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Investigating the Impact of General Health and Psychological Well-being on Posttraumatic Growth of Malawian Defence Force Members previously on UN Peacekeeping Missions

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Faith Cheonga
University of Namibia,
Faculty of Health Sciences and Veterinary Medicine,
School of Allied Health,
Psychology and Social Work Department
Email: faithcheonga@gmail.com

Wesley Reginald Pieters*
University of Namibia,
Faculty of Health Sciences and Veterinary Medicine,
School of Allied Health,
Psychology and Social Work Department
Email: wpieters@unam.na
***Corresponding author**

Abstract

Navigating peace in conflicting and war ridden countries can have both positive and negative impacts on the general health and psychological well-being of peacekeepers. This study investigated the impact of general health (GH) and psychological well-being on the posttraumatic growth (PTG) of Malawi Defence Force (MDF) members who served as UN peacekeepers. A quantitative cross-sectional research approach (questionnaires) was used to collect data on the biographical details, general health (GH), psychological well-being (PWB) and posttraumatic growth (PTG) of n=126 employees of the

Malawi Defence Force. A negative relationship was recorded between Somatic symptoms; Anxiety/Insomnia (GH) with Appreciation of Life (PTG); however, a positive relationship was reported with Personal Strength (PTG) and Posttraumatic growth (Total). Implementing stress management or wellness programs can enhance Personal Strength (PTG) and Positive relationships (PWB). Offering resilience training may enhance coping mechanisms and assist with challenges at work and in life. This study will assist organisations in developing interventions aimed at nurturing posttraumatic growth (PTG) of employees through programs that foster resilience, coping, positive relationships and ultimately, increase psychological well-being.

Keywords: *general health, psychological well-being, posttraumatic growth, UN peacekeepers; Malawi Defence Force (MDF).*

Background of the study

Posttraumatic growth and well-being fall under the field of psychology known as Positive Psychology. For a long time, the field of psychology was dominated by the focus of illness and neglected the study of virtues within human functioning (Seligman & Csikszentmihalyi, 2014). It has since been argued that looking only at illness, be it mental or physical, in the hopes of determining wellness is insufficient (Ryff & Keyes, 1995). Positive psychology was thus established to bring focus on positive mental states such as satisfaction with life, general health and psychological well-being in the study of wellness.

Psychological well-being deals with how a person engages with the existential challenges in life by examining self-acceptance, environmental mastery, personal growth, autonomy, positive relations with others and having a purpose in life (Ryff & Singer, 2008). Research on terminal illness notes that a reduction in psychological functioning of patients is prevalent as a result of disruptions to quality of life which may in turn worsen existing symptoms or lead to the development of new ones (Pèrez-San-Gregorio et al., 2017). While this may be the case, psychological well-being is also associated with lower anxiety symptoms, lower risk of cardiovascular diseases and increased immune function which positively correlate with good physical health (Ryff & Singer, 2008).

High levels of stress and physical harm are seen to undermine the psychological well-being of peacekeepers (Veronese, Pepe, Massaiu, Mol, & Robbins, 2017). While this is the case, the traumatic sequelae experienced by peacekeepers has been noted to lead to a subjective sense

of growth. Feelings of having a purpose in life as well as a heightened sense of military pride were recognized following peacekeeping mission deployments (Veronese et al., 2017). This study investigated the impact of general health (GH) and psychological well-being on the posttraumatic growth (PTG) of Malawi Defence Force (MDF) members that served as UN peacekeepers.

Literature review

Posttraumatic growth

Tedeschi and Calhoun (2004) coined the term posttraumatic growth and defined it as individual's perceptions of significant positive changes resulting from the struggle with highly stressful events. The posttraumatic growth model by Tedeschi and Calhoun (2004) assesses five factors namely; relating to others, new possibilities, personal strength, spiritual growth and appreciation for life. Aslam and Kamal (2019) defined relating to others as a person's ability to perceive a level of emotional connectedness that did not exist before with others. New possibilities are defined as the ability to identify opportunities following traumatic events (Aslam & Kamal, 2019). Personal strength, according to Aslam and Kamal (2019) is the perception of a better ability to deal with future challenges of life. Spiritual growth is defined as a better understanding of spiritual matters and finally, appreciation of life is the ability to give more attention to small things that were once considered insignificant (Aslam & Kamal, 2019).

The *organismic valuing theory* is a positive psychological theory of growth that posits growth after adversity through an intrinsic motivation towards growth that exists within human beings (Linley & Joseph, 2005). According to Linley and Joseph (2005), the theory posits that growth occurs after a highly stressful event because of the characteristics individuals have to comprehend and integrate their experiences in a meaningful way while striving towards optimal well-being. Upon experiencing trauma, the individual experiences three possible outcomes namely assimilation, negative accommodation and positive accommodation (Linley & Joseph, 2005). Assimilation of the trauma-related information is explained by Linley and Joseph (2005) as integrating the experience into beliefs or worldviews that were held prior to the event. Victims who engage in self-blaming in order to maintain a sense of justice in the world is an example of assimilation. This shows

one's attempt to integrate new trauma related information into their existing models of the world as just (Linley & Joseph, 2005). The individual, however, will not grow psychologically if they assimilate regardless of recovering from the trauma seeing as recovery simply marks a return to pre-trauma levels of well-being (Linley & Joseph, 2005). Accommodation on the other hand was defined as the modification of one's prior worldviews in light of traumatic experience (Linley & Joseph, 2005). Janoff-Bulman (1992) explains that accommodation of traumatic experiences requires people to change their worldview. This change in worldview, according to Linley and Joseph (2005) could occur both positively and negatively. If an individual positively accommodates trauma-related information by modifying their prior worldview appropriately (i.e. understanding that bad things happen and there is nothing they could've done to change it), they can experience growth in the aftermath of adversity (Linley & Joseph, 2005). If the trauma is accommodated negatively, that is experiencing greater feelings of helplessness, the individual will experience posttraumatic stress or depression (Linley & Joseph, 2005).

General health

Health can be defined in the context of the bio-medical model which emphasizes on the treatment of disease or the holistic models which encompasses positive health (Stokes, Noren, & Shindell, 1982). Goldberg (1978) defines general health with a focus on its psychosomatic (holistic) nature. He describes general health as having dimensions such as somatic symptoms, anxiety and insomnia, social dysfunction and severe depression (Goldberg, 1978). Kroenke et al. (2013) defines somatic symptoms as bodily symptoms which distinguish them from cognitive and emotional symptoms such as pain, fatigue or dizziness. The American Psychological Association (2019) defines anxiety as an emotion characterized by feelings of tension, worried thoughts which can be linked to physical symptoms such as increased blood pressure. Insomnia is defined as difficulty in maintaining or initiating restorative sleep resulting in fatigue whose severity leads to impaired functioning (American Psychological Association, 2019). Depression is defined as a negative effective state ranging from feelings of sadness, lack of interest in daily activities, feelings of worthlessness, excessive guilt and thoughts of death and suicide which interferes with daily life (American Psychological Association, 2019).

The S*ocial Cognitive Theory* by Bandura (1998) explains that human behaviour result from a causal structure with self-efficacy. It does so by stressing that a person's actions are based on the beliefs that they have in their capabilities to execute it. These beliefs, according to Bandura (1998) operate together with goals, outcome expectations, perceived outcome impediments and facilitators in regulating human motivation, action and well-being. Self-efficacy is defined as beliefs in one's capabilities to organise and execute certain courses of action which produce a particular level of goals or attainments (Bandura, 1998). Bandura (1998) stresses the importance of efficacy belief as a basis of action by stating that unless individuals believe in their ability to produce desired outcomes, they have little incentive to act or persevere in the face of difficulties and setbacks.

Psychological well-being

Psychological well-being is defined by Ryan and Deci (2001) as an experience of optimal human functioning. Burns (2016) defines it as an inter- and intra-individual level of positive functioning that can include one's relatedness with others and self-referent attitudes (i.e., one's sense of mastery and personal growth). Ryan and Deci (2001) suggest that well-being is found in the fulfilment of three basic psychological needs which are; autonomy, competence and relatedness. According to Ryff (1989) psychological well-being is composed of six dimensions. The first; self-acceptance which is defined as the ability to have a positive view of oneself. Williams (2011) defines this dimension as one's ability to feel good about oneself by accepting strengths and weaknesses. The second dimension according to Ryff (1989) is positive relations with others. Ryff (1989) defines it as one's ability to reciprocate warmth and satisfaction in their relationships with others while Williams (2011) defines it as merely the ability to form warm and trusting relationships. Autonomy as a dimension of psychological well-being, is the ability for one to be independent and self-determining aside from social pressures (Ryff, 1989). Williams (2011) defines this dimension as the ability to be independent and self-motivated. The fourth dimension is environmental mastery which is defined by Ryff (1989) as a person's ability to control their complex surrounding or external environment by utilizing opportunities and creating the environment to best suit their needs. Another dimension of psychological well-being according to Ryff (1989) is purpose in life. This dimension is defined as a person's goals and sense of direction in life thus includes the beliefs and values that one holds

(Ryff, 1989). According to Williams (2011), purpose in life is defined as having goals and a sense of direction in working toward them. The final dimension, according to Ryff (1989) is personal growth. It is defined as one's subjective feeling of continual development that they see as improving themselves over time (Ryff, 1989). Williams (2011) defines this dimension as one's ability to see themselves as improving overtime and realizing their potential.

The relationship between general health, psychological well-being and posttraumatic growth

In their theory of posttraumatic growth, Tedeschi and Calhoun (2004) wrote that it is important to understand that difficult circumstances can produce psychological distress. Typically, circumstances that threaten one's physical well-being or produce anxiety are ones that commonly elicit psychological distress (Tedeschi & Calhoun, 2004).

Tedeschi and Calhoun (2004) make note that the affective component of psychological processing present in the event of a crisis is what gives rise to the transformative nature of posttraumatic growth. Positive affect, according to Ryff (1989), is what allows individuals to experience hedonic wellness which includes factors such as happiness, strength and growth thus posttraumatic growth. Following a psychotic episode, Jordan, Malla and Iyer (2019) recorded that their participants experienced more positive emotions and optimism than they did before the onset of their psychosis. This experience of positive mental states, as a result of their traumatic experience, was as a result of the participants' indulgence in what Tedeschi and Calhoun (2004) describe as deliberate rumination.

Danhauer et al. (2013) conducted a study on the predictors of posttraumatic growth in women with breast cancer by examining change in posttraumatic growth and its variables two years following breast cancer diagnosis. In their results, Danhauer et al. (2013) found that as illness intrusiveness decreased overtime, mental health of the participants improved; a factor which is consistent with posttraumatic growth theory conceptualizations.

Another important result noted from the research was that active adaptive coping strategies were closely associated with positive scores on the posttraumatic growth inventory. According to Tedeschi and Calhoun (2004), adaptive coping strategies decrease emotional and psychological distress as well as encourage self-disclosure and support-seeking. As

highlighted in the research by Tedeschi and Calhoun (2004), self-disclosure and autonomy are necessary factors in the experience of posttraumatic growth. The study by Danhauer et al. (2013) serves to show the interconnected relationship that exists between physical health, psychological well-being and ultimately, posttraumatic growth.

Based on the literature discussed above, the following hypotheses have been developed:

Hypothesis 1: General health has a negative relationship with posttraumatic growth (PTG) among Malawi Defence Force (MDF) members that served as United Nations peacekeepers.
Hypothesis 2: Psychological well-being has a positive relationship with posttraumatic growth (PTG) among Malawi Defence Force (MDF) members that served as United Nations peacekeepers.
Hypothesis 3: Differences exist regarding posttraumatic growth (PTG) among Malawi Defence Force (MDF) members that served as United Nations peacekeepers with regards to sex, age, tenure, marital status, number of dependents and highest qualification obtained.

Research methods

The research design for this study is an exploratory, quantitative design. An exploratory research design aims to gain insight or become familiar with an unknown phenomenon (Kothari, 2004). Quantitative research, according to Kothari (2004) is based on measuring phenomena that is expressed in quantity. A cross-sectional approach was used since the qualities of the participants will be studied at a single point in time (Turner, 2013).

Population

The population for this study is members of the Malawi Defence Force who have recently served on UN peacekeeping missions and have returned not more than a year prior to data collection. No specific data is available on the size of the population. Tedeschi and Calhoun (2004) describe experiences of posttraumatic growth as being best noted within the first year of traumatic experience.

Sample

The sample used for this research is members of the Malawi defence force who served on a UN peacekeeping mission no longer than a year prior to data collection and voluntarily filled out a questionnaire. A total of n=130 questionnaires were distributed with only four individuals withdrawing from the research. A final sample of n=126 was used. The participants were selected through random sampling. This meant that all participants that were willing and available became part of the sample. Kothari (2004) defines random sampling as a technique where every person within the sample population holds an equal chance of being selected for a study.

Research instrument

Every candidate was required to fill in a biographical questionnaire, Post-traumatic Growth Inventory (PTGI) questionnaire, General Health questionnaire (GHQ) and a Psychological Well-being (PWB) scale.

The biographical questionnaire was developed by the researchers to collect information about the participants' sex, age, tenure, marital status, number of dependents and highest qualification obtained.

The *Post Traumatic Growth Inventory* developed by Tedeschi and Calhoun (2004) evaluates perceived positive changes in life following traumatic experiences. The 21-item scale assesses five factors which are; relating to others, new possibilities, personal strength, spiritual growth as well as appreciation for life. Sample items include "I have more compassion for others" for relating to others, "I developed new interests" for new possibilities, "I have a greater feeling of self-reliance" for personal strength, "I have a stronger religious faith" for spiritual change and "I can better appreciate each day" for appreciation of life. The response scale ranges from 0 (I did not experience this change to a very great degree) to 5 (I experienced this change to a very great degree). Prati and Pietrantoni (2013) reported reliability scores of 0.86 for relating to others, 0.84 for new possibilities, 0.80 for personal strength, 0.78 for spiritual growth and 0.74 for appreciation of life when testing for internal consistency. This study focused specifically on personal strength and appreciation of life.

The *General Health Questionnaire* was developed by Sir David Goldberg and Hillier (1979). It is a self-rated questionnaire used to screen for minor psychiatric morbidity in community or general practice (Goldberg

& Hillier, 1979). The original 60-item GHQ has since been revised to produce shorter 30-item, 28-item and 12-item versions. It consists of four seven item subscales which measure different constructs asking the responded questions whose answers give a close look into the construct being assessed. These constructs and the questions within their categories include; (1) somatic symptoms (e.g. "been getting any pains in your head?"), (2) anxiety or insomnia (e.g. "lost much sleep over worry?"), (3) social dysfunction (e.g. "been able to enjoy your normal day-to-day activities?") and (4) severe depression (e.g. felt that life isn't worth living?). Pieters and Mathues (2020) reported Cronbach's alpha of 0.82 for somatic symptoms, 0.89 for anxiety/insomnia, and 0.84 for social dysfunction. The 28-item version of the GHQ will be used for this study and focus on somatic symptoms and anxiety/insomnia.

The 21- item *Psychological Well-Being* scale developed by Ryff and Keyes (1995) will be used to assess the psychological well-being of respondents. The self-report instrument consists of 21 items which measure six aspects of well-being and happiness namely: autonomy (e.g. "my decisions are not normally influenced by what everyone else is doing."), self-acceptance (e.g. "when I look at the story of my life, I am pleased with how things have turned out."), positive relations with other (e.g. "most people see me as loving and affectionate."), environmental mastery (e.g. "I am quite good at managing the many responsibilities of my daily life."), purpose in life (e.g. "I used to set goals for myself but that now seems like a waste of time") and personal growth (e.g. "I gave up trying to make big improvements"). The response scale ranges from 1 (strongly agree) to 6 (strongly disagree). Salama-Younes, Ismail, Montazeri and Roncin (2011) reported Cronbach's alpha of 0.84 for autonomy, 0.74 for environmental mastery, 0.86 for personal growth, 0.88 for positive relations with others and 0.72 for self-acceptance when testing for internal consistency. This study focused on personal growth, positive relations and purpose in life.

Data analysis

A correlational analysis of the obtained data will be conducted using the Statistical Package for the Social Sciences (SPSS) version 25.0. The Pearson correlation test was also used in order to assess variables and the degree of relationship between them (Koothari, 2004). The Kruskal Wallis test was employed for the examination of non-parametric measures. Finally, the Mann-Whitney U test will be used in order to

study the distribution of posttraumatic growth in relation to the biographical variables.

Results

Biographical data

The biographical data that was collected included sex, age, tenure, marital status, number of dependents and highest qualification obtained. Participants were largely male, comprising of 87.3% (n = 110); a total of 27.8% (n = 35) of the population fell into the 32-35 age range; 40.5% (n = 51) indicated having served for 16 or more years; 89% (n = 113) were married; 38.9% (n = 49) reported having 1-2 dependents; and 57.9% (n = 73) obtained MSCE (Grade 12). The rest of the biographical details are presented in Table 1 below.

Table 1: Biographical Details of Sample

Description		Frequency	Percentage
Sex	Male	110	87.3
	Female	16	12.7
Age (in years)	Below 24	3	2.4
	24-28	8	6.3
	29-31	18	14.3
	32-35	35	27.8
	36-40	28	22.2
	41-45	20	15.9
	46-50	13	10.3
	51 and older	1	0.8
Years served	3-4	3	2.4
	5-6	2	1.6
	7-8	24	19.0
	9-10	12	9.5
	11-15	34	27.0
	16 and more	51	40.5
Marital status	Single	10	7.9
	Married	113	89.7
	Divorced	2	1.6
	Widowed	1	0.8
Dependents	None	15	11.9
	1-2	49	38.9
	3-4	45	35.7
Qualification	MSCE (Grade 12)	73	57.9
	Certificate	16	12.7
	Diploma	23	18.3
	Degree	11	8.7

	Degree (Hons)	1	0.8
	MA degree	2	1.6
TOTAL		126	100

4.3 Descriptive statistics

The primary objective of this study was to determine whether general health and psychological well-being have an impact of posttraumatic growth among Malawi Defence Force member who served as UN peacekeepers. The Pearson Correlation Coefficient test was used to calculate the relationships between the variables. Table 2 below present the mean, standard deviation, Cronbach's alpha and the correlation coefficient for this study.

Table 2: Descriptive statistics and Pearson rank order correlation

Variable		Total Mean	SD	α	1.	2.	3.	4.	5.	6
1.	GH_SS	9.84	3.29	.77	-					
2.	GH_AI	10.28	4.22	.85	0.72++	-				
3.	PWB_PR	19.89	4.90	.71	0.15*	0.06*	-			
4.	PTG_AOL	6.89	3.29	.67	-0.09*	-0.05*	0.13*	-		
5.	PTG_PS	14.41	6.30	.82	0.06*	0.17*	0.04	0.72++	-	
6.	PTG_TOT	23.85	9.80	.86	0.01	0.13*	0.06*	0.86++	0.96++	-

* Statistically significant: $p \leq 0{,}05$
+ Practically significant correlation (medium effect): $0{,}30 \leq r \leq 0{,}49$
++ Practically significant correlation (large effect): $r \geq 0{,}50$

GH_SS = General Health (Somatic Symptoms)
GH-AI = General Health (Anxiety and Insomnia)
PWB_PR = Psychological Well-being (Positive Relations)
PTG_AOL = Posttraumatic Growth (Appreciation of Life)
PTG_PS = Posttraumatic Growth (Personal Strength)
PTG_TOT = Posttraumatic Growth (TOTAL)

From the results obtained, general health (somatic symptoms) reported Standard Deviation (SD) = 3.29, Mean = 9.84 and reliability (α) = 0.77. General health (anxiety and insomnia) reported SD = 4.22, M = 10.28 and reliability (α) = 0.85. Psychological well-being (positive relations) reported SD = 4.90, M = 19.89 and reliability (α) = 0.71. Personal growth and Purpose in life were found to be unreliable (above 0.70). Posttraumatic growth (appreciation of life) reported SD = 3.29, M = 6.89 and reliability (α) = 0.67, while posttraumatic growth (personal strength) dimension reported SD = 6.30, M = 14.41 and reliability (α) = 0.82. Posttraumatic growth (total) reported a SD = 9.80, M = 23.85 and (α) = 0.86.

Somatic symptoms (GH) reported a relationship with anxiety and insomnia (GH) ($r = 0.72$, $p < 0.05$; large effect), positive relations (PWB) ($r = 0.15$, $p < 0.05$; small effect), with appreciation of life (PTG) ($r = -0.09$, $p < 0.05$; small effect), personal strength (PTG) ($r = 0.06$, $p < 0.05$; small effect) and posttraumatic growth (total) ($r = 0.01$, $p < 0.05$; almost no effect).

The anxiety and insomnia dimension of general health (GH) reported a relationship with positive relations (PWB) ($r = 0.06$, $p < 0.05$; small effect), with appreciation of life (PTG) ($r = -0.05$, $p < 0.05$; small effect), with personal strength (PTG) ($r = 0.17$, $p < 0.05$; small effect) and with posttraumatic growth (total) ($r = 0.13$, $p < 0.05$; small effect).

Positive relations (PWB) reported a relationship with appreciation of life (PTG) ($r = 0.13$, $p < 0.05$; small effect), with personal strength (PTG) ($r = 0.04$, $p < 0.05$; almost no effect) and with posttraumatic growth (total) ($r = 0.06$, $p < 0.05$; small effect).

Appreciation of life (PTG) reported a relationship with personal strength (PTG) ($r = 0.72$, $p < 0.05$; large effect) and with posttraumatic growth (total) ($r = 0.86$, $p < 0.05$; large effect).

Personal strength (PTG) reported a relationship with posttraumatic growth (total) ($r = 0.96$, $p < 0.05$; large effect).

Results relating to the secondary objective

The secondary objective of this study is to determine by means of non-experimental research design, whether differences exist regarding Posttraumatic Growth (PTG) of Malawi Defence Force (MDF) members that served as United Nations peacekeepers with regards to sex, age, tenure, marital status, number of dependents and highest qualification obtained. The independent samples Mann-Whitney U test and Kruskal-

Wallis test were conducted to determine whether differences exist. The results are presented in Table 3 below.

Table 3: Mann-Whitney U Test

Item:	Mean score:	Significance level:	Decision:
PTG_AOL	Male- 7.01 Female- 6.00	.27	**Retain the null hypothesis**: No significant differences exist between male and female participants with regards to Appreciation of Life.
PTG_PS	Male- 14.28 Female- 15.40	.51	**Retain the null hypothesis**: No significant differences exist between male and female participants with regards to Personal strength.
PTG_Total	Male- 23.83 Female- 23.93	.98	**Retain the null hypothesis**: No significant differences exist between male and female participants with regards to Posttraumatic Growth Total.

The results showed that Appreciation of Life; Personal strength and Posttraumatic growth (total) across the categories of sex were insignificance above the required limit ($p = 0.05$). The distribution levels of Appreciation of life (PTG), Personal strength (PTG) across sex were analysed using the Mann-Whitney U test.

Appreciation of life (PTG) recorded a mean score of 7.01 (males), 6.00 (females), significance level of 0.27 thus the null hypothesis is retained (No significant differences exist between male and female participants with regards to Appreciation of Life). Personal strength (PTG) recorded a mean score of 14.28 (males), 15.40 (females), significance level of 0.51 thus the null hypothesis is retained (No significant differences exist between male and female participants with regards to Personal strength). The null hypothesis (No significant differences exist between male and female participants with regards to Posttraumatic Growth Total) for differences related to sex and Posttraumatic growth (total) was also retained with a mean score obtained of 23.83 (males), 23.93 (females) and significance level of 0.98. Table 4 below present the results on differences regarding posttraumatic growth and the rest of the biographical characteristics.

Table 4: Non-Parametric Kruskal-Wallis test

Description:	Variable:	Significance level:
Age (in years)	PTG_AOL	0.83
	PTG_PS	0.99
	PTG_Total	0.99
Tenure	PTG_AOL	0.10
	PTG_PS	0.59
	PTG_Total	0.47
Marital status	PTG_AOL	0.10
	PTG_PS	0.13
	PTG_Total	0.09
Dependents	PTG_AOL	0.71
	PTG_PS	0.92
	PTG_Total	0.93
Qualification	PTG_AOL	0.81
	PTG_PS	0.28
	PTG_Total	0.57

Appreciation of life (sig. 0.83), Personal strength (PTG; sig. 0.99) and Posttraumatic growth (Total- sig. 0.99) noted no significant difference between the different age groups at an insignificance score of 0.81. Appreciation of life (PTG) noted no significant difference between the different years of working experience (tenure, sig. 0.10); no significant difference for Personal strength (PTG- sig. 0.59) or Posttraumatic growth (Total- sig. 0.47). It was also reported that Appreciation of life (PTG) noted no significant differences between the different marital status of the group (sig. 0.10); Personal strength (PTG) also recorded no significant difference (sig. 0.13) and Posttraumatic growth (total- sig. 0.09). Appreciation of life (PTG) reported no significant differences between the groups related to number of dependents (sig. 0.71); Personal strength (PTG, sig. 0.92) and Posttraumatic growth (Total- sig. 0.93). No significant differences were reported for qualification and Appreciation of Life (PTG, sig. 0.81); Personal strength (PTG, sig. 0.28) or Posttraumatic growth (Total, sig. 0.57).

Discussion

The primary objective of this study was to investigate the impact that general health and psychological well-being might have on the posttraumatic growth of Malawi Defence Force members that served as UN peacekeepers. This study determined that general health and

psychological well-being does have an impact on posttraumatic growth of participants.

In a study by Pèrez-San-Gregorio et al. (2017) a strong relationship was noted between general health and posttraumatic growth. This result is similar to what was recorded in the study at hand. Somatic symptoms (GH) and Anxiety and insomnia (GH) were seen as negatively influencing the Appreciation of life (PTG) and positively Personal strength (PTG) of the Malawi Defence Force members that served as UN peacekeepers. This current study also found a positive relationship between Somatic symptoms (GH, insignificant) and Anxiety/Insomnia (GH, significant) with Posttraumatic growth (Total) thus failing to support *Hypothesis 1* of this study. According to the APA (2020), somatic symptoms are characteristic of one or more bodily symptoms that cause a considerable amount of pain and distress. These symptoms can include a range of illnesses such as gastric pain, fatigue and migraines. The APA (2019) defines anxiety as an emotion which is characterized by tension, excessive worry as well as negative physical changes such as an increase in blood pressure. Therefore, those who experienced physical discomfort such as migraines and fatigue were likely to experience lower levels of Appreciation of life and a greater sense of Personal strength after overcoming those discomforts. Tedeschi and Calhoun (2004) express the importance of appreciation of life and personal strength in posttraumatic growth. In their research, they note that these two variables are amongst the main outcomes of posttraumatic growth. After having gone through a traumatic experience, more often than not, individuals get a greater appreciation of not only their lives but also of those around them (Tedeschi & Calhoun, 2004).

Tedeschi and Calhoun (2004) stress the influence that psychological well-being has on posttraumatic growth. This study at hand also noted that Positive relations (PWB) played a positive role in enhancing Appreciation of life, Personal strength and Posttraumatic growth (Total) thus accepting *Hypothesis 2* of this study. According to Fortiadis et al. (2019), psychological relatedness refers to the social nature among people that fosters significant connections and relations with others. This factor creates a supportive work environment thus reducing feelings of loneliness, isolation and remoteness that are likely to occur in work environments (Fortiadis et al., 2019). This therefore is to say that members of the Malawi Defence Force who felt more connected to their work colleagues and their different social groups were more likely and able to experience posttraumatic growth than those who did not.

The secondary objective of this study was to determine whether the participants' experienced Appreciation of life, Personal strength and Posttraumatic growth (Total) differently when compared amongst the different groups based on sex, age, tenure, marital status, number of dependents and qualifications. The non-parametric test analyses done in the study revealed that Appreciation of life (PTG), Personal strength (PTG) and Posttraumatic growth (Total) did not report any significant differences between males and females in this sample of Malawi Defence Force members. Patrick and Henrie (2016) found that age had no known effect on posttraumatic growth. This finding is similar to that of the current study since age groups did not record any significant difference amongst the sample in this research. No significant difference was reported for the different groups related to marital status, number of dependents or highest qualifications obtained with regards to Appreciation of life, Personal strength or Posttraumatic growth (Total) for the sample in this study. The findings of this study fail to support *Hypothesis 3* of this study.

Practical implications and recommendations

This study has found that general health through the dimensions of Somatic symptoms and Anxiety/Insomnia has a negative relationship with Appreciation of life and a positive relationship with Personal strength (PTG) and Posttraumatic growth (Total) of peacekeepers. Experiencing somatic symptoms, worry and lack of sleep increases the risk of individuals experiencing high levels of physical distress which leads to illness and a lower level of Appreciation of life. These stressors are also seen to influence the Personal strength and Posttraumatic growth (Total) of the sample positively. The findings of this study highlight the importance and need for a degree of stress for individual to grow, develop their personal strengths and increase their perception to deal with adversity in the future. Providing workshops on how to better manage, deal with stressors at work and manage work-life balance could increase appreciation of life while improving the ability to better handle the challenges of life and work. These programs can include activities that train employees to be fully present and aware of what is going on in their lives (mindfulness training). Activities such as breathing techniques and meditation could be offered. This can work in assisting employees in identifying both positive and negative emotions that they are feeling and thus work toward addressing or removing them. Working in stressful

environments require additional skills to better manage these stressors as part of the work while identifying the pleasures in life as well.

A positive relationship was also found between Positive relations (PWB) and Appreciation of life, Personal strength and Posttraumatic growth (Total). Providing training on emotional intelligence, team building activities and conflict management workshops could enhance relationships at work and in life. Team building exercises such as sporting activities and tournaments organized within the different ranks existing can also increase the feelings of relatedness amongst the different groups thus increased psychological well-being. Being equipped with improved relationship management skills and abilities, peacekeeping officials would experience a higher Appreciation of Life, Personal Strength and Posttraumatic growth. Positive relations also serve as an avenue to share experiences, provide counsel/guidance where needed or simply be a soundboard to reflect on ideas, challenges and possible solutions.

Furthermore, as noted by Tedeschi and Calhoun (2004), time elapsed since traumatic experience influences the experiences of posttraumatic growth. Implementing preventative measures of ill-health caused by diminished psychological well-being after missions is therefore imperative. Psychological screenings offered by counsellors during different stages of missions would thus greatly impact the psychological strength of individuals. This is because coping skills and strategies offered in therapy can assist members of the military in their day to day lives and psychological functioning thus nurturing posttraumatic growth as opposed to illness. In doing so, not only will the livelihoods of MDF employees be improved, but also the overall performance of the organisation (Malawi Defence Force) as their employees will be better suited and able to complete missions with reduced ill-health.

It is suggested that future studies should consider engaging a larger sample of participants to investigate the impact of general health and psychological well-being on posttraumatic growth of MDF members on UN peacekeeping missions. The use of vernacular language in testing tools is also recommended. Future studies could also benefit by making use of a qualitative study.

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