Journal of Community Medicine and Primary Health Care. 34 (3) 110-125
https://dx.doi.org/10.4314/jcmphc.v34i3.9

JOURNAL OF COMMUNITY MEDICINE AND PRIMARY HEALTH CARE

ORIGINAL ARTICLE

Perceived Workplace Stress Levels and Coping Strategies of Military Personnel in a Nigerian Barrack

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Keywords

Stress;

Coping styles;

Military;

Nigeria

ABSTRACT

Background: Stress is a recognized cause of impaired job functioning and unproductivity in workplaces. The military environment is reported to be highly stressful. This study determined the levels of stress among Nigerian military personnel in 82 division Abakpa Cantonment, Enugu and also evaluated some stressors, as well as the coping strategies of these personnel.

Methods: This was a cross-sectional analytical study carried out between July and August 2020 among 261 Nigerian military personnel selected using a multistage sampling method. Data collection was done using a self-administered questionnaire (Perceived Stress Scale). Descriptive statistics were used for demographic variables while multiple linear regression was done to determine the influence of the independent variables (age, gender, marital status, etc.) on the dependent variable (stress). Level of significance was $p < 0.05$.

Results: Majority were males (80.5%) and married (78%). Mean age was 38±10 years and most (63.3%) had worked for < 20 years. About 51.0% and 1.9% had moderate and severe stress levels, respectively. The commonest perceived causes of stress included under-remuneration (32.6%), undervalued (26.1%), heavy workload (18%) and harassment (18%). The commonest positive coping strategies include talking to friends and family (36.0%) and thinking of solution (23.0%) while negative coping styles were eating (9.2%) and alcohol use (6.9%).

Conclusion: More than half of the respondents had moderate level of stress. Government should ensure regular review of personnel salary structure. Also, commissioned officers should be trained in proper handling of non-commissioned officers in order to further reduce the level of stress.

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INTRODUCTION

Stress is derived from the Latin word "stringere" meaning to squeeze tight, touch or injure.[1] It is an unavoidable consequence of modern living: a condition of strain that has a direct bearing on emotions, thought process and physical conditions of a person.[2] For instance, as many as 440,000 people in the UK complain of work-related stress, depression or anxiety that makes them ill.[3] A particular definition puts stress as a certain relationship between the person and the environment appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being.[4,5] Stress develops in people's lives from difficulties people face when the relationship they have with their work goes skewed.[6] Work stress costs industry roughly $150

billion per year in lost productivity and disability claims in the US[7,8] and is associated with increased number of days of absenteeism from work. Similarly another study in US demonstrated that respondents missed days equivalent of three man-years (762.5 workdays in the previous year) and the more stressed the greater the missed days at work.[8] In Europe, nearly 9.9 million work days were lost as a consequence of work related stress in 2014-2015.[3]

Work stress is a complicated process that results from interplay of three major factors namely: a) sources of stress that are encountered in the work environment, b) perception and appraisal of a particular stressor by an employee, and c) the emotional reactions that are induced when a stressor is appraised as threatening.[9] The number of employees facing work-related stressful events, such as work restructuring and reduced job stability are on the increase.[10] This recent rise in work stress has been linked with the global and national recession, job insecurity (worsened by COVID-19 pandemic) and work intensity, all leading to greater workloads and more interpersonal conflicts, and family disruptions.[3] Stressors carry the potential to induce strain, increasing the risk for ill health and poor well-being and threatens the attainment of important life goals.[11] Work stressors such as decision authority, skill discretion, job demands and job security vary with seniority of position held by the employee.[12] It has been observed to be frequent among groups at lower levels of workplace hierarchies, as indicated by lower educational degree or lower income because they often have fewer alternatives and less control over their work situation.[2,13,14] Also the relatively low wage levels in the majority of these employed people pushes them to dual earning careers and holding a second or even a third job which are stressful.[14]

The military job is regarded as one of the high stressed occupations. In the United States (US), military personnel have been reported more likely to suffer from work stress than the general population of workers[7] Studies have shown that some occupations such as the military, aircraft crew and police often expose the individual to unusually high degree of stress which result in vulnerability to heart disease.[1,15] Stress happens to be an integral part of the training in the military.[16] For example, constant physical exercise to keep fit, training and re-training of soldiers; occasional going to the bush for mock war, and the use of armours especially blank and live ammunitions in training.[17] The significant expansion in recent years, with the addition of multiple new responsibilities and tasks such as assisting natural disaster victims, delivering humanitarian aid' peacekeeping, nation-building, control of civil agitations, combating petroleum pipeline vandalism, and policing the nation's borders[18] have increased their stress levels. Additional stressors, such as risk of injury or death, that are distinctly linked to military work environments are further believed to collectively make them unique.[18,19] On the other hand, mental health care utilization and overall mental health status in military personnel was shown to be similar to civilian population. In a study, 19% of military personnel and 10% to 40% of civilian working populations suffering from serious job stress seek treatment.[8] Prevalence of stress and burnout varies widely. In multiple studies, the prevalence rates of stress were 26% among US armed forces[20] and 40% in another

study also in US.[21] Iran military health workers had a stress prevalence of 46% [22] and Malaysian naval officers 55%.[23]

Coping as a conscious effort to manage distressing problems and emotions[24] from stress is to reduce its effect. It regulates stressful emotions and alters the person-environment causing the distress.[25] Coping styles are divided into basic types: avoidant (i.e., ignores the problem but takes steps to reduce negative affect); and problem-focused (i.e., does something to recognize, modify, or eliminate/remove the source or impact of the stress), [21,25] with the latter being associated with better health outcomes.[24] Bray et al identified majority of the US military used problem-focused or approach-oriented coping strategies listed to include 'think of plan to solve problems', 'talking to friends/family member, and exercising; more than the avoidant coping strategies, such as ''get something to eat'', drinking.[21] Contrarily, Nigerian police personnel were found to use the negative (avoidance) strategies such as drinking, smoking, religiosity to cope with stress and seldom seeks for professional assistance from relevant health professionals which is regarded a positive strategy.[26]

Despite the established high degree of stress and the health and health-related consequences of such condition observed among the military in developed countries[1,15], there is paucity of literature on the levels of stress among the military in developing countries. In Nigeria only a few research have been carried out among Nigerian military. There is also fewer data on the stress level among this profession during peace times.[2] This study aimed to determine the level of stress among Nigerian army personnel in Abakpa Cantonment Enugu during noncombat period.

METHODOLOGY

Study area: The 82 Division Nigerian Army Abakpa cantonment and headquarter is located in Enugu, about 2.8km (10 minutes) to Abakpa Nike Enugu, hence the name Abakpa cantonment and was established in 1975. The barrack is one of the many cantonments under 82 division command, and oversees security of South East and South-south states such as Rivers, Enugu, Cross-River, Imo, etc. Abakpa is a large town located in the neighbourhood of Enugu city. It has its latitude at 6.489472, longitude at 7.517159.[27] Enugu is the capital city of Enugu state in Nigeria located in the South Eastern Nigeria with an estimated population of 3,267.837. Geographically, Enugu covers an area of 7,161 km2 (2,765sq mi).[28]

Study design and study population: This was a community based cross-sectional analytical study and was carried out between July and August 2020 among Nigerian Army personnel residing in 82 division Abakpa cantonment Enugu metropolis. There are an estimated 2000 personnel in the barrack which are grouped majorly into two groups: the soldiers (non-commissioned, NCO) and the officers (commissioned, CO). The former comprises of the private, lance corporal, corporal, sergeants, staff sergeants, warrant officers and master warrant officers, etc. and are recruited as undergraduates; however, there are many graduates among them who acquired degrees in the course of fulfilling the prerequisite for promotion. The latter are the graduates and include the lieutenants, captain, majors, colonels, brigadiers, Lieutenant colonels, major generals etc. There is

also two broad corps into which these personnel belong - the teeth arms and the service arms with about 12 to 14 units under them. Whereas the former also known as combat arm comprises of Infantry Corps otherwise known as Garrison, the Armor Corps and the Artillery Corps the latter includes the Medical, Military police, Finance, Army Public Relations, Band, Signal, Ordinance, the workshop, Intelligence, Education, Engineering and the Chaplain Corps/units.[17]

Inclusion/Exclusion criteria: The participants were active duty soldiers and officers who did not engage in combat in the past one month at least. Military personnel who have not served for at least one year and newest recruits were excluded from the study.

Sampling technique: The minimum sample size required for the present study was calculated as 244 using the prevalence of 27.4% obtained from US study.[8] Adding 10% for non-response gave 268. Hence 270 were selected for the study. Multistage sampling method was used. In the first stage, participants were stratified based on their sex. In the second stage, participants were stratified based on their unit (there are 15 units in the military barrack). Proportionate sample size was then allocated to each unit. Lastly, in each unit, simple random method by balloting was used to select each respondent: 219 males and 51 females.

Data collection: Data for the study was collected using a self-administered question with questions culled from two standard questionnaires on stress and modified to suit the aim of the study. The questionnaire is subdivided into three parts namely: demography, stress perception and coping strategy sections. The demographic part included age, marital status, rank, years of service, level of education etc. Stress was assessed using the Perceived Stress Scale-4 (PSS-4).[29] PSS-4 is a shortened (4 items) and easier to be administered version of Cohen et al. full (14 items) perceived stress scale.[30] The 4-item self-report instrument has a five-point scale: (0 = never, 1 = almost never, 2 =sometimes, 3 = fairly often, 4 = very often). PSS-4 scores are obtained by summing across all four items. Scoring items 2 and 3 require reverse coding. This involves assigning the opposite score. For example, a score of 0=4, 1=3, 2=2, 3=1, and 4=0: the higher the score, the more the perceived stress. Hence PSS of 0 – 6 is classified as mild; PSS of 7 – 11 is classified as moderate and PSS of ≥12 is classified as severe.

PSS is not a diagnostic instrument, but intended to make comparisons of subjects' perceived stress related to current, objective events. It measures the degree to which situations in one's life over the past month are appraised as stressful and is considered a risk factor for a clinical psychiatric disorder. In validating this tool, a Chinese study showed PSS-4 has coefficient alpha values of 0.77 for the positive subscales and 0.51 for the negative ones, and the Cronbach's alpha values of 0.67 for the full scales.[31] Cohen indicated it has an internal reliability (r=0.60).[30] Also in the second part were questions derived from the health and safety stress questionnaire (confidential questionnaire stress survey)[32] on the causes of stress and the degree to which they caused stress as either none, sometimes or always. The coping mechanism section determined the positive styles such as talking to friends and family, thinking of solution, reading, and taking up exercise/sports and the negative methods (smoking, drinking alcohol, eating, illicit

substance abuse, claim sick, and think of hurting self). The questionnaire was pretested in another military battalion in Enugu and necessary corrections were made.

Likert scale was used for stress, predictors and the coping strategies. Responses for the stress category were: never, almost never, sometimes, fairly often, and very often, then graded from 0 to 4, respectively. Responses for predictor's category were: never, sometimes and always, then scored 1 to 3 and responses for coping entails less than usual (scored 0), usual (scored 1), more than usual (scored 2), and much more than usual (scored 3).Total score on the scale is the sum of the scores on the items. The higher the score the more the severity, was used for all the parameters assessed.

Data analysis: IBM SPSS Statistics for windows, version 25 software was used. Frequency tables were used to illustrate the demographic variables. Linear regression analysis determined the influence of independent variables (age, gender, marital status, working hours) on the dependent/outcome variable (stress). The confidence level was 95% at $p < 0.05$.

Ethical consideration: Ethical approval for this study was obtained from the University of Nigeria Teaching hospital Research Ethical Committee with number as NHREC/05/01/2008B-FWA00002458-1RB00002323. Approval was also given by the general officer commanding (GOC) 82 division, and written informed consent was obtained from the respondents.

RESULTS

Out of 270 only 261 were studied giving a response rate of 96.7%. Hence a total of 261 personnel were analyzed in the study. Out of these, 210 (80.5%) were males and 51 (19.5%) were females. The mean age was 37.8 ± 9.6 years and majority of them were 28 – 37 years old, 98 (37.5%). Most, 205 (78.5%) were married, and completed tertiary education 138 (52.9%). The proportion of the commissioned 28 (10.7%) were less than the non-commissioned 233 (89.3%). Eighty-one (21.1%), have worked for less than a 10 years, 84 (32.2%) for 10 – 19 years while 60 (23%) have been in service for 20 – 29 years. Distribution by working hours per day revealed equal number of respondents worked 5 – 9 hours: 99 (37.9%) and 20 – 24 hours 99 (37.9%). (Table 1)The majority of army personnel 133 (51%) had moderate level of stress and few 5 (1.9%) had severe level of stress (Figure 1). The proportion of female military personnel that perceived their stress as moderate, 30 (58.8%) and as severe, 2 (3.9%) were more than the male colleagues 103 (49.0%) for moderate and 3 (1.5%) for severe, respectively. In terms of marital status, those who are single had significantly higher moderate and severe levels of stress (60.8% & 3.9%, respectively) compared to the married people (47.6% & 1.4%, respectively), $\chi^2=10.134$, $p=0.038$. Also greater proportion of non-commissioned staff perceived stress as moderate 123 (52.8%) and severe 5 (2.1%) compared to the commissioned officers. This difference was however not statistically significant. Working hours did not significantly affect the level of stress. (Table 2).

Perceived causes of stress with the highest percentage in the always category were considered the high intensity stressors such as feeling underpaid 85 (32.6%) and undervalued 68 (26.1%). Moderate frequencies e.g. unfriendly

Table 1: Socio-demographic characteristics of respondents

Variable	Frequency (n = 261)	Percent
Age group (years)		
18 – 27	36	13.8
28 – 37	98	37.5
38 – 47	75	28.6
48 – 57	52	19.9
Sex		
Male	210	80.5
Female	51	19.5
Marital status		
Single	52	19.9
Married	205	78.5
Separated	2	0.8
Divorced	2	0.8
Level of formal education completed		
None	1	0.4
Primary	3	1.1
Secondary	119	45.6
Tertiary	138	52.9
Status		
Commissioned	28	10.7
Non-commissioned	233	89.3
Years of service in the military		
1 – 9	81	31.0
10 – 19	84	32.2
20 – 29	60	23.0
30 – 39	36	13.8
Working hours		
5 – 9	99	37.9
10 – 14	47	18.0
15 – 19	16	6.1
20 – 24	99	37.9

treatment 42 (16.1%) and inadequate break 40 (15.3%) were marked the medium intensity and the low percentage factors like poor relations with colleagues 19 (7.3%), working with public 17 (6.5%), the least intensity. (Table 3)

Majority of the Nigerian military personnel in this study engaged in positive coping styles for stress which included talking to friends and family 94 (36.0%), thinking of solution 60 (23.0%), taking up exercise/play sports 25 (9.6%) and reading 10 (3.8%). Others preferred the negative/passive/avoidant means such as eating 24(9.2%), drinking alcohol 18 (6.9%), claiming sick 11 (4.2%); smoking 11 (4.2%); illicit substance abuse 5 (1.9%); and think of hurting self: 5(1.1%). (Table 4).

Coping pattern were significantly associated with age (p=0.006), sex (p=0.034) and marital status (0.004). (Table 5). The middle aged 105 (77.2%), females 43(84.3%) and married 152

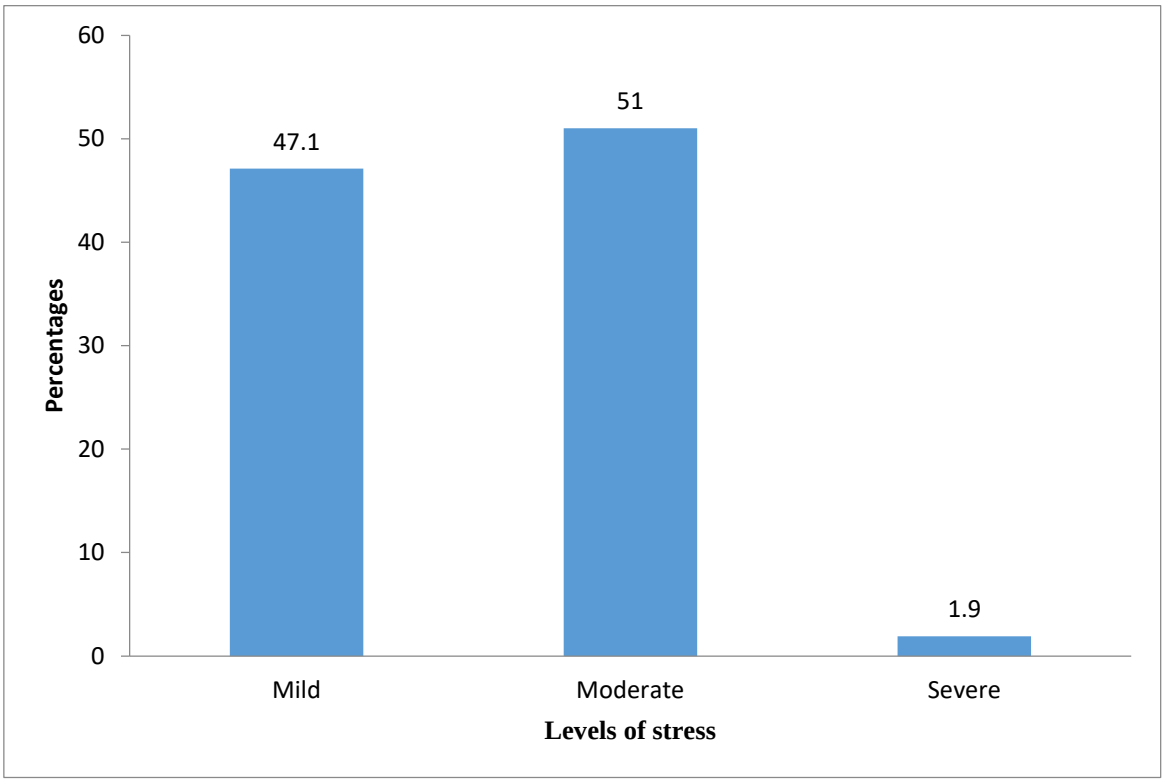

Figure 1: Levels of stress among the respondents

Table 2: Socio-demographic variables and Perceived Stress Scale

Socio-demographic variable	Perceived Stress Scale (Scores)			
	Mild (n=123) n (%)	**Moderate (n=133) n (%)**	**Severe (n=5) n (%)**	**LR χ^2 (p-value)**
Age group (years)				
18 – 35 (young adults)	54 (44.3)	65 (53.3)	3 (2.4)	1.445
36 – 55 (Middle age)	68 (50.0)	66 (48.5)	2 (1.5)	(0.836)
> 55 (older adults)	1 (33.3)	2 (66.7)	0 (0.0)	
Gender				
Male	104 (49.5)	103 (49.0)	3 (1.5)	3.236
Female	19 (37.3)	30 (58.8)	2 (3.9)	(0.198)
Marital Status				
Single	18 (35.3)	31 (60.8)	2 (3.9)	10.134
Married	105 (51.0)	98 (47.6)	3 (1.4)	(0.038)*
Separated/Divorced	0 (0.0)	4 (100.0)	0 (0.0)	
Educational Status				
None	1 (100.0)	0 (0.0)	0 (0.0)	8.619
Primary	0 (0.0)	3 (100.0)	0 (0.0)	(0.196)
Secondary	62 (52.1)	56 (47.1)	1 (0.8)	
Tertiary/Post Tertiary	60 (43.5)	74 (53.6)	4 (2.9)	
Work Status/Rank				
Commissioned	18 (64.3)	10 (35.7)	0 (0.0)	3.991
Non-commissioned	105 (45.1)	123 (52.8)	5 (2.1)	(0.136)
Working Hours				
5 – 9	45 (45.5)	52 (52.5)	2 (2.0)	0.853
10 – 14	22 (46.8)	24 (51.1)	1 (2.1)	(0.991)
15 – 19	8 (50.0)	8 (50.0)	0 (0.0)	
20 – 24	48 (48.5)	49 (49.5)	2 (2.0)	

**Significant LR – Likelihood ratio*

Table 3: Perceived causes of stress among respondents

Variable	Responses Frequency (%)		
Perceived causes of stress	**Never**	**Sometimes**	**Often/Always**
Factors from work conditions			
Very heavy workload	69 (26.4)	145 (55.6)	47 (18.0)
Absence/Inadequate break times	77 (29.5)	144 (55.2)	40 (15.3)
Unfair distribution of work	72 (27.6)	151 (57.9)	38 (14.6)
Poor supervision	89 (34.1)	141 (54.0)	31 (11.9)
Meeting deadlines	100 (38.3)	137 (52.5)	24 (9.2)
Working in unsocial hours	83 (31.8)	156 (59.8)	22 (8.4)
Factors from working relationships			
Harassment and/or discrimination	91 (34.9)	123 (47.1)	47 (18.0)
Unfriendly treatment	76 (29.1)	143 (54.8)	42 (16.1)
Lack of communication from management	88 (33.7)	136 (52.1)	37 (14.2)
Poor relations with supervisor	101 (38.7)	134 (51.3)	26 (10.0)
Poor relations with colleagues	112 (42.9)	130 (49.8)	19 (7.3)
Working with the public	116 (44.4)	128 (49.0)	17 (6.5)
Perception of payment/appreciation			
I feel underpaid	73 (28.0)	103 (39.5)	85 (32.6)
I feel undervalued	87 (33.3)	106 (40.6)	68 (26.1)
I receive appreciation for good work	64 (24.5)	156 (59.8)	41 (15.7)

n =261

Table 4: Stress Coping Strategies among the respondents

Variables	Frequency (n=261)	Percent
Positive coping strategy		
Talking to my family member(s) and friends help me	94	36.0
Think of plan to solve problem	60	23.0
Exercise or play sports is my unwinding secret	25	9.6
Reading does a lot of distraction	10	3.8
Negative coping strategy		
I find eating to be re-energizing	24	9.2
Alcohol makes me forget my sorrow	18	6.9
I claim sick to evade further duty assignment	11	4.2
Smoking calms my nerves	11	4.2
Use of illicit substances has been very helpful	5	1.9
Consider hurting or killing yourself	3	1.1

(74.1%) significantly utilised positive coping strategy more than their counterparts during stressful conditions. Respondents in active service more than twenty years coped positively 44 (74.6%) more than those in service less than twenty 61(68.5%) but the difference was not significant. (Table 5) Among the independent variables such as gender, marital status and years of service, gender has the greatest effect on Perceived Stress Scale (PSS) with standardized coefficient (Beta) of 0.150 and p-value = 0.022. (Table 6).

DISCUSSION

In present study about half (51%) of the respondent showed moderate level of stress. This is similar to that of Chan et al who

Table 5: Relationship between socio-demographic variables and coping style

Socio-Demographic variable	Coping style		LR χ^2 (p-value)
	Positive (n=189)	Negative (n=72)	
Age group (years)			
18 – 35 (young adults)	84 (68.9)	38 (31.1)	10.109
36 – 55 (Middle age)	105 (77.2)	31 (22.8)	(0.006)*
> 55 (older adults)	0 (0.0)	3 (100.0)	
Sex			
Male	146 (69.5)	64 (30.5)	4.476
Female	43 (84.3)	8 (15.7)	(0.034)*
Marital Status			
Single	37 (71.2)	15 (28.8)	10.656
Married	152 (74.1)	53 (25.9)	(0.004)*
Separated/Divorced	0 (0.0)	4 (100.0)	
Educational Level			
None	0 (0.0)	1 (100.0)	2.838
Primary	2 (66.7)	1 (33.3)	(0.417)
Secondary	85 (71.4)	34 (28.6)	
Tertiary/Post-tertiary	102 (73.9)	36 (26.1)	
Work Status/Rank			
Commissioned	24 (85.7)	4 (14.3)	2.767
Non-commissioned	165 (70.8)	68 (29.2)	(0.096)
Years of service in the military			
1 – 10	61 (68.5)	28 (31.5)	1.031
11 – 20	56 (68.3)	26 (31.7)	(0.794)
21 – 30	44 (74.6)	15 (25.4)	
> 30	23 (74.2)	8 (25.8)	
Working Hours			
5 – 9	75 (75.8)	24 (24.2)	2.766
10 – 14	33 (70.2)	14 (29.8)	(0.429)
15 – 19	9 (56.3)	7 (43.7)	
20 – 24	72 (72.7)	27 (27.3)	

**Significant LR – Likelihood ratio*

Table 6: Multiple linear regression of independent variables and dependent variable (Perceived Stress Scale)

Variables	Unstandardized Coefficients		Standardized Coefficients		95% Confidence Interval for B	
	B	Std. Error	Beta	P value	Lower Bound	Upper Bound
Constant	2.736	2.225		0.220	-1.645	7.117
Age	-0.006	0.056	-0.023	0.911	-0.118	0.105
Gender	1.024	0.443	0.150	0.022*	0.151	1.896
Marital status	0.010	0.413	0.002	0.981	-0.803	0.823
Year of Service	0.024	0.057	0.084	0.676	-0.088	0.135
Working hours/day	0.098	0.130	0.048	0.449	-0.157	0.354
Status	0.739	0.563	0.085	0.190	-0.369	1.848
Level of education	0.159	0.243	0.042	0.514	-0.319	0.63

**Significant*

examined six different professionals in Singapore namely general practitioners, lawyers, engineers, teachers, nurses and life insurance personnel.[33] These professionals were moderately stressed even though there was no prevalence figure in their finding. The lesser degree of stress in Nigerian military soldiers could be attributed to their strong spirit and resilient qualities, based on their personality, which is a recognised factor that either makes or mars one's ability to deal with stressors.[34] Other studies done among medical students in Nigeria,[35] school teachers in Ethiopia[36], and health professionals of Uganda[37] indicated varying stress levels or prevalence depending on the data collecting tool used. For instance the study in Nigeria used questionnaire developed by the authors while the study in Uganda used General Health Questionnaire-12.

Although, two separate studies carried out among the military in US [18-19] reported that job stressors in the military environments during peace time are equivalent to other civilian work environment, the attention the military have received as an important institution responsible for the orderliness and security of life and property possibly contributed to this lower level of stress recorded. For example the military is allocated an appreciable size of yearly budget than most other sectors in Nigeria. This resource allocation may not be related to the level of stress, but rather due to perceived important role they play in national security. Similar to observations from other professions, the level or prevalence of stress varied widely among armed men. In US alone, different literatures recorded prevalence of 26%[7], 27.4%[8], 40%[21] and 39%.[24] An average of 46% of employees in military health setting in Iran was stressed.[22] Incidence of 36% was obtained in Israel[38] and 55%[23] in Malaysia. Apart from the different assessment tools for stress used by these researchers, the wide variability in personalities and individual's appraisal of stress likely explains why some employees report that they experience burnout, and others do not, although they all work within the same working environment.[34]

The present study also observed that the levels of stress perceived by the participants were not significantly affected by working hours. This may appear surprising since stress level is expected to increase with working hours. Nigerian nurses' experienced more stress working 12 hour shift than 8hours shift.[4] Other studies military mental health providers in US[39] and employees in public, private and non-governmental organizations (NGOs) in United Kingdom[3] also opined that working hours was positively associated with level of stress. Regarding sex as determinant of stress, our study also observed that though greater proportion of females perceived stress as either moderate or severe this was not significant. Previous studies have shown different results in term of influence of sex on workplace stress level. A study in Iran among staff of a military hospital showed men expressed about 20% higher occupational stress than females[22] whereas another report in US concluded that job stress is independent of sex[8]. The respondents who were single were significantly more stressed than the married. The higher level of stress in the single suggests that family (having someone to share worries with) could play a role in stress management. This may also explain why all the respondents who were

separated or divorced reported moderate stress levels. This finding is different from studies in US[8] and Iran[22] which identified no significant difference in the stress levels observed between the single and the married personnel and therefore contradicts this discovery.

In the present study, the non-commissioned staff did not show any significant difference in the stress levels when compare to the commissioned officers. This result is similar to another study on soldiers in Nigeria in which junior army NCO's manifested more stress than their senior counterparts.[17] Norwegian police officers of higher rank experienced more job satisfaction[40] signifying they had less stress than their juniors and this agrees with the result of this study. However, a finding in US linked higher rank to job stress in which more stress was identified among the mid-level company officers.[8] Yet another in London[6] and Jamaica[41], could not associate rank with job stress in their research. The regression analysis indicated gender a strong predictors of stress among all assessed variables (p=0.022). This study observed that the level of education did not significantly related to level of stress. This finding is different from a previous study in Ethiopia[36] which indicated a positive relationship between level of education and stress level. It is however in agreement with other studies US[8] and Iran[22] which concluded that educational level is unconnected to stress level.

The causes of workplace stress were classified into three domains: factors from work conditions, factors from work relationships and perception of payment. Within these the conditions that most respondents perceived always caused stress were very heavy workload, harassment and/or discrimination and feeling underpaid respectively. Financial issues as a high work stress factor was also reported by previous studies done nurses in Nigeria[42], the police in South Africa[43], military in Malaysia[23,44] and US.[21] This perception of being underpaid and undervalued as a major determinant in Nigeria could be due to general poor economic situation in the country characterized by high inflation. Bhui et al study among public, private and NGOs disputed inadequate remunerations as a high stressor because in his finding, financial strain was regarded an insignificant/least stressor[3]. It should however be noted that his study was not among the military.

Heavy workload as a frequent cause of work stress in present study was also observed by many other researchers in Nigeria,[35] South Africa,[39] Ethiopia,[36] Norway,[22] Dutch,[45] and Europe.[3] Related to heavy workload, absence/inadequate break times and lack of communication were often causes of stress. This is in agreement with outcomes in Europe[3], Malaysia[22], and Dutch.[45] In respect to receiving appreciation for good work, less than one fifth of the participants in this current research were shown appreciation. Lack of appreciation was seen as often a cause of stress. Similarly in Jennings work, nurses complained of "being swept aside or pretending as if they don't exist" by their superiors[4] and in Europe, employees received insufficient praise and imbalance reward for their effort[3] thus contributing to observed stressors.

Fewer respondents perceived working with the public, poor relations with colleagues and working in unsocial hours as always causing stress to them. However, a different observation was reported by some previous studies in Botswana,[46] Malaysia,[23] Europe,[3] Hungary,[14] Dutch,[45] and US.[8,19,47] In these studies, poor superior-subordinate relationship was

recognized as main stressor. The lower degree of stress caused by colleague and superior-subordinate relationship in Nigeria as identified in this study could mean Nigerian army superiors are responding well to their grievances and needs.[48] Another explanation might be, the superiors are not always physically present to cause squabble. It is also possible the soldiers already understood the bureaucracy and the hierarchy within the institution and have adjusted to that, knowing that any derail will be appropriately dealt with.

The finding of larger percentage of army personnel engage in positive coping strategy as against the few with negative styles is in agreement with studies among Nigerian medical students[35], but disagrees with the observation made in a study of Nigerian police which reported alcohol intake and smoking as strategies to cope with job stress and burnout.[49] Similarly, majority of Israeli police, [38] and US army [19,21] reacted positively in response to the stress associated with their work . The proportion of female who adopted the positive coping strategy was significantly higher than male personnel using positive style. The higher the educational level attained, the higher the proportion engaging in positive style of coping. This though was not significant. Majority of the commissioned personnel also had positive coping style during stressful condition compared to the non-commissioned personnel. This is in line with findings of a US study that observed higher passive coping among the lower ranked soldiers.[19] Among the socio-demographic variables gender had the most effect in predicting stress level among the respondents. However in a study in Iran resilience, emotions and character strengths were identified as predictors of job stress among military personnel.[50] The difference observed may be because the study in Iran used a convenience sampling method and also different research questionnaire i.e. Health and Safety Executive Stress Questionnaire, Conner-Davidson Resilience Scale, Values in Action Inventory of Strengths, and Positive and Negative Affect Schedule.

Study Limitations: This study involved only Nigerian military men of 82 Division in Abakpa cantonment in Enugu metropolis. Hence findings cannot be generalized to all military departments in Nigeria. Also the study was questionnaire based and hence provided limited information. A mixed method involving both qualitative and quantitative approach would have provided more information. However the tools used were validated by other studies outside Nigeria and have been severally used by other authors to obtain stress.

Conclusion: The job of the military is not without stress. Majority of the Nigerian military personnel in Abakpa Enugu had moderate to severe level of stress during relative peace time. Commonest stressors were inappropriate remunerations, under recognition for job well done and heavy workload. Marital status significantly affected the level of stress while age, gender, educational status, work status and working hours did not significantly affect the level of stress. Most of the respondents utilize positive coping strategy to stress management such as thinking of plan to solve problem, exercise or playing sports and reading whereas some preferred negative ways of coping included eating, alcohol drinking, claiming sick among others. Gender had the most effect in predicting stress level among the respondents.

Recommendations: Government should ensure regular payment of salaries to these personnel as well as regular review of their salary structure to encourage and boost further their morale. There should be regular training and re-training of the military personnel. Counseling services should be provided from time to time to improve their coping strategies and reduce the prevalence of severe chronic stress. Furthermore, education should be encouraged among the military and this should be considered in the selection criteria.

Acknowledgment: We acknowledge the assistance from Nigerian military personnel in 82 division Abakpa Cantonment, Enugu.

Source of funding: The research was funded by the authors. There was no external funding.

Conflict of interest: The authors declare no conflict of interest

Authors' contributions: UOS was involved in conception of work; literature review, methodology design, data collection & analysis, discussion and editing final work. AEN was involved in conception of work, methodology, data analysis and review of final work. OCN was involved in conception of work, methodology, data analysis and review of final work

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