

Religious affiliation, 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 respondents participated in the study through a purposive sampling technique. Participants include both officers and men of the Nigerian army on the operation LAFIA DOLE. An ex-post facto design was employed in the study. It was hypothesized that religious affiliation and combat exposure would have a significant interaction effect on PTSD which was not significant (3, 249) 295.187 = $P > 0.05$. Religious affiliation was found to be significant on PTSD (1, 249) = 1485.215 $P < 0.05$, and combat exposure found to be significant on PTSD (3, 249) 3092.335 = 130.206, $P < 0.05$. Furthermore, it was hypothesized that religious affiliation would have a significant main effect on Avoidance symptoms and re-experiencing symptoms; and both turned out to be significant, with $F(1, 249) 228.546 = P < 0.05$ for avoidance and (1, 249) 168.379 = $P < 0.05$ for re-experiencing symptoms respectively. Religious affiliation was found not to be significant on hyperarousal symptoms (1, 249) 109.091 = $P > 0.05$. There is a need for combatants' religious coping options to be buffered, this would help in stress buffer and other self-management techniques inherent in their cultural values.

Volume 9 Issue 2 - 2018

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Received: January 16, 2018 | **Published:** March 27, 2018

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From an advent of wars and armed conflict in our society today, it has become quite important to note that the role of the military in a country as Nigeria has become conspicuous as the military has been overstretched in many instances. The military personnel has been taken off their homes to new areas of duty in order to curb insurgency in the Northern part of Nigeria, crimes in the Eastern and Western part of the country and even agitations in other parts of the country. At the continental level, our military has been exposed to high powered military missions in Sudan, Liberia, Sierra Leone, and a host of other countries. However, despite these various exposures to combat and many more, some of the military personnel come back with praises of a successful outcome, while others come back with many pains. The role of religion cannot be underemphasized in the lives of these combatants as most of them belong to a particular religious sect and they heed to their various religious practices which in turn may likely be a buffer for them even while on the battlefield. Findings from the Baltimore Epidemiologic Catchment Area Study indicated that individuals who reported ever seeking spiritual comfort at Wave 3 assessment had decreased odds of suicidal ideation at Wave 4 as compared to those who reported never seeking spiritual comfort at Wave 3.¹ Literature examining the relationship between spirituality, religion, and anxiety disorders and suicide is less robust.¹ Subjective religiosity (the extent religious beliefs are a source of comfort/strength) was shown to be associated with both women veterans² and male veterans³ with sexual assault experience. Spiritual well-being was also found to be a mediator of the effect of a mantra (a sacred word or phrase repeated over and over) intervention to decrease PTSD symptoms in veterans with military trauma.⁴ Other studies have examined interventions that include a spirituality component to help promote resilience,⁵ reduce health risks,⁶ integrate health promotion and wellness,⁷ and

reduce PTSD symptoms in veterans exposed to trauma,⁸ though all indicate that further, more robust research is warranted in these areas. In a great attempt, researchers have been able to explore resilience, stress recovery factors available to the military which will help them as a buffer factors with the traumatic stress often inherent in combat-exposure: the role of positive and negative religious coping, and additionally, the meanings they attach to their duties. One type of constructive response to trauma and stress found to have positive effects on mental health involves the construct of religious coping.⁹⁻¹¹ Nigeria has a multicultural society and individuals from this society are incorporated into the army keeping in mind their various religious sect. In Nigeria, Christianity, Islam, and African traditional religion are the dominant religious sects and these religious beliefs inherent in these sects are likely to stand in as buffers. Studies have seen the positive relationship between religion and health outcomes.¹² Fontana & Rosenheck¹³ found that traumatic combat experience, mediated by guilt, weakened the religious faith of veteran. Chen & Koenig¹⁴ studies on traumatic stress and religion provided the basis for other studies to hinge on. Mental health treatment has traditionally eschewed addressing religious matters, regardless of the diagnoses, despite evidence suggesting that religious issues are intimately tied to psychological well-being.^{14,15} Research studies have shown that Veterans report guilt and shame related to their traumatic military experiences.^{13,16} These emotional responses are understandable given the extremely challenging circumstances of war, such as being required to kill other human beings.¹⁷ As well, guilt and shame are often related to actions taken or witnessed during the war that are directly opposed to personal values and/or personal spiritual and religious assumptions. Indeed, many survivors seem to be morally "wounded" by their traumatic military experience. Litz et al.¹⁶ suggest that experiences in war, such as witnessing and perpetrating violence, facing ethical situations without knowing how to respond, and lacking the ability to help those in need can contradict deeply held moral beliefs that may be directly tied to personal religiosity. The Veteran trauma survivor

may struggle to make meaning out of the experiences, by either trying to reconcile the trauma with their current beliefs or by changing their beliefs as a result. In addition, guilt and shame may trigger distressing intrusive recollections of the moral transgression and consequently lead to avoidance of trauma reminders and general withdrawal from others.¹⁶ These traumatic experiences may shatter the Veterans faith in a “just” God, alter spiritual and religious systems or even challenge meaning and purpose in life.¹⁸

Falsetti et al.¹⁹ found that after experiencing their first trauma, individuals who developed PTSD were more likely to report changes in religious beliefs than those who did not develop PTSD. Drescher & Foy²⁰ reported that 74% of Vietnam Veterans enrolled in PTSD residential treatment had difficulty reconciling their religious beliefs with the traumatic events they had experienced in Vietnam. Finally, Fontana & Rosenheck¹³ found that traumatic combat experiences, mediated by guilt, weakened the religious faith of Veterans. These studies support the notion that trauma and PTSD can impact one’s experience of religiosity. However, there is limited research on the way existing personal religiosity predicts traumatic stress, specifically as it relates to PTSD. Chen & Koenig¹⁴ review of the traumatic stress and religion literature yielded some good results on religion and health outcomes. 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, behavior, and emotion.²¹ 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.²² Brewin et al.²³ 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 a particular focus on Post Traumatic Stress Disorder (PTSD).²⁴ Previous systematic reviews have documented PTSD to be the most commonly studied psychopathology in the aftermath of trauma.²⁵ PTSD is characterized by several interrelated symptom clusters including re-experiencing 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).²⁶ PTSD is often been studied among military personnel in relation to combat trauma.^{27,28} 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,²⁹ indeed, it can be a debilitating consequence of severe or life-threatening trauma.²⁵ Moreover, PTSD can cause substantial distress and interfere with personal and social functioning, subsequently leading to social withdrawal, anger, and aggression.^{30,31} Furthermore, PTSD in military populations has a pervasive impact on military readiness and the accomplishment of

military goals.³²

Meis et al.³³ 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.³⁴ For the purpose of this study, Religious affiliation refers to one’s religious belongingness, either Christianity, Islam, or African traditional Religion as would be measured in the study.

Statement of problem

The conflict has become a state of being in many African countries including Nigeria. These conflicts have led to frequent deployment and re-deployment of military personnel across countries through the African Union and the ECOWAS Monitoring Group. Continentally, our military is engaged in bringing peace and sanity to countries where there is the absence of peace. Internally, our military is involved in peacekeeping missions such as operations LAFIYA DOLE, ZAMAN LAFIYA, BOYONA, CROCODILE TEARS, and much more as each operation comes with its modified name. This personnel is exposed to series of warfare and little or no much attention is being provided to them in the relevant areas of need to meet up with the challenges they seem to be having. In most instances, some of them are away from home for months, others years, while others are gone not to be seen again. This scenario is likely to create constant anxiety among family members with respect to when they are likely to see their parent. Furthermore, the personnel on deployment is likely to be in separation anxiety or death anxiety whenever the thoughts of his family members flash through his mind. More so, since Nigeria is a multicultural society, the role of religion and culture cannot be underemphasized as most of this personnel belong to a particular religious sect. These sects have their inherent religious beliefs embedded in their religious stance and these beliefs are likely to count in the feelings of psychological distress and in some instances likely to serve as stress buffer options. However, despite these existing religious beliefs, some of this military personnel are likely to be reported by family members after return from missions to exhibit some strange kind of behaviors. When military personnel return from military observation and military operations, they are often noticed by significant others to start exhibiting some maladjusted symptoms especially in interactions and even events that expose them to the public. Studies have been conducted on military combat exposure and PTSD especially in Kosovo, the Middle East and some other regions^{35,36} and a few in Nigeria.³⁷ Religion is a very significant aspect of the military personnel that has not been much incorporated into studies and this study will try to explore religious affiliation whether being a Christian, Muslim, or practicing African Traditional Religion has any significant impact on PTSD symptoms among the said military personnel; also, to examine the influence of combat exposure on PTSD symptoms among military personnel on operation LAFIA DOLE in North East Nigeria.

Aim of study

The aim of this study is to assess the impact of religious affiliation and combat exposure on PTSD among military combatants.

Hypotheses

1. There will be a significant interaction effect of religious affiliation and combat exposure on PTSD among military personnel.
2. There will be a significant main effect of religious affiliation on PTSD among military personnel.
3. There will be a significant main effect of combat exposure on PTSD among military personnel.
4. There will be a significant main effect of religious affiliation on avoidance symptoms
5. There will be a significant main effect of religious affiliation on re-experiencing symptoms.
6. There will be a significant main effect of religious affiliation on hyperarousal symptoms.

Method

Measure

The Combat Exposure Scale (CES) developed by Keane et al.³⁸ 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 50 times”), 5-point duration (1 = “never” to 5 = “more than 6 months”), 4-point frequency (1 = “no” to 4 = “more than 12 times”) 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 the 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.³⁸

Also, a PTSD military version questionnaire was administered. The Posttraumatic Stress Disorder Checklist-Military^{39,40} 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.³⁹ This scale has been shown to be both valid and reliable ($\alpha = .96$) in previous research. The internal reliability of 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.³⁹ 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. Religious Affiliation was measured using a discrete scaling category created on the questionnaire. This category asked respondents which religious sect they belong to and they had to identify Christianity (1), or Islam (2), or Others (3).

Research design

In examining religious affiliation and combat exposure among military combatants in the North Eastern part of Nigeria, an ex-post facto design was employed, and a two way ANOVA was used.

Participants

This study was carried out among the Nigerian military personnel deployed in the North-eastern part of Nigeria fighting insurgency. The purposive 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 was 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 generated, one was discarded making 249. Participants were 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.

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 the administration of questionnaire in order to achieve a higher response from participants. The researcher used suitable conversational tones 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 8 Task 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 was 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 of the authority who gathered the soldiers

for the study, he was able to interact freely with the personnel. Every participant that met the criteria and accepts participating in the study was allowed. This sampling approach was chosen because the study was made up of the 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 administered to the participants by the clinicians who serve as research confederates in the Division Hospital and its area of responsibility. After 60 minutes, 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 with respect to the hypotheses stated earlier.

Result

(Table 1)

Interpretation

Table 1 Test of between-subject effects using a multivariate analysis

Tests of between-subjects effects						
Variables		Type III Sum of squares.	Df	Mean square	F	Sig.
Religion	Avoidance	228.546	1	228.546	9.624	0.002
	Re- experiencing	168.379	1	168.379	6.155	0.014
	Hyper arousal	109.091	1	109.091	1.977	0.161
	Post Traumatic Stress Disorder	1485.215	1	1485.215	5.655	0.018
Combat Exposure	Avoidance	281.619	3	93.873	3.953	0.009
	Re- experiencing	477.99	3	159.33	5.824	0.001
	Hyper arousal	392.031	3	130.677	2.368	0.071
	Post Traumatic Stress Disorder	3092.335	3	1030.778	3.925	0.009
Rel * CE	Avoidance	38.779	3	12.926	0.544	0.652
	Re- experiencing	6.637	3	2.212	0.081	0.97
	Hyper arousal	91.261	3	30.42	0.551	0.648
	Post Traumatic Stress Disorder	295.187	3	98.396	0.375	0.771

Hypotheses one

It was hypothesized that there will be a significant interaction effect of religious affiliation and combat exposure on PTSD among military combatants. The result showed no significant interaction effect. The result presented (3, 249) 295.187= $P > 0.05$.

Hypotheses two

It was hypothesized that there will be a significant main effect of religious affiliation on PTSD. Analysis revealed a significant main effect of religion on PTSD. The result presented as (1, 249) = 1485.215 $P < 0.05$. Therefore, the alternate hypothesis is being maintained.

Hypotheses three

It was hypothesized that there is a main effect of combat exposure on PTSD. The result represented as $F(3, 249) 3092.335 = 130.206$, $P < 0.05$ was found to be significant.

Hypotheses four

It was hypothesized that there will be a significant main effect of religious affiliation on PTSD avoidance symptoms. Analysis revealed significance as $F(1, 249) 228.546 = P < 0.05$.

Hypothesis five

It was hypothesized that there will be a significant main effect of religious affiliation on PTSD re-experiencing symptoms. Analysis revealed significance as $F(1, 249) 168.379 = P < 0.05$.

Hypothesis six

It was hypothesized that there is a significant main effect of religious affiliation on hyperarousal symptoms. Analysis revealed that there was no significant main effect religious affiliation on hyperarousal symptoms. The result presented as $(1, 249) 109.091 = P > 0.05$.

Discussion

From the presentation of results, religious affiliation and combat exposure were seen not to be significant on PTSD. This goes to a large extent to explain that religious affiliation and combat exposure have no impact on PTSD symptoms. The second hypothesis revealed a significant effect of religious affiliation on PTSD. This was significant and goes further to explain the positive relationship between religion and mental health outcomes, religion stands in as a buffer.¹¹ Further to this is that being from the Christian or Muslim extraction has a relationship or impact on experiencing PTSD symptoms among military personnel. Thirdly, combat exposure was found to be significant on PTSD. As this military personnel is exposed to battlegrounds and combats, they are likely to develop PTSD. Dauda et al.,³⁷ Breslau,²⁵ Hoge et al.²⁸ found a significant cause-effect relationship between combat exposure and PTSD. Brewin et al.⁴⁰ 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. Fourthly, religious affiliation was found to be significant on avoidance symptoms. Because of the presence of cultural beliefs, and some level of religiosity, the combatants are likely to numb symptoms of distress even when the signs of distress are glaring. Being a Christian, Muslim or practicing other religion may contribute in numbing symptoms of PTSD may be due to high religiosity inherent in the different religious sects. Furthermore, religion was seen to be significant on re-experiencing symptoms. However, despite having PTSD, avoidance symptoms, and re-experiencing symptoms to be positive, the hyperarousal symptoms were found not to be significant with religious affiliation.^{41–50}

Conclusion

The Nigerian military has been outstretched despite the meager amount of attention given to them. They will have to curb with the insurgency, territorial peace, act as parents, as guardians, and as the watchdogs of a society faced with anarchy. Continentally, they are

faced with the task of global peace. In most of the places these military personnel are deployed to, they mostly lose touch with the social fabrics of their societies and as such religious activities are mostly self-driven and not a case where they mostly worship with brethren. This military personnel are often taken away for too long and upon return, they are likely not to be provided with the basic attention needed to help them recoup. At the war front, most of them do not communicate with family members, hence, the vacuum for social support is created. These individuals are likely to take in religious buffers to gain the necessary social support they require to have. It is thus recommended that:

1. Family support system should be buffered to be able to compliment with the available coping options to the military personnel
2. Religious institutions should incorporate counselling and mental health services within the framework of their activities. These services will help to address the roots of many challenges these personnel are facing.
3. There is a need for this military personnel to be provided with the basic psychosocial support they need at war fronts and even back home. There is always a need for psychological first aid, there will be a need for trauma debriefing at every interval they have covered
4. There is a need for their social support mechanisms to be improved. Some of these personnel need to be incorporated into positive and negative religious coping options which on the long-run they may find to be significant.
5. There should be recruitment of more and more staff into the system to reduce the workload on some few.
6. There is a need for this military personnel to be taught how to manage stress and stressors from their jobs.
7. More and more psychoeducation should be provided to these personnel on early signs and symptoms of PTSD and also educating them to know their limits and seek for help.

Acknowledgment

None.

Conflicts of interest

None.

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