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INFLUENCE OF DEMOGRAPHIC VARIABLES AND POSTTRAUMATIC STRESS DISORDER ON SUBSTANCE ABUSE AMONG NIGERIAN MILITARY PERSONNEL IN JAJI, KADUNA STATE, NIGERIA.

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Abstract

Recently, the rate of substance use amongst military personnel has subsequently increased over the years. Psycho active substances (drugs) are those substances that cross the brain - blood barrier and significantly alter mood, consciousness, and perception. It is on this note that the study investigated the influence of demographic variables and Posttraumatic stress disorder on substance abuse among Nigerian military personnel using simple random sampling technique were employed to select participants. Sixty- five participants where between the ages of 18 to 55 years, both were Two instruments were deployed, PTSD checklist Military Version (PCL-M) and DAST to collect data using descriptive statistics and inferential statistics of Pearson Product Moment Correlation and Multiple Linear Regression Analysis for the test of hypotheses. Hypothesis one revealed that there was no statistically significant negative relationship between posttraumatic stress and substance abuse among military personnel in Jaji, [r (63)= 0.061; p>0.05]. Second Hypothesis revealed that age, marital status, religion, education, rank, experience and Arm of service

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significantly and jointly influence military personnel substance abuse thus, accounted for about 32.1% variance for the substance abuse among military personnel in Jaji, the results indicate a significantly positive influence of religion (β= .243, t= 2.154, p< 0.05) and rank (β= .491, t=3.439, p<0.05) on substance abuse among military personnel in Jaji. The third hypothesis indicates a significantly positive influence of marital status (β= .447, t= 2.771, p<0.05) and arm of service (β= .312, t= 2.628, p<0.05) on the posttraumatic stress among military personnel in Jaji. The study concluded that demographic factors significantly and jointly predict PTSD among Nigerian military personnel. Therefore, we recommended that the Nigerian military should establish mental health/rehabilitation hospitals for the treatment of personnel suffering from PTSD and substance related disorders to promote quality of life of victims.

Key Words: Demographic Variables, Posttraumatic Stress disorder, Substance Abuse and Nigerian Military Personnel.

Introduction

The use of alcohol and drugs among the military personnel, especially those coping with combat-related trauma, is generally understood among mental health professionals as a way for service men and women to self-medicate. Though alcohol and drugs may bring military personnel short-term relief from the emotional, as well as physical, pain resulting from deployment, helping them cope with the intense feelings of loss and graphic memories of battle, the long-term consequences of alcohol and drug use among servicemen pose a grave threat to the quality of life for personnel and their families, as well as to the morale of armed forces units engaging in wartime activities (Osborne et al., 2022). Stout (2010); Fitzpatrick et al. (2020) pointed out that regardless of whether or not posttraumatic stress disorder precedes substance use, both disorders are intertwined; individuals with posttraumatic stress disorder will be more likely to use substances to manage their posttraumatic stress disorder symptomatology unless they can develop better skills to mitigate their symptoms.

Psycho active substances (drugs) are those substances that cross the brain - blood barrier and significantly alter mood, consciousness, and perception. They include those taken for therapeutic purposes to ameliorate adverse physical and mental conditions, for example; anxiolytics, sedatives, antidepressants, hypnotics, mood stabilizers, and anti-psychotics, which are

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referred to as prescription drugs, and those taken deliberately to produce altered states of consciousness: cannabis, hallucinogens, amphetamines and opiods. (Obi-Nwosu, 2010).

Most drug abusers confess that they started using drugs to enhance performance or deal with difficult painful situations. Indeed, this could be said to be the major reason why the issue of psychotropic drugs use in the Military is topical: a setting that requires optimal alertness, strength, and resilience even in the face of daunting pressures and stress. Active military men, especially during combat often need to deal with extremes of environmental conditions; stay awake and strong for several hours beyond twenty-four, and need to control their emotions amidst traumatizing events; just as war veterans must have to deal with post-traumatic stress and adjustment among civilians. These situations require that soldiers or veterans be assisted through the use of prescription drugs, or be allowed to take common psychotropic substances (caffeine, alcohol, or nicotine). Whether the use of psychotropic substances is avoidable or not in the military remains a subject of robust debate, however, there is evidence of adverse implications (Obi- Nwosu, 2010).

Paradoxically, substance abuse are strongly opposed within the armed forces worldwide, because of their negative effects on the health and well-being of military personnel and because of their detrimental effects on military readiness and the maintenance of high standards of performance and military disciplines. In the military, drug abuse is defined as the wrongful use, possession, distribution, or introduction onto a military installation of a controlled substance (e.g. marijuana, heroin, cocaine), or intoxicating substance (other than alcohol). Alcohol abuse is defined as alcohol use that has adverse effects on the user's health or behaviour, family, community, or the Department of Defence (Yakasai, 2016).

Post-traumatic stress disorder (PTSD) is an anxiety disorder that may develop after exposure to a terrifying event/ordeal in which grave physical harm occurred or was threatened. Traumatic events that can trigger PTSD include personal assaults such as rape or mugging, natural or human-caused disasters, accidents, and military combat. PTSD is described as a syndrome that follows exposure to a stressor that would evoke significant symptoms of distress in almost everyone. PTSD symptoms include persistent re-experience of the trauma (for example, intrusive recollections), avoidance of trauma-associated stimuli, and hyper arousal (for example, hyper vigilance and anger) (Okulate & Jones, 2006). PTSD manifests numerous symptomatic behaviours and is often co-morbid

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(pertaining to two conditions that occur together) with other psychiatric disorders, including major depression, generalized anxiety disorder, acute stress disorder and alcohol abuse (Erica, 2010). In fact, research shows 88 percent of males with PTSD have one or more co-morbid diagnoses. Aside from co-morbidity, other difficulties accompanying PTSD may include (1) symptoms of intrusion, (2) avoidance symptoms, (3) numbing, (4) difficulties with appraisal, (5) problems with all stasis (adapting to change) and (6) physical manifestations of the disorder (Erica, 2010). These difficulties often evolve into unsafe behaviors that can lead to relationship strain, unemployment issues, and substance abuse (Scott, 2010). Generally, such problematic behaviors can be attributed to four main impulses: overreacting to danger cues, behavioral re-experiencing, pursuing stimulation-seeking behavior to surmount feelings of numbness, and engaging in dangerous behavior to ease survivor guilt.

Again, substance abuse presents a special problem for returning veterans. Research suggests that veterans diagnosed with PTSD have worse substance abuse issues than veterans who do not suffer from PTSD (Scott, 2010). Specifically, veterans who screened "positive for PTSD had greater lifetime use of alcohol to the point of intoxication, of heroin, and of cocaine" (Erica, 2010). Additionally, Vietnam veterans with combat-related PTSD who lack the proper treatment to address it have a high risk of dying from a drug overdose. Sadly, data indicates that younger veterans are even more vulnerable to substance abuse and co-occurring disorders (The NSDUTH Report, 2007).

Nigerian Armed Forces Personnel through occupational exposure appears to have increased susceptibility to some forms of mental health disorders including posttraumatic stress disorder. The relationship between posttraumatic stress disorder and substance/drug abuse has been investigated by many scholars (Obi-Nwosu, 2010; Yakasai, 2016). Binge drinking and/or heavy alcohol use has been linked to military deployment in several studies (Jacobson et al., 2008). Also, combat exposure has been linked not only to heavy drinking, but also with increased cigarette use and prescription opioid misuse (Adams et al., 2012). Soldiers between 33-60 years of age had more cases of posttraumatic stress disorder than younger soldiers between 18-32years. Posttraumatic stress can result in emotional and Physical health problems. Military operations are associated with stress-inducing factors; as a consequence, soldiers involved are exposed to considerable mental and physical health risk. Posttraumatic stress disorder (PSTD) among military personnel returning from overseas deployments is a

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growing problem, one which greatly complicates and in some cases prevents full health recovery.

Combat mission operation involved control of fear and fear-related thoughts to maintain overall operational effectiveness. Military mission involved life threatening and or life-altering decision and actions. These occur against a background of psychological stressors including danger and risk, time, pressure and uncertainties (Adebayo, 2010). Although PTSD among soldiers from military operations may have existed since human conflicts began, it was during American Civil War that it was first described among combat veterans. Such were described as suffering from "Soldiers hearts". According to Adler et al. (2009) in the First World War, soldiers were referred to as suffering from "Combat Fatigue". During the Second World War they were said to be suffering from "Gross Stress Reaction".

Statement of the Problem

The incidence of posttraumatic stress disorder and substance use among military personnel has captured the attention of the Nigerian government, military authorities, psychologists, health experts, social workers and the civil society. The posttraumatic stress disorder diagnosis replaced earlier terms such as "battle fatigue" and "war neurosis." Among other changes, the posttraumatic stress disorder diagnosis required a "catastrophic stressor that was outside the range of usual human experience" and this requirement spurred the need to assess such experiences. It may not be surprising that posttraumatic stress disorder, drugs and alcohol use commonly co-occur. That is, study after study has found that people with posttraumatic stress disorder often also have problems with alcohol and drug use (Okulate & Jones, 2006; Yakasai, 2016). For example, in a large survey of people from communities across the United States, it was found that 34.5% of men who had posttraumatic stress disorder at some point in their lifetime also had a problem with drug abuse or dependence during their lifetime. Similar rates (26.9%) were found for women who had posttraumatic stress disorder at some point in their lifetime (Brady, 2004). In most studies carried out on PTSD following crisis periods, females are significantly more susceptible to serious psychiatric morbidity than males (Robert, et al., 2008; Shekwolo et al., 2017) differences in PTSD is that male participants are more likely than female participants to exhibit posttraumatic symptoms other than PTSD. Gibbs (1989) posits that following a crisis, male posttraumatic

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reactions are different from, but not necessarily less disturbing than those of female, males are less likely to report internalizing disorders (e.g., anxiety or depression), but are more likely to report externalizing disorders (e.g., conduct disorders or substance use disorders) (Shekwolo et al., 2017).

There is growing evidence that drug abuse manifests itself differently in the lives of males and females and that this has something to do with the gender based social organization of societies, cultures and especially among the military personnel. Stress, accessibility, inactivity and need for alertness are the main reasons for drug use among both service men and veterans. However, the impact of substance use and abuse is far reaching on the individual, and the military as an organization (Obi-Nwosu, 2010). It is pertinent to recall that psychoactive substance use in the military is against the law therefore not all cases are reported. It is generally perceived that armed forces personnel are heavy drug abusers. This is from the belief that officers and soldiers, who are exposed to danger as a frequent professional accomplishment would use illicit drugs to enhance work performance, relieve stress and boredom and as a form of recreation. Kazeem and Abdukarim (2014) revealed the occurrence of substance abuse among Nigerian military personnel deployed for peace support operations in Sudan and Liberia. It was revealed that 18.5% of Nigerian Army personnel abuse one of alcohol, cannabis and tobacco, and 8.5% abuse at least two of alcohol, cannabis and tobacco.

According to Warden (2006) most of the prior research has evaluated the relationship between these exposures and the development of post-combat adjustment difficulties such as post-traumatic stress disorder. Scholarly interest in exposure to combat-related traumas emerged following the official designation of posttraumatic stress disorder as a psychiatric disorder by the American Psychiatric Association in 1980 (APA, 1980). Drug use in the military is becoming problematic as it has been found to hamper efficiency, adversely affect the health of the service personnel, and increase overall costs. Thus, whatever hinders the productivity and effective service delivery by the military in the performance of their official assignment in Nigeria should be identified and looked into so that the gains of their services will be fully realized. This study therefore, seeks to assess the influence of demographic variables and posttraumatic stress disorder on substance abuse in Jaji Kaduna State.

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Objectives of the Study

With reference to the problem stated above, the research aim to assess the influence of demographic variables and posttraumatic stress disorder on substance abuse among Nigerian military personnel in Jaji. This research is guided by the following specific objectives:

i. To examine the relationship between posttraumatic stress disorder and substance use among Nigerian military personnel.
ii. To investigate the demographic factors that jointly predicts substance abuse among the military personnel
iii. To investigate the demographic factors that jointly predicts posttraumatic stress disorder among the military personnel

METHODS

Design

The study adopted cross sectional survey method of design to obtain the opinion of the military personnel to ascertain the influence of posttraumatic stress disorder, gender and age on substance abuse using the questionnaire. A random sampling technique is preferred to other methods because the population for the study is a large population. Posttraumatic stress disorder, gender and age are independent variables while substance use is measured as dependent variable.

Participants

The personnel's of the Nigerian Army, Air Force and Navy in Jaji, Kaduna State constituted the population of this study. For the purpose of this study sixty five (65) questionnaires were administered to the respondents and after 50 minutes, the questionnaires were collected. The total sample was consisted of sixty five (65) military personnel with recent operational experience we employed for the study. Their age ranges were: within 18-55 years of age bracket respectively, with means and standard deviation was calculated. They were both males and females with mean and standard deviation was calculated.

Inclusive and Exclusive Criteria

The inclusive participants were within the age of 18 to 55years, gender (male or female), marital status (single, married or divorced) and ranks (officer and other ranks); while exclusive participants were ages below 18 and above 55years. All the participants involved in this study were

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members of the Nigerian Armed Forces irrespective of their ages, rank and length of service years. Personnel, who were physically as well as mentally fit and had no military charges, were allowed to participate.

Instruments

The instrument used in the collection of data consists of three sections, (A to C). Section: A demographic information, B measure posttraumatic stress disorder (PTSD) and C measures substance use.

PTSD Checklist- Military Version (PCL-M): Posttraumatic Stress Disorder Checklist-Military Version (PCL-M): The PCL-M is a 17 item self-report screening instrument based on DSM-V diagnostic criteria for PTSD. This brief inventory is designed to assess PTSD symptomology among military personnel. Items correspond with PTSD criterion: 5 items measure re-experiencing symptoms, 7 items measure numbing and avoidance symptoms, and 5 items measure hyper arousal symptoms. Participants rated the extent to which they have been bothered by symptoms over the past month on each of the 17 items on a 5-point Likert scale ranging from 1 "Not at all" to 5 "Extremely". Here, symptoms of PTSD were measured by the Posttraumatic Stress Disorder Checklist-Military Version (PCL-M; Weathers et al., 1993). The total symptom severity score ranges from 17-85 and is calculated by summing the scores from each of the 17 items. Total severity scores will be compared to a normative threshold.

The PCL–M has been shown to have excellent concurrent validity. (r = .93; Blanchard et al., 1996) and test-retest reliability (r = .96; Weathers et al., 1993).The PCL-M has a range of proposed cutoff scores that vary according to sample and setting. A cutoff score of 34 is identified as the optimal score for maximising efficiency for a PTSD diagnosis.

Drug Abuse Screening Test (DAST- 10): The Drug Abuse Screening Test (DAST10) is a 10-item developed by Skinner (1982) to assess drug use behaviours on a scale of *"Yes"* (scored 1) or *"No"* (scored 0). An individual's total scores could range from 0 – 10. A score of 0 = no problem with drug abuse, 1-2 = Low level of problem, 3-5 = Moderate problem, 6-8 = substantial problem, and 9-10 = severe problem. The DAST-10 has been validated across a wide range of racial/ethnic groups with high internal consistency reliability alpha (α = .82; Skinner, 1982). In Nigeria, DAST-10 has been employed in measuring drug abuse with high internal consistency alpha (.91) (Ojedokun et al., 2022).

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Sampling Technique/ Sample Size

Purposive sampling technique was used in selecting the participants from Jaji, Kaduna State for the study. The researcher employed non-probabilistic purposive sampling method to select participants for the study. This is a sampling technique that is based on the characteristics of the population and objective of the study. 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 special population that is not commonly found. As a result, military personnel with recent operational experience were included in the study. The researcher used Dillman (2000) formula for a representative sample size to obtain a sample size of 65 from a population of 200 military personnel's in Jaji Kaduna State and purposive sampling technique was used to select the participants.

Procedure

The procedure for carrying out this research started with the researcher introducing themselves to the authority and obtaining permission from the commander in charge of the troops from Jaji, Kaduna State to get informed consent of the participants. The purpose of the study was disclosed to the participants with the assurance that information given was treated with utmost confidentiality. Thereafter, sixty five questionnaires (65) were administered to the participants and were collected. Before administering the questionnaire, participants were duly consented and participation was voluntary.

Method of Data Analysis

The descriptive statistics used were frequency, percentages, means and standard deviations, while the inferential statistics used for the test of hypotheses were Pearson Product Moment Correlation and Multiple Linear Regression Analysis.

Ethical Considerations

Ethical approval for the study was requested to the commanders in charge of the troops in Jaji, Kaduna State. Informed consent was administered to the participants followed by the questionnaires. All the participants were treated with dignity as humans and would assure them of their anonymity and confidentiality of any information given. Those who gave their consent copies of questionnaire were administered to them to fill with due consideration and observance.

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RESULTS

Table 1: Demographic Characteristics of Participants

Demographic Variables		Frequency	Percentage
Gender	Male	52	80.0
	Female	13	20.0
	Total	**65**	**100%**
Religion Affiliation	Christianity	36	55.4
	Islam	29	44.6
	Total	**65**	**100%**
Marital status	Single	15	23.1
	Married	50	76.9
	Total	**65**	**100%**
Education	Primary	1	1.5
	Secondary	15	23.1
	Tertiary	49	75.4
	Total	**65**	**100%**
Rank	Major	28	43.1
	Squadron Leader	5	7.7
	Lieutenant Commander	9	13.8
	Lance Corporal	6	9.2
	Private	4	6.2
	MWO	2	3.1
	ACM	3	4.6
	Corporal	6	9.2
	Sergeant	2	3.1
	Total	**65**	**100%**
Army of service	Army	35	53.8
	Air force	22	33.8
	Navy	8	12.3
	Total	**65**	**100%**

Table 1 shows the demographic characteristics of 65 military personnel in Jaji Kaduna State with age ranged of 20-49 years old and a mean age of

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38.25 and standard deviation of 7.248. Gender: Male (N= 52; 80%) and Female (N= 13; 20%). Religious affiliation: Christianity (N= 36; 55.4%) and Islam (N= 29; 44.6%). Marital status: Single (N= 15; 23.1%) and Married (N= 50; 76.9%). Education: Primary (N= 1; 1.5%), Secondary (N= 15; 23.1%) and Tertiary (N= 49; 75.4%). Rank: Major (N= 28; 43.1%), Squadron Leader (N= 5; 7.7%), Lieutenant commander (N= 9; 13.8%) Lance corporal (N= 6; 9.2%), Private (N = 4; 6.2%), MWO (N= 2; 3.1%), ACM (N= 3; 4.6%), Corporal (N= 6; 9.2%) and Sergeant (N= 2; 3.1%). Arm of service: Army (N= 35; 53.8%), Air force (N= 22; 33.8%) and Navy (N= 8; 12.3%).

Test of Hypotheses

Hypothesis 1: There will be a significant relationship between Posttraumatic stress disorder and substance abuse among Military Personnel. This hypothesis was tested using Pearson Product-Moment Correlation in table 2.

Table 2: Relationship between Posttraumatic Stress and Substance Abuse among Military personnel in Jaji, Kaduna

Variables	M	SD	Df	R	Sig.
Posttraumatic Stress	39.52	12.584	63	-.061	.631
Substance Abuse	2.48	2.482			

r(63) = -0.061, *P* > 0.05NS

Table 2 presents the summary results of the relationship between posttraumatic stress and substance abuse among military personnel in Jaji. The results revealed the mean and standard deviation scores for posttraumatic stress (M= 39.52 SD= 12.584) and substance abuse (M= 2.48; SD= 2.482). Further analysis of the data using Pearson Correlation revealed a no statistically significant negative r (63) = -0.061, *P* > 0.05NS relationship between posttraumatic stress and substance abuse among military personnel in Jaji. In other words, this hypothesis was not confirmed significant in this study. Therefore, implies that increased in posttraumatic stress might leads to no significant decreased in substance abuse among military personnel in Jaji, Kaduna State.

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Hypothesis 2: There will be a significant joint influence of demographic factors on substance abuse among military personnel. This hypothesis was tested using Multiple Regression Analysis in table 3

Table 3: Summary Results of the Multiple Regression Analysis on Substance Abuse across Demographic Factors

Demographic Factors	B	T	R	R^2	F
Age	.334	1.670			
Marital Status	.114	.732			
Religion	.243	2.154*			
Education	-.183	-1.026	.567	321.	3.855*
Rank	.491	3.439*			
Experience	-.167	-.910			
Arm of service	-149	1.290			

**Sig. Level: ***P = .05, (df =7, 57)

Table 3 show the summary results of the Multiple Regression Analysis, where the results revealed that age, marital status, religion, education, rank, experience and Arm of service significantly and jointly influence military personnel substance abuse (R= .567; F= 3.855, P < .05) thus, accounted for about 32.1% variance for the substance abuse among military personnel in Jaji. Also, the results indicates a significantly positive influence of religion (β= .243, t= 2.154, p < .05) and rank (β= .491, t= 3.439, p < .05) on substance abuse among military personnel in Jaji. This implies that, age, marital status, religion, education, rank, experience and Arm of service have a significant joint influence on substance abuse among military personnel. Meanwhile religion and rank were the major predictors of substance abuse among military personnel in Jaji.

Hypothesis 3: Demographic factors will significantly and jointly predict posttraumatic stress among military personnel. This hypothesis was tested using Multiple Regression Analysis in table 4

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Table 4: Summary Results of the Multiple Regression Analysis on Posttraumatic Stress across Demographic Factors.

Demographic Factors	B	T	R	R^2	F
Age	-.289	-1.401			
Marital Status	.447*	2.771*			
Religion	.128	1.098			
Education	-.073	-.394	.527	.278	3.129*
Rank	-.155	-1.057			
Experience	.286	1.508			
Arm of service	.312*	2.628*			

**Sig. Level: ****P* = .05, (df=7, 57)

Table 4 show the summary results of the Multiple Regression Analysis, where the results revealed that age, marital status, religion, education, rank, experience and arm of service significantly and jointly predict military personnel posttraumatic stress (*R*= .527; *F*= 3.129, *P* < .05) thus, accounted for about 27.8% variance for the posttraumatic stress among military personnel in Jaji. Also, the results indicates a significantly positive influence of marital status (β= .447, t= 2.771, *p* < .05) and arm of service (β= .312, t= 2.628, *p* < .05) on the posttraumatic stress among military personnel in Jaji. This implies that, age, marital status, religion, education, rank, experience and arm of service significantly and jointly predicted posttraumatic stress among military personnel. Meanwhile marital status and arm of service were the major predictors of posttraumatic stress among military personnel in Jaji.

Discussion

The study assesses the influence of demographic variables and Posttraumatic stress disorder on substance abuse among Nigerian military personnel in Jaji, Kaduna State. The study adopted cross sectional survey method of design. Three hypotheses were postulated the analysis and the corresponding interpretations of the data collated was done from Military personnel in Jaji, Kaduna State. The researcher used the Statistical Package for Social Sciences (SPSS) version 26 for analysing the data. The descriptive statistics used were frequency, percentages, means and standard deviations while the inferential statistics used for the test of hypotheses were Pearson Product Moment Correlation and Multiple Linear Regression

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Analysis.

Hypothesis stated that there will be significant relationship between Posttraumatic stress disorder and substance abuse among Military Personnel. This hypothesis was tested using Pearson Product-Moment Correlation. The results analysis of the data using Pearson Correlation revealed a no statistically significant negative relationship between posttraumatic stress and substance abuse among military personnel in Jaji. In other words, this hypothesis was not confirmed significant in this study. Therefore, implies that increased in posttraumatic stress might leads to no significant decreased in substance abuse among military personnel in Jaji, Kaduna State. Supporting the discovery of this study, Kazeem and Abdulkarim (2014) investigated relationship between depression, paranoid ideation (symptoms of PSTD) and substance abuse among Nigerian military personnel deployed for peace support operation. A total of twenty two thousand and four hundred (n=22400) Nigerian Army personnel earmarked for United Nations peace support operation in Sudan and Liberia participated in the cross sectional study, using a 244-item structured self-report questionnaire and Multi-drug one step Multi-Line Screen Test Device (Urine).The mean age of the participants was 32.4years. A positive relationship of depression and paranoid ideation with substance abuse was observed.18.5% of Nigerian Army personnel abuse one of alcohol, cannabis and tobacco, and 8.5% abuse at least two of alcohol, cannabis and tobacco. 12.3% of troop deployed for peace support operation had depressive symptoms while 13.2% had paranoid ideation symptoms. This establishes a relationship between depression, paranoid ideation and substance abuse.

This finding is contrary with the study outcome by Kazeem and Abdulkarim (2014) who investigated the relationship between depressions, paranoid ideation (symptoms of PSTD) and substance abuse among Nigerian military personnel deployed for peace support operation. Kazeem and Abdulkarim (2014) discovered that there was a significant relationship between posttraumatic stress disorder and substance abuse. The result of the first hypothesis does not support the work and findings of McDevitt-Murphy et al. (2010) who revealed that Posttraumatic stress disorder symptoms and hazardous drinking were significantly correlated with each other and with health functioning. Although not totally surprising as observation and empirical evidence have shown high prevalence of psychoactive drug use among military personnel (Sutton, 2011; Abikoye & Awopetu 2017). It is certainly worrisome, given the crucial role that

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military personnel's are statutorily expected to play and how drug use can compromise the effective and efficient performance of such role.

Second Hypothesis stated that there will be significant joint influence of demographic factors on substance abuse among military personnel. This hypothesis was tested using Multiple Regression. The results revealed that age, marital status, religion, education, rank, experience and Arm of service significantly and jointly influence military personnel substance abuse thus, accounted for about 32.1% variance for the substance abuse among military personnel in Jaji. Also, the results indicate a significantly positive influence of religion and rank on substance abuse among military personnel in Jaji. This implies that, age, marital status, religion, education, rank, experience and Arm of service have a significant joint influence on substance abuse among military personnel. Meanwhile religion and rank were the major predictors of substance abuse among military personnel in Jaji. The finding commensurate the work of Gurejea, *et al*., (2007) who examined the use of psychoactive substances among selected groups in Nigeria. Posttraumatic stress disorder (PTSD) and alcohol abuse both are negatively associated with health, and substance misuse may mediate the relationship between posttraumatic stress disorder and functional health outcomes. McDevitt-Murphy *et al*., (2010) investigated the relationship between posttraumatic stress disorder using self-report measures of posttraumatic stress disorder symptoms, hazardous alcohol use, and health functioning in 151 U.S. veterans (136 men and 15 women) of the wars in Iraq and Afghanistan recruited from a Veterans Affairs primary care clinic. Based on established cut scores, 39.1% screened positive for posttraumatic stress disorder and 26.5% screened positive for hazardous drinking. Posttraumatic stress disorder symptoms and hazardous drinking were significantly correlated with each other and with health functioning. Hazardous drinking was found to partially mediate the relationship between posttraumatic stress disorder and functional mental health, but not physical health. Okulate (2006) investigated the prevalence of post-traumatic stress disorder (PTSD) and survivor guilt in a sample of 1131 hospitalized soldiers evacuated from the Liberian and Sierra-Leonean wars in which Nigerians were involved as peace keepers. The posttraumatic stress disorder checklist and a validated World Health Organization substance use survey instrument were used to obtain data from the subjects. The relationships between posttraumatic stress disorder, survivor guilt and substance use were also investigated. Having posttraumatic stress disorder was found to be significantly associated with

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witnessing the death of others during the trauma experience, survivor guilt, and time spent in combat areas and cannabis use. Survivor guilt was significantly associated with the death of others during the terrifying experience, avoidance of circumstances reminiscent of the experience, time spent in combat areas, current alcohol use, lifetime use of the kinjus/gunpowder mixture, and lifetime cannabis use.

The finding indicates that higher drug use is associated with poorer performance in these crucial indicators of effective performance across individual, team and organizational levels has far-reaching implications for military personnel, their organization and the generality of the society. The third hypothesis stated that demographic factors will significantly and jointly predict posttraumatic stress among military personnel. This hypothesis was tested using Multiple Regression Analysis. The results revealed that age, marital status, religion, education, rank, experience and arm of service significantly and jointly predict military personnel posttraumatic stress thus, accounted for about 27.8% variance for the posttraumatic stress among military personnel in Jaji. Also, the results indicate a significantly positive influence of marital status and arm of service on the posttraumatic stress among military personnel in Jaji. This implies that, age, marital status, religion, education, rank, experience and arm of service significantly and jointly predicted posttraumatic stress among military personnel. Meanwhile marital status and arm of service were the major predictors of posttraumatic stress among military personnel in Jaji. In accordance with other studies, Eisen, et al., (2012) examined mental and physical health symptoms and functioning in US veterans within 1 year of returning from deployment, and differences by gender, service component (Active, National Guard, other Reserve), service branch (Army, Navy, Air Force, Marines), and deployment operation (Operation Enduring Freedom/Operation Iraqi Freedom (OEF/OIF]). Findings revealed that Mental health functioning was significantly worse compared with the general population; 13.9% screened positive for probable posttraumatic stress disorder, 39% for probable alcohol abuse, and 3% for probable drug abuse. Men reported more alcohol and drug use than did women, but there were no gender differences in posttraumatic stress disorder or other mental health domains. OIF veterans reported more depression or functioning problems and alcohol and drug use than did OEF veterans. Army and Marine veterans reported worse mental and physical health than did Air Force or Navy veterans. USA National institute on drug abuse (2013) explored the relationship between posttraumatic stress disorder and

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substance abuse, Findings revealed that one in four veterans returning from Iraq and Afghanistan reported symptoms of a mental or cognitive disorder; one in six reported symptoms of post-traumatic stress disorder (PTSD). These disorders are strongly associated with substance abuse and dependence, as are other problems experienced by returning military personnel, including sleep disturbances, traumatic brain injury, and violence in relationships. In a recent study of OEF/OIF veterans, 30.2% of men and 16.3% of women screened positive for hazardous drinking, and younger age was associated with hazardous drinking in both men and women (Scott et al., 2012).

Conclusion

The following conclusions are drawn from the study based on the findings of the hypotheses. This study examined the influence of the demographic factors and posttraumatic stress disorder on substance abuse among military personnel. The findings of the study revealed that there was no significant relationship between posttraumatic stress disorder and substance use. The possible explanation for the insignificant relationship by military personnel not to abuse substances is that drugs may bring military personnel short-term relief from the emotional, as well as physical, pain resulting from deployment, and not helping them cope with the intense feelings of loss and graphic memories of battle.

The second hypothesis was confirmed to be statistically significant; our finding of a relationship between demographic factors that jointly predicts substance abuse among military personnel were significant. Thus, religion and rank indicates the major influencing factors of substance abuse.

It is well known that comorbidity of PTSD and other clinical conditions, especially affective disorders and alcohol and substance abuse, is not uncommon. The demographic factors significantly and jointly predict PTSD among Nigerian military personnel were influenced by marital status and arm of service.

Recommendations

Based on the findings of this research work, it was therefore recommended thus:

i. Clinicians treating military personnel should endeavor to assess posttraumatic stress disorder and substance abuse disorders to ascertain their co-morbidity status and if

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found, should be treated for both disorders at the same time to enhance better quality of life.

ii. The Nigerian military should establish mental health/rehabilitation hospitals for the treatment of military personnel suffering from PTSD and substance related disorders to promote quality of life of victims.

iii. The Nigerian military should draw out enlightenment programmes to educate the military personnel on the need to do routine psychological evaluation and assessment before and after operational assignment.

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