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## EXPLORING SOCIODEMOGRAPHS AND COPING AS PREDICTORS OF BURNOUT AMONG MILITARY MEDICAL PERSONNEL DEPLOYED

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### ABSTRACT

Military medical personnel deployed experience a high level of stress in meeting the health needs of the entire personnel in military operations. This can lead to burnout which in turn threatens patient care. This study therefore aims to investigate factors that predict burnout in these healthcare professionals deployed in Northeast Nigeria fighting insurgency. A total of 120 healthcare professionals were purposively selected to take part in the study. Two sets of instruments were used; the Personal Functioning Inventory (PFI) to measure coping and the Maslach Burnout Inventory (MBI) as a measure for burnout while sociodemographic information obtained included rank, age, marital status, religion years in service, professional discipline and years of professional experience. Descriptive statistics were used to present sociodemographic factors of participants while Chi Square and One-Way ANOVA was used in obtaining the individual and joint influences of sociodemographic variables and coping on burnout respectively. Results obtained revealed that sociodemographic variables and coping styles independently and jointly predicted burnout among Nigerian military medical personnel. These findings were discussed in line with the literature reviewed while recommendations were made accordingly especially for Military commanders to adopt supportive approaches and different strategies to reduce the incidence of burnout among their medical personnel so as to achieve effective patient care for operational effectiveness.

**Key Words:** coping, sociodemography, burnout, military medical personnel

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### INTRODUCTION

Burnout syndrome is a worldwide phenomenon of considerable significance that has a detrimental impact on employees on organizations in their entirety (Ibikunle, Umeadi & Ummunah, 2012). Nathalie, Laurent, Nancy, Frederic and Elie, (2007) views burnout as a psychological term for the experience of long-term exhaustion and diminished interest, usually in the work context, adding that burnout is often construed as the result of a period of expending too much effort at work while having too little recovery. It is a syndrome of

emotional exhaustion and depersonalization that leads to decreased effectiveness at work (Tait, Charles, Gerald, Thomas, Lotte, Daniel, Paul, Paul, Jeff & Julie; 2009).

In military operations, the delivery of healthcare services is essential for operational effectiveness. That is why health professions of various disciplines are deployed with troops to cater for their needs. Through the course of their deployment, variations on health conditions ranging from physical injury, medical and psychological conditions presenting to these health professionals may overwhelm them often leading to burnout. It is in relation to this that Bolanle (2013); and Abd EL Latief, Mahfouz, Ewis and Seedhom (2018), identified that health workers report a higher level of burnout. In a study on the Prevalence and Associated Factors of Burnout Among Military Doctors in Pakistan, Muhammad, Muhammad, Muhammad, Zara and Ahmad (2015) found that healthcare providers are assumed to be at a high risk to suffer from burnout syndrome due to their intense interaction with patients and their emotionally stressful situations that include pains, disabilities, and terminal diseases, suicidal thoughts, violent behavior and lack of compliance to treatment or litigation, also adding that burnout might be due to long working hours in military hospitals with more stress due to high degree of accountability in military set up.

Nathalie et al, (2007) identified burnout syndrome to be frequent in healthcare workers and has an important impact on daily quality of life and may threaten patient care. Adriano, Irena, Boris, Mirna, Valentina, and Cecilija, (2017) explained that as a result of burnout syndrome, chronic fatigue and reduced working capacity occur, thus raising the risk of adverse events thereby being is a major problem for hospitals and healthcare system. Burned out healthcare professionals are more likely to deliver services which are suboptimal and could potentially result in disaster (Ben and Jeffrey, 2007). Muhammad et al, (2015) added that the worst impact of burnout at the organizational level is destroying and diminishing organizational



commitment among personnel and experts of the job leading to experiencing of depletion of emotional resources, cynicism and indifference about their patients with feelings of reduced competence. For instance, major medical errors reported by surgeons are strongly related to a surgeon's degree of burnout and their mental quality of life (Tait, Charles, Gerald, Tom, Lotte, Daniel, Paul, Paul, Jeff, and Julie, 2010). Indeed, the health status of health workers is of great importance if effective healthcare delivery is to be achieved (Okwaraji & Aguwu, 2014).

Burnout can best be considered a function of coping patterns as well as a function of organizational demands and resources (Michael, 1991). Coping involves a set of behavioral and cognitive strategies, used to relieve the circumstances nerve-wracking flight of work (Da Costa & Pinto, 2017). It is a constantly changing cognitive and behavioral effort to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person affecting well-being and adaptation (Fatma, 2016). Folkman and Moskowitz (2006) identified coping strategies into problem-focused coping and emotion-focused coping characterized into adaptive and maladaptive coping respectively. Le Sergenta and Haney (2005) highlighted that two dimensions of coping are problem-focused coping and emotion-focused coping. Problem-focused coping consists of concrete attempts made to alter the stressful event while emotion-focused coping consists of attempts made to alter stressful feelings. People typically employ problem-focused coping strategies, purposively targeted at solving the problem at hand. Emotion-focused coping on the other hand, aims at minimizing negative emotions through seeking distraction and social support or by avoiding problems. Studies have shown problem focused coping styles are related to fewer psychological problems while emotion focused coping strategies are related negatively to psychological adjustment. There is therefore a growing understanding that coping strategies, which have been regarded as a psychological intervention in the stressor-strain relationship, play an important role in influencing the tangible and intangible outcomes of

stressors (Tidd & Friedman, 2002). Therefore, a lot on our ability to manage stressful job demands rely on our coping abilities.

Other factors associated with burnout were found to be age, gender, working hours and professional experience, (Okwaraji & Aguwa, 2014; Mohammed et al, 2015; Anna, Anna, Renata, Jadwiga and Agnieszka, 2018, Kara, Kimberly, John, Paul, Jennifer & Douglas, 2011 & Ibikunle et al, 2012). Okwaraji and Aguwa (2014) who found that female physicians experience more burnout than male physicians. They argued that the dual role played by women in managing the house and working in healthcare centers may likely predispose them to experiencing many jobs related stress which eventually will affect their burnout than their male counterparts. This was contrary to the findings of Mohammed et al (2015), who found higher burnout prevalence in male physicians. It was also revealed that nurses aged less than 35 years of age experienced significantly higher levels of burnout than the elderly nurses aged more than 35 years of age. This may be because the younger nurses might not have acquainted themselves with the vagaries of the nursing profession and might not have developed enough psychological resilience to cope with the many challenges associated with their job (Aftab, Shah and Mehmood, 2012). Okwaraji and Aguwa (2014) also found that high burnout levels among unmarried nurses than those who are married arguing that unmarried nurses may experience higher levels of burnout than the married ones apparently due to the fact that they are younger and may be assigned more work than their elderly and senior counterparts. However, Payne, (2001) believed stressors made the greatest contribution to burnout and demographic factors contributed the least.

The aim of this study therefore was to explore demographics and coping in predicting burnout among Nigerian military medical personnel deployed.

## **OBJECTIVES OF THE STUDY**

To achieve the aim of this study, the following objectives were drawn;



1. To study if Sociodemographic variables will independently predict burnout among Nigerian military medical personnel.
2. To investigate if coping styles will independently predict burnout among Nigerian military medical personnel.
2. To evaluate if sociodemographic variables and coping styles will jointly predict burnout among Nigerian military medical personnel.

### **Hypothesis**

1. Sociodemographic variables will independently predict burnout among Nigerian military medical personnel.
2. Coping styles will independently predict burnout among Nigerian military medical personnel.
3. Sociodemographic variables and coping styles will jointly predict burnout among Nigerian military medical personnel.

### **METHOD**

A cross-sectional survey design was adopted to elicit information from one hundred and twenty (120) Nigerian Army medical personnel deployed to provide healthcare services to troops in the North East. Eligible participants were selected using purposive sampling method.

### **MEASURES**

#### ***Demographic characteristics***

Demographic characteristics bothering on rank, age, gender, religion, marital status years in service, average number of hours spent at work daily, professional specialty, years of professional/clinical experience and years in service were gathered from the participants using simple questions that tapped relevant information on those items.

#### ***Maslach Burnout Inventory (MBI)***

The Maslach Burnout Inventory (MBI), which is a 22-item questionnaire relates to the three dimensions of burnout: Emotional exhaustion; which

captures the experience of having ones emotional resources depleted and having no source of renewal, Depersonalization; describing the experience of becoming cold and indifferent to the need of others and Reduced personal accomplishment; a sense of inadequacy about one's ability to relate to patients which may result in seeing one's self as a failure (Omoluabi, 2000). The respondents rated each item on a seven-point Likert type scale ranging from; never (0) to every day (6). The instrument can be administered in group and to individuals after adequate rapport is established. Scoring is carried out directly or in reverse and added together to get the clients total score on the test. PFI has a good reliability and validity. The MBI has been validated and used in many studies in Nigeria on burnout and in different population including nurses, doctors, psychologists and teachers (Okwaraji & Aguwa 2014). This wide usage of the MBI in various researches in Nigeria therefore rationalizes its usage in the present study.

### *Personal functioning inventory (PFI)*

The personal Functioning Inventory was originally developed by Khon, Brienwood, Pickening and Decicco (2003). It is a 30-item inventory designed to assess the style of coping characterized into 4 distinct coping styles which are; problem focused coping, emotional, avoidant focused coping and adaptive coping (Omoluabi, 2004). The instrument can be administered in group and to individuals after adequate rapport is established. Scoring is carried out directly or in reverse and added together to get the clients total score on the test. PFI has a good reliability and validity.

## **PROCEDURE**

Upon obtaining necessary approval from appropriate military authority, voluntary participation was solicited with assurance of confidentiality and assurances that data was to be used to plan psychological care and support and for research purposes only. The researcher engaged some research



assistants who were provided basic orientation on the instruments and means of data collection. They were briefed on procedures of administering the instruments and they adequately supervised participants and guided them towards complete the questionnaire correctly. After adhering to the necessary ethical standards, the researchers distributed a total of 150 questionnaires to participants who met inclusion criteria for participation. However, 22 were discarded due to improper completion while 8 questionnaires were not returned. Therefore, 120 sets of the inventories were used for analysis.

## DATA ANALYSIS

Statistical package for social sciences (SPSS-version-23) was employed as a statistical tool to analyze the study hypothesis. Descriptive statistics was used to present the socio-demographic factors of participants while chi square and one way ANOVA was used in obtaining the individual and joint influences of sociodemographic variables and coping on burnout respectively.

**Results**

**Table 1: Chi square presentation for Sociodemographic and MBI data**

MBI		0-50	51-100	101-150	TOTAL	X	DF	P
<b>Rank</b>	NCO	4(7.1%)	51(91.1%)	1(1.8%)	56(100.0%)	17.336 <sup>a</sup>	4	.002
	SNCO	9(23.1%)	29(74.4%)	1(2.6%)	39(100.0%)			
	Officers	3(12.5%)	16(66.7%)	5(20.8%)	24(100.0%)			
<b>Age</b>	20-30	3(13.0%)	20(87.0%)	0(0.0%)	23(100.0%)	5.098 <sup>a</sup>	6	.531
	31-40	6(11.3%)	44(83.0%)	3(5.7%)	53(100.0%)			
	41-50	4(11.8%)	26(76.5%)	4(11.8%)	34(100.0%)			
	51-60	2(25.0%)	6(75.0%)	0(0.0%)	8(100.0%)			
<b>Gender</b>	Male	15(14.3%)	83(79.0%)	7(6.7%)	105(100%)	1.103 <sup>a</sup>	2	.576
	Female	1(9.1%)	10(90.9%)	0(0.0%)	11(100.0%)			
<b>Religion</b>	Christianity	9(10.3)	72(82.8%)	6(6.9%)	87(100.0%)	1.317 <sup>a</sup>	2	.518
	Muslim	5(17.2%)	23(79.3%)	1(3.4%)	29(100.0%)			
<b>Marital Status</b>	Single	15(16.1%)	75(80.6%)	3(3.2%)	93(100.0%)	9.479 <sup>a</sup>	2	.009
	Married	0(0.0%)	21(84.0%)	4(16.0%)	25(100.0%)			
<b>Years in Service</b>	1-10	6(12.8%)	36(76.6%)	5(10.6%)	47(100.0%)	3.742 <sup>a</sup>	6	.711
	11-20	4(14.3%)	23(82.1%)	1(3.6%)	28(100.0%)			
	21-30	5(12.5%)	34(85.0%)	1(2.5%)	40(100.0%)			
	31-40	1(25.0%)	3(75.0%)	0(0.0%)	4(100.0%)			
<b>Work Hour</b>	1-12	9(18.0%)	38(76.0%)	3(6.0%)	50(100.0%)	2.824 <sup>a</sup>	2	.244
	13-24	5(7.7%)	56(86.2%)	4(6.2%)	65(100.0%)			
<b>Specialty</b>	Nurse	8(18.6%)	34(79.1%)	1(2.3%)	43(100.0%)	33.538 <sup>a</sup>	20	.029
	AMB driver	0(0.0%)	5(100.0%)	0(0.0%)	5(100.0%)			
	Lab Sci	1(5.3%)	18(94.7%)	0(0.0%)	19(100.0%)			
	Optician	1(100.0%)	0(0.0%)	0(0.0%)	1(100.0%)			
	Public Health	3(30.0%)	7(70.0%)	0(0.0%)	10(100.0%)			
	Dentist	1(16.7%)	5(83.3%)	0(0.0%)	6(100.0%)			
	Hosp Admin	0(0.0%)	4(100.0%)	0(0.0%)	4(100.0%)			
	Doctor	1(5.0%)	14(70.0%)	5(25.0%)	20(100.0%)			
	Radiographer	0(0.0%)	3(75.0%)	1(25.0%)	4(100.0%)			
	Pharmacist	1(15.7%)	5(83.3%)	0(0.0%)	6(100.0%)			
	Psychologist	0(0.0%)	1(100.0%)	0(0.0%)	1(100.0%)			
<b>Years of Experience</b>	1-10	6(9.0%)	56(83.6)	5(7.5%)	67(100.0)	3.516 <sup>a</sup>	4	.475
	11-20	7(19.4%)	28(77.8%)	1(2.8%)	36(100.0%)			
	21-30	3(20.0%)	11(73.3%)	1(6.7%)	15(100.0%)			

Table 1 above indicates an evidence of a relationship between Rank, marital status, professional specialty and Burnout among Nigerian military medical personnel. There was however no evidence of a relationship between Age,





gender, religion, years in military service, working hour, years of professional experience and Burnout among Nigerian military medical personnel.

**Table 2: Chi square presentation for PFI and MBI data**

		MBI			TOTAL	X	DF	P
		0-50	51-100	101-150				
PFI	0-50	2(100.0%)	0(0.0%)	0(0.0%)	2(100.0%)	15.415 <sup>a</sup>	4	.004
	51-100	12(14.3%)	66(78.6%)	6(7.1%)	84(100.0%)			
	101-150	2(6.1%)	30(90.9%)	1(3.0%)	33(100.0%)			

Table 2 above indicates a strong evidence of a relationship between coping and Burnout among Nigerian military medical personnel ( $p < 0.05$ ).

**Table 3: ANOVA presentation for Sociodemographic, PFI \* MMI data**

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.651	10	.365	2.233	.022 <sup>b</sup>
	Residual	16.019	98	.163		
	Total	19.670	108			

A. Dependent Variable: Mbi

B. Predictors: (Constant), Pfi, Specialty, Religion, Age, Work Hour, Rank, Relationship, Gender, Years In Service, Years Of Experience

The ANOVA Table above indicates evidence of a joint relationship between Sociodemographic variables and coping styles on burnout among Nigerian military medical personnel ( $p < 0.05$ ).

From the findings, we therefore reject the null hypothesis and accept the alternative hypothesis which states that Sociodemographic variables and coping styles will significantly independently and jointly predict burnout among Nigerian military medical personnel.

## DISCUSSION

The results of the present study showed that role of sociodemographic variables and coping in influencing coping among military medical personnel deployed. Analysis of potential burnout predictors in our sample determined that Rank, marital status, professional specialty, predicted burnout whereas there was no evidence of Age, gender, religion, years in military service, working hour, years of professional experience influencing burnout. These findings are consistent with previous burnout researches (Okwaraji & Aguwa, 2014; Mohammed et al, 2015; Anna, Anna, Renata, Jadwiga and Agnieszka, 2018 & Ibikunle et al, 2012). As burnout often stems from prolonged and intense contact with patients, it is not surprising that overworked health providers feel drained and have increasingly high levels of stress (Lotte, Tait, Christine, Pamela, Jay, Alexander, Colin & David, 2017). It is important therefore that these factors that are most likely to cause stress are identified and should be addressed and acknowledged.

In addition, despite the negative impacts of burnout, this can be easily remedied by adopting adequate coping mechanisms as coping behavior affects wellbeing and adaptation (Fatma, 2016, Ibikunle et al, 2012). Burnout does not only affect work performance but also physical and mental health. Health problems including sleep problems, cardiovascular illnesses, headaches and high blood pressure may occur as a result of burnout. (APA, 2015). It is in line with this that the study found coping to significantly predict burnout. The study results were in agreement with Da Costa & Pinto, (2017) and Tidd & Friedman, (2002) who clarified that one of the important factors in avoiding burnout is applying stress coping. Military medical personnel when experiencing stress, draw upon various coping strategies, and obviously, their manner of coping with stress and role overload influences the quality of their professional output. It is important therefore that identify the job demands that are most likely to cause stress



and burnout such as working environment, these job demands should be addressed and acknowledged.

## LIMITATIONS

There are a variety of factors that could impact burnout which were not included in this study such as quality of supervision as well as interpersonal relationships which have been shown to influence burnout rates among individuals working in healthcare institutions. Generally, literature on burnout in the Nigerian Army is limited and a study among its medical personnel is yet to be performed. Therefore, findings and results from this study cannot be compared. Also, the study did not highlight if there is a prevalence of burnout among military medical personnel as well as various levels of coping strategies employed by military medical personnel in dealing with burnout. While the study had a relatively small sample size, there was a relatively few numbers of female participants in the study compared to their male counterparts. The higher male population is due to the nature of military operations in the northeast having a high number of male personnel.

## RECOMMENDATIONS

1. For future research it is important to investigating other potential burnout risk factors including quality of supervision and interpersonal relations.
2. Additionally, an investigation into effects of burnout on military medical personnel will provide further understanding into burnout and its effects on their professional outputs while identifying specific coping techniques employed by personnel.
3. In the interim, prevention programs aimed at reducing burnout should be implemented to achieve high productivity for greater patient recovery. This may improve morale of troops in field.

## CONCLUSION

Considering that military medical personnel play a key role in meeting the health needs of personnel for better operational effectiveness. Military commanders should adopt supportive approaches and different strategies to reduce the incidence of burnout among their medical personnel. Military medical facilities should ensure preventive programs for her personnel, as well as for other healthcare workers working in those facilities.

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