principal Researcher. Each session followed a standardized structure: Reestablishing therapeutic alliance, review of symptoms, experiences, and homework, discussion of problems and introduction of new topics, collaborative problem-solving and homework assignment and review of key points and elicitation of feedback.

Apart from the topic of the day, both Group and Individual sessions addressed various topics, including stigma and its impact on daily life, coping with HIV-positive status, disclosing HIV status to family members or partners, managing relationships and future planning. Each session concluded with: Encouragement and support, and scheduling of the next appointment. At the end of the last CBT session, the PHQ-9 questionnaires were administered, and the scores of participants were calculated to assess the effect of the CBT on their depression severity score. Following the intervention, each participant received individual feedback regarding their depression scores and the therapeutic implications, irrespective of the CBT format received. The completed questionnaires were checked for errors. All information was entered into a secure computer with password and analyzed with the Statistical Package for Social Sciences (SPSS) version 25.0. Measures of central tendency, and standard deviation were used. Results were expressed using frequencies and percentages. The Student T- test and Wilcoxon signed-rank test were used to compare within group changes. The Mann-

Whitney U test was used due to small sample size of 30 and the nonnormal distribution of scores. It was used to compare the change in the post intervention PHQ-9 scores for both groups.

Ethical clearance for the conduct of the study was obtained from the Health Research and Ethical Committee of the Bingham University Teaching Hospital. To uphold the principles of confidentiality and anonymity, participant names were not required for the study. Potential participants received both verbal and written information regarding the study's purpose and their rights, including the right to withdraw at any time without penalty. The research adhered to fundamental ethical principles, namely beneficence, nonmaleficence, respect for autonomy, and justice. To protect participant privacy, initials were used instead of full names. Cognitive behavioral therapy (CBT) sessions were conducted in a private, designated area of the hospital, and participants were instructed to maintain confidentiality regarding fellow group members' information. Data collected from participants were securely entered into a password-protected computer by the primary researcher, ensuring restricted access to sensitive information and upholding the confidentiality of participant data.

Selection Criteria

Inclusion criteria

HIV positive patients 18 years and above.

Clients that consented to participate in the study.

Participant with mild or moderate depression based on their PHQ-9 scores.

Ability to read and write in English based on self-report.

The participant has been on HAART for at least one (1) year.

Exclusion criteria

Patients with severe depression and referred to see the Psychiatrist.

Patients with confirmed diagnosis of psychiatric illness and are on treatment for it.

Patients with other co-morbidities like hypertension, diabetes

Intervention Fidelity

To successfully carry out this study, the Principal Researcher undertook and completed courses on Essentials of CBT and CBT for Depression from the Beck Institute of Cognitive Behavioural therapy, Philadelphia, USA. To maintain the fidelity of the sessions the CBT sessions were done using a manual by Steven Safren.

RESULT

Table I. The sociodemographic characteristics of the study participants.

	Variable	Total	Intervention	Control	T value	P value	Decision
	Mean ± SD	42.1 ± 9.6	40.5 ± 9.4	43.7 ± 9.8			
Age(Years)	<30	2(6.6%)	2(13.3%)	0(0.0%)	0.032	0.297	Not Sig
	30 - 39	11(36.7%)	6(40.0%)	5(33.3%)			
	40 - 49	11(36.7%)	4(26.7%)	7(46.7%)			
	≥ 50	6(20.0%)	3(20.0%)	3(20.0%)			

	Total	30(100%)	15(100.0%)	15(100.0%)			
Sex	Male	15(50.0%)	8(53.3%)	7(46.7%)	0.052	0.715	Not Sig
	Female	15(50.0%)	7(46.7%)	8(53.3%)			
	Total	30(100%)	15(100.0%)	15(100.0%)			
Marital Status	Single	8(26.7%)	4(26.7%)	4(26.7%)	0.387	0.229	Not Sig
	Married	19(63.3%)	8(53.3%)	11(73.3%)			
	Divorced	1(3.3%)	1(6.7%)	0(0.0%)			
	Widowed	2(6.7%)	2(13.3%)	0(0.0%)			
	Total	30(100%)	15(100.0%)	15(100.0%)			
Mariage Type	Monogamous	14(66.7%)	5(55.6%)	9(75.0%)	0.089	0.195	Not Sig
	Polygamous	7(33.3%)	4(44.4%)	3(25.0%)			
	Total	21(100.0%)	9(100.0%)	7(100.0%)			
Level of education	Primary	1(3.3%)	1(6.7%)	0(0.0%)	0.071	0.550	Not sig
	Secondary	10(33.3%)	8(40.0%)	4(26.7%)			
	Tertiary	19(63.4%)	6(40.0%)	11(73.3%)			
	Total	30(100%)	15(100.0%)	15(100.0%)			
Monthly Income	No income	5(16.7%)	3(20.0%)	2(13.4%)	0.553	0.877	Not Sig
	≤ 10,000	7(23.3%)	2(13.4%)	5(33.3%)			
	10,000 - 20,000	7(23.3%)	5(33.3%)	2(13.4%)			
	20,001 - 50,000	10(33.4%)	5(33.3%)	5(33.3%)			
	50,001 - 100,000	1(3.3%)	0(0.0%)	1(6.6%)			
	Total	30(100%)	15(100.0%)	15(100.0%)			
Occupational groups	civil Servant	10(33.3%)	5(33.3%)	5(33.3%)	0.451	0.829	Not Sig
	Unemployed	5(16.7%)	2(13.3%)	3(20.0%)			
	Farmer	2(6.7%)	1(6.7%)	1(6.7%)			
	Artisan	1(3.3%)	1(6.7%)	0(0.0%)			
	Trader	4(13.3%)	1(6.7%)	3(20.0%)			
	Student	2(6.7%)	2(13.7%)	0(0.0%)			
	Professional	1(3.3%)	0(0.0%)	1(6.7%)			
	Public Servant	2(6.7%)	1(6.7%)	1(6.7%)			

	Self employed	2(6.7%)	1(6.7%)	1(6.7%)			
	Businessman /woman	1(3.3%)	1(6.7%)	0(0.0%)			
	Total	30(100%)	15(100.0%)	15(100.0%)			

The sociodemographic parameters show no statistically significant difference in both the control and intervention groups. Implying that the participants were all equal at baseline.

Pre-intervention depression status of the study participants

Potential inherent differences in the depression scores between the control and intervention groups at baseline were assessed. The results did not reveal any statistically significant differences in both arms, p >0.5. This shows that the two groups were equivalent at pretest. These baseline scores provided the basis for comparing within group and between group differences at post intervention assessment.

Table 2. Pre-intervention depression status of the study participants

Category of depression	Individual	Group	T value	P value	Decision
Mild	9	12	1.005	0.097	Not Sig
Moderate	2	3			
Moderately Severe	4	0			
Total	15	12			

Pre and post intervention PHQ-9 scores of participants who had group CBT

There was an improvement on the PHQ-9 scores of all the participants who had group CBT sessions. The degree of improvement varied for the various participants. Pre- intervention, most of the study participants in this category had mild depression 12 (80.0%) while 3 (20.0%) had moderate depression. Post-intervention, 9 (60.0%) of the total study participants had no depression, 5 (33.3%) of the study participants had mild depression and 1 (6.7%) had moderate depression. Details of the depression scores before and after the intervention are shown in table 3.

Table 3: Pre- and post-depression scores for the participants who had group CBT

Category	Pre _ CBT	Post _CBT	T value	P value	Decision
No depression	0(0.0%)	9(60.0%)	2.326	0.002	Sig
Mild	12(80.0%)	5(33.3%)			
Moderate	3(20.0%)	1(6.7%)			
Total	15(100.0%)	15(100.0%)			

Change in depression scores for the participants who had group CBT sessions.

Post-intervention, there was an improvement in the scores of depressions: 9 (60.0%) of the total study participants had no depression, 5 (33.3%) of the study participants had mild depression and 1 (6.7%) had moderate depression. For the participants who had group CBT, the mean PHQ-9 scores reduced from 7.13± 2.8 pre-CBT to 4.53 ± 2.5 post-CBT (p = 0.002), using the Student T- test. Further non-parametric analysis

using the Wilcoxon signed-rank test showed that there was a significant statistical difference (Z = -3.446, p = 0.001) between the pre- and post PHQ-9 scores of the participants who had group CBT

Pre- and post-intervention PHQ-9 scores of participants who had individual CBT

Pre-intervention, most of the participants in the Control (Individual group) were mildly depressed 9 (60.0%), 2 (13.3%) were moderately depressed while 4 (26.7%) had moderately severe depression. Post intervention, 7 (46.7%) of the participants in this group had no depression, 6 (40.0%) had mild depression while 2 (13.3%) of the participants dropped out of the study. Details of the pre- and post-intervention depression scores are in table 4.

Table 4: Pre-and post-depression scores for the participants who had individual CBT sessions

Category	Pre-CBT		Post-CBT		P-value
	No	(%)	No	(%)	0.001
No depression	00	00	7	46.7	
Mild	9	60.0	6	40.0	
Moderate	2	13.3	00	00	
Moderately severe	4	26.7	00	00	
Defaulted	00	00	2	13.3	
Total	15	100	15	100	

Change in depression scores for the participants who had individual CBT sessions.

Post-intervention, there was an improvement in the levels of depression: 7 (46.7%) of the total study participants had no depression while 6 (40.0%) of the study participants had mild depression. No participant had moderate or moderately severe depression.

For the participants who had individual CBT, the mean PHQ-9 scores reduced from 9.92±5.28 pre-CBT to 5.08± 2.39 post-CBT (p = 0.010), using the Student T- test. Further non-parametric analysis using the Wilcoxon signed-rank test showed that there was a significant statistical difference (Z = -2.913, p = 0.004) between the pre- PHQ-9 and post PHQ-9 scores of the participants who had individual CBT.

Comparison of the change in the post intervention PHQ-9 scores between the control and intervention group.

Table 5 shows the change in mean PHQ-9 scores between the Post intervention for depression for the Intervention and Control groups. This was achieved by using the non-parametric Mann-Whitney U test. For the Intervention group, the change in the post intervention mean PHQ-9 score was 13.77 while the change for the Control group was 15.55 The comparison of the change in mean PHQ-9 score between the control and intervention showed no statistically significant difference (Z= -0.296, p=0.607).

Table 5. Comparison of the change in PHQ-9 scores between the Intervention and Control groups.

Category	**N**	**Mean Rank**	**Sum of Ranks**	**Z score**	**P-value**
Intervention	15	13.77	206.50		
				-0.154	0.607
Control	15	15.35	199.50		

DISCUSSION

A notable finding is that a larger proportion of participants in the intervention group showed improvement from mild depression to no depression at the 3-month mark. This could be attributed to the fact that many participants had baseline scores just above the depression threshold, and even a slight reduction in scores was enough to categorize them as recovered. Furthermore, a statistically significant difference was observed ($Z = -3.446$, $p = 0.001$) between the pre- and post-treatment PHQ-9 scores among participants who received group cognitive behavioral therapy (CBT), indicating a positive impact of the intervention.

There was an improvement in the PHQ-9 scores of all the participants who had group CBT. The degree of improvement varied for the various participants. This may be explained in terms of their ability to internalize intervention principles responsible for mediating change in depression severity. The findings from this study showed that group Cognitive Behavioural Therapy was associated with decreased level of depression. This is like other findings that did not only show reduction in reduced severity of depression but maintained this post treatment gain for some time; (Adina and colleagues, 2017) observed that the median depression score at 2 months post-test was 4.0 which was significantly lower than that of the baseline, 9.0. Hans, (2013) found that the post treatment gains for depression were maintained at 6 months after completion of therapy. Some researchers have opined that effective reduction in depressive symptoms by group CBT could be because it offers peer support, mitigates social isolation, encourages shared empathy, and provides a context for peer feedback with patients getting the opportunity to help one another (Honagodu, 2013). It may also be cost effective.

The number of CBT sessions is a possible factor that could affect the level of reduction of depressive symptoms. Different studies have achieved significant reductions in depressive symptoms with different numbers of sessions. A meta-analysis of 16 studies on CBT for depression found that 6-12 sessions resulted in significant symptom reduction (Butler, 2017) while Dobson et al found that 3-6 sessions of CBT were effective in reducing symptoms of mild depression. A randomized controlled trial found that 12-20 sessions of CBT resulted in significant symptom reduction for individuals with moderate to severe depression (Hollon, 2005). The American Psychological Association recommends 6-20 sessions of CBT for depression. The index study had 3 sessions of CBT and reported significant reduction in depressive symptoms. It will however be important to establish a relationship between the number of sessions and the duration of the post treatment gains.

There was a significant statistical difference ($Z = -2.913$, $p = 0.004$) between the pre- PHQ-9 and post PHQ-9 scores of the participants who had individual CBT. The findings from this study showed that individual CBT was also associated with a decreased level of depression. This was also shown by Gonzalez et al (2010) and Brown et al (2011).

From the study, a comparison of the change in the PHQ-9 scores between the intervention and control group showed no statistically significant difference ($p=0.213$). This means that although cognitive behavioural therapy in both the individual and group format led to a decrease in the depressive symptoms of the participants, there was no difference in the outcome of both formats. This has been confirmed by (Rossello et al 2012) as well as (Hans et al (2013).

In this study, the mean change in pre and post intervention PHQ-9 score for depression among participants who had individual CBT (2.6 ± 2.61) was better than that among the participants who had group CBT (4.85 ± 5.76). This finding is similar to the finding by Rossello´ and colleagues in their study. This could be because Individual therapy allows the therapist and patient to focus on each other, building a rapport and working together to resolve the patient's issue. This is a unique relationship; in that it is strictly confidential and provides the patient with the opportunity to be completely honest with the therapist. [44] This can make for very personal or intense sessions, since the patients may not feel compelled to censor themselves as they might in the presence of others. Individual psychotherapy also allows the therapist to ask more detailed and focused questions than he or she might be able to in a setting where others are present (Whitefield, 2010). However, the advantages of delivering CBT in groups include the fact that more people can be treated at a time, there is the opportunity to learn from the experiences and homework tasks of the other group members. Groups can be less stigmatizing for some participants. Whatever stigma that there is can be reduced by the ‘normalization effect’

of meeting others with the same problem and lastly, it can be useful for people who struggle with a one-to-one professional relationship and so may prefer group work (Whitefield, 2010)

Some studies are in dissonance with the findings of the index study. In a Nigerian study by Akpama (2013) on the psychosocial adjustment among people living with HIV/AIDS. She reported that participants exposed to group counseling had a better psychosocial adjustment mean score post therapy compared to those exposed to individual therapy. Ushie and colleagues in Cross River, Nigeria showed that HIV infected subjects exposed to group therapy had a higher mean score in psychosocial behaviour compared to those exposed to individual therapy. The difference in the outcome between this study and those of Akpama and Ushie may be because this study was carried out in a single facility with the Principal Researcher as the only therapist for the participants in each group. This may have created some level of familiarity and confidence between the therapist and participants. The study of Akpama, (2013) and Ushie, (2012) involved therapy at different health facilities and probably with different therapists for each group.

This study showed that (CBT) improves the depressive symptom of the study participants. There was a significant reduction in the PHQ-9 scores in both arms that were offered the group CBT and the individual CBT post intervention. Although CBT reduced the PHQ-9 score of the study participants, there was no statistically significant difference in the outcome when the change in post intervention PHQ-9 scores both the control and intervention arms were compared. This is to say that the individual format of CBT delivery is not superior to the group format. Since this study has shown that group and individual therapy produce statistically indistinguishable outcomes and the number of patients needing psychotherapy is much, it is advocated that group CBT be administered in the ever-busy HIV clinics.

Limitation

The hospital-based nature of the study calls for caution in the inference and interpretation of the study since it cannot be generalized to the larger population. Therefore, more community-based studies are suggested. A mixed study approach consisting of a qualitative section will further explore some other psychosocial factors which may have contributed to the changes in depression scores noted among the study participants. The small sample size is also a limitation that may affect the generalizability of results obtained. Finally, future studies should also be able to measure post intervention outcomes in 3 and 6 months to further help assess the durability of CBT.

Conflict of interest: Nil

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