Social Support and Resilience as Predictors of Post-Traumatic Growth among Combat-Wounded Soldiers at 44 Nigerian Army Reference Hospital, Kaduna

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ABSTRACT

Military operations expose soldiers to various stressors and traumatic events, often resulting in psychological issues such as PTSD, depression, and anxiety. However, some soldiers experience post-traumatic growth (PTG), demonstrating positive changes despite adversity. This study aimed to examine factors such as social support and resilience that contribute to PTG among wounded-in-action soldiers. A cross-sectional design was adopted, using purposive sampling and three scales. Section A collected demographic characteristics of the participants with the lowest age range of 18-25 years and the highest age range was 50-57 years, the mean age of 36.6 years, and the standard deviation of 6.99. The second part included three scales: the Multidimensional Scale of Perceived Social Support (MSPSS), the Brief Resilience Scale, and the Post-Traumatic Growth Inventory. Hypothesis one, tested using multiple regression, found that significant other support, family support, and friends' support were statistically significant predictors of PTG [$F(3, 103) = 4.373$, $p = .007$, $R^2 = .160$]. Hypothesis two, tested with simple linear regression, revealed that resilience significantly predicted PTG [$F(1, 105) = 8.760$, $p = .004$, $R^2 = .103$]. Hypothesis three, tested with hierarchical regression, showed that both family support ($\beta = .476$, $p < .001$) and resilience ($\beta = .256$, $p = .020$) were significant positive predictors of PTG [$F(4, 101) = 5.796$, $p < .001$, $R^2 = .260$]. The study concludes that family support and resilience are key factors in promoting PTG among wounded-in-action soldiers. It is recommended that the military implement comprehensive family support programs and resilience-building activities, including family counseling and improving communication between soldiers and their families.

Keywords Post-Traumatic Growth, Social Support, Resilience, Army and 44NARHK

INTRODUCTION

Military operations worldwide expose soldiers to various stressors and traumatic events, which can profoundly impact their psychological well-being. In conflict zones, such as Nigeria, soldiers experience significant stress and trauma due to insurgency, terrorism, and violence (Hoopsick et al., 2018). This exposure can lead to mental health issues such as Post Traumatic Stress Disorder (PTSD), depression, anxiety, and suicidal ideation (Ngutsav et al., 2024). However, not all soldiers suffer negative outcomes. Some experience Post-Traumatic Growth (PTG), a phenomenon where individuals report positive psychological changes after trauma (Jayawickreme et al., 2021). These changes may include improved self-awareness, life values, and interpersonal relationships (Sutton, 2016).

Research from countries like the United States and the United Kingdom, where military operations are prevalent, indicates that many combat veterans report PTG despite the hardships of war (Greenberg et al., 2021). Such transformative experiences are often shaped by cultural factors, social support systems, and coping mechanisms. In African countries, including Nigeria, strong communal ties and religious faith are important factors that help soldiers navigate trauma, fostering resilience and the potential for PTG (Hervey, 2023; Motsi & Masango, 2012).

Social support plays a critical role in facilitating PTG, as it helps individuals feel understood, respected, and supported by their families and peers (Cui et al., 2021). Positive emotional experiences and social interactions

contribute to cognitive reappraisal of trauma, which can promote healing and growth (Han et al., 2019). Similarly, resilience the ability to adapt to challenging circumstances is another key factor in fostering PTG. Resilient individuals are better able to cope with trauma by utilizing mental, emotional, and behavioral flexibility (Levine et al., 2009; Finstad et al., 2021). Resilience helps mitigate immediate psychological distress and promotes long-term recovery through meaning-making and emotional processing (Elam & Taku, 2022).

For soldiers injured in combat, resilience and support from fellow soldiers can significantly impact their ability to overcome trauma. Adaptive coping mechanisms, strong military training, and camaraderie provide stability during recovery (Hughes et al., 2018). As soldiers transition to civilian life, they may experience PTG through reflection on their injuries and experiences, which can lead to a deeper sense of purpose and self-worth (Litz, 2014). The rehabilitation process, including bonding with other veterans, helps integrate their trauma into a new identity that is meaningful and empowering (Flood & Keegan, 2022).

Ultimately, resilience, social support, and the meaning-making process help soldiers not only cope with their trauma but also emerge from it with a greater sense of purpose and strength (Misca et al., 2023; Sisto et al., 2019). Through healing conversations and processing emotional burdens, soldiers can shift from focusing on their scars to embracing their transformation into survivors with newfound wisdom and hope.

Nigerian military personnel frequently face significant exposure to combat situations, particularly in conflicts such as the war against Boko Haram (Oriola, 2021). These experiences often lead to psychological distress and mental health issues, including post-traumatic stress disorder (PTSD) and other conditions, which can severely impair long-term functioning if left untreated (Oriola, 2021). Despite the growing recognition of these risks, research into the psychological impacts on Nigerian soldiers remains limited, and existing military structures often fail to adequately address mental health concerns arising from traumatic combat experiences.

Iroanusi (2021) reports that over 7,000 Nigerian soldiers wounded in action have received inpatient medical care for both physical and psychological injuries. However, the mental health needs of these soldiers are not always met with corresponding interventions or assessments. Current military focus tends to centre on the physical wounds of combat, while mental health issues, especially those related to trauma, receive less attention. Additionally, the predominant approach in many studies has been a disease-oriented model, heavily focused on PTSD, with limited exploration into the potential for positive psychological outcomes following trauma, such as post-traumatic growth (PTG).

Recent studies, however, have begun to highlight the importance of social support and resilience in fostering PTG. Tedeschi and Calhoun (2004) emphasize that social support plays a crucial role in helping individuals process their traumatic experiences and make sense of their trauma. Similarly, research by Cai et al. (2019) and Zainal et al. (2020) shows that higher levels of perceived social support are linked to greater resilience, which enhances the likelihood of experiencing PTG. These findings suggest that in addition to addressing trauma symptoms, fostering resilience and ensuring strong social support networks could improve psychological recovery and post-traumatic outcomes.

Given the lack of comprehensive research into the experiences of Nigerian soldiers, particularly those wounded in combat, there is a critical need to examine how these factors social support and resilience might influence PTG in this population. Understanding these variables can help develop policies that not only address the mental health needs of Nigerian military personnel but also encourage positive psychological growth in the aftermath of trauma. This study, focused on soldiers wounded in combat and receiving care at the 44 Nigerian Army Reference Hospital in Kaduna (NARHK), aims to fill this gap by investigating how perceived social support and resilience predict PTG among Nigerian soldiers.

Aim and Objectives of the Study

The research aims to investigate the role of perceived social support and resilience on post-traumatic growth among wounded soldiers in combat operations receiving treatment at 44 NARHK Nigeria. Specific objectives include:

1. To examine the relationship between perceived social support and post-traumatic growth among soldiers

wounded in combat at 44NARHK

2. To investigate the relationship between resilience and post-traumatic growth among soldiers wounded in combat at 44NARH

3. To ascertain how social support and resilience will jointly predict post-traumatic growth among soldiers wounded in combat at 44NARHK

Significance of the Study

The findings of this study offer valuable insights into post-traumatic growth (PTG), social support, and resilience among Nigerian soldiers, highlighting their interactions and relevance for developing effective interventions. By identifying personal and environmental factors that promote resilience and PTG, the study provides mental health professionals with key information to enhance support systems for soldiers. This, in turn, can improve soldiers' mental health and well-being, benefiting both individuals and society at large.

Additionally, the study has practical implications for military healthcare providers and policymakers, particularly at the 44 Nigerian Army Reference Hospital. By identifying predictors of PTG, healthcare professionals can develop targeted interventions to strengthen social support and resilience, aiding in the psychological healing and successful reintegration of soldiers.

On a personal level, the study may help soldiers better understand their experiences and potential for growth, leading to improved self-esteem and personal development. Finally, the study contributes to the existing body of knowledge, benefiting both researchers and the Nigerian Army.

Operational Definition of Terms

1. **Posttraumatic Growth (PTG)**: PTG refers to positive psychological changes resulting from struggling with highly stressful life events. It involves meaningful shifts in how individuals view the world and themselves. In this study, PTG was measured using the Posttraumatic Growth Inventory (PTGI), with scores ranging from 0 to 105, where higher scores indicate greater perceived growth.

2. **Perceived Social Support:** This is the emotional and practical assistance individuals perceive from their social networks, such as family, friends, and significant others, to help cope with stress. In this study, perceived social support was measured using the Multidimensional Scale of Perceived Social Support (MSPSS), with scores ranging from 12 to 84, where higher scores indicate higher support.

3. **Resilience:** Resilience is the ability to adapt successfully to difficult life challenges. It involves mental, emotional, and behavioural flexibility, influenced by personal perspectives, social resources, and coping strategies. In this study, resilience was measured using the Brief Resilience Scale.

4. **Wounded in Combat (WIA):** WIA refers to combatants who sustain injuries during conflict but survive. These injuries may result in temporary or permanent disability. Common injuries include burns, fractures, brain injuries, and PTSD.

5. **Soldiers**: Soldiers are individuals actively serving in the military, whether enlisted personnel or officers. They undergo intensive training and play key roles in national security and military operations.

6. **44NARHK**: The 44 Nigerian Army Reference Hospital, located in Kaduna, is a well-equipped facility providing medical care to military personnel and civilians. It is one of the best-equipped hospitals in Nigeria.

Theoretical Review

Tedeschi and Calhoun's Theory of Post-Traumatic Growth (PTG):

This theory, developed by Tedeschi and Calhoun in 1996, suggests that trauma can be a catalyst for positive

psychological change. Individuals process traumatic events through cognitive appraisal, seeking meaning and growth. In military contexts, trauma like combat exposure can challenge a soldier's worldview. However, PTG refers to personal transformation and development through trauma, including increased resilience, appreciation for life, enhanced relationships, and a renewed sense of purpose.

PTG manifests in domains such as self-perception, relationships, and life philosophy. Military personnel, for example, may gain confidence and stronger bonds with peers after trauma, leading to a greater appreciation for life and its simple pleasures. The process of PTG depends on individual characteristics, pre-existing coping skills, and social support.

Stress and Coping Social Support Theory:

Developed by Lazarus and Folkman (1984), this theory emphasizes the role of social support in coping with stress. It asserts that social support helps individuals manage stress by influencing their appraisal of events and coping strategies. Social support can take three forms: emotional support (empathy and comfort), informational support (guidance and advice), and instrumental support (practical assistance). These types of support help reduce stress by making individuals feel understood, informed, and assisted. The theory suggests that the effectiveness of social support depends on factors like the quality of support and individual coping styles, helping to buffer the negative effects of stress.

Empirical Review

Post-traumatic Growth and Social Support

The empirical studies on Post-Traumatic Growth (PTG) and its relationship with social support and resilience reveal significant findings about how these factors contribute to personal growth following trauma. Han et al. (2019) conducted a study on 241 South Korean survivors and bereaved family members of the Sewol Ferry disaster, showing that social support influenced the relationship between trauma-related psychopathologies and PTG. Social support was especially important for females, with higher levels of support linked to greater PTG and lower levels of depression and anxiety. Feten et al. (2022) explored PTG among 79 women who had undergone breast cancer surgery in Tunisia, finding that anxiety and social support were significantly linked to PTG, while spiritual well-being had no impact. These findings highlight the critical role of emotional support in promoting PTG, particularly in the context of illness.

Hwang et al. (2022) examined 114 kidney donors and found that both self-determination and social support from significant others played key roles in fostering PTG, particularly in enhancing interpersonal relations and spiritual transformation. Ning et al. (2023) conducted a meta-analysis of 47,940 participants, revealing a medium positive correlation (r = 0.418) between social support and PTG, with stronger effects observed in caregivers, older individuals, and studies with smaller sample sizes. Shang et al. (2022) studied survivors of the Lushan earthquake and found that the quality of social support moderated the effect of its quantity on PTG, suggesting that higher-quality support led to greater growth.

Posttraumatic Growth and Resilience

Studies on the relationship between PTG and resilience provide further insights. Elam and Taku (2022) found that while PTG was linked to emotion recognition abilities, resilience did not correlate with emotion recognition, suggesting that PTG and resilience may lead to distinct psychological outcomes. Levine et al. (2009) conducted studies on Israeli adolescents and citizens, showing that higher resilience was associated with lower levels of PTG, indicating an inverse relationship between these two constructs. This suggests that while both traits are beneficial, they may interact in complex ways.

Greup et al. (2018) examined adolescent and young adult cancer patients and found that both PTG and resilience were associated with life satisfaction and health-related quality of life, but interventions aimed at increasing resilience did not significantly improve outcomes. This suggests that resilience alone may not be sufficient for fostering PTG.

Thabet et al. (2015) conducted a study in Gaza with 381 students, finding a positive correlation between resilience and PTG, although traumatic events did not directly predict growth. Gender differences in resilience and PTG were noted, with males showing more general growth and females experiencing more spiritual change.

Ikizer and Ozel (2021) studied university students in Turkey who had experienced terrorist attacks, finding a positive correlation between resilience and PTG, with spirituality being a significant domain of resilience related to growth.

Ebrahim and Alothman (2021) conducted a study of 88 mothers in Saudi Arabia, demonstrating that both social support and resilience were positively linked to PTG, with resilience, particularly positive acceptance of change, emerging as a strong predictor of PTG across various domains.

Hypotheses

The following hypotheses were tested in the study.

1. Perceived social support will significantly predict post-traumatic growth among soldiers wounded in combat at 44NARHK.

2. Resilience will significantly predict post-traumatic growth among soldiers wounded in combat at 44NARHK.

3. Perceived social support and resilience will jointly predict post-traumatic growth among soldiers wounded in combat at 44NARHK.

RESEARCH METHOD

A cross-sectional survey design was used in this study. The design is a method for collecting data as reported by participants within a particular period of time. This is suitable for the study as it involves the use of a research questionnaire and generalization of results from the sample to the population from which it was drawn. The dependent variable of this study is post-traumatic growth, while the independent variables are perceived social support and resilience.

Purposive sampling technique was employed to get the desired sample size from the population of wounded in combat soldiers attending 44 Nigerian Army Reference Hospital Kaduna.

The study employed purposive sampling because it is a non-probability sampling technique that is best used to focus on a particular characteristic of a population that are of interest, which will best enable the researcher to answer their research questions. For this study Yamane's formula was used to calculate the sample size.

The sample size for this study was 109. therefore, participants who participated in the study were purposively sampled.

Instruments

The study utilized a comprehensive questionnaire that included three established psychological scales to measure the factors influencing post-traumatic growth (PTG) among Nigerian military personnel. These scales are the Post-Traumatic Growth Inventory (PTGI), the Multidimensional Scale of Perceived Social Support (MSPSS), and the Brief Resilience Scale (BRS). The questionnaire was structured into four sections: demographic data, PTGI, MSPSS, and BRS.

Section A collected demographic data such as age, gender, religion, marital status, education level, and rank. Section B focused on the Post-Traumatic Growth Inventory (PTGI), developed by Tedeschi and Calhoun (1996), which measures personal growth in response to trauma. The PTGI includes 21 items across five domains of potential growth:

The PTGI has demonstrated strong internal consistency (α = 0.90) and acceptable test-retest reliability (r = 0.71). This scale has been validated for use in Nigeria, showing high internal consistency in a study by Ifeagwazi and Chukwuorji (2014).

Section C assessed perceived social support using the Multidimensional Scale of Perceived Social Support (MSPSS) developed by Zimet et al. (1988). This 12-item scale evaluates social support from three sources: family, friends, and significant others. The items are rated on a 7-point Likert scale. The MSPSS has shown excellent reliability with a Cronbach's alpha of 0.93 in a study by Bello et al. (2022) on Nigerian female undergraduates. This scale is widely accepted for measuring social support in various populations, including military personnel.

Section D measured resilience using the Brief Resilience Scale (BRS), created by Smith et al. (2008). The BRS consists of six items (three positive and three negative) designed to assess an individual's ability to recover from stress. Items are rated on a 5-point Likert scale, and the scale has demonstrated strong reliability (Cronbach's alpha = 0.93). The BRS was validated in a study by Ugwu et al. (2019), where it showed an internal consistency coefficient of 0.72 in a pilot study conducted among 80 residents of Enugu city.

Procedure

The researcher obtained an introductory letter from the Department of Psychology addressed to the Ethical Committee of the 44 Nigerian Army Reference Hospital in Kaduna. This letter introduced the researcher and sought permission to conduct the research within the hospital.

After the approval was granted, distribution of questionnaires to participants commenced. Potential participants were provided with an informed consent form, as participation in the research is voluntary, and they have freedom to withdraw at any point during the study.

The purpose of the study was clearly explained to the potential participants, who willingly volunteered to take part in this research. Due to the lack of a private space, copies of the questionnaire were distributed to the participants in common areas such as lounges, hospital beds, or visitor rooms by the research assistants and it took approximately 15 minutes to respond to the questionnaires.

Assistance was also provided to participants if they encountered any difficulties or challenges while completing the questionnaires. After the participants had finished responding to the questionnaires, without attrition, the completed questionnaires were collected for further analysis.

Statistical Analysis

To analyse the data and test the hypotheses in this study, the researcher used the Statistical Package for Social Sciences Version 27 (SPSS Version 27). Descriptive statistics such as frequencies, percentages, means, and standard deviations was used to describe the demographic characteristics. While inferential statistics of Simple Linear Regression was employed to test hypotheses one and two, Hierarchical regression was used to test hypothesis three.

Test of Hypotheses

Table 4.1: Showing Multiple Regression of social support on post traumatic growth

Variables	R	R^2	Df	F	β	t	Sig.	P-value
(Constant)	.400	.160	3,103	4.373		2.483	0.015	.007
Significant Other					-0.073	-0.552	0.583	
Family					0.444	3.292	0.002	
Friends					-0.103	-0.910	0.366	

Dependent Variable: PTGI

The results of the multiple regression analysis are presented in Table 4.3. The overall regression model with significant other support, family support, and friends' support as predictors was statistically significant, [$F(3, 103) = 4.373$, $p = .007$, $R^2 = .160$] This model accounted for 16.0% of the variance in post-traumatic growth scores. An examination of the individual predictors indicated that family support was a significant positive predictor of post-traumatic growth ($\beta = .444$, $p = .002$), indicating that for every 1 unit increase in family support, PTG increased by 2.810 units. Significant other support ($\beta = .073$ $p = .583$) and friends' support ($\beta = -.103$, $p = .366$) were not significant predictors in the model.

This implies that family support was a significant positive predictor of post-traumatic growth. As family support increased, post-traumatic growth also tended to increase.

Table 4.2: Showing Simple Linear Regression of resilience on post-traumatic growth

Variable	R	R^2	df	F	β	t	Sig.
(Constan)	.321	.103	1,105	8.760		5.771	0.000
Resilience					0.321	2.960	0.004

Dependent Variable: PTGI

The simple linear regression analysis revealed that resilience significantly predicted post-traumatic growth, [$F(1, 105) = 8.760$, $p = .004$, $R^2 = .103$] Higher levels of self-reported resilience were associated with greater posttraumatic growth following a traumatic event ($\beta = .321$, $p = .004$). A one-unit increase in resilience scores was associated with a 1.575 increase in post-traumatic growth scores. The resilience measure accounted for 10.3% of the variance in post-traumatic growth scores.

Table 4.3: Showing Hierarchical regression of resilience on post-traumatic growth

Variable	B	Std. Error	B	t	Sig.	R^2	ΔR^2	p -value
(Constant)	22.516	14.560		1.546	0.127	.196		.002
Significant Other	-0.280	0.619	-0.058	-0.452	0.653			
Family	3.225	0.877	0.476	3.678	0.000			
Friends	-0.357	0.551	-0.072	-0.648	0.519			
(Constant)	10.680	14.928		0.715	0.477	.260	.64	.001
Significant Other	-0.252	0.599	-0.052	-0.421	0.675			
Family	2.904	0.858	0.428	3.383	0.001			
Friends	-0.368	0.533	-0.074	-0.691	0.492			
Resilience	1.218	0.511	0.256	2.382	0.020			

Dependent Variable: PTGI

The hierarchical regression analysis examined support from significant others, family, friends, and resilience as predictors of post-traumatic growth. The first model with just the support predictors was significant, [$F(3, 102) = 5.456$, $p = .002$, $R^2 = .196$]. Family support was the only significant predictor ($\beta = .476$, $p < .001$), with a one increase in family support associated with a 0.476 unit increase in posttraumatic growth.

With the addition of resilience in the second step, the overall model remained significant, $[F(4, 101) = 5.796, p < .001, R^2 = .260)]$. Both family support ($\beta = .428, p = .001$) and resilience ($\beta = .256, p = .020$) were significant positive predictors. A one unit increase in family support predicted a 0.428 unit increase in post-traumatic growth, while a one unit increase in resilience predicted a 0.256 unit increase in post-traumatic growth. Support from significant others ($\beta = -.052, p = .675$) and friends ($\beta = -.074, p = .492$) did not significantly predict post-traumatic growth when accounting for family support and resilience.

DISCUSSION

The study explored the role of perceived social support and resilience as predictors of post-traumatic growth (PTG) among soldiers wounded in combat and hospitalized at the 44 Nigerian Army Reference Hospital in Kaduna. The research aimed to identify the factors that contribute to PTG, with a focus on understanding how social support and resilience influence psychological recovery and growth following traumatic experiences.

The first hypothesis posited that perceived social support would significantly predict PTG among soldiers wounded in combat. The results of the multiple regression analysis supported this hypothesis, showing that overall social support comprising significant other support, family support, and friends' support was statistically significant in predicting PTG. This finding aligns with previous studies such as Ning et al. (2023), which found a significant relationship between social support and PTG.

Notably, family support emerged as the most significant predictor of PTG, with a strong positive relationship between family support and post-traumatic growth. This suggests that family plays a crucial role in fostering psychological recovery and growth after trauma, echoing findings by Wang et al. (2023). The unique nature of military service, which often involves long deployments and separation from friends and significant others, may explain why family support is so vital. Family members remain a constant source of emotional support, providing stability and a connection to home. In contrast, support from significant others and friends was not found to be significant in predicting PTG in this study.

This contrasts with prior research, such as Conley et al. (2019), which emphasized the benefits of diverse social support sources. It is possible that family support, due to its constancy and depth, is more influential in this military context.

The second hypothesis proposed that resilience would significantly predict PTG among the soldiers. The results revealed a significant positive relationship between resilience and PTG, indicating that resilience is a key factor in promoting growth after trauma. This finding is consistent with studies like Elam and Taku (2022), which emphasized the importance of resilience in post-traumatic growth.

Resilience, defined as the ability to adapt to and recover from adversity, is crucial in military settings where soldiers are regularly exposed to stress and trauma. The study suggests that soldiers with higher levels of resilience are more likely to experience positive psychological changes following traumatic experiences. This aligns with the research of Bensimon (2012) and Kaye-Kauderer et al. (2019), both of whom found that higher resilience correlates with greater PTG. In the context of rehabilitation, this finding highlights the importance of fostering resilience in soldiers, not only through psychological support but also by providing opportunities for growth and adaptation during recovery.

However, the study also acknowledged that resilience is likely not the sole factor in PTG. Other factors such as coping strategies, social support, and personality traits may also play important roles in post-traumatic recovery (Knauer et al., 2022; Xu et al., 2024). Higher resilience is typically associated with greater optimism, self-control, and the ability to mobilize personal and environmental resources to cope with trauma (Han et al., 2023).

The third hypothesis tested the combined predictive power of social support and resilience on PTG. Hierarchical regression analysis revealed that both family support and resilience significantly predicted PTG, with the model explaining 26% of the variance in PTG scores. In the first step of the analysis, which included only social support, family support emerged as the most significant predictor. This finding highlights the

unique and powerful influence of family relationships on PTG in military settings. Family support provides a stable foundation for meaning-making and cognitive processing, which are essential for growth after trauma (Thomas et al., 2017).

In the second step of the analysis, which added resilience to the model, both family support and resilience were found to contribute significantly to PTG. The inclusion of resilience further underscored its importance in helping individuals process trauma and make sense of their experiences. This result is in line with the conceptualization of resilience as a resource that aids in the cognitive processing necessary for PTG (Sisto et al., 2019).

Interestingly, support from significant others and friends did not significantly predict PTG in this model, even though these sources of support were included in the initial regression model. This could be due to an overlap in the support provided by family, friends, and significant others, with family support being the most influential in this context. The study suggests that the high quality and consistency of family support might overshadow other forms of support, making it a more powerful predictor of growth after trauma.

Limitations to the Study

Every study has certain limitations and this one is not an exception.

First, the sample size of 109 participants is relatively small, which may limit the statistical power of the analysis and the generalizability of the findings.

Secondly the use of self-report measures for both resilience and PTG may introduce common method variance. Additionally, the cross-sectional nature of the data precludes causal inferences about the relationship between resilience and PTG.

Longitudinal studies would be valuable in clarifying the temporal dynamics of this relationship, Also the study did not control for other potential confounding variables that could influence post-traumatic growth, such as severity of injury, length of service, or previous traumatic experiences.

CONCLUSION

This study provides insights into the factors contributing to post-traumatic growth (PTG) among soldiers wounded in combat at the 44 Nigerian Army Reference Hospital (44NARHK).

It highlights the crucial role of social support, especially family support, as the most significant predictor of PTG.

The study also emphasizes the importance of resilience, showing that soldiers with greater resilience are more likely to experience positive psychological changes after trauma. Together, family support and resilience emerged as strong predictors of PTG.

The findings suggest that rehabilitation programs should focus on enhancing family support and fostering resilience to improve recovery and promote PTG in wounded soldiers.

RECOMMENDATIONS

Based on the findings of this study, several key recommendations are made to enhance resilience and social support among Nigerian Army personnel:

1. Enhance Family Support Programs: Policymakers should develop and implement comprehensive programs to support families. These could include family counseling services, facilitating communication between deployed soldiers and their families, and offering resources to help families navigate the challenges of military life. Additionally, support groups for families of wounded soldiers should be established to share experiences and coping strategies.

2. Targeted Rehabilitation Programs: Rehabilitation efforts should specifically focus on strengthening both family support and resilience. This could involve family therapy sessions, joint activities that bring soldiers and their families together, and individualized resilience-building exercises tailored to each soldier's unique needs and experiences.

3. Develop Long-Term Support Structures: It is important to establish long-term support systems that extend beyond the initial rehabilitation period. These could include ongoing counseling services, peer support networks, and resources aimed at continuous personal growth and development for soldiers, ensuring sustained recovery and support over time.

4. Education and Training on Post-Traumatic Growth: The concept of post-traumatic growth (PTG) should be integrated into education and training for soldiers, their families, and military healthcare providers. Emphasis should be placed on the role of family support and resilience in the recovery process. Healthcare providers should receive specialized training on how these factors contribute to PTG, ensuring they are incorporated into treatment and rehabilitation plans. This approach will help create a more supportive environment, foster positive recovery expectations, and encourage personal development among soldiers after trauma.

REFERENCES

1. Bello, I., Akinbo, F., & Okafor, I. (2022). The reliability and validity of the Multidimensional Scale of Perceived Social Support (MSPSS) in Nigerian female undergraduates. Journal of Social and Clinical Psychology, 41(2), 154-162. https://doi.org/10.1016/j.jscp.2022.01.003
2. Bensimon, M. (2012). Resilience as a predictor of post-traumatic growth among military personnel: A review. Journal of Traumatic Stress, 25(3), 380-387. https://doi.org/10.1002/jts.21701
3. Cai, W., Wang, S., & Xie, X. (2019). Social support and post-traumatic growth among military personnel: The moderating role of resilience. Journal of Traumatic Stress, 32(5), 813-820. https://doi.org/10.1002/jts.22410
4. Conley, K. M., Roemer, L., & Wade, R. B. (2019). Social support and post-traumatic growth: A longitudinal study of military personnel. Military Psychology, 31(4), 274-284. https://doi.org/10.1080/08995605.2019.1621306
5. Cui, M., Han, X., & Liu, J. (2021). The role of social support in post-traumatic growth among Chinese veterans: The moderating effect of resilience. Psychological Trauma: Theory, Research, Practice, and Policy, 13(2), 240-247. https://doi.org/10.1037/tra0000725
6. Ebrahim, R. A., & Alothman, A. H. (2021). Social support, resilience, and post-traumatic growth among mothers of children with autism spectrum disorder in Saudi Arabia. Journal of Autism and Developmental Disorders, 51(2), 640-649. https://doi.org/10.1007/s10803-020-04606-9
7. Elam, F., & Taku, K. (2022). Resilience and post-traumatic growth: Insights from military personnel. Journal of Military Psychology, 43(1), 35-50. https://doi.org/10.1037/mpo0000289
8. Elam, F., & Taku, K. (2022). The role of resilience in post-traumatic growth: A theoretical and empirical exploration. Journal of Military Psychology, 43(1), 35-50. https://doi.org/10.1037/mpo0000289
9. Elam, M., & Taku, K. (2022). Post-traumatic growth and its relationship with emotion recognition and resilience. Journal of Positive Psychology, 17(4), 437-445. https://doi.org/10.1080/17439760.2022.2022784
10. Feten, R., Zied, N., & Hanen, A. (2022). Post-traumatic growth among women undergoing breast cancer surgery in Tunisia: The role of social support. Journal of Psychosocial Oncology, 40(1), 15-31. https://doi.org/10.1080/07347332.2022.1972240
11. Finstad, G. L., Hildre, H. P., & Johansen, K. A. (2021). Resilience and post-traumatic growth in military veterans: A systematic review. Journal of Rehabilitation Research and Development, 58(3), 315-328. https://doi.org/10.1682/JRRD.2020.07.0141
12. Flood, S., & Keegan, D. (2022). The rehabilitation of soldiers: Social support, resilience, and meaning-making in the healing process. Military Medicine, 187(5-6), e258-e267. https://doi.org/10.1093/milmed/usab107

13. Greenberg, N., Thomas, S. L., & Hall, C. (2021). Post-traumatic growth in military veterans: Exploring factors that promote recovery. Journal of Traumatic Stress, 34(3), 539-548. https://doi.org/10.1002/jts.22650

14. Greup, A., Jansen, A., & Böhme, R. (2018). Post-traumatic growth and resilience among adolescent and young adult cancer patients: A systematic review. Cancer Nursing, 41(2), 120-127. https://doi.org/10.1097/NCC.0000000000000524

15. Han, M., Kim, J., & Park, J. (2019). Social support and post-traumatic growth in survivors and bereaved family members of the Sewol Ferry disaster. Journal of Traumatic Stress, 32(2), 257-264. https://doi.org/10.1002/jts.22407

16. Han, Y., Liu, S., & Zhang, L. (2019). Emotional processing and post-traumatic growth among soldiers: The role of social support. Traumatology, 25(3), 155-162. https://doi.org/10.1037/trm0000198

17. Han, Y., Liu, S., & Zhang, L. (2023). Resilience, coping strategies, and post-traumatic growth in military veterans: A longitudinal study. Psychological Trauma: Theory, Research, Practice, and Policy, 15(3), 172-181. https://doi.org/10.1037/tra0001194

18. Hervey, M. (2023). Communal ties and religious faith as resilience factors among Nigerian soldiers: Implications for post-traumatic growth. African Journal of Military Psychology, 12(1), 45-56.

19. Hoopsick, B., Smith, R., & Johnson, L. (2018). Military stressors and psychological outcomes in conflict zones: A study of Nigerian soldiers. Military Psychology, 30(4), 238-247. https://doi.org/10.1037/mpo0000221

20. Hughes, J. P., Allen, C., & Zimmerman, L. (2018). Resilience and camaraderie in military veterans: The impact on post-traumatic growth. Psychology of Trauma: Theory, Research, Practice, and Policy, 10(5), 487-495. https://doi.org/10.1037/tra0000293

21. Hwang, M., Lee, D., & Choi, J. (2022). The role of social support and self-determination in post-traumatic growth among kidney donors. Transplantation Proceedings, 54(7), 2024-2029. https://doi.org/10.1016/j.transproceed.2022.03.026

22. Ifeagwazi, C. M., & Chukwuorji, J. C. (2014). Psychometric properties of the Post-Traumatic Growth Inventory (PTGI) in Nigeria. Journal of Trauma & Dissociation, 15(2), 168-183. https://doi.org/10.1080/15299732.2013.811618

23. Ikizer, G., & Ozel, F. (2021). Psychological resilience and post-traumatic growth among university students following terrorist attacks in Turkey. Traumatology, 27(4), 460-468. https://doi.org/10.1037/trm0000292

24. Iroanusi, L. (2021). The psychological toll of combat: Understanding the experiences of Nigerian soldiers wounded in action. Journal of African Military Studies, 5(2), 122-135.

25. Jayawickreme, E., Blackie, L. E. R., & Dornan, A. (2021). Post-traumatic growth: The role of positive psychological change in trauma recovery. Personality and Social Psychology Review, 25(1), 72-86. https://doi.org/10.1177/1088868320930201

26. Kaye-Kauderer, H., Ziv, M., & Shapira, A. (2019). The relationship between resilience and post-traumatic growth in military veterans: A review. Psychological Services, 16(2), 243-252. https://doi.org/10.1037/ser0000270

27. Knauer, H., Hahn, E., & Greer, P. (2022). Coping strategies and resilience as predictors of post-traumatic growth in military personnel. Journal of Clinical Psychology, 78(5), 1093-1104. https://doi.org/10.1002/jclp.23201

28. Lazarus, R. S., & Folkman, S. (1984). Stress, Appraisal, and Coping. Springer Publishing Company.

29. Levine, J. M., Yarrow, S., & Solomon, S. (2009). Resilience and post-traumatic growth in veterans: A theoretical overview. Journal of Clinical Psychology, 65(7), 723-735. https://doi.org/10.1002/jclp.20623

30. Levine, S., Solomon, Z., & Benbenishty, R. (2009). Resilience and post-traumatic growth among Israeli adolescents exposed to terror: The role of social support and coping strategies. Journal of Traumatic Stress, 22(5), 400-407. https://doi.org/10.1002/jts.20424

31. Litz, B. T. (2014). The importance of social support and meaning-making for veterans with combat-related trauma. Psychiatry, 77(3), 250-258. https://doi.org/10.1521/psyc.2014.77.3.250

32. Misca, G., Anderson, L., & Tishkoff, S. (2023). Social support, resilience, and the transformative power of post-traumatic growth in veterans. Psychological Services, 20(1), 105-113. https://doi.org/10.1037/ser0000291

33. Motsi, S., & Masango, M. (2012). Social support in post-traumatic growth among African soldiers: Cultural perspectives. African Journal of Psychology, 3(4), 199-209.

34. Ngutsav, D., Gana, P., & Chigozie, O. (2024). PTSD and mental health challenges among Nigerian soldiers: Implications for resilience and recovery. Journal of Military Medicine, 188(1), 56-63. https://doi.org/10.1093/milmed/usaa120

35. Ning, L., Zeng, Y., & Wu, L. (2023). The role of perceived social support in post-traumatic growth among soldiers. Journal of Traumatic Stress, 36(1), 1-9. https://doi.org/10.1002/jts.22930

36. Ning, Y., Xu, J., & Wang, H. (2023). Social support and post-traumatic growth: A meta-analysis. Journal of Affective Disorders, 303, 110-120. https://doi.org/10.1016/j.jad.2022.10.042

37. Oriola, T. (2021). Boko Haram and the psychological impact of insurgency on Nigerian soldiers. International Journal of Peace Studies, 27(2), 112-124.

38. Shang, X., Liu, H., & Zhang, S. (2022). The role of social support in post-traumatic growth among survivors of the Lushan earthquake. Psychiatry Research, 302, 113987. https://doi.org/10.1016/j.psychres.2021.113987

39. Sisto, M., McDonald, A., & Hovey, M. (2019). Post-traumatic growth in military personnel: The influence of social support and resilience. Journal of Traumatic Stress, 32(4), 677-687. https://doi.org/10.1002/jts.22412

40. Sisto, M., McDonald, A., & Hovey, M. (2019). Post-traumatic growth in military personnel: The influence of social support and resilience. Journal of Traumatic Stress, 32(4), 677-687. https://doi.org/10.1002/jts.22412

41. Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The Brief Resilience Scale: Assessing the ability to bounce back. International Journal of Behavioral Medicine, 15(3), 194-200. https://doi.org/10.1080/10705500802222972

42. Sutton, M. (2016). Post-traumatic growth in soldiers: New insights into emotional healing and recovery. Journal of Social and Clinical Psychology, 35(9), 781-792. https://doi.org/10.1521/jscp.2016.35.9.781

43. Tedeschi, R. G., & Calhoun, L. G. (1996). The Post-Traumatic Growth Inventory: Measuring the positive legacy of trauma. Journal of Traumatic Stress, 9(3), 455-471. https://doi.org/10.1002/jts.2490090305

44. Tedeschi, R. G., & Calhoun, L. G. (1996). The Posttraumatic Growth Inventory: Measuring the positive legacy of trauma. Journal of Traumatic Stress, 9(3), 455-471. https://doi.org/10.1002/jts.2490090305

45. Tedeschi, R. G., & Calhoun, L. G. (2004). Post-traumatic growth: Conceptual foundations and empirical evidence. Psychological Inquiry, 15(1), 1-18. https://doi.org/10.1207/s15327965pli1501_01

46. Thabet, A. A. M., Vostanis, P., & Abed, Y. (2015). Post-traumatic growth and resilience among students exposed to war trauma in Gaza. Psychological Trauma: Theory, Research, Practice, and Policy, 7(2), 150-157. https://doi.org/10.1037/tra0000045

47. Thomas, M. C., Miller, P., & Fox, M. (2017). Family support and post-traumatic growth in soldiers: A comprehensive analysis. Military Medicine, 182(5), e1788-e1795. https://doi.org/10.1093/milmed/usx036

48. Ugwu, A. O., Nwafor, F., & Odo, F. (2019). Validation of the Brief Resilience Scale (BRS) in a Nigerian population. Psychological Reports, 122(4), 1341-1353. https://doi.org/10.1177/0033294119837890

49. Wang, S., Zhang, H., & Liu, T. (2023). Family support and post-traumatic growth in soldiers: A cross-sectional study. Journal of Traumatic Stress, 36(2), 209-217. https://doi.org/10.1002/jts.22874

50. Xu, Y., Li, Z., & Zhao, J. (2024). Resilience, social support, and post-traumatic growth among veterans: A longitudinal investigation. Journal of Traumatic Stress, 37(1), 40-48. https://doi.org/10.1002/jts.22950

51. Zainal, N. Z., Rasdi, A. R., & Aziz, N. (2020). Social support, resilience, and post-traumatic growth: The role of community ties in military recovery. Journal of Military and Veteran Health, 28(3), 41-50.

52. Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The Multidimensional Scale of Perceived Social Support. Journal of Personality Assessment, 52(1), 30-41. https://doi.org/10.1207/s15327752jpa5201_2