

Efficacy Of Trauma-Focused Cognitive Behavioral Therapy In Treating Ptsd And Depression Among Students In Selected Universities In Goma, Democratic Republic Of Congo.

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Abstract

Psychological well-being is one of the most important factors affecting the quality of life of university students. Depression and anxiety are the most common mental health issues reported among students although post-traumatic stress disorder (PTSD) could also be high in situations where students have been exposed to traumatic events in their lives such as in war-torn Democratic Republic (DR) of Congo. The objective of this study was to determine the efficacy of Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) in treating PTSD and depression among university students in Goma, DR Congo. The study adopted a quasi-experimental research design targeting 488 university students aged between 18 and 25 years who had symptoms of PTSD and depression. Consecutive sampling technique was used to select the participants. Data was collected using questionnaires, PTSD Scale for DSM-5(PCL-5) and LEC Self-Report instrument over a twelve-week intervention period at baseline, midline and end line, and was analyzed using descriptive and inferential statistics with the aid of SPSS Version 22. It was evident from the findings that TF-CBT was effective in the treatment of trauma related PTSD and depression among the university students in the DR Congo. TF-CBT was more efficacious than the alternative TAU applied in treating PTSD ($p=0.000$) and depression ($p=0.000$). It is therefore, recommended that mental health professionals can adopt this intervention in their practices because of the available evidence-based studies that have proven this approach to be effective.

Key words: PTSD, Depression, Trauma-related, TF-CBT, University Students

Introduction and Background

In recent times, university students' psychological state has become a growing concern for higher learning institutions and this has led to a greater emphasis on easing the adjustment of students to university life (Brunner et al., 2014). A survey carried out by the American College Health Association (ACHA) over 2018 and 2019 found that about 60% of respondents felt "overwhelming" anxiety, while 40% experienced severe depression which affected their functioning (Fried, Karmali, & Irwin, 2020; Liu et al., 2019). An earlier study

by Wilcox et al., (2010) had also found that roughly 12% of college students reported the occurrence of suicidal ideation during their first four (4) years in college while 2.6% had persistent suicide ideation. Despite the fact that a significant number of university students indicate contact with traumatic events, just a few studies have been done which show that between 6-12% of university learners have PTSD symptoms (Anders et al., 2012).

Psychological distress, including PTSD depression, and anxiety, have been associated with negative impact on the cognitive and emotional aspects of an individual (Read et al., 2011). Depression and PTSD are among the mental health problems that every so often remain undiagnosed and untreated among undergraduates. Post-traumatic stress disorder is a psychological problem that might arise in individuals following a critical incidence where their natural ability of fight or flight responses are impaired or changed (APA, 2013). Symptoms of PTSD include physical, emotional and behavioral conditioned responses such as headaches, palpitation, sweating, shaking, and anger (Beck et al., 1979; Beck et al., 1985; Garratt et al., 2007). Individuals with PTSD frequently report elevated levels of fear responses to memories of trauma, much as cues occur in a safe context (Bae et al., 2005). On the other hand, APA (2013) defined depression as a psychological condition characterized by an individual losing interests all day, and experiencing feelings of unhappiness, emptiness, desperateness, hopelessness and worthlessness. Moreover, additional symptoms include lack of sleep, poor concentration, suicide thinking and attempts, significant weight loss or gain, and extreme guilt.

According to Limone and Toto (2022), there are several factors predisposing university students to mental health challenges that can be broadly categorized as social, psychological, biological, lifestyle-based and academic.. Some students do not adapt well to life in campus while many new students find it hard to settle down to the new college life and its demands. Studies reveal that the burden of unmet mental health needs was especially high among individuals between 16 years old and above (Patel et al., 2007). New students at the university are usually in their late adolescence, and are at a developmental milestone that bridges a critical transitory period from adolescence to adulthood, which embraces a very important process such as identity crises (Hakami, 2018). This developmental crisis can lead to self-doubt, social withdrawal, loneliness, lowered self-esteem, geographical changes, separation from family members and academic stress. These developmental crises including experiencing financial difficulties in a new environment could predispose university students

to the risks of developing mental health disorders particularly depression (Reddy, Menon, & Thattil, 2018).

Some of these predisposing factors are, however, difficult to avoid and are usually out of the students' control such as their history of trauma. Trauma can result into PTSD and depression. PTSD is a mental health condition that adversely affects 10% to 20% of young adults worldwide (Kieling et al., 2011). Estimates point out that among civilians, 5%-10% of all men and 7%-14% of all women in the United States of America struggle with PTSD (Sareen, 2014). PTSD has for a while been perceived to affect mature individuals only, however, it has in the last few years been diagnosed in adolescents aged 16 and above (Hamblen & Barnett, 2016). Although not all adolescents who have been exposed to traumatic experiences develop PTSD, results of a meta-analysis of 43 studies pointed out that, overall, just about 16% of young adults developed PTSD, following contact with traumatic experiences (Alisic et al., 2014). PTSD can also occur with depressive disorders and can lead to struggles with substance abuse (Ferry et al., 2014). The prevalence of PTSD has also been found to be higher among females than males (Ferry et al., 2014; Ng et al., 2020; Nooner et al., 2012).

For a long time, PTSD was closely linked with war, whereby soldiers were exposed to severe and acute prolonged stress (Kilpatrick et al., 2003). However, new evidence suggests that PTSD also occurs in noncombatant settings, including natural disasters, mass catastrophes, robbery, death of loved ones, relationship breakups, various kinds of abuse, and serious accidental injuries (Al-Hemiary et al., 2016). For example, it has been established that the main factors causing PTSD in Sweden included sexual and physical abuse, robbery, and multiple traumatic experiences (Van Ameringen et al., 2008). Thus, while PTSD is associated with multiple other mental conditions resulting from various traumatic experiences apart from war, war experiences still account for a significant proportion of PTSD. The links between PTSD and depression with war and non-war traumatic events coupled with the lack of appropriate psychotherapy interventions could explain why PTSD and depression are the most common mental disorders in DR Congo among university students living in difficult situations following exposure to traumatic experiences (Booth-Kewley et al., 2010).

While numerous countries experience war, DR Congo is unique in the magnitude of human rights offences committed (Ferry et al., 2014). Given that the violence in DR Congo has largely focused on terrorizing the civilian population, it could be argued that interventions

with civilians be directed at the needs arising from the cultural context that would be grounded in practices meaningful to and effective within the Congolese context. In the DR Congo, psychological conditions are prevalent, with the incidence rates of 7% of severe depression similar to the incidence rates found in affluent countries (Anderson, 2005; Booth-Kewley et al., 2010). However, university students are more vulnerable to a higher PTSD and depression rate due to the transitional stages of development on entering campus, (Ablais, 2017; Kabeya, 2012). Most university students have witnessed or grown up experiencing high rates of robbery, homicide, attacks, deaths of loved ones, and break-ins followed by atrocities, killings and rape during armed conflict largely concentrated in the East part of the country (Goenjian et al., 2008, Lissek & van Meurs, 2015). In comparison, majority of the current crop of university students in the neighboring Uganda have not been subjected to military conditions and those with PTSD and depression symptoms are generally the ones exposed to other forms of traumatic events (Costello et al., 2006).

Exposure to such traumatic events puts undergraduates at a higher risk of PTSD, depression and anxiety and could result in poor academic performance and social functioning impairment, among others, while at the university (Baker et al., 2016; Boyraz et al., 2015). Prior researches have similarly pointed out that relational types of traumatic events in addition to several negative traumatic experiences are possible prognosis of mental health difficulties (Kaysen et al., 2003). Research indicates that self-destructive and dangerous behaviors, such as; substance abuse, suicidal attempts, risky sexual behaviors, reckless driving, and self-injury which manifest among university students in DR Congo are characteristic of PTSD and depression (Kabeya, 2012). A recent study found the prevalence rates of PTSD to be 25.8% and depressive disorder at 34.5% (Ushindi, James & Mrukunga, 2022). There is also the challenge that the burden of unmet mental health needs was especially high among individuals between 16 years old and above. This could be attributed to the fact that mental health funding is limited and students' development stages are complex to deal with (Costello et al., 2006). PTSD and depression could be one of the most common mental disorders in DR Congo among university students living in difficult situations following exposure to traumatic experiences (Booth-Kewley et al., 2010).

Despite the higher than normal prevalence of mental health challenges among university students compared to the general population in several contexts globally, students' mental health issues are rarely prioritized, especially when budgets are constrained (United Nations Children's Fund [UNICEF], 2010). This is in spite of the fact that a wide range of mental

health disorders including PTSD and depression are now treatable. This could be attributed to the fact that mental health funding is limited and students' development stages are complex to deal with (Costello et al., 2006). Using psychotherapy services has been related to the rise in numbers of undergraduates completing their programs and improving their lives' functioning. An inquiry that was done in the United States to evaluate social life among university students revealed that students who sought therapy from campus therapy services reported less problems in educational performance as well as social relationships than students who did not take advantage of campus psychotherapy services (DeStefano et al., 2001). Generally, undergraduates who seek treatment for mental health issues perform better than those who do not (Harrar et al., 2010). Therefore, finding evidence-based and cost effective treatment for these conditions is essential and should be prioritized by the stakeholders in the university.

Cognitive interventions are well supported in the guideline treatments for PTSD and depression (Lissek & van Meurs, 2015). Cognitive behavioral therapy (CBT) has been considered the preferred treatment for PTSD and depression. It denotes a category of interventions with the fundamental premise that mental health conditions are identified by cognitive factors (Brewin & Holmes, 2013). The underlying assumption of the CBT approach argues that inappropriate cognitions contribute to maintaining both psychological and behavioral problems (Ellis, 1962). CBT is regarded as an effective treatment which focuses on altering an irrational way of thinking associated with traumatic experiences that could lead to PTSD and depression. Undoubtedly, there are several forms of CBT though the approaches by and large are meant to change irrational thoughts and dismiss any negative feelings and behaviors related to the traumatic experiences.

One of the most promising cognitive based treatments of trauma related PTSD and depression is Trauma-Focused Cognitive Behavioral Therapy (TF-CBT). TF-CBT was developed in the United States by Cohen et al. (2006) and it functions as a specialized evidenced-based treatment approach to respond to the needs of young people. The TF-CBT is a mixed treatment model that combines cognitive-behavioral principles, trauma-sensitive interventions, attachment theory, family therapy, and developmental neurobiology (Giaconia et al., 1995). TF-CBT is a straightforward treatment model for children and adolescents that involve children and adolescents' caregivers (Copeland et al., 2007). However, in this study, parents were not engaged during the intervention. This is because participants in the study did not require consent from their caregivers. TF-CBT has been related with better results over

time and in contrast with control groups, particularly among persistent and consistent therapy participants. The therapy has been found to be significantly effective in reducing PTSD and depressive symptoms in trauma related cases after 12 sessions in the Netherlands and the United States (Schoeman et al., 2009). Studies show better PTSD and depression outcome in the intervention group compared with adolescents in the TAU group in South Africa (Jensen et al., 2014) and similarly in Kenya (Kuria et al., 2018) and Uganda (O'Callaghan et al., 2013). However, there is little evidence of TF-CBT used to treat PTSD and depression among university students in DR Congo. The study, therefore, sought to determine the efficacy of Trauma-Focused Cognitive Behavioral Therapy in treating PTSD and depression symptoms among University students in Goma, DR Congo.

Methodology

This study adopted a nonequivalent control group pretest-posttest design. It is a quasi-experimental research design in which a dependent variable is measured in one group of participants before (pretest) and after (posttest) a treatment, and that the same dependent variable is also measured at pretest and posttest in another nonequivalent control group that does not receive the treatment (Copeland et al., 2007). This design was suitable because it allowed scores to be compared before and after a treatment and a nonequivalent control group that did not receive the treatment (Jensen et al., 2014).

This study was carried out in Goma town in the eastern Democratic Republic of the Congo. It is located on the northern shore of Lake Kivu, and is contiguous to the Rwandan city of Gisenyi. The study was, however, carried out in two universities. The two universities with a combined population of 4,050 students were purposively selected for this study since the universities had records of the students that met the criteria for this research. Those who took part in the study and were within the required age group presented with depression and also met at least one of the criteria in each of the clusters for PTSD as included in DSM-5. The target population for the study comprised of 488 male and female students aged 18 to 25 from the two selected private universities. The prevalence rates were as shown in Table 1.

Table 1. Prevalence of PTSD and Depression among University Students in Goma, DR Congo

Gender	PTSD	Depression	Total
Male	68	103	171
Female	141	176	317
Total	209	279	488

The 488 students who had initially volunteered for the preliminary sample and presented with symptoms of PTSD and Depression were then asked to volunteer for the experimental phase of the study. Casagrande et al. (1978) formula was concurrently applied to the population to determine the appropriate sample size for the experiment and resulted in a sample size of 147 participants. Consecutive sampling was used to select the 14 students from the initial 488 who had shown signs of PTSD and Depression. The inclusion criteria for this study involved appropriate participants that were university students aged between 18 to 25 years. Those who were below this age group were excluded. Participants were male and female junior students (first to third year of study) and senior students (fourth to fifth year of study). Those within the preferred age group who did not display PTSD symptoms in any of the clusters and who were not between moderate to clinical symptoms (Score 30 and above for PTSD and score from 17 and above on the BDI) were excluded from participating in the study.

Data for the study was collected using several instruments. A researcher-formulated questionnaire was used together with other standard instruments. The researcher-formulated questionnaire focused on socio-demographic information and traumatic events. The PTSD Checklist for DSM-5 (PCL-5) which is a 20-item self-report measure that assesses the presence and severity of PTSD symptoms was also used. This tool was translated into French since DR Congo is a French-speaking country and it was used on university students on both sites to assess PTSD symptoms. Lastly, the Life Events Checklist (LEC) was administered to measure the levels of PTSD. This study additionally used Beck's Depression Inventory (BDI). This is a standardized tool that tests prevalence and severity of depression among participants. Participants are required to report the extent to which they have been disturbed by each of the 21 symptoms in the previous two weeks of the evaluation including the day of their completion of the BDI.

The study designated one university as the experimental (TF-CBT treatment) group while the other university was designated the control (TAU) group which did not receive TF-CBT treatment but other psychotherapy treatments. The experimental group had 75 participants while the control group had 72. The participants in the experimental group were further subdivided into five sub-groups following the recommendation of WHO (2016) that TF-CBT participants to be 10 to 15, to allow each member appropriate time to participate during the one-and-a-half-hour session. The 72 participants in the control group were not divided into sub-groups since they were not given the TF-CBT treatment but TAU instead. The treatment was administered to the experimental group on a weekly basis as from 12:00PM to 2:00PM during break time. This kind of schedule was applied to fit into the student's program and reduce to minimum, chances of interfering with their classes.

Statistical analysis began with descriptive statistics of continuous (mean and standard deviation) and categorical (proportions) variables to establish the prevalence of PTSD and depression among the student participants. The study also used Factor Analysis (FA) and the Independent Sample T-Test to determine the treatment response between the control and experimental groups over the baseline, midline and end line stages. The Independent Sample T-Test is a parametric test was also used to compare the means of two independent groups in order to determine whether there was statistical evidence that the associated population means were significantly different. The difference-in-difference (DID) test was also applied in the study. Pairwise comparison is a process of comparing alternatives in pair to judge which entity is preferred over others, or has a greater quantitative property. It is used to determine the difference in difference means to access alternatives by providing an easy way to rate and rank decision-making.

Results

Data was collected from 147 university students both male and female from the two selected private universities using the socio-demographic questionnaire, PCL-5 and BDI.

Table 2 presents the factor analysis of dimension reduction – PTSD.

Table 2: Factor Analysis of Dimension Reduction - PTSD

	Participant's		Mean	Std.Approx. Chi-	square	df	Sig.
	research groups	N					
Participant's PTSD raw score at baseline	Experimental	75	34.71	14.388	12.274	3	.007
	Control	72	30.04	16.965			
Participant's score on PTSD at midline	Experimental	75	16.16	12.689	15.424		
	Control	72	25.03	15.424			
Participant's score on PTSD at endline	Experimental	75	13.44	8.857	15.304		
	Control	72	25.65	15.304			

As shown in Table 2, the mean of PTSD at baseline in the experimental research group which was $34.71 \pm$ (SD: 14.388) was observed to reduce to $16.16 \pm$ (SD: 12.689) at mid line assessment period and further reduced to $13.44 \pm$ (SD: 8.857) at end line. This was an indication of the efficacy of the TF-CBT in treating PTSD. In control group, it was also observed that the mean PTSD at baseline was $30.04 \pm$ (SD: 16.965), which was noticed to reduce to $25.03 \pm$ (SD: 15.424) at mid line but slightly increased to $25.65 \pm$ (SD: 15.304) at end line. The slight changes in /reduction in PTSD presentation in the control group was attributed to the efficacy of PTSD and the possible resilience of the students which made them overcome some of the symptoms of PTSD. The chi-square indicated that the variability observed in both research groups was significant over the three periods of assessment ($p=0.007$). This implied that there were significant changes in the symptoms of PTSD between baseline and end line.

Table 3 presents the independent sample T test, testing the effectiveness of TF-CBT on PTSD among the participants from baseline to end line.

Table 3: The Independent Samples T Test, Testing Effectiveness of TF-CBT on PTSD

Participant's scores on PTSD	Equality of Variance		T-Test for Equality of Means					95% CI of Difference	
	F	Sig.	T	Df	Sig.	Mean Difference	Std. error Difference	Lower	Upper
Baseline	5.275	.023	1.801	145	.074	4.665	2.591	-.456	9.786
Midline	2.583	.110	-3.813	145	.000	-8.868	2.326	-13.464	-4.271
Endline	20.229	.000	-5.951	145	.000	-12.213	2.052	-16.269	-8.157

Table 3 shows that there was a significant difference in the means at both mid line ($p=0.000$) and at end line ($p=0.000$). This implied that TF-CBT was effective at both mid line and end line in the treatment of PTSD in this study.

Table 4 depicts the difference in difference pairwise comparisons of PTSD in the study. It shows the difference in difference (DID), pairwise comparisons statistics to determine the superiority of TF-CBT treatment approach over the treatment as usual at control group on PTSD.

Table 4: Difference in Difference Pairwise Comparisons of PTSD in the Study

Dependent Variable	(I) Participant's research groups	(J) Participant's research groups	Mean Difference (I-J)	Std. Error	Sig. ^b
Participant's PTSD raw score at baseline	Experimental group	Control group	4.665	2.591	.074
	Control group	Experimental group	-4.665	2.591	.074
Participant's score on PTSD at midline	Experimental group	Control group	-8.868*	2.326	.000
	Control group	Experimental group	8.868*	2.326	.000
Participant's score on PTSD at end line	Experimental group	Control group	-12.213*	2.052	.000
	Control group	Experimental group	12.213*	2.052	.000

As shown in Table 4, the mean difference from baseline to end line in experimental-control group was ± 12.213 ($p=0.000$). This placed the superiority of TF-CBT over the treatment as usual, and corresponded with the Independent Sample T-Test result.

Table 5 presents the factor analysis of dimension reduction - depression.

Table 5: Factor Analysis of Dimension Reduction - Depression

	Participant's research groups	N	Mean	Std. Deviation	Approx.		
					chi-square	df	Sig.
Participant's DD raw score at baseline	Experimental group	75	21.04	8.912	31.014	3	.000
	Control group	72	20.11	10.258			
Participant's scores on depression at midline	Experimental group	75	8.36	7.556			
	Control group	72	8.88	5.686			
Participant's scores on depression at end line	Experimental group	75	6.28	5.608			
	Control group	72	13.81	8.302			

As shown in Table 5, the mean depressive illness at baseline in the experimental research group was $21.04 \pm$ (SD: 8.912) was observed to reduce to $8.36 \pm$ (SD: 7.556) at mid line assessment period and further reduced to $6.28 \pm$ (SD: 5.608) at end line. Similarly, in the control group, it was also observed that the mean Depression score at baseline was $20.11 \pm$

(SD: 10.258). This was noticed to reduce to $8.88 \pm (SD: 5.686)$ at mid line but significantly increased to $13.81 \pm (SD: 8.302)$ at end line. This could be attributed to the changing patterns in the effectiveness of TAU and also the students' ability to cope with the depressive symptoms over time. The chi-square indicated that the variability observed at both research groups was significant over the three periods of assessment ($p=0.000$). This implied that there were significant changes in the symptoms of depressive illness between baseline and end line.

Table 6 depicts the independent samples T Test testing the efficacy of TF-CBT on depression.

Table 6: Independent Samples T Test Testing the Efficacy of TF-CBT on Depression

Participant's Scores on Depression	Equality of Variance		T-Test for Equality of Means				95% CI of Difference		
	F	Sig.	T	Df	Sig.	Mean Difference	Std. error Difference	Lower	Upper
Baseline	.751	.388	.587	145	.558	.929	1.583	-2.200	4.058
Midline	5.185	.024	-.465	145	.642	-.515	1.106	-2.702	1.672
Endline	14.943	.000	-6.464	145	.000	-7.526	1.164	-9.827	-5.224

As indicated in Table 6, there was a statistically significant difference in the means at end line ($p=0.000$) but insignificant at mid line ($p=0.642$). This implied that TF-CBT was effective at end line in the treatment of depression in this study. The difference in difference pairwise comparisons of depression in the study is as shown in Table 7.

Table 7: Difference in Difference Pairwise Comparisons of Depression in the Study

Dependent Variable	(I) Participant's research groups	(J) Participant's research groups	Mean Difference (I-J)	Std. Error	Sig. ^b	95% Confidence Interval for Difference ^b	
						Lower Bound	Upper Bound
Participant's DD raw score at baseline	Experimental group	Control group	.929	1.583	.558	-2.200	4.058
	Control group	Experimental group	-.929	1.583	.558	-4.058	2.200
Participant's scores on depression at midline	Experimental group	Control group	-.515	1.106	.642	-2.702	1.672
	Control group	Experimental group	.515	1.106	.642	-1.672	2.702
Participant's scores on depression at end line	Experimental group	Control group	-7.526*	1.164	.000	-9.827	-5.224
	Control group	Experimental group	7.526*	1.164	.000	5.224	9.827

Based on estimated marginal means

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

b. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

Table 8 shows that the mean difference from baseline to end line in the experimental-control group was ± 7.526 ($p=0.000$). This placed the superiority of TF-CBT over the treatment as usual, and corresponded with the Independent Sample T-Test result.

Discussion

The independent sample t-test carried out in this study suggested that TF-CBT was effective in the treatment of PTSD ($p=0.000$). From the independent sample T- tests in the current study, it was evident that the effect of TF-CBT on the management of PTSD began much earlier during the midline interventions and manifested significant improvements from the status of PTSD at the baseline to the end line. The results also provided evidence that TF-CBT significantly outperformed TAU in the treatment of PTSD both at the midline and end line. This finding tallies with a previous randomized clinical trial in Zambia where the trauma symptoms decreased by 81.9% among those who received TF-CBT, a statistically significant greater reduction than the 21.1% symptoms among the control group, resulting in a large effect size of 2.39 (Murray, et al., 2015). Also, TF-CBT was tested with adolescents in college for PTSD, anxiety and depression. The result showed that the intervention approach was efficacious to treat PTSD. Significant improvements were also noted for anxiety and depression (Peters, et al., 2021). Several other studies also found TF-CBT to be effective in

the treatment of PTSD among university students (Aarons et al., 2017; Canale et al., 2022; John-Baptiste et al., 2020; Locke et al., 2020). Therefore, on the basis of the results of the present study and other previous studies, it can be inferred that TF-CBT was not only more effective as psychotherapy against PTSD but was indeed more efficacious than the alternative TAU applied in most situations.

Additionally, the effectiveness of TF-CBT in reducing depression in the present study revealed that the intervention was efficacious at end line ($p=0.000$) but not effective at mid line ($p=0.642$). A comparison of TF-CBT with TAU using the DiD pairwise comparisons also showed that both interventions were effective in the treatment of trauma-related depression only in the end line, however, TF-CBT was more effective than TAU size effect notwithstanding. The results further showed that the means of TF-CBT in the PTSD management was higher than that of TF-CBT in the management of depression. These results imply that in its current form, TF-CBT was better suited for the management of PTSD rather than TAU. However, while TF-CBT performed better than TAU in the management of depression, its effect was limited as compared to its efficacy in treating PTSD effect of sizes notwithstanding.

These results were in agreement with other studies, for example, Peters et al (2021), who found that TF-CBT was effective in treating PTSD, and significant improvement was also noticed for co-occurring conditions such as depression and anxiety. In the same way, TF-CBT proved to be effective to treat PTSD and other improvement with smaller effect sizes on depression, self-esteem, and personal relationship compared to the control group (Lee & Lee, 2020). Moreover, a study that was carried out in the United States of America among 156 traumatized adolescents aged 15 to 29 years randomly assigned to TF-CBT or TAU showed that those who received TF-CBT had significantly lower levels of PTSD, depression, and general mental health symptoms, compared with adolescents in the TAU group (Jensen et al., 2014). Therefore, consistent with findings from other previous studies, the results of the present study imply that TF-CBT has more promise compared to other available interventions in the treatment of PTSD among persons with a history of trauma such as university students from conflict prone areas like DR Congo. TF-CBT can also be effective in the treatment of other comorbidities such as depression among such groups of individuals compared to TAU though its effect is rather limited in depression management.

Conclusion

It was evident from the findings that TF-CBT was effective in the treatment of trauma related PTSD and depression among the university students in the DRC. The reductions in PTSD and depression in the experimental group observed was attributed to the efficacy of the TF-CBT intervention. On the other hand, the slight reduction in TF-CBT in the control group could be attributed to the efficacy of TAU and also the resilience of the participants. Therefore, on the basis of the current results and those of other previous studies, it can be concluded that TF-CBT was not only more effective as a psychotherapy against PTSD but was indeed more efficacious than the alternative TAU applied in most situations. A similar conclusion can also be made regarding the effectiveness of TF-CBT in the treatment of other comorbidities such as depression among such groups of individuals compared to TAU though its effect is rather limited in depression management. It is therefore recommended that mental health professional therapists should adopt this intervention approach in their practices because of the available evidence-based studies that have proven this approach to be effective in addition to what this current study has found. Further, TF-CBT was found to be highly effective in trauma-related PTSD management among both in the midline and end line, however, its effectiveness in the treatment of depression was limited to only the end line. The study, therefore, recommends that more research needs to be undertaken on how to improve the efficacy of TF-CBT in depression management. A possible approach will be the combinational therapy of TF-CBT with other psychotherapies to establish the most promising combination in terms of treatment outcomes and cost.

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