



# FACTORS INVOLVED IN COMBAT READINESS IN AFRICA

---

Ntokozo Shinga

Gideon van Dyk

Faculty of Military Science

Stellenbosch University

South Africa

Email: [vdyk@ma2.sun.ac.za](mailto:vdyk@ma2.sun.ac.za)



# 1. INTRODUCTION

---

- Over the past few decades Africa has emerged as the major arena for United Nations (UN) peace operations (De Coning, 2007).
- South Africa as a contributing country to UN peace operations efforts mainly in the African continent, plays a vital role in the complex African peace operations.

# Cont...

---

- Ahere (2009) describes peacekeeping as the deployment of people (soldiers, military observers or civilian police) aimed at assisting the parties to a conflict to find ways to resolve their differences peacefully.
- Allais (2011, p. 2) describes UN peacekeeping as “a unique and dynamic instrument developed by the organisation as a way to help countries torn by conflict create conditions for lasting peace”

# Cont...

---

- Peacekeeping environments are much less controllable nor predictable than conventional warfare environments (Bester & Stanz, 2007).
- An operation may change over a short period of time (from Chapter VI to Chapter VII). The role and purpose of the soldiers may be similarly unclear.
- Lotze, De Coning and Neethling (2013) argue that South Africa's' contribution to international peace operations are characterised by a number of trends.

# Cont...

---

- The contributions are firstly strongly informed by the country's political engagements on the African continent.
- Secondly, South Africa's contributions to peace operations are linked to the country's growing self-image as an emerging middle power', and as an African power, in the international arena.

# Cont...

---

- Nowadays peace operations are multidimensional in nature, characterised by violence and brutality where peacekeepers are often confronted with atrocities seldom heard of, or seen before (Ross, 2008).
- Although in comparison with traditional wars characterised by high rates of death and calamity, peacekeeping operation expose soldiers to multiple challenges both physical and psychological such as unexpected emotions of fear, hectic states, depression, anger, and apathy (Van Dyk, 2009).

# Cont...

---

- A number of reported incidents in deployment areas where the South African National Defence Force (SANDF) participates serve as evidence of the multidimensionality of peacekeeping operations.
- The incident in March 2013 in the Central African Republic (CAR), where South African soldiers were faced with a situation where death became a reality and the level of combat-readiness was put to the test, served as reality check for the SANDF.

# Cont...

---

- Stupart (2013, p. 1) quotes the Chief of the SANDF General Shoke who stated, “200 paratroopers and Special Forces troops faced off against 3 000 rebels advancing on a one kilometre wide front was no laughing matter”.
- This resulted in the death of 13 of SA soldiers

# Cont...

---

- This resulted in the death of 13 of SA soldiers
- The South African Government News Agency (2014) reports that during an ambush in Kutum, in the northern Darfur region of Sudan, two SANDF soldiers were injured.

## Cont...

---

- The Defence Website (2013, p. 1) report that “on October 17, 2012, a South African soldier was killed and two injured during an ambush on a convoy in Darfur in the Democratic Republic of Congo (DRC)
- This has necessitated that the SANDF put more emphasis to combat readiness for its forces

## 2. COMBAT READINESS

---

- 1986 Gal described combat readiness as a psychological attribute in terms of a soldier's choice or degree of commitment to, and persistence in effecting a certain course of action (Bester & Stanz, 2007)
- the author views the concept of combat readiness as the soldier's level of preparedness as being prepared psychologically and physically through training and psychological interventions aimed at developing a soldier's capability to perform a given military task successfully

## 2.1 Soldier's combat readiness

---

- Deployment Readiness Quick Reference Guide (n.d., p. 105–106) state that, “soldier-well-trained and well-equipped-fierce, disciplined, mentally and physically tough, intelligent, flexible, and compassionate ultimately represents forces’ effectiveness and future capabilities”
- High-quality, motivated and well-trained soldiers in necessary numbers and ranks are essential to CR (Dunn, 2013)
- CR levels are supported by components such as personnel readiness, material readiness, unit readiness (Both, 1984), and soldier’s state of mind

# Cont...

---

- The psychological aspect of a soldier's well-being (developing a hardy soldier) lies with the utilisation of the MPT; hence, a close partnership between military leaders and the MPT would benefit both the soldier and the military organisation to a large extent.
- Griffith (2002) posits that positive leader behaviour, such as consideration, respect, and recognition, serve as an enhancement to a soldier's pride, well-being and identification with the leader, unit and the military organisation



## 2.2 Material readiness

---

- According to the Department of the Army (2009, p. 9), functional, reliable and maintained equipment is essential for the success of an operation
- Soldier's perception of being CR includes having confidence not only in his/her own abilities but also confidence in the resources provided to effect the success of the operation
- There are two factors involved in equipment readiness, these include the number and type of equipment used and the operational status of the equipment (Dunn, 2013)

## 2.3 Unit readiness

---

- Unit readiness refers to the “ability of a unit to deliver the output for which it was designed” (Meinhart, 2001, p. 116).
- Unit readiness can be affected by many factors which may be analysed both subjectively and objectively (Blankmeyer, 1998).
- Factors of interest for this research included training, unit cohesion and unit performance in preparation for peace operations
  - Training
  - Cohesion

## 2.4 Combat readiness as a state of mind

---

- Bester and Stanz (2007) posit that when preparing for an operation, the military force owes as much to the soldiers' state of mind as it does to his training and operational equipment.
- The complexity of operations requires soldiers who are both physically and psychologically prepared to withstand the calamity presented by the operation and possible non-military challenges (such as the separation from loved ones).

# Cont...

---

- The soldier's apprehension and reaction to such unpredictable environments are affected by the level of preparedness, the soldier's state of mind and the level of hardiness at that moment
- Research shows that support from the soldier's spouse and military unit, particularly leadership, has a great influence on the soldier's CR and ability to perform successfully in operations (Kirkland & Katz, 1989; Rotter & Boveja, 1999)

# Cont...

---

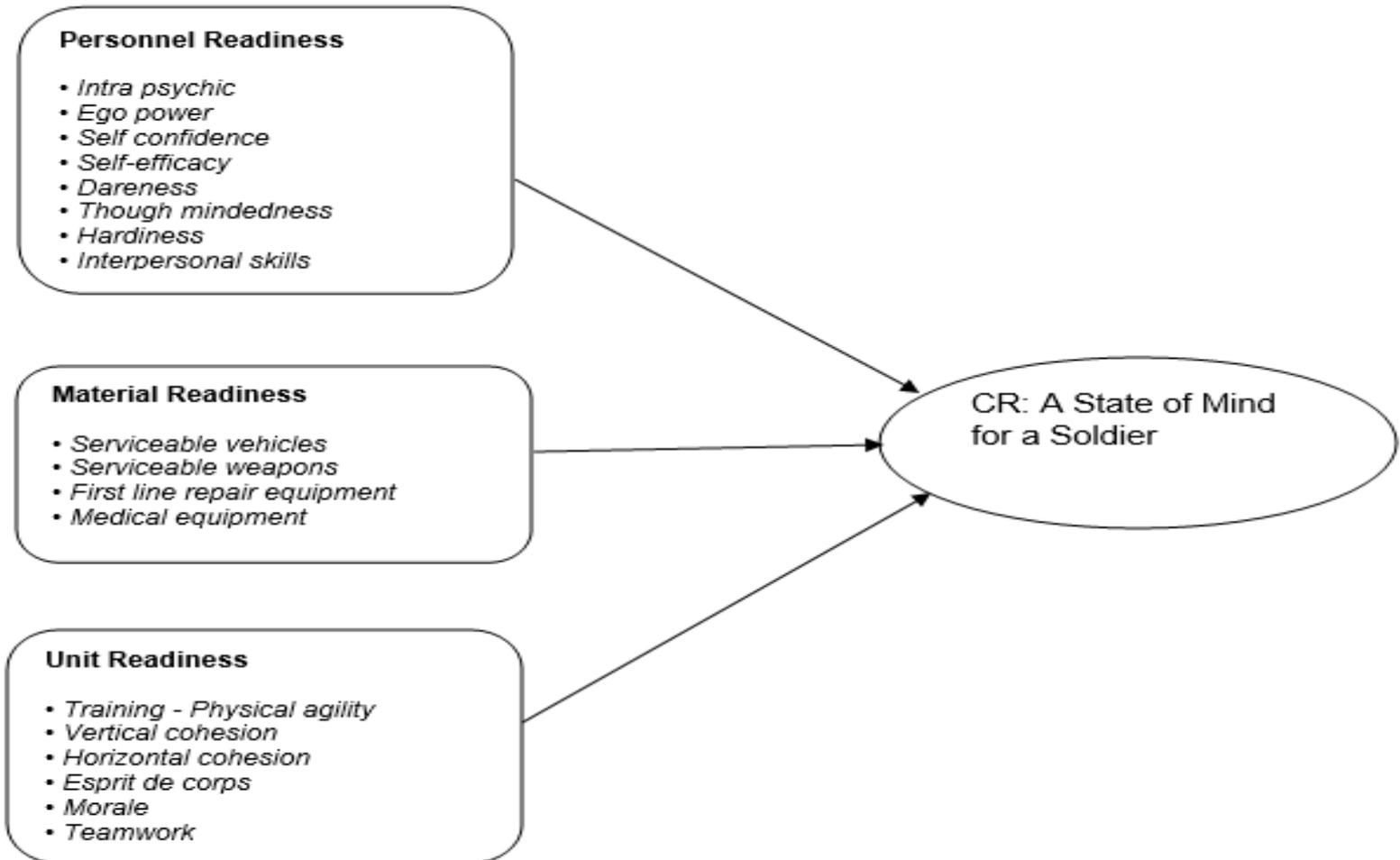
- Although a harmonious relationship between the soldier's family and the unit is ideal and most vital in maintaining the soldier's state of mind in order to achieve CR, it is recognised that both the unit and the spouse demand the soldier's emotional commitment and energy
- Conflict between the needs of the unit and the needs of the spouse may inhibit soldier's mental agility essential for CR
- In order to bridge and harmonize the two important entities, the utilisation of the MPT is essential

## Cont...

---

- The soldier's state of mind as a psychological component to CR may be broad.
- Some of the dimensions influencing the soldier's state of mind may include and are not limited to, intra psychic, ego power, self-confidence, self-efficacy, hardiness, dareness and other components of personality (Parrewé & Ganster, 2011).
- These psychological components have an impact in the soldier's willingness to fight, a will power of commitment in which a soldier is prepared to die for his/her unit and country

# Cont...



### 3. FACTORS INVOLVED IN COMBAT READINESS

---

- Research shows that support from the soldier's spouse and military unit, particularly leadership, has a great influence on the soldier's CR and ability to perform successfully in operations (Kirkland & Katz, 1989; Rotter & Boveja, 1999)

# 3.1 Soldier's relationship with spouse

---

- In the military context, spouse refers to what (Kgosana, 2010, p. 14) describes as a subsystem to a family unit to which a soldier belongs, “formed when two adults of the opposite sex join with the express purpose of forming a family” and, although the agreement does not have to be legal to be significant, members must however be able to fulfil certain roles (Minuchin & Fishman, 1981)
- The author describe a spouse to be, a person, a ‘significant other’ with which the soldier has a relationship or some kind of arrangement, irrespective of the inclusion of children and marriage; rather, the bond between the two parties.

# Cont...

---

- As a family, the soldier and spouse, function in a systemic way in which both parties share an emotional bond, providing mutual satisfaction for each other's needs without compromising the emotional environment necessary for growth (Dallos & Draper, 2000)
- This supposition especially applies to African families where interactions between members of the family is grounded on carefully established boundaries and roles that have been passed down from generation to generation.

# Cont...

---

- Salvador Minuchin and Braulio Montalvo are the founders of this structural approach, which has proved significant in family therapy
- Kirkland and Katz (1989) revealed a positive synergy between the unit and the family experienced by the soldier in each.
- This synergy as experienced by the soldier strengthens his/her ability to function successfully in both institutions.

## Cont...

---

- The soldier's improved functioning raises the performance level of the unit and the stability of the family.
- When there is a well-integrated unit and stable family integration within which the soldier functions optimum enhancement will occur.
- Well-prepared, informed and stable families have in the past proved to be instrumental in the creation of a combat-ready soldier.
- The spouse remaining home can be proud and confident in his/her ability to handle family affairs during the soldier's deployment.

## 3.2 Soldier's relationship with the Unit

---

- According to Bartone (1999), the soldier's unit can influence how experiences are interpreted.
- The soldier's relationship with his/her unit is very important for the soldier's state of mind in preparing for an operation and this relationship can extend to the soldier's spouse. Kirkland and Katz (1989, p. 6) confirm, "soldiers who experience trust and respect from their leaders had strong morale, self-esteem and commitment to their units ... they shared their positive attitudes with their spouses and children ... the spouse, in turn, reinforced the soldiers' commitment to the unit".

# Cont...

---

- The attitude of spouses toward providing advice varies in terms of perceptions the spouse has of the soldier's unit (Kirkland & Katz, 1989). How the unit treats its soldier's may influence the soldier's willingness to participate in external operations.
- The mere fact that soldiers share their day-to-day unit experiences with their spouses. These experiences fuel the spouse's perceptions about the unit

## 3.3 Role of hardiness as a mediating factor

---

- Hardiness is a resistance resource when confronted with stressful situations (Kardum, Hudek-Knežević, & Krapić, 2012).
- Hardiness is perceived as having a mediating effect to the achievement of CR, by enabling the soldier to better cope with challenges from both the soldier's relationship with spouse and the soldier's relationship with the unit

# Cont...

---

- Maddi (1999) posits that individuals high on hardiness are often actively involved in whatever situation, life- or work-related. Such individuals actively try to influence the outcomes of their life events and they have the ability to withstand their positive or negative circumstances
- A study by Britt, Adler and Bartone (2001) on effects of hardiness on soldiers participating in peacekeeping operations affirmed that soldiers who were higher on hardiness were able to find more meaning in their activities despite its complex nature than those who were low on hardiness

# Cont...

---

- Hardiness is an overall perspective that affects how one views the self (self-confidence and self-efficacy), others (vertical and horizontal cohesion), work (unit performance in peacekeeping operations), and even the operational environment (Bartone, 2006)
- Research describes hardiness as associated with the individual's use of active, problem-focused coping strategies when dealing with stressful events (Gentry & Kobasa, 1984; Kobasa, 1982).

# Cont...

---

- These mechanisms are influenced by three interrelated hardiness components (i.e. commitment, control and challenge). In no particular order, “the commitment component is the tendency to involve oneself in (rather than experience alienation from) whatever one is doing or encounters, control is the tendency to feel and act as if one is influential (rather than helpless) in the face of the varied contingencies of life” and challenge is the belief that change rather than stability is normal in life and that the anticipation of changes are interesting incentives to growth rather than threats to security” (Kobasa, Maddi, & Kahn, 1982, p. 169)
- Military efforts to enhance hardiness among soldiers can begin from the early stages of preparing for an operation (i.e. training).

# 4. RESEARCH ON FACTORS INVOLVED ON COMBAT READINESS IN AFRICA

---

- The prevalent role of soldiers in peacekeeping operations warrants the need to determine and quantify factors that play a vital role in CR scientifically and accurately, as such factors constitute a holistic view

# 4.1 Introduction to research

---

- The study endeavoured in a non-experimental research design utilising the SANDF as a sample in Africa. Data was collected from a sample of (n=363) infantry battalion soldiers (across race, gender, and rank groups) mobilising to deploy to Sudan for a peacekeeping operation. The study composed of dependent variable (i.e. CR) independent variables (i.e. soldier's RWS and soldier's RWU), and a mediator variable (i.e. hardiness).
- The empirical objectives were to determine the level of soldiers' RWU, RWS, hardiness and CR in a sample of SA military members in order to determine the relationship between soldier's RWU, RWS and CR. Lastly, the empirical objective was to determine the mediating effect of hardiness on the relationship between RWU, RWS and CR in a sample of SA military soldiers.

# Cont...

---

- The study hypotheses were formulated as follows:
- $H_1$ : There is a significant relationship between RWS and CR.
- $H_2$ : There is a significant relationship between RWU and CR.
- $H_3$ : Hardiness has a mediating effect on the relationship between RWS and CR.
- $H_4$ : Hardiness has a mediating effect on the relationship between RWU and CR.

## Cont...

---

- The Perceived Combat Readiness Questionnaire (PCRQ) as adapted by Nkewu (2013) from Bester and Stanz (2007). The questionnaire consisted of 78 items distributed among seven dimensions relevant for this research: confidence in one-self (7 items), confidence in team (6 items), confidence in leaders (6 items), morale and esprit de corps (6 items), horizontal cohesion (14 items), vertical cohesion (25 items), and unit discipline (7 items). These subscales had an estimated reliability score of Cronbach's  $\alpha$  .88 (Nkewu, 2013)

## Cont...

---

- Family Assessment Device (FAD) developed by (Epstein, Baldwin, & Bishop, 1983). The FAD is made up of seven dimensions. One of these dimensions, general functioning, assesses the overall health/pathology of the family, and the other six scales assess the six dimensions of the MMFF. The FAD has a reliability score of Cronbach's  $\alpha$  for general functioning = .81; problem solving = .68; communication = .70; roles = .67; affective responsiveness = .82 behaviour control = .64 and affective involvement = .45 (Epstein et al., 1983).

# Cont...

---

- Soldier's Relationship with Unit Questionnaire (SRU-Q) Nkewu (2013). SANDF's support (financial, administrative, spiritual and communication). The SRU-Q consisted of eight items with acceptable Cronbach's  $\alpha$  .86
- Military Hardiness Scale (MHS) developed by Carol and Adler (2006). The scale consisted of 18 items distributed among 3 dimensions with acceptable Cronbach's  $\alpha$  .90

## 4.2 Results

---

- Correlational analysis (i.e. Spearman correlation) on various variables (RWS and RWU) to determine their relationship with CR was computed for further data analysis and hypothesis testing. High levels of general family functioning among the participants were found (mean = 2.96 and a standard deviation = .33). High levels of RWU among the participants were found (mean = 4.48 and the standard deviation = 1.62). High levels of hardiness were found (mean = 3.26 and a standard deviation = .49). High levels of CR were found (mean = 5.18 and the standard deviation = .95)
- **Correlational analysis.** The statistical analysis showed that soldier's RWS ( $p < 0.01$ ), RWU ( $p < 0.01$ ) and hardiness ( $p < 0.01$ ) have a significant relationship with CR

# Cont...

- **Structural model**, PLS estimated structural model analysis was done to evaluate the structural model, the path coefficients' significance across latent variable and the estimate value. As indicated in Table 1 and Figure 1 below the following results were obtained

**Table 1**  
**Structural model**

Path	Estimate	Bootstrap	Bootstrap Lower	Significant	Upper
RWS>Hardiness	0.12	-0.05	0.23		No
RWU>Hardiness	0.25	0.17	0.34		Yes
RWS>CR	0.18	0.10	0.26		Yes
RWU>CR	0.54	0.47	0.62		Yes
Hardiness>CR	0.19	.10	0.27		Yes

# Cont...

---

- Figure 1 illustrates the results as established in the PLS structural model (see Table 1)

- **Figure 1 Structural Model Results**

## **4.3 Discussion of results**

Kirkland and Katz (1989) well integrated unit-soldier-family-model

# References

---

- Allais, C. (2011). Sexual exploitation and abuse by UN peacekeepers: The psychological context of behavioural change. *Journal of Military Studies*, 39(1), 1-15.
- Ahere, J. R. (2009). Critical analysis of the United Nations peacekeeping missions in Africa. *Institute of Diplomacy and International Studies*, University of Nairobi, Nairobi.
- Agada, S. (2008). The challenges of United Nations peacekeeping in Africa: Case study of Somalia. *Peace Operations Training Institute*, 1-94.
- Bartone, P. T. (1999). *Personality hardiness as a predictor of officer cadet leadership performance*. Paper presented at the International Military Testing Association Meeting and NATO Research & Technology Agency Workshop on Officer Selection, Monterey, California.
- Bartone, P. T. (2006). Resilience under military operational stress: Can leaders influence hardiness? *Military Psychology*, 18, 131-148.
- Bartone, P. T., & Kirkland, F. R. (1991). Optimal leadership in small Army units. In R. Gal & A. D. Mangelsdorff (Eds.), *Handbook of military psychology* (pp. 393–409). New York, USA: Wiley.

# Cont...

---

- Bester, P. C., & Stanz, K. J. (2007). The conceptualisation and measurement of combat readiness for peace-support operations: An exploratory study. *SA Journal of Industrial Psychology, 33*(3), 68-78.
- Blankmeyer, W.J. (1998). Sustaining combat readiness during peace operations. U. S. Army War College. *Strategy Research Project, 1-39*.
- Both, P. E. G. (1984). *Operational Readiness in the Royal Netherlands Navy* (In Dutch). Den Helder: Royal Netherlands Naval College. Netherlands.
- Britt, T. W., Adler, A. B., & Bartone, P. T. (2001). Deriving benefits from stressful events: The role of engagement in meaningful work and hardiness. *Journal of Occupational Health Psychology, 6*, 53-63.
- Carol, A. D., & Adler, A. B. (2006). Military hardiness as a buffer of psychological health on return from deployment. *Journal of Special Operations Medicine, 8*(4), 110-115.
- Dallos, R., & Draper, R. (2000). *An introduction to family therapy: Systemic theory and practice*. Buckingham, Philadelphia: Open University Press.

# Cont...

---

- De Coning, C. (2007). Peace operations in Africa: The next decade. *Norwegian Institute of International Affairs, Working Paper, 721, 1-12.*
- Deployment Readiness Quick Reference Guide. (n.d.). *Warrior Ethos*. 105-132.
- Department of the Army, (2009). Leadership development program (LDP) handbook. *Field Manual 6-22, Military Review*. Army Leadership. Washington. DC.
- Department of Defence. (1998). Integrated philosophy on leadership, command, management and organisational culture. Pretoria: South Africa.
- Epstein, N.B., Baldwin, L.M., & Bishop, D.D. (1983). The MacMaster family assessment device. *Journal of Marital & Family Therapy, 9*, 171-180.
- Dunn, R. J. (2013). The impact of a declining defense budget on combat readiness at a time we are expanding military operations worldwide. *The Heritage Foundation: Backgrounder*. Retrieved July 25, 2013 from <http://report.heritage.org/bg2828>
- Gentry, W. D., & Kobasa, S. C. (1984). Social and psychological resources mediating stress-illness relationships in humans. In W. D. Gentry (Eds.), *Handbook of behavioural medicine* (pp. 87-116). New York, USA: Guilford Press
- Griffith, J. (2002). Multilevel analysis of cohesion's relation to stress, well-being, identification, disintegration, and perceived combat readiness. *Military Psychology, 14*(3), 217-239.

# Cont...

---

- Kardum, I., Hudek-Knežević, J., & Krapić, N. (2012). The structure of hardiness, its measurement invariance across gender and relationships with personality traits and mental health outcomes. *Psychological Topics, 21*(3), 487-507.
- Kirkland, R., & Katz, P. (1989). Combat readiness and the army family. *Military Review, 64-74*.
- Kgosana, M.C. (2010). *An Explanatory study of family stability under conditions of deployment*. Masters thesis, Stellenbosch University, Stellenbosch
- Kobasa, S. C. (1982). Commitment and coping in stress resistance among lawyers. *Journal of Personality and Social Psychology, 42*, 707-717.
- Kobasa, S. C., Maddi, S. R., & Kahn, S. (1982). Hardiness and health: A prospective study. *Journal of Personality and Social Psychology, 42*, 168-177.
- Lotze, W., De Coning, C., & Neethling, T. (2013). Contributor profile: South Africa. Retrieved September 11, 2013 from: [www.providingforpeacekeeping.org/](http://www.providingforpeacekeeping.org/)

# Cont...

---

- Maddi, S. R. (1999). The personality construct of hardiness, I: Effect on experiencing, coping, and strain. *Consulting Psychology Journal*, 51, 83-94
- Malan, D. J. (2008). A need for military education in Africa? In G. A. J. Van Dyk, *Strategic challenges for African Armed Forces for the next decade*, (pp. 145-162). Stellenbosch: Sun Media
- Meinhart, R. M. (2001). Force readiness. In *How the Army Runs: A Senior Leader Reference Handbook 2001- 2002. Strategy Research Project*, 8, 1-13.
- Minuchin, S. (1974). *Families and family therapy*. London, UK: Tavistock Publications Ltd.
- Minuchin, S., & Fishman, H. C. (1981). *Family therapy techniques*. Cambridge, MA, UK: Harvard University Press.
- Nkewu, Z. (2013). The impact of psychological well-being and perceived combat readiness on willingness to deploy in the SANDF: An exploratory study. Master's thesis, Stellenbosch University, Stellenbosch
- Parrewè, P. L., & Ganster, D. C. (2011). *The role of individual differences in occupational stress and well-being*. Bingley, UK: Howard House.

# Cont...

---

- Ross, C. H. (2008). *South African perspective on pre-deployment mission readiness preparation of personnel to be deployed in peace missions*. A thesis presented in partial completion of the requirements of the certificate of training in United Nations peace support operations. Peace Operations Training Institute.
- Rotter, J. C., & Boveja, M. E. (1999). Counselling military families. *The Family Journal: Counselling and Therapy for Couples and Families*, 7(4), 379-382
- Schumm, W. R., Bell, D. B., Rice, R. E., & Schuman, P. M. (1996). Marriage trends in the US Army. *Psychological Reports*, 78, 771-784.
- South African Soldier. (2013). The official monthly magazine of the SA Department of Defence, 20(4), 1-46.
- Stupart, J. (2013). Three things we must learn for the battle of CAR. *Delicate news*. Retrieved March 27, 2013, from <http://www.africanscene.co.za>.
- The South African Government News Agency. (2014). Two SANDF soldiers wounded in Sudan. Retrieved October, 31, 2014, from <http://www.sanews.gov.za/africa/>

# Cont...

---

- Van Dyk, G. A. J. (2009). The role of military psychology in peacekeeping operations: The South African National Defence Force as an example. *Scientia Militaria, South African Journal of Military Studies*, 37(1), 113-135.
- Warner, L. A. (2014). Meeting the demand for African-led, internationally supported peace interventions. In *Foresight Africa: Top priorities for the continent in 2014, The Brookings Africa Growth Initiative* (pp. 22-24). National Defense University.