



RESEARCH ARTICLE / ARAŞTIRMA YAZISI

# Trauma Exposure and Hopelessness as Predictors of Post-Traumatic Stress Disorder and Depression among War Veterans in South-East Nigeria

## Güneydoğu Nijerya'daki Savaş Gazileri Arasında Travma Sonrası Stres Bozukluğu ve Depresyonun Belirleyicileri Olarak Travmaya Maruz Kalma ve Umutsuzluk

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### Abstract:

The study investigated trauma exposure and hopelessness as predictors of post-traumatic stress disorder (PTSD) and depression among war veterans in South-Eastern Nigeria. The research design used the ex post facto method purposively for a sample of 470 retired military veterans who were involved in a conflict at different times. The sample consisted of 240 men and 230 females who responded to four standardized instruments. The sample for the study was determined through Taro Yamen's statistical method for a multinomial or heterogeneous population. The results show that exposure to trauma significantly predicted PTSD among military veterans in Southeast Nigeria ( $F_{(1,468)} = 38.88; P < 0.01$ ). However, trauma exposure did not significantly predict the development of depression disorder among veterans in Southeast Nigeria ( $F_{(1,468)} = 0.302; P = 0.583$ ). Hopelessness was found to be a statistically significant predictor of PTSD ( $F_{(1,468)} = 10.87; P < 0.01$ ). However, it did not significantly predict the development of depression disorder among veterans ( $F_{(1,468)} = 0.239; P = 0.625$ ) with  $R = 0.023$  and  $R^2 = 0.001$ . The findings generally support most of the empirical evidence available in the literature. Based on the results of the study, the military organization and the Nigerian government must implement a strategic healthcare initiative to build military veteran rehabilitation health centers in each state. In these centers, both those serving in the military and retired veterans would be able to access routine psychological evaluation and treatment to ensure that they are in a good state of health and well-being during and after their engagement on the battlefield.

**Keywords:** Co-morbidity, Depression, Exposure to Trauma, Hopelessness, Nigeria, Post-traumatic stress disorder, Veterans

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**Öz:**

Bu çalışma, Güneydoğu Nijerya'daki savaş gazileri arasında Travma Sonrası Stres Bozukluğu (TSSB) ve depresyonun habercileri olarak travmaya maruz kalma ve umutsuzluğu araştırmaktadır. Araştırma tasarımı, farklı zamanlarda savaş alanında yer almış 470 emekli askeri gaziden oluşan bir örneklem üzerinde geriye dönük değerlendirme olarak gerçekleştirilmiştir. Örneklem, dört standart araca yanıt veren 240 erkek ve, 230 kadından oluşmuştur. Çalışmanın örnekleme, Taro Yamen'in çok terimli ya da heterojen popülasyona yönelik istatistiksel yöntemi kullanılarak belirlenmiştir. Sonuçlar, travmaya maruz kalmanın Güneydoğu Nijerya'daki askeri gaziler arasında TSSB'yi önemli ölçüde etkilediğini göstermektedir ( $F(1,468)=38.88; P<0.01$ ). Ancak, travma maruziyeti Güneydoğu Nijerya'daki gaziler arasında depresyon gelişimini önemli ölçüde etkilememiştir ( $F(1,468)=0.302; P=0.583$ ). Umutsuzluğun, TSSB'nin istatistiksel olarak önemli bir habercisi olduğu saptanmıştır ( $F(1,468)=10.87; P<0.01$ ). Ancak, gaziler arasında depresyon bozukluğu gelişimini  $R=0,023$  ve,  $R^2=0,001$  ile istatistiksel olarak öngörememiştir ( $F(1,468)=0,239; P=0,625$ ). Bulgular genel olarak literatürdeki mevcut deneysel kanıtların çoğunu desteklemektedir. Çalışmanın sonuçlarına göre, askeri teşkilat ve Nijerya hükümetinin her eyalette askeri gaziler için rehabilitasyon sağlık merkezleri kurmak üzere stratejik bir sağlık girişimi başlatmaları oldukça önemlidir. Bu merkezlerde hem halihazırda görev yapmakta olan askerler hem de emekli gaziler rutin psikolojik değerlendirme ve tedaviye erişebilecek, böylece savaş alanında ve sonrasında iyi bir fiziksel ve mental sağlık durumunda olmaları sağlanacaktır.

**Anahtar Kelimeler:** Ek Hastalık, Depresyon, Travmaya Maruz Kalma, Umutsuzluk, Nijerya, Travma Sonrası Stres Bozukluğu, Gaziler

**Introduction**

According to Médecins Sans Frontières (n.D.), also known as Doctors without Borders, war is a phenomenon of organized collective violence that affects either the relations between two or more societies or the power relations within a society. It consists of intense armed conflict between ethnic groups within a nation or between countries. War has erupted between or among people at different periods of human history and will continue to be fought around the world provided nations continue to maintain their own rules that determine and protect their interests. War has existed throughout the history of humanity and is generally characterized by extreme violence that leads to the destruction of human life and property. It is widely suggested in the literature that war has direct or indirect negative social, physical, and psychological impacts on humanity. Psychological harm can be experienced due to trauma induced by exposure to unexpected and uncontrollable perceptions of terrifying violence, which leaves participants with severe injuries and losses. It can potentially cause a large displacement of people and the development of mental illness due to traumatic experiences. Exposure to trauma is significantly linked with adverse mental distress, which is connected with increased vulnerability to PTSD, and depression (Asare-Doku, Donnir, Ae-Ngibise, Pephrah, Awuviry-Newton, and Acquah, 2014; Castro-Vale, Severo, Carvalho, and Mota-Cardoso and Galea, 2014), if not diagnosed and treated, could result in persistent health debilitation of the individual.

Unfortunately, the eruption of war is a common phenomenon globally, and the modern world has thus far experienced two physically and psychologically devastating major world wars that horrifically decimated large populations before coming to an end. However, all continents have had and are currently experiencing

ongoing wars between countries. In Africa, the Nigerian Civil War of the 20th century has inflicted losses on both military personnel and civilians.

The Nigerian Civil War exposed the military on both sides to tremendous and horrendous experiences that have the potential to leave terrifying memories and a life-long feeling of emotional desolation, hopelessness, and psychological distress, paralyzing their mental and physical health. During the war, while 100,000 military casualties were officially reported, the estimated number of people killed during the war ranged from 500,000 to 3,000,000, and 2,000,000 people were left homeless and displaced (Adamu, 2016; Chidubem, 2023). As the Nigerian Civil War had adverse social, economic, and psychological impacts on the people, it was expected that a similar armed conflict situation would never be experienced again, but this proved to be incorrect. A new wave of violent events led to the deployment of the military to peace-keeping missions in neighboring West African countries like Liberia, Sierra Leone, Somalia, among others.

While fewer studies have been conducted in Africa and Nigeria in particular, the consensus among researchers indicates that exposure of combatants to armed conflict can potentially lead to the increased incidence and prevalence of different forms of mental illnesses in veterans during and after war (Abel et al., 2018; Asare-Doku, 2014; Ifeagwazi, Abiama, and Chukwuorji, 2020; Kokun and Pischko, 2020; Young, Korinek, Zimmer, and Toan, 2021; Dagona, 2022, Smith, Robinson, and Segal, 2018). Much of the initial PTSD research focused on the war-related trauma of Vietnam veterans. According to data collected from a study of the National Rehabilitation of Vietnam Veterans (Kulka et al. 1990), which was cited in (Roy et al., 2022), the lifetime prevalence of PTSD among Vietnam veterans was estimated to be 30%, with 13%–17% actively suffering from PTSD at the time of the study.

Similarly, quantitative research also revealed an increased prevalence of posttraumatic stress disorder (PTSD) among survivors of the Biafra War (Shor, 2021).

According to Abel et al (2018), there was a noteworthy positive correlation between exposure to combat and PTSD among military personnel engaged in an insurgency in Nigeria.

In Nigeria, there was another military confrontation intended to deflate Boko Haram terrorist activities in North-East Nigeria, Indigenous Peoples of Biafra (IPOB) and Eastern Security Network (ESN) in the South-East, banditry in the North-West, and the Niger-Delta militants in the South-south region. To contain this menace on all fronts, Nigerian military personnel are serially exposed to an armed conflict that is characteristically traumatic. This combat exposure has led many military veterans to experience physical and psychological stress due to traumatic injuries from improvised explosive devices (IED) and horrible death occurrences from terrorist ambushes. For various reasons, including to cope with the stress experienced from these violent war situations, many military personnel, whether retired or still in service and either physically injured or not, have indulged in maladaptive behaviors including substance use and unnecessary aggressive responses in civil incidences. Unfortunately, these maladaptive responses, which are often associated with mental health challenges, are seen and interpreted by people as the normal professional military way of life. In addition, despite the involvement of military personnel in numerous armed conflict events, there have been few studies on exposure to trauma that could elucidate the impacts of war on the mental health of military personnel. Therefore, this study seeks to investigate exposure to military trauma and hopelessness as predictors of post-traumatic stress disorder (PTSD) and depression among war veterans in southern Nigeria. A study carried out recently demonstrated that military personnel from low-income nations who were exposed to terrorism and insurgency had a 12.2% prevalence rate of PTSD. It is well known that individuals who experienced traumatic events, such as being exposed to terrorist activity, military combatants in conflict zones, or other cruelties, are more likely to experience depression and symptoms of posttraumatic stress disorder, which include learned helplessness, intrusive thoughts, and trouble sleeping (Dagona, 2022; Dunkley, 2023; Ibrahim, Akindele, and Useh, 2023). Regarding the evidence of different forms and diffuse levels of psychopathology in war veterans, studies have reported that 50% of veterans develop mental illnesses such as posttraumatic stress disorder (PTSD), depression, and anxiety (Asare-Doku, 2014; McNally, 2012; Rawal, Karki Shrestha, and Manandhar Pathak, 2018).

Furthermore, the recognition that veterans who were exposed to combat trauma developed different levels of mental health problems suggests that PTSD is more commonly experienced by the veteran population than other psychological disorders (Asare-Doku, 2014; Farmer, Vaughan, Garnett, and Wejnick, 2015; Murthy and Lakshminarayana, 2006; Stevelink et al., 2015; Hoge, Terhakopian, Castro, Messer, and Engel, 2007). Depression is described as an emotional condition that involves a feeling of helplessness and hopelessness, which can sometimes be overpowering and is often accompanied by a general lowering of psychophysical activity (Dagona,

2022; Rampund & Moore, 2000; Young, Korinek, Zimmer, and Toan, 2021).

The relationship between post-traumatic stress disorder (PTSD) and comorbid disorders such as depression has been documented at exceptionally high rates among American and Israeli veterans with PTSD, reaching 67%-82% (Dagona, 2022; Rampund & Moore, 2000; Young, Korinek, Zimmer and Toan, 2021; Hankin, Spiro, Miller and Kazis, 1999). Similarly, the prevalence of co-morbid PTSD among veterans suffering from depression was also found to be between 36%-73% (Campbell et al., 2007; Hankin, 1999; Raab, Mackintosh, Gros, and Morland, 2015; Roy et al., 2022, Ibrahim, Akindele, Useh, 2023).

### **Aim/Objectives of the Study**

The purpose of the study was to determine whether exposure to trauma and feelings of hopelessness are predictors of post-traumatic stress disorder and depression among war veterans in Southeast Nigeria. The research aims to achieve the following objectives:

1. To determine whether exposure to trauma is a risk factor for experiencing post-traumatic stress disorder among war veterans in Southeast Nigeria.
2. To determine whether exposure to trauma is a risk factor for experiencing depression disorder among war veterans in Southeast Nigeria.
3. To determine whether the feeling of hopelessness is a risk factor for posttraumatic stress disorder among war veterans in Southeast Nigeria
4. To ascertain whether hopelessness is a risk factor for the development of depression disorder among war veterans in Southeast Nigeria.

### **Research Hypotheses**

The following four hypotheses were formulated for testing.

1. Exposure to trauma is a significant predictor of post-traumatic stress disorder among war veterans in Southeast Nigeria.
2. Exposure to trauma is a significant predictor of depression disorder among veterans in Southeast Nigeria.
3. The feeling of hopelessness is a significant predictor of posttraumatic disorder among war veterans in southeast Nigeria.
4. The feeling of hopelessness is a significant predictor of depression disorder among war veterans in South-East Nigeria.

### **Methods**

#### **Research Design**

This study employed an ex post facto research design (Lord H, 1973). It is a design that is beneficial when the study focusses specifically on examining the after-effects of an event or situation on a people at a particular time. The research design helps to determine the cause-and-effect relationship through the selection and observation of existing variables without any manipulation of existing conditions. Consequently, the design was employed to examine the experience of exposure to trauma and hopelessness as predictors of post-traumatic stress disorder and depression among military veterans in South-eastern

Nigeria. The Southeast region, one of the six geopolitical zones in Nigeria, comprises Enugu, Abia, Imo, Anambra, and Ebony States.

### Participants / Sample technique

The study included military personnel from Southeast Nigeria who have not only served in the military but have also participated in various military combats within the country and outside of Nigeria and have retired voluntarily due to disability or age. In order to effectively adopt this survey, the researcher submitted the survey questionnaires to the military head command center, 82 Division Garrison located in Enugu State, the 34 Field Artillery Brigade, Obinze, Imo State, and 14 Brigade Ohafia, Abia State. The survey questionnaire was originally submitted to the 82 Division, which is the headquarters command in the southeast of Nigeria, for approval before it was sampled among veterans. The questionnaire was given to the veterans by the researcher during their monthly payroll check for their entitlements and pensions; since some veterans can no longer read properly, they were guided by the researcher to enable them to answer the questions at their discretion. The reason for following these procedures was to enable easy capture of veterans, as this was the only possible and viable approach to reach out to them.

A total of 470 participants, which accounted for 94%, responded to the 500 questionnaires distributed. Of these respondents, 240 were male and 230 were female. Participants consisted of all categories of veterans who met the sampling criteria that were not exclusive to gender but specific to the nature of services such as the Nigerian Army, Navy, and Air Force.

The sample for the study was determined using Taro Yamen's statistical method for a multinomial or heterogeneous population.

The following formula was used:

$$n = \frac{N}{1+N(e)^2}$$

Where:

n=sample size required

N=population size

e=level of significance

1 and 2 are constant

$$N = 1+2240 (0.5)^2$$

$$n = \frac{2240}{1+ 2240 (0.0025)}$$

$$n = \frac{2240}{1+3.765}$$

$$n = \frac{1958}{4.765}$$

$$n = 40$$

In terms of the demographic characteristics of the participants, 123 were single, 309 were married, and 38 were widows/widowers. With regard to rank, 169 of the respondents were senior officers, 207 were junior officers, and 94 were general flag officers.

### Sampling Technique

The purposive sampling technique was used to select the participants for the study. This non-probability sampling is a sampling technique that the researcher can use with a particular purpose in mind, such as when a particular type of respondent is sought rather than a representative sample (Howitt & Cramer, 2011).

### Instruments

Three standardized sets of self-report questionnaires were used for data collection in the study. These include 1) Brief Trauma Questionnaire (BTQ), which is a 10-item questionnaire developed by Schnurr, et al. (1995). The BTQ was originally designed to assess traumatic exposure to life-threatening conditions or serious injury. It has a Kappa coefficient for the presence of trauma in both A.1 and A.2 above .70 for all events except for other life-threatening events. For one case of current PTSD and four of the five cases of lifetime PTSD, the scores were .96 and .99, respectively. 2), The Beck Hopelessness Scale (BHS) was developed by Aaron Beck (1998) to measure three major aspects of hopelessness: feelings about the future, loss of motivation, and expectations. BHS has a higher reliability and validity including its internal reliability coefficients that range from .84 to 0.93. The Posttraumatic Stress Disorder Checklist (PCL-5) for DSM-5 is a 20-item self-report measure that assesses the presence and severity of PTSD symptoms. Items on the PCL-5 correspond to the DSM-5 criteria for PTSD. PCL-5 has strong internal consistency ( $\alpha = .94$ ), and test-retest reliability ( $r = .82$ ), with other confirmatory factor analysis scores. In general, PCL-5 is a psychometrically sound measure of PTSD symptoms, and the three tools employed in this research have acceptable psychometric values to measure symptoms of the disorders investigated.

### Ethical Considerations

Approvals to carry out the study were obtained from the Girme American University Research Ethics Committee for the Faculty of Humanities (Decision No: 6, Date: 3.11.2021). Additionally, written consent was obtained to allow veterans to participate in the study from the 82 Division General Officer Commanding (GOC), Enugu State (date: 14.4.2022). Subsequently, verbal consent was obtained from the veterans who participated. The participants who took part in the study were contacted during the monthly payroll checks in different military establishments in person, where their consent was obtained, and each signed the consent form attached to the questionnaire willingly. Respondents were briefed on the purpose of the study and informed that information confidentiality would be guaranteed.

### Data Analysis

Data collected during the study were analyzed using the Statistical Package for Social Sciences (SPSS), version 16.0. In the analysis to obtain statistical values to verify the stated hypotheses, linear regression analysis was used. All hypotheses formulated for the study were tested at a significance level of 0.01 and 0.5

### Results

The following section will present the results of the linear regression analysis derived from the SPSS:

**Table 1**  
**Demographic characteristics of the military participants in the study**

Items	Frequency	Percentage%
Male	240	51.1
Female	230	48.9
Single	309	65.7
Married	123	26.2
Widow/Widower	38	8.1
Junior Officer	169	36
Senior Officer	207	44
General Officer	94	20

**Table 2**  
**Linear regression showing trauma exposure as a predictor of PTSD among military veterans in South East Nigeria**

Variable	R	R <sup>2</sup>	F	p-value	B	T	p-value
Constant						31.18	<0.001*
Trauma	0.277	0.077	38.88	<0.001	-0.277	-6.23	<0.001*

\*Significant at p<0.001

The results in Table 2 show that exposure to trauma significantly predicts posttraumatic stress disorder. ( $F_{(1,468)} = 38.88; P < 0.001$ ) with  $R = 0.277$  and  $R^2 = 0.077$ . Thus, trauma ( $\beta = -0.277, t = -6.23, P < 0.001$ ) has a negative contribution, accounting for 27.7% of the variance in PTSD. (See Table 2).

As the p-value <0.001 from the study is less than 0.01, the researchers concluded that there is a significant difference between the variables, thus accepting the hypothesis that exposure to trauma predicts PTSD in veterans.

**Table 3**

**Linear regression analysis on trauma exposure as a predictor of depression among military veterans in South East Nigeria**

Variable	R	R <sup>2</sup>	F	p-value	$\beta$	T	p-value
Constant						40.54	<0.001*
Trauma	0.025	0.001	0.302	0.583	-0.025	-0.54	0.583

\*= Significant at P< 0.001

The results in Table 3 show that exposure to trauma does not significantly predict depression ( $F_{(1,468)} = 0.302; P = 0.583$ ) with  $R = 0.025$  and  $R^2 = 0.001$ . Thus, trauma ( $\beta = -0.023, t = -0.48, P = 0.625$ ) has a negative contribution by accounting for 2.5% of the variance in depression.

According to the result, the p-value is 0.583, which is higher than the significance value of 0.01. Therefore, the researcher revealed that there were no significant differences between the variables and the hypothesis that exposure to trauma predicts depression was rejected

**Table 4**

**Linear regression analysis on hopelessness and PTSD among military veterans in South East Nigeria**

Variable	R	R <sup>2</sup>	F	p-value	$\beta$	T	p-value
Constant						14.84	<0.001*
Trauma	0.151	0.023	10.87	<0.001	-0.151	3.29	<0.01*

\*= Significant at p< 0.001

The results in Table 4 show that hopelessness significantly predicts PTSD ( $F_{(1,468)} = 10.87; P < 0.01$ ) with  $R = 0.151$  and  $R^2 = 0.023$ . Thus, hopelessness ( $\beta = -0.151, t = 3.29, P < 0.001$ ) has a negative contribution by accounting for 15.1% of the variance in posttraumatic stress disorder.

The study showed that the p-value is <0.001 and lower than the significance value of 0.01, thus indicating that there is a statistically significant relationship between the variables; therefore, the hypothesis that hopelessness predicts PTSD is accepted.

Table 5

## Linear regression analysis on Hopelessness and Depression among military veterans in South East Nigeria

Variable	R	R <sup>2</sup>	F	p-value	β	T	p-value
Constant						40.54	<0.001*
Trauma	0.023	0.001	0.239	0.625	-0.023	-0.48	0.625

\*= Significant at  $p < 0.001$

The results in Table 5 show that experiencing hopelessness does not predict depression among military veterans  $F_{(1,468)} = 0.239$ ;  $P = 0.625$  with  $R = 0.023$  and  $R^2 = 0.001$ . Thus, hopelessness ( $\beta = -0.023$ ,  $t = -0.48$ ,  $P = 0.625$ ) has a negative contribution by accounting for 2.3% of the variance in depression. The P-value is 0.625 (see Table 5), which is higher than the significance value, which means that there is no significant difference in the analysis of the results; therefore, the hypothesis that hopelessness predicts PTSD among veterans in the Southeast region of Nigeria was rejected.

### Discussion

The purpose of the study was to investigate and determine whether exposure to trauma, which is often the life experience of military men and women in armed conflict, and experience of hopelessness are common predictors of mental health disorders such as post-traumatic stress disorder and depression among veterans in South-East Nigeria. In line with this purpose, data were collected and analyzed revealing the findings, which are discussed in this section. The results for the first hypothesis were determined from the linear regression analysis, showing that exposure to trauma significantly predicted post-traumatic stress disorder at  $p < 0.001$ . This finding largely supports multiple studies in the literature that have established that exposure to trauma in any life-threatening / injury event, including the participation of military personnel in armed conflict situations, is a risk factor for post-traumatic stress disorder (Dami, James, Zubairu, Karick and Dakwak, 2018; Dunkley, 2023; Morina, Schnyder, Klaghofer, Muller and Soelch, 2018, Roy et al., 2022; Young, Korinek, Zimmer and Toan (2021). Studies have reported that 50% incidence and prevalence of PTSD were found in veterans during and after the war (Asare-Doku, 2014; Dagona, 2022; Ibrahim, Akindele, and Useh, 2023; Ifeagwazi, Abiama and Chukwuorji, 2020).

Dagona (2022) in his study found that 56 (35%) of the participants reported experiencing symptoms of psychological distress by reliving war-related traumatic episodes, while 67 (48%) showed moderate to severe feelings of recurrent and distressing battlefield memories. Ibrahim, Akindele, and Useh's (2023) study also showed evidence of a 12.2% presence of PTSD among military personnel from a low-income country, such as those who were exposed to insurgency and terrorism. Experiencing an extremely adverse event (sometimes referred to as a potentially traumatic event or a traumatic event) is a necessary criterion for a diagnosis of PTSD (Abel et al., 2018; Ameh and Kazeem, 2014; American Psychiatric Association, 2013; McNally, 2012; Rawal, Karki Shrestha and Pathak, 2018; Smith, Robinson, and Segal, 2018; Stevelink et al., 2015; Hoge, Terhakopian, Castro, Messer,

and Engel, 2007; Kokun and Pischko, 2022; Undinyiaundeye and Agbama, 2022). For military veterans, the trauma may relate directly to combat duties, being in a dangerous war zone, or taking part in peacekeeping missions under difficult and stressful conditions.

For the second hypothesis, the statistical regression analysis obtained at ( $p < 0.001$ ) indicates that exposure to trauma does not significantly predict depression. However, the outcome of this hypothesis did not fully suggest that there is no relationship between exposure to trauma and the experience of depressive disorder. However, traumatic exposure is potentially not a direct predictor of depression in people exposed to violence and other terrifying events. The findings reflect the results of previous studies showing that depression is experienced as a comorbid disorder of PTSD in military veterans (Hankin, Spiro, Miller, and Kazis, 1999). Among PTSD symptoms, depressive symptoms have been found among veterans who are measured on the Mississippi Scale of Combat PTSD (Keane, Caddell, and Taylor, 1988).

This is confirmed by studies in which the prevalence of comorbid PTSD among veterans suffering from depression was also found to be between 36%-73% (Campbell et al., 2007; Raab, Mackintosh, Gros, and Morland, 2015; Scher and Resick, 2005). Keane, Caddell, and Taylor (1988) reported that among PTSD symptoms, there are also symptoms of depression found among veterans who measured on the Mississippi Scale of Combat PTSD,

The third hypothesis shows that feelings of hopelessness significantly predict PTSD ( $P < 0.001$ ) among military veterans. This finding concurs with existing empirically established evidence from studies that examined the relationship between hopelessness and post-traumatic stress disorder (Scher and Resick, 2005). However, the relationship between hopelessness and PTSD was found to be due to shared variance with depression. The identification of this relationship is presumed to have evolved from the theory of cognitive factors, in which hopelessness may have played a role in influencing PTSD (Scher and Resick, 2005). Many other studies have found that the attribution style for negative events specified in the hopelessness hypothesis is related to PTSD (Ginzburg, Solomon, Dekel, and Neria 2003; Grey, Pumphery, and Lombardo, 2003 as cited in Scher and Resick, 2005).

Lastly, the result of the fourth hypothesis shows that the feeling of hopelessness does not predict depression among military veterans. The outcome of this hypothesis cannot be completely rejected because it is clinically apparent that the feeling of hopelessness is a major symptom and criteria for the diagnosis of depression disorder. Furthermore, some studies have shown that rather than being the cause

of depression, it positively influences suicide ideation (Wolfe et al., 2019). Even though the hopelessness theory of depression (Abramson, Metalsky, and Alloy, 1989) explains the possible relationship, it is recognized that hopelessness is not a direct cause of depression. Instead, hopelessness theory analysts contend that recurrent exposure to unpredictable and unpleasant environmental circumstances gradually fosters feelings of helplessness and inescapability, which in turn breeds depression (Liu, Kleinman, Nestor, and Cheek, 2015). Dagona (2022) also reported that 56 (35%) of those who participated in combat experienced symptoms of psychological distress by reliving traumatic episodes related to war, while 67 (48%) showed moderate to severe feelings of continuous, distressing battlefield memories, and persistent dreams with themes (PTSD symptoms) related to combat experiences. Clausen, Clarke Philips, Haswell, and Rajendra (2019) also explained that combat-exposed war veterans are at risk of developing depression and other stress-related mental problems. Maclean, Levy, Miller, and Tollin's (2020) study on the effect of trauma on military members and their families revealed that military personnel can develop PTSD or other trauma-related disorders such as depression and anxiety, panic, and grief.

### Conclusion

A compendium of empirical evidence from research carried out at different times on various events of war experienced by military personnel has revealed that consistent military exposure is a strong predictor of mental illnesses such as PTSD and depression due to the risk of physical injury and psychological trauma from battlefield engagement. Therefore, similar to the evidence from extant literature, this current study that focused on investigating trauma exposure and hopelessness as predictors of PTSD and depression among war veterans in Southeastern Nigeria has equally established that it is one of the primary predictive factors for the onset of PTSD and depression disorder, including hopelessness and depression when exposed to the trauma of armed conflict. From these findings, it can be inferred that the abuse of alcohol and other substances and aggressive response behaviors among retired military personnel or those who are still serving are influenced by these psychological challenges. These behaviors are particularly due to the veteran's unmet mental health needs during and after discharge from service.

### Recommendations

Given that some veterans may experience mental disorders, it is important and necessary for the military in collaboration with the government to establish veterans' rehabilitation centers where serving and retired military personnel can be provided with quality care that will address their mental health problems. The military organization should employ trained mental health professionals including psychologists who provide psychological services through the assessment, diagnosis, and treatment of military veterans who experience mental distress during and after retirement. The military establishment should also collaborate with the Nigerian mental health professional bodies to develop and put in place mechanisms for identifying the most appropriate health intervention and levels of service provision required for the nation's veterans. Lastly, considering the enormous negative impact of combat-related stress on the military, pre-deployment and post-deployment social support provided to the veterans through peer support initiatives, community integration efforts, psychosocial treatment, and group therapy will be beneficial for this population.

### Declarations

#### Ethics Approval and Consent to Participate

Ethical approval for the study was obtained from the Gime American University, Research Ethics Committee for the Faculty of Humanities (Decision No: 6, Date: 3.11.2021). Additionally, written informed consent was obtained from the General Commanding Officer, 82 Division, Enugu State (14.4.2022). Subsequently, verbal consent was obtained from veterans who participated in the study.

#### Consent for Publication

Not applicable

#### Availability of Data and Materials

Data are readily available and will be provided on request.

#### Competing Interests

The author declares that no competing interests in this manuscript.

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Sunday. E. Nwoye creatively designed the research study, conducted the data collection and data analysis, prepared the article, and also carried out a thorough evaluation of the article. Gabriel. E. Nweke undertook a comprehensive review and proofreading of the article and statistics. The authors read and approved the final version of the article accordingly.

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