

Combat exposure and PTSD among military combatants in North East Nigeria

Abstract

This study examined the influence of combat exposure on PTSD among military combatants in the North Eastern part of Nigeria. A total of 249 participants participated in the study through a purposive sampling technique. Participants include both officers and men of the Nigerian army on operation. An ex post factor design was employed in the study. It was hypothesized that there will be a significant effect of combat exposure on PTSD which was found to be significant (3, 249)=763.269 $P<0.05$). Furthermore, Combat exposure was found to be significant on avoidance symptoms (3,249)=70.817 $P<0.05$ and re-experiencing symptoms(3,249)=130.206, $P<0.05$). However, combat exposure was found not to be significant on hyper arousal symptoms (3,249)=96.685 $P>0.05$. There is a need for mental health assessment before and after deployment of military personnel, as this would help in managing their distress.

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Binan Evans Dami,¹ Abel James,² Dagona Zubairu,³ Haruna karick,³ Samuel Dakwak³¹Clinical Psychologist/Writer/Researcher/Mental Health Practitioner, Nigeria²Nigerian Military, Kinnasara Barracks, Nigeria³Department of Psychology, University of Jos, Nigeria**Correspondence:** Binan Evans Dami, Clinical Psychologist/Writer/Researcher/Mental Health Practitioner, Nigeria, Email evansbinan@gmail.com**Received:** July 30, 2018 | **Published:** August 15, 2018

Introduction

Combat exposure and PTSD among military combatants in north east Nigeria

Over the years, concerns have been raised about the involvement of the military all over the globe in war and peace keeping operations after war have been fought. This war has led to the destruction of lives and properties as innocent civilians become victims, the perpetrators become victims too, and the liberators (Military and other agencies) become more and more vulnerable. What we have here in Africa have been series of armed conflict across the African countries and in the process, a lot of persons have lost their lives. Traumas do not exist in vacuum.¹

Trauma is a universal phenomenon, experienced all over the world over and across time. Poets and novelists as far back as Homer and Shakespeare were among the first to record the profound impact of trauma and its subsequent stressors on human cognition, behaviour and emotion.² Exposure to traumatic events, such as war, conflict, natural and human-made disasters, assault and life threatening illnesses are common, with over two thirds of the general population likely to be exposed to a traumatic incident in their lifetime.³

Our military forces have been engaged in trying to restore sanity at the continental level through the African Union medium and then regionally through the Ecomog Monitoring Group (ECOMOG) as we have seen over the years. Internally, our military forces have been involved in trying to work for internal peace. Our military have been out stretched in peace keeping missions. They have been on operation fields from the troubled North Eastern part of Nigeria ravaged by BOKO HARAM to the South East troubled by IPOB secession group, to the South South with the Niger Delta Avengers, the North Central troubled by Nomads and farmers clash and so; these issues and many more have led to the deployment of our military to various combat grounds just in a way to curbing these fore bearing menace. In the event of these deployments, they are more often taken to different operations such as the operations BOYONA, LAFIA DOLE, SAFE HAVEN, CROCODILE TEARS, and many more; these are likely to set the ground for trauma. Brewin et al.,⁴ also studied predictors of PTSD and showed that pre-trauma risk factors have relatively weak

predictive effects, while trauma intensity and post-trauma risk factors have somewhat stronger predictive effects. For instance, a lack of social support, life stress, trauma severity, childhood abuse, and other adverse childhood experiences were strong predictors of PTSD.

Exposure to traumatic life events can consequently have a series of serious adverse psychological effects. In the last three decades there has been an increase in the discussion of trauma and its effects, with particular focus on posttraumatic stress disorder(PTSD).⁵ Previous systematic reviews have documented PTSD to be the most commonly studied psychopathology in the aftermath of trauma.^{3,6,7} PTSD is characterized by several interrelated symptom clusters including reexperiencing symptoms(e.g., intrusive thoughts, recurrent dreams, flashbacks, distress and physiologic reactivity upon exposure to trauma cues), avoidance and emotional numbing symptoms(e.g., avoidance of traumatic reminders, anhedonia, detachment from others, restricted emotional experiences, sense of foreshortened future), and hyperarousal symptoms(e.g., sleep difficulties, irritability and anger, concentration problems, hypervigilance, exaggerated startle).⁸

PTSD is often been studied among military personnel in relation to combat trauma.^{4,9-11} The effect of combat on PTSD in military personnel is a major concern among the public, military leaders, and policy makers in the areas of policy re-draft,¹² indeed, it can be a debilitating consequence of severe or life-threatening trauma.⁶ Moreover, PTSD can cause substantial distress and interfere with personal and social functioning, subsequently leading to social withdrawal, anger, and aggression.¹³⁻¹⁶ Furthermore, PTSD in military populations has a pervasive impact on military readiness and the accomplishment of military goals.¹⁷

Meis et al.,¹⁸ post-traumatic stress disorder related emotional numbing in veterans promotes emotional withdrawal from intimate relationships and without decreased positive engagement, intimacy and opportunities for effective and validating communication. Additionally, angry outbursts can reduce the frequency and effectiveness of communication, problem solving and social support.¹⁹ Makput & Rabbebe²⁰ reported, 70(28%) out of the 250 respondents in their study developed PTSD. Of the 130 males who participated in the study, 30(23.1%) developed PTSD, compared to 40(31.8%) of the 126 females. Thus of the 70 total number of participants

who developed PTSD, 30(42.9%) were males and 40(57.1%) were females. Therefore, in terms of PTSD prevalence by gender, more females developed PTSD giving a M:F ration of 1:1.4. The disastrous effect of these frequent deployments on the Nigerian military and their mental health is what this study tries to establish.

Statement of problem

The persistent deployment of military personnel across crisis affected areas can hardly be avoided as long as crisis continues to be persistent to in most of these societies. After these wars, a lot of works come on board, action based research studies have mostly been conducted in these regions just to ensure that the civilians and other victims of these war fare are attended to. Studies have indicated that psycho social intervention have been conducted in Vietnam, Kosovo, Afghanistan, Iraq and more other countries. A study conducted in Kosovo in 2003 four years after the end of the war against Serb forces showed a PTSD level of 25% while an Afghanistan study from 2004 conducted during a Taliban – led insurgency showed a PTSD level of 42.1 percent both dramatically lower than the Iraqi level, Cadizo et al.²¹

Examination of large fairly representative samples of men and women age 16 or older in Algeria, Cambodia, Ethiopia and Gaza; Jong, Komproe, Ommeren, Masri, Araya found higher rate of PTSD in each sample(37.4%, 28.4%, 15.5% and 17.8% respectively). Most of these studies have been carried out on civilian groups within Nigeria but there still are few studies. When military personnel return from military observation and military operations, they are often noticed by significant others to start exhibiting some mal adjustment symptoms especially in interactions and even events that exposes them to the public. This PTSD could be related to the field experiences and other activities they had engaged in at war front. The military show different degree of fear and anxiety and if it is persistent and irrational and lasting for longer period could be termed as pathological. The fear could be fear of death, fear of killing innocent victims and other factors could equally cause or increase the intensity of the fear. A study conducted by Dauda et al.,²² using 102 military personnel, found a significant difference in PTSD between military personnel who had been to operations and have had combat exposure to military personnel who have not been to military operations in Nigeria. The military that are at the front of these battles are the liberators and they need to be taken care of. In most instances, because the military have been over stretched, these personnel go away from homes for months and in some instances years. And what happens after they are gone is that upon return from one operation, they are then taken in for another in another operation somewhere in another part of the country; these stress and stressors contribute in taking them down most times. This study is interested in assessing the impact of combat exposure on the PTSD among these military combatants in North East Nigeria as currently, there seem to be a paucity in literature on this in the North East Nigeria.

Aim of study

The aim of this study is to investigate the impact on combat exposure on PTSD among military combatants in the North Eastern part of Nigeria.

Hypotheses

- a) There will be a significant main effect of combat exposure on PTSD among military personnel.

- b) There will be a significant main effect of combat exposure on avoidance symptoms
- c) There will be a significant main effect of combat exposure on re-experiencing symptoms.
- d) There will be a significant main effect of combat exposure on hyper arousal symptoms.

Method

Measure

The Combat Exposure Scale (CES) developed by Keane et al.,²³ is a 7-item self-report measure that assesses wartime stressors experienced by combatants. Items are rated on a 5-point frequency(1="no" or "never" to 5="more than 50times"), 5-point duration(1="never" to 5="more than 6 months"), 4-point frequency(1="no" to 4="more than 12times") or 4-point degree of loss(1="no one" to 4="more than 50 %") scale. Respondents are asked to respond based on their exposure to various combat situations, such as firing rounds at the enemy and being on dangerous duty. The total CES score(ranging from 0 - 41) is calculated by using a sum of weighted scores, which can be classified into one of five categories of combat exposure ranging from "light" to "heavy." The CES was developed to be easily administered and scored and is useful in both research and clinical settings (U.S. Department of Veterans affairs, 2016). Internal consistency: The mean score on the Combat Exposure Scale was 25.57 (*SD* = 10.12); scores ranged from 1 to 41. Coefficient alpha was calculated and yielded a value of .85. This high degree of reliability indicates that the items are measuring the same or a very similar construct. As a second measure of internal consistency, we computed item-remainder total score correlations. The average correlation was .75(range=.64 to .83).

Principal-components analysis A principal-components analysis using varimax rotation generated a single factor with an eigenvalue greater than 1.0. The item loadings are contained in Table 1 and accounted for 57.6% of the common variance among the items. Because a single factor accounted for a high percentage of the variance, the scale seems to measure a single, consistent construct of combat exposure. *Reliability.* Test-retest reliability with a 1-week interval was calculated for all three groups combined, $r(29)=.97$, $p<.0001$. There were no between-group differences in the test-retest correlations. The means for Time 1 and Time 2 were 23.2 and 22.2, respectively, indicating excellent stability over this time period.

Descriptive statistics The mean scores on the CES were 29.37(*SD* = 6.12) for the PTSD group and 22.84(*SD* = 10.42) for the VVL group, a difference that attained statistical significance, $t(60) = 2.98$, $p < .005$. As predicted, the PTSD group reported greater amounts of combat exposure than did the VVL group. This may be attributed to either actual differences in amount of combat exposure or differences in subjective recall of combat experience by clinically distressed individuals. Scores on the CES were significantly correlated with scores on the Mississippi Scale for the VVL group, $r(30)=.43$, $p<.01$; however, the corresponding correlation for the PTSD group did not reach statistical significance. The absence of a significant correlation for the PTSD group is likely due to the truncated range of scores for these subjects on the CES and the Mississippi Scale. Neither age nor educational level correlated with scores on the CES.²³

Table 1 Test of between subject effects using a multivariate analysis

Tests of between-subjects effects						
Source	Dependent variable	Type III sum of squares	Df	Mean square	F	Sig.
CE	Re- experiencing	390.619	3	130.206	4.58	0.004
	Avoidance	212.45	3	70.817	2.758	0.043
	Hyper arousal	290.056	3	96.685	1.713	0.165
	Post Traumatic Stress Disorder	2289.808	3	763.269	2.767	0.042

Also, a PTSD military version questionnaire was administered. The Posttraumatic Stress Disorder Checklist-Military²⁴ is a self-report rating scale that measures PTSD symptom severity in military veterans. The PCL-M is a 17-item self-report questionnaire. Items include: “How much have you been bothered by repeated, disturbing, memories, thoughts, or images of a stressful military experience in the past month?,” “How much have you been bothered by repeated, disturbing dreams of a stressful military experience in the past month?,” and “How much have you been bothered by feeling emotionally numb or being unable to have loving feelings for those close to you?” Participants respond using a 5- point scale that ranges from 1(not at all) to 5(extremely). The scale is scored by calculating a total score. This score is derived by adding the responses to all scale items. The total score may range from 17 to 85, where elevated scores suggest greater severity. Ratings are chosen according to how much the veteran has been disturbed by a particular traumatic military-related incident. The items included on the scale are based on current DSM criteria. In addition, the scale has proven useful with both male and female veteran populations.²⁴ This scale has been shown to be both valid and reliable ($\alpha=.96$) in previous research. The internal reliability for the sample used in the current study was .96. The PCLM was scored by adding up all the items for a total severity score. A total score of 50 was considered to be PTSD positive in military populations.²⁴ Thus, the 44 dependent variable of PTSD was dichotomous(1=PTSD vs. 0=no PTSD).The percentage of participants that were in the PTSD group was 24.6%(compared to 68.7% that was classified as not having PTSD). Because this instrument has not enjoyed popular usage in Nigeria, two weeks test-retest reliability was carried out among 90 soldiers deployed in Mongunu Nigeria and a coefficient of 0.89 was obtained.

Participants

This causal comparative research, carried out among the Nigerian military personnel deployed in the North-eastern part of Nigeria fighting insurgency. Purposive random sampling technique was employed to select the participants from 8 task force division; Mongunu and its area of responsibility were purposively chosen. Total sample of two hundred and fifty one hundred (251) military personnel with combat operational experience in the North-East fighting insurgency that were deployed in their various locations were used for the study. Two hundred and fifty one(251) soldiers participated in the research work, but 250 questionnaires were actually used, one was discarded. Participants are within ages 20 to 60, 46% are within the ages of 20 -30, 33.2 % are within ages of 31-40, 20.8% are within ages 41-50, and 2.4% are within ages 50-60; 91.2 % males and 6.4% females, 2.4% didn’t indicate their gender; 97.2% men and 2.8 officers, 64% Christians 36% Muslims, 67.6% married, 29.2% single, and 3.2% divorced; and majority of personnel have exposure to combat.

Research design

In examining Combat stress exposure on PTSD an ex post factor design was employed in this study.

Procedure

One of the researchers personally visited the military personnel in their various deployment trenches, meeting points such as calling point and internet browsing, the wounded ones in the Hospital, soldier’s club amongst others to administer the questionnaire. Only participants who agreed and were willing to participate in the study were given the questionnaires to fill. The researcher was as flexible as possible during administration of questionnaire in order to achieve higher response from participants. The researcher used suitable conversational tunes, and reinforces examinees efforts and level of ability. The non-probability(purposive) sampling technique was applied to select the participants from different units in Headquarters 8Task Force Division Nigerian Army, Kinnasara Cantonment Barracks Mongunu, 8 Task Force Division Hospital, 7 Brigade Baga, and 5 Brigade Gubio were used for the study. The questionnaire is self-administered, so it was distributed to the soldiers, One of the researchers being a military psychologist deployed among the soldiers was familiar with the deployment and as well as the population of interest. With the permission from the authority who gathered the soldiers for the study, he was able to interact freely among the personnel. Every participant that meets the criteria and accepts participating in the study was allowed. This sampling approach is chosen because the study is made up of special population that is not commonly found. As a result, only military personnel with combat operational experience were included in the study.

Ethical consideration

The researcher also obtained permission from the General officer commanding the troops to get informed consent of the participants. Thereafter, the purpose of the study was briefly explained to all the participants with the assurance that information given will be treated with utmost confidentiality. Confidentiality of the deployed military personnel responses and strict adherence to individual privacy were fully assured. Consequently those willing to participate were made to complete the questionnaires administer to the participants through the clinicians who serve as research confederates in the Division Hospital and its area of responsibility. After 60minutes, the questionnaires were collected from the participants.

Method of data analysis

Descriptive statistic was employed to obtain descriptive data and then inferential statistic was used to obtain results in respect to the hypotheses stated earlier. The one way ANOVA was used.

Choice of statistics: the ex post factor was used to influence of combat exposure on PTSD and other domains of PTSD as well.

Result

Interpretation

Hypotheses one

It was hypothesized that; there is a significant main effect of combat exposure on PTSD among military combatants. Result shows that, there is a significant main effect of combat exposure on PTSD among military combatants. The result presented as $(3,249)=763.269$ $P<0.05$. Therefore, the alternate hypothesis was accepted indicating that combat exposure has a significant main effect on PTSD.

Hypotheses two

It was hypothesized that; there is a significant main effect of combat exposure on avoidance symptoms. Analysis revealed a significant main effect of combat exposure on avoidance symptoms. The result presented as $F(3, 249) =70.817$ $P<0.05$. Therefore, the alternate hypothesis is being maintained.

Hypotheses three

It was hypothesized that there is a main effect of combat exposure on re-experiencing symptoms. The result represented as $F(3, 249)=130.206$, $P<0.05$. Re-experiencing symptom was found to be significant.

Hypothesis four

It was hypothesized that there is a significant main effect of combat exposure on hyper arousal symptoms. Analysis revealed that there was no significant main effect of combat exposure on avoidance symptoms. The result presented as $(3, 249)=96.685$ $P>0.05$.

Discussion

Firstly, combat exposure was found to be significant on PTSD. As these military personnel are exposed to battle grounds and combats, they are likely to develop PTSD. Studies have indicated a positive relationship and even causal effect of combat exposure on PTSD.²² The exposure of these military troops in persistent warfare with debriefing in between times is likely to increase their chances of getting PTSD. Some of them are likely to be in a peri-trauma, post trauma and trauma state and so a little stressor is likely to trigger maladaptive behaviour in them. Brewin et al.,⁴ also studied predictors of PTSD and showed that pre-trauma risk factors have relatively weak predictive effects, while trauma intensity and post-trauma risk factors have somewhat stronger predictive effects. For instance, a lack of social support, life stress, trauma severity, childhood abuse, and other adverse childhood experiences were strong predictors of PTSD. Secondly, combat exposure was found to be significant on avoidance symptom. This goes a long way to explain that majority of these combatants are likely not to find it easy remembering the traumatic occurrence, they are likely to numb the symptoms and live in pains.²⁵⁻²⁷

Thirdly, combat exposure was seen to be positive on re-experiencing symptoms. This can come up through dreams, nightmares and other frightening thoughts that use to have. However, despite having PTSD, avoidance symptoms, and re-experiencing symptoms to be positive,

the hyper arousal symptoms were found not to be significant with combat exposure. There could be factors that account for this and further studies should be able to explore further.

Conclusion

Stemming from the findings of this study, there is a need for certain things to be in place. Since war and armed conflicts can hardly be averted but alleviated rather, these military combatants should be properly taken care of on combat grounds. There is a need for these military combatants to be provided with trauma debriefing and counselling, on, before, and during these moments. There should be an active team of mental health experts to always examine and prepare their minds at most times before going on war fronts. The welfare and other provisions of these military combatants should not be played with. There should also be periodic mental health exams and check up for these personnel so as to indicate areas of interest. Furthermore, in the course of duty and long deployment, they should be granted short breaks or paroles to go home, refresh, and gather some social support from family members. Despite the fact that the military has been stretched out in its task over there is a need for it to ensure the welfare of their personnel and one of the ways of doing this is to ensure that their personnel are psychologically balanced, this on a long run will promote achievement of organizational goals.

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None.

Conflict of interest

Authors declare that there is no conflict of interest.

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