



GSJ: Volume 11, Issue 6, June 2023, Online: ISSN 2320-9186

www.globalscientificjournal.com

INFLUENCE OF PERSONALITY TRAITS AND THE TYPES OF OPERATION ON MENTAL HEALTH OF MILITARY PERSONNEL

Damian D. OSA-AFIANA & Timileyin M. FASHOLA

Department of Psychology

Faculty of Management & Social Sciences

Baze University, FCT, Abuja

Corresponding e-mail: timileyin.fashola@bazeuniversity.edu.ng

ABSTRACT

This study investigates the influence of personality traits and types of operations on the mental health of military personnel. Cross-sectional survey design was adopted and data was gathered from selected 238 military personnel in Odogbo barracks, Ibadan. More of the respondents 221 (92.9%) were males, while the other 17 (7.1%) were females. Age distribution ranged from 20 years old and 54 years, with an average age of 33.8 (SD = 8.8). Findings revealed that personality traits (extroversion, agreeableness, conscientiousness, neuroticism, and openness to experience) jointly predicted mental health { $R = .29$; $R^2 = .09$; $F(5, 232) = 4.36$; $P < .01$ }; however, only conscientiousness ($\beta = .20$; $t = 2.09$; $P < .05$) independently predicted mental health. Finally, the type of operation had no significant influence on mental health among military personnel [$F(5, 232) = .19$; $P > .05$]. It was therefore concluded that personality traits such as extroversion, openness to experience, agreeableness, and conscientiousness were significant correlates of mental health of military personnel. It was therefore recommended that profiles of military intake be made on their personality and possibly recruited and placed according to their personality traits. An individual with an increased level of extroversion could be given an upper hand in a selection over someone low in extroversion.

INTRODUCTION

Mental health is a positive concept related to the social and emotional well-being of individuals and communities (Galderisi et al. 2015; Coronel-Santos & Rodriguez, 2022). The concept is culturally defined, but generally relates to the enjoyment of life, the ability to cope with stresses and sadness, the fulfilment of goals and potential, and a sense of connection to

others (Keyes, 2014; Wren-Lewis & Alexandrova, 2021). The term 'Mental health' is often misunderstood and interpreted as referring to mental ill-health (Tan et al. 2020). This can be confusing, especially since 'Mental health services' have been mostly concerned with the treatment of mental illness, rather than Mental health per se. Mental health is a desirable quality in its own right and is more than the absence of mental ill-health (Connell et al. 2014; Fashola & Osa-Afiana, 2023). It is relevant to all people, regardless of whether they are currently experiencing, or recovering from a mental illness.

According to World Health Organization (WHO, 2022), it was affirmed that mental health is a state of well-being in which the individual realizes his or her abilities, can cope with the normal stresses of life, can work productively and fruitfully, and can make a contribution to his or her community. To emphasize the extent to which mental health is considered important, the WHO ascertained that mental health is part of general health, and it goes beyond just the absence of mental illness (WHO, 2019). A positive correlation was found between mental health and physical health (WHO, 2022).

The fact that mental health is considered a right for every individual (Cosgrove & Shaughnessy, 2020), implies that regardless of age, gender, and even occupation, mental health is desirable for all and sundry. This also includes military personnel. Serving as military personnel has been connected with poor mental health in most previous studies (Inoue et al. 2022; Ravindran et al. 2020). Inoue et al. (2022) connected poor mental health to Post Traumatic Stress Disorder (PTSD).

A comprehensive review of the literature on military service, mental health, and PTSD concluded that active duty officers, particularly those who have served and are serving in combat suffer substantial mental health problems (Tanielian & Jaycox, 2008). This review finds that retired soldiers suffer from depression, drug, and alcohol dependency, homelessness, or suicide. Estimates of PTSD rates among those who served in war zones ranged from 4 to 45 percent (Tanielian & Jaycox, 2008). Lasebikan and Ijomanta (2018) reported that approximately 13.5% of military personnel reported lifetime cannabis use, while approximately 4.9% reported lifetime cannabis dependence in West Africa. While this prevalence is considered high, it has also been established that it is quite under-reported, as the result could not be generalized to military personnel in Nigeria, as a case study.

Considering the importance of having healthy military personnel following the current high level of insecurity due to the ravaging bandits and Boko Haram insurgence, it is vital to put the mental health of the military personnel into consideration. Just as it has been established that the type of job contributes to mental health (Fashola et al. 2018), it is also important to

note that various factors could influence the mental health of military personnel. However, this study will unravel the role of personality traits and the type of military operation in the mental health of military personnel in Nigeria.

Personality traits can be defined as the unique features that differentiate individuals from each other (Yunus et al. 2018). The most common description of personality traits has been done within the big-five personality traits (Goldberg, 1993). The commonly referred big five include the following; Extraversion, neuroticism, openness to experience, agreeableness, and conscientiousness. According to Goldberg (1993), extraversion was linked to dominance, being social, and making friends easily. Agreeableness is characterized by acts of altruism, emotional support, and nurturance, among others (Goldberg, 1993; Yunus et al. 2018). Conscientiousness is linked with being diligent, achievement-focused, and thorough (McCrae & John, 1992). Another term for neuroticism is emotional instability, linked with distress experience (McCrae & John, 1992). Openness to experience is linked with a high level of creativity, and belief in unusual ideals (McCrae & John, 1992).

These five personality traits could play a significant role in the mental health of military personnel, as has been established in other similar research on other populations. For instance, Shirazi et al. (2012) affirmed that agreeableness and openness to experience were significant and positive correlates of mental health among students. Also, Habibi et al. (2013) reported that neuroticism, extraversion, and conscientiousness were significant correlates of mental health indicators among addicts. Mourelatos (2021) also reported that personality traits such as extraversion and openness to experience were significant correlates of mental health during COVID-19 pandemic era. Goktan et al (2022) asserted that personality traits such as conscientiousness and extraversion were positive determinants of mental health.

Another variable that could influence mental health of military personnel is the type of operation. Soldiers are put in a context that is not only unfamiliar but also actively hostile. Veterans of recent combat operations report some significant stressors unique to the combat zone including the threat of enemy attacks, dealing with the deaths of fellow soldiers, being responsible for killing another human being and handling human remains (Hoge et al., 2004). In the military, various types of operations exist. This could be Internal Security (IS) and External Security (ES). Internal security operation refers to various military operations carried out within the geographical location of Nigeria. So far, there are a total of nine (9) various operations that military personnel are being deployed to namely; Operation Lafiya Dole, Delta Safe, Gama Aiki, Awatse, Sharan Daji, Mesa, Maximum Safety, and Operation Accord.

External security operation refers to designations that involve protection outside the shores of the country. As regards external security, it often involves operations as designated by world bodies such as United Nations and African Union (AU). It usually comes in terms of peacekeeping, among others. Various external operations have been executed in countries such as Liberia, Sierra Leone, Uganda, etc. It is hypothesized that these various types of operations will have a significant influence on the mental health of military personnel.

Having given a background to the study, the broad objective of the study is to investigate the influence of personality traits and the type of operation on mental health among military personnel. The following hypotheses were generated and tested in this study;

1. Personality traits (extroversion, neuroticism, openness to experience, agreeableness, and conscientiousness) will have a significant joint and independent influence on the mental health of military personnel.
2. Type of operation will have a significant influence on the mental health of military personnel.

METHODOLOGY

Research Design

This study adopted a cross-sectional research design. The study aims at investigating the influence of personality traits and the types of operation on the mental health of military personnel in Ibadan. The dependent variable is mental health while the independent variables were personality traits (extraversion, neuroticism, agreeableness, conscientiousness, and openness) and the types of operation. Questionnaire was used to gather data from the respondents on the influence of the independent variables on the dependent variable.

Research Setting

The study was conducted in Odogbo military barracks in Oyo state. The choice of this setting is based on the fact that it has the largest number of military domiciles in the state. Headquarters 2 Division Nigerian Army is located in Ibadan, Oyo State. It was established during the civil war. It is charged with the responsibility of securing its Area of Responsibility (AOR) covering the South Western flank of Nigeria and also ensuring that the borders located in its AOR are secured. The division is a mechanized infantry with affiliated combat support and combat service support units.

Participants

This study considered military personnel in the military barracks. The researcher administered a total of 300 research instruments, however, only 238 were retrieved.

Convenience sampling technique was adopted in this study. This was because sample participants were contacted in settings where it was easy to locate them, military barracks.

Instruments

Data was gathered through the means of a structured questionnaire. The questionnaire comprised three sections; Sections A, B, and C.

Demographic Information

This section consisted of socio-demographic items which will require the participants to respond to. This includes; sex, age, type of operation, etc

Mental health scale

This section measured mental health, using a scale developed by Seiler (1972). The mental health scale consisted of 22 items. The scale was developed to measure psychological health. The items will be answered on a 6-point Likert scale ranging from; 1 (All of the time), 2 (most of the time), 3 (a good bit of the time), 4 (some of the time), 5 (a little of the time), 6 (none of the time). The scale developer reported adequate reliability ranging from 0.42 to 0.74. The local reliability in this study was $\alpha = 0.78$.

Big-five personality inventory

This comprises a 44-Item Personality Inventory developed by John et al. (2008) for measuring Big-Five personality dimensions. The 44-Item Personality Inventory includes two items for each of the Big-Five personality dimensions. It is a 5-point Likert response format, the response categories ranging from 1: 'disagree strongly' up to 5: 'agree strongly'. As a measure of the Big-Five dimensions of personality, the TIPI has been validated against standard Big-Five instruments. The Test-retest reliability is, therefore, a more appropriate reliability measure for such brief scales. They were 0.77 for Extraversion, 0.71 for Agreeableness, 0.76 for Conscientiousness, 0.70 for Emotional Stability, and 0.62 for Openness, indicating that the scale provides a stable measure of personality over time. In this study the following internal consistency were reported; extraversion $\alpha = .69$; neuroticism $\alpha = .70$; agreeableness $\alpha = .78$; conscientiousness $\alpha = .79$, and openness to experience $\alpha = .76$.

Procedure

The researcher sought approval from the selected military barrack to carry out survey research. The process of carrying out the research involved a brief summary of what the research is all about, seeking the consent of participants, and assuring them of confidentiality and anonymity. All this was contained in the instruction given to the participants.

Data Analysis

Both descriptive and inferential statistics were used in the analysis of the data collected. Hypothesis one was tested using multiple regression analysis, while hypothesis two was tested using one-way analysis of variance (One-Way ANOVA).

RESULTS

A total of three hundred (300) military personnel were sampled, however, two hundred and thirty-eight (238) were retrieved. Three hypotheses were tested using multiple regression analysis and one-way Analysis of Variance.

Table 1: Socio-demographic distribution of respondents

SN	Variable	Frequency	Percentage (%)
1	Gender		
	Male	221	92.9
	Female	17	7.1
2	Educational qualification		
	Senior Secondary School Certificate (SSCE)	116	48.7
	National Diploma (OND)/National Certificate of Education (NCE)	56	23.5
	University/Higher National Diploma (HND)	13	22.3
3	Years in service		
	Less than 5 years	49	20.6
	5-9 years	139	58.4
	10-14 years	48	20.2
	15 years above	2	(0.8)
4	Department		
	General Duties	44	18.5
	Logistics	56	23.5
	Administration	101	42.4
	Others	37	15.6
	Total	238	100

Frequency distribution on Table 1 showed that more of the respondents 221 (92.9%) were males, while the other 17 (7.1%) were females. Age distribution ranged from 20 years old and 54 years, with an average age of 33.8 (SD = 8.8). Educational qualification showed that more of the respondents 116 (48.7%) were SSCE holders, 56 (23.5%) indicated to have primary school leaving certificates, 53 (22.3%) were OND/NCE holders, while the other 13 (5.5%) were University degree holders/Higher National Diploma. As regards years in service, more of the soldiers 139 (58.4%) indicated to have spent between 5 and 9 years in the military, 49 (20.6%) have spent less than 5 years in the military, 48 (20.2%) have spent between 10 and 14 years in the military, while the other 2 (0.8%) have spent over 15 years in service.

More of the respondents 101 (42.4%) indicated to be in the administrative department, 56 (23.5%) were in logistics, 44 (18.5%) were in general duties, while the other 37 (15.6%) were in other departments.

Table 2: Zero-Order Correlation Showing the Relationship Between Personality Traits and Mental Health

Variable	Mean	SD	1	2	3	4	5	6
1 Mental Health	78.23	16.49	-	.22**	.18**	.25**	.01	.21**
2 Extroversion	14.40	3.19		-	.75**	.70**	.58**	.39**
3 Agreeableness	15.77	3.18			-	.64**	.54**	.38**
4 Conscientiousness	15.79	2.79				-	.58**	.40**
5 Neuroticism	13.34	3.26					-	.36**
6 Openness to experience	20.94	3.86						-

****Significant at 0.01**

Table 2 presents a zero-order correlation between personality traits (extroversion, neuroticism, openness to experience, neuroticism, and openness to experience) and mental health. It is shown on Table 2 that extroversion ($r = .22$; $P < .01$), agreeableness ($r = .18$; $P < .01$), conscientiousness ($r = .25$; $P < .01$) and openness to experience ($r = .21$; $P < .01$) were significant positive correlates of mental health. This implies that the higher the extroversion, agreeableness, openness to experience, and conscientiousness of military personnel, the higher their mental health. However, it was discovered that there exists no significant relationship between mental health and neuroticism ($r = .01$; $P > .05$). This partially confirms the stated hypothesis.

Hypothesis one stated that personality traits (extroversion, neuroticism, openness to experience, agreeableness, and conscientiousness) will jointly and independently predict mental health of military personnel in Ibadan. This was tested using multiple regression analysis and the result is presented on Table 3;

Table 3: Multiple Regression Summary Table Showing Personality Traits as Predictors of Mental Health

Predictors	β	t	P	R	R ²	F	P
Extroversion	.11	1.04	>.05				
Agreeableness	-.02	-.20	>.05				
Conscientiousness	.20	2.09	<.05	.29	.09	4.36	<.01
Neuroticism	-.12	-1.41	>.05				
Openness to experience	.13	1.89	>.05				

Table 3 presents the influence of personality traits (extroversion, agreeableness, conscientiousness, neuroticism and openness to experience) on mental health among military personnel in Odogbo barracks. It is presented on Table 3 that personality traits (extroversion, agreeableness, conscientiousness, neuroticism and openness to experience) jointly predicted mental health $\{R = .29$; $R^2 = .09$; $F(5, 232) = 4.36$; $P < .01\}$. Collectively, personality traits (extroversion, agreeableness, conscientiousness, neuroticism and openness to experience) accounted for about 9% variance in mental health among military personnel in Odogbo barracks. However, only conscientiousness ($\beta = .20$; $t = 2.09$; $P < .05$) independently predicted mental health among military personnel. This partially confirmed the stated hypothesis.

Hypothesis two stated that type of operation will have significant influence on mental health among military personnel in Odogbo barracks. This was tested using One-Way Analysis of Variance (ANOVA) and the result is presented on Table 4;

Table 4: One-Way ANOVA Summary Table Showing the Effect of Type of Operation on Mental Health

Source	SS	df	MS	F	P
Between Groups	268.76	5	53.75	.19	>.05
Within Groups	64169.53	232	276.59		
Total	64438.29	237			

Table 4 presents results on the influence of the type of operation on mental health among military personnel in Odogbo barracks. There are a total of twelve types of operations within the past 14 years within the Nigerian Army (United Nations, African Union, Operation Burst, Operation Lafiya Dole, Operation Delta Safe, Operation Gama Aiki, Operation Awatse, Operation Sharan Daji, Operation Mesa, Operation Maximum Safety, and Operation Accord). It is shown that type of operation had no significant influence on mental health among military personnel [$F(5, 232) = .19; P > .05$]. This negates the stated hypothesis.

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

The study investigated the influence of personality traits and type of operation on mental health of military personnel in Odogbo barracks, Ibadan. It was discovered that personality traits (extroversion, agreeableness, conscientiousness, neuroticism, and openness to experience) jointly predicted mental health. Collectively, personality traits (extroversion, agreeableness, conscientiousness, neuroticism and openness to experience) accounted for about 9% variance in mental health among military personnel in Odogbo barracks. However, only conscientiousness independently predicted mental health among military personnel. This partially confirmed the stated hypothesis. This is in line with the studies of Shirazi, Khan and Ansari (2012), who affirmed that agreeableness and openness to experience were significant and positive correlates of mental health among students. Also, Habibi, Sadeghi, Haghrangbar, Madanipour and Azarnoosh (2013) reported that neuroticism, extraversion, and conscientiousness were significant correlates of mental health indicators among addicts. Mourelatos (2021) also reported that personality traits such as extraversion and openness to experience were significant correlates of mental health during COVID-19 pandemic.

It was also discovered that the type of operation had no significant influence on mental health among military personnel. This negates the stated hypothesis.

Conclusions

The following conclusions were drawn from the findings of the study;

Firstly, this study concludes that an increase in personality traits such as extroversion, agreeableness, conscientiousness and openness to experience is a significant determinant of increased mental health. This means that an outgoing soldier with a high level of exposure and highly conscientious tends to report better mental health.

This study also concludes that personality traits (extroversion, neuroticism, openness to experience, agreeableness and conscientiousness) were significant joint determinants of mental health; while only conscientiousness had an independent influence on mental health among military personnel in Ibadan. Finally, the type of operation that military personnel are deployed to does not have any influence on their level of mental health.

Recommendations

The mental health impairments experienced by soldiers deployed to war zones have received a great deal of attention from both policy makers and the news media. A recent article in Time magazine describes the mental health problems of servicemen and women returning from war zones. Military service has been linked to greater take-up of disability benefits among some veterans, as well as higher rates of crime and violence. This study identified a dearth of research on mental health of military personnel, as well as the psychological determinants. It was based on this among other reasons that the study was carried out. The findings informed the following recommendations;

Firstly, it was found that certain personality traits had a significant positive relationship with mental health among military personnel. An increase in personality traits such as extroversion, openness to experience, agreeableness, and conscientiousness, leads to higher mental health. Serving in the military, especially in Nigeria requires an extra exhibition of citizenship behaviour, which could only be ascertained by a healthy soldier, psychologically. It is therefore recommended that profiles of military intake be made on their personality and possibly recruited and placed according to their personality traits. An individual with an increased level of extroversion could be given an upper hand in a selection over someone low in extroversion.

It is also recommended from this study that more studies be carried out on other psychological factors that could influence the mental health of military personnel in Nigeria. This will go a long way in ensuring that military personnel are in the right state of mind while serving their fatherland.

One limitation of this study is the small sample size, which could influence the generalizability. Future studies should endeavor to consider a larger sample size of military personnel, if possible across Nigeria as a country.

REFERENCES

- Connell, J., O'Cathain, A., & Brazier, J. (2014). Measuring quality of life in mental health: are we asking the right questions?. *Social science & medicine (1982)*, *120*, 12–20. <https://doi.org/10.1016/j.socscimed.2014.08.026>
- Coronel-Santos, M. A., & Rodríguez-Macías, J. C. (2022). Integral definition and conceptual model of mental health: Proposal from a systematic review of different paradigms. *Frontiers in sociology*, *7*, 978804. <https://doi.org/10.3389/fsoc.2022.978804>
- Cosgrove, L., & Shaughnessy, A. (2020). Mental Health as a Basic Human Right and the Interference of Commercialized Science. *Health & Human Rights Journal*, *22*, 61 - 68.
- Fashola T.M. & Osa-Afiana, D. (2023). Prevalence and predictors of mental health among global migrants into Europe: A systematic review. *IFE Psychologia: An international journal*, *31*, 24-34.
- Fashola T.M., Kenku A., & Obasi C., (2018). Perceived Job Demand and Work-Life Balance as Predictors of Mental Health among Practicing Nurses in Government General Hospitals in Ibadan metropolis, Nigeria. *Journal of Sociology, Psychology and Anthropology in Practice*, *9*, 37-46.
- Galderisi, S., Heinz, A., Kastrup, M., Beezhold, J., & Sartorius, N. (2015). Toward a new definition of mental health. *World psychiatry : official journal of the World Psychiatric Association (WPA)*, *14*(2), 231–233. <https://doi.org/10.1002/wps.20231>
- Goktan, A. J., Weston, S. J., Luo, J., Graham, E. K., & Mroczek, D. K. (2022). Personality traits and mental health care utilization: Longitudinal findings from the MIDUS. *Journal of research in personality*, *99*, 104260. <https://doi.org/10.1016/j.jrp.2022.104260>
- Goldberg, L. R. (1993). The structure of phenotypic personality traits. *American Psychologist*, *48*(1), 26–34. <https://doi.org/10.1037/0003-066X.48.1.26>
- Habibi, Z., Sadeghi, H., Haghrrangbar, F., Madanipour, K., & Azarnoosh, A. (2013). The Study of Personality characteristics and mental health in addicts. *Procedia - Social and Behavioral Sciences*, *84*, 509 – 513.
- Hoge, C., Castro, C., Messer, S., McGurk, D., Cotting, D. & Koffman, R. (2004). Combat duty in Iraq and Afghanistan Mental Health Problems, and Barriers to Care. *The New England Journal of Medicine*, *351*, 13-22.
- Inoue, C., Shawler, E., Jordan, C. H., & Jackson, C. A. (2022). Veteran and Military Mental Health Issues. In *StatPearls*. StatPearls Publishing.
- John, O. P., Naumann, L. P., & Soto, C. J. (2008). Paradigm shift to the integrative Big Five trait taxonomy: History, measurement, and conceptual issues. In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (3rd ed., pp. 114–158). New York, NY: Guilford

- Keyes CLM. (2014). Mental health as a complete state: how the salutogenic perspective completes the picture. In: Bauer GF, Hämmig O, editors. *Bridging occupational, organizational and public health*. Dordrecht: Springer; pp. 179–92.
- Lasebikan, V.O. & Ijomanta, I.N. (2018). Lifetime and 12 months cannabis use and disorders among soldiers residing in a military community in Nigeria. *J. Subst. Use*, 23, 67–73.
- McCrae, R. R., & John, O. P. (1992). An introduction to the five-factor model and its applications. *Journal of Personality*, 60(2), 175–215. <https://doi.org/10.1111/j.1467-6494.1992.tb00970.x>
- Mourelatos, E. (2021). How personality affects reaction. A mental health behavioral insight review during the Pandemic. *Curr Psychol*. <https://doi.org/10.1007/s12144-021-02425-9>
- Ravindran, C., Morley, S. W., Stephens, B. M., Stanley, I. H., & Reger, M. A. (2020). Association of Suicide Risk With Transition to Civilian Life Among US Military Service Members. *JAMA network open*, 3(9), e2016261. <https://doi.org/10.1001/jamanetworkopen.2020.16261>
- Seiler, L.H. (1973). The 22-item scale used in field studies of mental illness: a question of method, a question of substance, and a question of theory. *Journal of health and social behavior*, 14, 252-64.
- Shirazi, M., Khan, M. A., & Ansari, F. A. (2012). Mental Health in Relation to Personality Characteristics among Professional and Nonprofessional Students. *Journal of Arts, Science and Commerce*, 3, 8-15.
- Tan, G. T. H., Shahwan, S., Goh, C. M. J., Ong, W. J., Wei, K. C., Verma, S. K., Chong, S. A., & Subramaniam, M. (2020). Mental illness stigma's reasons and determinants (MISReaD) among Singapore's lay public - a qualitative inquiry. *BMC psychiatry*, 20(1), 422. <https://doi.org/10.1186/s12888-020-02823-6>
- Tanielian, T. & Jaycox, L.H. (Eds.) (2008). *Invisible Wounds of War: Psychological and Cognitive Injuries, Their Consequences, and Services to Assist Recovery*. Santa Monica, CA: RAND MG-720.
- World Health Organization (WHO) (2019). *Mental Health*. https://www.who.int/health-topics/mental-health#tab=tab_1
- World Health Organization (WHO) (2022). *Mental Health: Strengthening our response*. <https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response>
- Wren-Lewis, S., & Alexandrova, A. (2021). Mental Health Without Well-being. *The Journal of medicine and philosophy*, 46(6), 684–703. <https://doi.org/10.1093/jmp/jhab032>
- Yunus, M. R. B. M., Wahab, N. B. A., Ismail, M. S., & Othman, M. S. (2018). The Importance Role of Personality Trait. *International Journal of Academic Research in Business and Social Sciences*, 8(7), 1028–1036.