# IMPACT OF PSYCHOLOGICAL WELLBEING AND PERCEIVED COMBAT READINESS ON WILLINGNESS TO DEPLOY IN THE SANDF: AN EXPLORATORY STUDY

## BY
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# Declaration

I herewith declare this work to be my own original work. I have not previously submitted it for obtaining qualification anywhere. I also acknowledged all the sources I have consulted in this work itself and not only in the references, that all wording unaccompanied by a reference is my own and that no part of this assignment has been directly sourced from the internet without providing the necessary recognition.

Zingcwengile Nkewu:                                          December 2013

# Abstract

The South African National Defence Force (SANDF) is deploying locally, regionally and internationally for peacekeeping operations and tasks other than peacekeeping. It is imperative that it succeed in these missions in order for the country, region and the world to develop. However, in order for the SANDF to realize success those responsible for the task of peacekeeping have to be combat ready, and particularly perceive themselves to be combat ready, they have to measure high on psychological wellbeing and should have no psychosocial and/or psychological problems such as depression, anxiety and social dysfunction, but must have a high level of willingness to deploy. SANDF deployment in Africa is voluntary and depends on those members who are willing to deploy to extract Africa out of the mire of squalor and poverty and conflict. It is only when there is peace that development and proper governance can be achieved, hence the need to use the SANDF as a foreign policy tool to bring about peace in Africa.

The aim of the study was to explore the impact of psychological wellbeing (PWB) general health (GH) and perceived combat readiness (PCR) on willingness to deploy (WD) in the SANDF. A non-experimental, exploratory study was employed this study. Participants were drawn from the Army (n=465) from the rank of private to colonel. Participants completed valid reliable instruments measuring PWB; PCR; GH; and WD. PWB was measured in terms of self-acceptance, positive relations with others, autonomy, purpose in life, environmental mastery, and personal growth. PCR was measured in terms of family support, confidence (in all its dimensions), morale, and cohesion and unit discipline. GH was measured in terms of somatic symptoms, anxiety/insomnia, social dysfunction and depression. WD was measured by using 12 questions with a sample question such as: "In the event of an invasion by an enemy force into the RSA, to what extent will you be willing to go into combat?"

Correlation analysis was done to determine the relationship between the independent variables and the dependent variable. Multiple regression analysis was done to determine which of the independent variables contributed most to WD of members of the SANDF

The results revealed a significant positive relationship between PWB (and its dimensions, except self-acceptance and positive relations with others) and WD, and PCR (and its dimensions, except unit disciple) and WD. GH was annulled for its potential not to explain any variance in the model because almost all participants scored zero on all subscales. The multiple regression analysis was in line with correlation results showing that total PCR (strongest predictor) made a significant contribution in explaining and predicting WD. PWB made a contribution in explaining and predicting WD, but not as strong as PCR. The PCR dimensions that individually contribute significantly in explaining and predicting WD are self-confidence, horizontal cohesion and confidence in the leader. The conclusion that is drawn from this study is that total PCR and total PWB contribute to willingness to deploy.

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| | |
|---|---|
| 14SAI | 14South African Infantry |
| 1SAI | 1South African Infantry |
| 6SAI | 6South African Infantry |
| 8SAI | 8South African Infantry |
| 9SAI | 9South African Infantry |
| AK47 | assault rifle |
| AMIB | African Mission in Burundi |
| AU | African Union |
| CAR | Central African Republic |
| CP | combat power\ |
| CR | combat readiness |
| DRC | Democratic Republic of Congo |
| FACA | Military of Central African Republic (Forces armees centrafricaines) |
| FDD | Forces for the Defence of Democracy |
| FOMAC | Multinational force of Central African Republic |
| FGS | family support groups |
| FY | Financial Year |
| GH | general health |
| HQ | headquarter |
| ICVs | infantry combat vehicles |
| LRA | Lord Resistance Army |
| MWR | morale, welfare, recreation equipment); |
| NGOs | non-governmental organisations |
| NLF | National Liberation Front |
| ONUB | United Nations Operation in Burundi |
| PANAS | Positive Affect and Negative Affect Scale |

| | |
|---|---|
| PCR | Perceived Combat Readiness |
| PCRQ | Perceived combat readiness questionnaire |
| PK | check point |
| PLA | Peoples Liberation Army |
| PSOQ | Peace Support Operation Questionnaire |
| PSOs | peace support operations |
| PTSD | posttraumatic stress disorder |
| PWB | psychological wellbeing |
| RECs | Regional Economic and Security Communities |
| ROE | rules of engagement |
| RPG7s | Rocket Propelled Grenade Launcher 7 |
| RSA | Republic of South Africa |
| SADC | South African Development Community |
| SANDF | South African National Defence Force |
| SAPS | South African Police Service |
| SOC | sense of coherence |
| SP | special forces |
| SWB | Subjective wellbeing |
| SWLS | Satisfaction With Life Scales |
| UN | United Nation |
| UNIMOG | UN Military Observer Group in India and Pakistan |
| UNMIK | UN Interim Administration Mission in Kosovo |
| US | United States |
| VIA | Values In Action inventory of strength |
| WD | willingness to deploy |

## CHAPTER 1

## INTRODUCTION

## 1.1    GENERAL INTRODUCTION AND ORIENTATION OF THE STUDY

South Africa is committed to and deeply involved in strengthening continental and regional structures such as the African Union (AU) and the South African Development Community (SADC) (Mandrup, 2008). South Africa does this because the country realises that it has a common destiny with Southern Africa (Heinecken, 2005; Nabishaka, 2011). According to Kagwanja (2006), South Africa is the one country that could perhaps provide the capacity to pull Africa out of its mire of poverty and desperation. Poverty and desperation are consequences of both political and economic instability. Political and economic instability creates an environment that is lacking in peace and development. Without peace and security, development stagnates. South Africa therefore considers the promotion of peace and security as its topmost Africa policy goal, in addition to advancing the course of democracy, human rights, pursuing sustainable development and poverty alleviation (Heinecken, 2005). Meernik and Brown (2007) and Stegenga (1970) also attest to this notion by stating that defence forces throughout the world have been used to attain good ends. Military operations have been and still are the means of attaining the good ends for politicians in countries ravaged by socio-political and economic instability. These peace-support operations (PSOs) are predominantly sponsored by the United Nations (UN) and have covered the globe in countries such as former Yugoslavia, the Middle East, Pakistan, Namibia, Somalia, Cambodia, East Timor, Burundi, the Democratic Republic of the Congo (DRC), Sudan and Syria. There are currently 16 UN-sponsored peace operations in four continents (UN Facts Sheet, 2013), which indicate the UN's commitment to international peace and security.

The UN's commitment to international peace and security (Bariagaber, 2006; Langmore, 2009; Mohamed, 2005) has two main objectives: the maintenance of peace and security and the improvement of political, economic and social justice of the worlds' people (Bratt, 1999).  Peacekeeping, broadly described, consists of a variety of measures taken to prevent and control violent conflict (Evans, 1993; Moskos, 1976). Peace operation interventions are envisaged to bring peace and democracy in the African continent, and especially in the African countries ravaged by wars and conflict (Branch & Mampilly, 2005). Diverse manifestations of underdevelopment such as violence and civil wars left the African continent in trouble for a little while (Ekanola, n.d; Heinecken, 1999; Achunike, n.d).

However, the African continent is not the only continent affected by violence and civil wars, Asia, India and Pakistan are experiencing conflicts over Kashmir and a UN Military observer group in India and Pakistan (UNMOGIP) was deployed (UN Fact Sheet, 2013). In Europe, an ethnic-based conflict in Kosovo left many people dead, and a UN Interim Administration Mission in Kosovo (UNMIK) was deployed. These and many other UN missions attest to the fact that the UN has a huge job. This is a huge job for the world leaders but also for peacekeepers. Peacekeepers have no war objectives, but engage in negotiations rather than in combat (Davis, 1997). Fortna (2003) claims that peacekeeping is an important innovation in conflict management. However, peacekeepers remain a military force, and in Africa and elsewhere, force employment ranges from defence on national security to PSOs, peace enforcement, and operations other than war (Mandrup, 2008; Mohamed, 2005; Gilkes, 1993; Sewall, & Szasz, 1994).  Military forces of countries, including the South African National Defence Force (SANDF), are employed to suppress conflicts and to bring peace in Africa. Peace keeping missions have long been proclaimed by various researchers to be challenging, complex and hazardous (Bartone, 1998; Frowe, 2011). Moreover, there is general agreement that psychological factors are crucial to effective individual and collective performance of soldiers deployed in these peacekeeping missions (Both, 1984).

Psychological factors range from intrapersonal factors to interpersonal factors. The complex and challenging nature of peacekeeping tap into these factors and therefore peacekeeping requires proper preparation. Peacekeeping requires special training and preparation that also focus on the psychological factors of the men behind the guns.

Serving in a peacekeeping operation naturally involves roles that are different from serving military organisation in a normal unit. Extra demands on peacekeepers (Owen, 1995) are pervasive. Johansson and Larsson (1998) proclaimed that an ideal UN soldier has, as personal characteristics, qualities of being diplomatic, impartial, able to listen and tolerant of provocation. The operational peacekeeping environment is psychologically and physically highly demanding, especially in Africa.  Several studies have confirmed that peace-support duties may involve many stressors that have a powerful influence on both the performance of members and on individual and collective wellbeing (Bowden, 1999; Breen, 1998; Davis, 1997; MacKenzie, 1993; Owen 1995; Stewart, 1994). Van Dyk (1998) suggests that among the various stressors experienced in peacekeeping missions some are intra-psychic and somewhat hidden.  The definition of what stress is merits some explanation in this instance. Normally stress appears to develop for three reasons: as a stimulus, response and an interaction of the two as shown in Figure 1.1

| **Environmental stressors** | **Appraisal** | **Outcomes** |
|---|---|---|
| *Noise* *Time pressure* *Task load* | *Evaluation of (i) the extent of the threat, and (ii) the resources* | *Physiological* *Emotional* *Social* *Cognitive* |
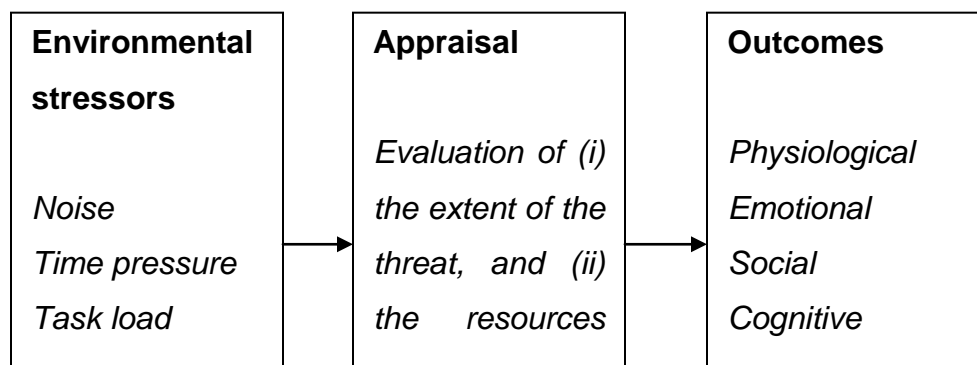
*Figure 1.1* **Stimulus-appraisal- response model of stress and performance**

(Ganster & Schaubroeck, 1991).

The conception of stress as a stimulus is characterised by disturbing environmental factors such as noise and others. That means stress is regarded as an external force that produces negative reactions within the individual. From this point of view, stress is perceived as a load or stressful demand placed on the individual that result in strain. If the individual has sufficient strength and resilience, in other words if the stress is within that individual's coping limits, the individual would return to his/her original condition when stress is removed.  The conception of stress as a response is described by Stokes and Kite (1994) as an individual person's pattern of reactions to an external imposed demand. Thus, stress is regarded as an internal response to an external stressor (Stokes & Kite, 1994). This conception of stress as a response to external stressors seemed too simplistic too and apparently also failed to take into account individual differences and situational differences.

The interaction of the stimulus and a response, popularly known as the interaction model of stress (Lazarus, 1991) is arguable the most dominant approach to stress research and performance in applied setting (Bruwer & Van Dyk, 2005; Cox & Ferguson, 1991; Ganster & Schaubroeck, 1991; Hammer, Saksvik, Nytro, Torvatn, & Bayazit, 2004; Lazarus, 1991). The view held in the stimulus-appraisal-response model is that stress is the consequence of the interaction between the many and varied environmental stimuli, individual perceptions of those stimuli and individual response patterns (Lazarus, 1991). Lazarus and Folkman (1984, p. 9) influenced and advocated the transactional approach and defined psychological stress as "a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her wellbeing". The transactional approach to stress (Lazarus, 1991) is more psychological in its approach than the stimulus or response-based approach to stress because it recognises the subjective nature of stress and puts an emphasis on the mental processes that intercede the individual reactions. For example, the appraisal stage has two elements: primary and secondary appraisal.

During primary appraisa,l an evaluation of the degree of harm, threat or challenge posed by environmental stressors is carried out (Ganster & Schaubroeck, 1991). During the secondary appraisal, resources are evaluated to determine how effective the individual can cope with threat, harm or challenge posed by environmental stressors (Ganster & Schaubroeck, 1991).  Negative evaluations of the situation (see Figure 1.1), threat or challenge are likely to result in various stress outcomes, including but not limited to impaired performance. Bartone (1998) described stress in the military as forces originating from the environment that impact on the individual resulting in a response. This notion acknowledges the importance of the interaction model of stress (Ganster & Schaubroeck, 1991). The complexity as well as psychologically and physically demanding and potentially hazardous nature of contemporary peacekeeping missions can be expected to affect individual and collective performance of military personnel deployed in these missions. This can be expected to call for perceived combat readiness (PCR) and a high level of psychological wellbeing (PWB) which can be expected to lead to willingness to deploy (WD). The psychological aspect of war-related service is pervasive but much less is known about the challenges, impact and performance implications of serving on a peace-support mission (Kolto-Rivera, Hancock, Dalton, Ganey & Murphy, 2004), especially in conflict ridden Africa.

Some of the challenges of peacekeeping in Africa can range from rebels with conventional armaments such as tanks, armoured cars and heavy machine gun to women and child soldiers armed with AK 47rifles and RPG7s rocket launchers. Such environments create ethical dilemmas for conventionally trained soldiers who are also required to subscribe to the rules of engagements and application of force. Furthermore, research (Bartone, 1998; Bruwer & Van Dyk, 2005; Scully, Kremer, Meade, Graham, & Dudgeon, 1998), suggests that during deployments in peacekeeping, a number of stressors prevail including the following:

### 1.1.1  Isolation.

Isolation which is also identified by Bartone (2006) is one of the most surprising and demoralizing features of the PSOs (Kellet in Glad, 1990). Units may, for instance experience periods of operations where forces are intermixed and lines of communication are broken. Units will experience feelings of uncertainty and helplessness from unpredictable strikes by long-range weapon systems such as mortars as the SANDF contingent in Burundi near the airport base attested in 2003 (Personal experience, 2003).

### 1.1.2  Lack of family ties and support

According to Segall, Rohall, Jones and Manos (1999) deployments involve family separation for soldiers at a time when an increasing proportion of the army is married. The impact of crisis on the home front, such as death, illness, marital desertion and divorce affects soldiers on the front line and is a problem for military authorities (Belenky, 1987; Parker, Call, Dunkle, & Vaitkus, 2002). Segal et al. (1999) conducted a study of two battalions deployed in Korea in 1994 and found that family support was the best predictor of morale for young soldiers.

### 1.1.3  Leadership, heavy workload, and long hours of work

The death or injury of leaders can be very stressful, and may also have a marked impact on the morale of their subordinates, who lose sense of protection conveyed by a skilful leader (Belenky, 1987). A sense of protection and morale are derived from competent leadership, which enhances cohesion and morale of subordinates.

Competent leadership is a morale booster even under stress and hardship of battle (Bartone, 2005).

### 1.1.4  Doubts and attitudes about mission importance

Bartone (2005) proclaims that soldiers have a tremendous need to see their work and activities as meaningful and important. Orsillo, Roemer, Litz, Ehlich and Friedman (1998) proclaim that hostile rejection reactions by people whom peacekeeping soldiers protect is the one negative aspect of peacekeeping that is most relevant to the psychological wellbeing of peacekeeping soldiers.

### 1.1.5  Lack of proper preparation and training

Kellet (in Glad 1990, p. 216) says that "training is the major part of a soldier's practical and psychological preparation for battle''. According to Kellet (in Glad, 1990, the purpose of training is to replace civilian with military attitude. Training familiarises the soldier with his/her weapons, tactics and field craft (Glad, 1990). If training is not properly done a soldier will be severely disadvantaged to do the soldiering tasks of killing in battle. Kellet (in Glad, 1990) further state that training is not only intended to inculcate proper military skills, principles, attitudes and traditions of the unit and of the military but also to create a regular organised force.

### 1.1.6  Higher rates of casualties

Warfighting initially implied a fight using traditional weapons such as spears and assegais (Montgomery, 1968). During those times, death and casualty rates were minimal. In due course, more and sure ways of causing death, such as sophisticated missile systems, long-range weapons such as the G-6 gun howitzer to name but a few were developed (Duppstadt, 2011). These tools of war are employed and may be used in volatile peace enforcement endeavours or could be employed by rebel groups against peacekeepers. Losing 40 to 60 per cent of an entire unit in minutes or hours could leave the remaining peacekeeping soldiers incapacitated (Nkewu & Van Dyk, 2008).

### 1.1.7 Misconduct of peacekeepers

Misconducts of peacekeeping soldiers is most likely to occur in an operation where stressors are pervasive, resulting in morale declination (Cox & Ferguson, 1991). More often than not, these misconduct behaviours are the result of stressors and increased stress levels in a peacekeeping contingent (Black et al., 2004). Such misconduct behaviors should be treated as indicators that the potential exists for negative evaluation of perceived stressors.

### 1.1.8 Killing non-combatants

It is not justified to kill non-combatants in warfare (Arneson, 2006). Justice in warfare requires respect for non-combatants' immunity (Arneson, 2006). Arneson (2006) further states that those engaged in war are prohibited from deliberately attacking those who are not soldiers. In protracted conflicts, rebel groupings which seemingly are non-combatants, such as women and children, are in fact combatants (Frowe, 2011; May, 2005). Frowe (2011) and May (2005) suggest that the argument that seeks to defend non-combatants' immunity by showing that non-combatants cannot be liable for defensive killing even if they contribute to unjust wars fails. Non-combatants are sometimes liable to defensive killing because they are sometimes morally responsible for unjust lethal threats.

### 1.1.9 Drug and alcohol abuse

Substance abuse is classified as a psychological disorder (Vicary, 1994) but, may also be a medication for the anxiety and traumatic memories of combat (Regan, Hagwood, Hammer, Wright, 2006) or for the boredom and frustrations of peacekeeping operations (Bartone, 1998). Dolan, Adler, Thomas, and Castro (2005) proclaim that alcohol use is always viewed in a negative manner with emphasis placed on the consequences. These writers suggest that alcohol has a role in alleviating stress.

Peacekeepers do spoil themselves by drinking (Higate, 2007) when circumstances permit, sometimes, with undesirable consequences. Federman, Bray and Kroutil (2000) support this view by saying that use of alcohol has negative implications for military readiness and safety of personnel. A healthy mind-set that operates at higher level of sobriety and free from alcohol is indeed essential in order to be an effective element in the endeavours of both the UN and SADC to pull Africa out of squalor and desperation within which the continent finds itself. Peacekeepers with a sense of sobriety and a high level of psychological wellbeing (PWB) are expected to regard themselves as combat ready and therefore willing to deploy (WD).

## 1.2    BACKGROUND AND MOTIVATION FOR THE RESEARCH

Research suggests that a high level of PWB is related to good performance and health (Daniels & Harris 2000; Houston, Mckee, Carroll, & Marsh, 1998; Kobau, Sniezek, Zack, Lucas, & Burns 2010). Good performance in the context of deploying forces should entail how soldiers perceive themselves to be combat ready for their stated roles as peacekeepers and ultimately willing to deploy. WD is suspected to be influenced by general health (GH), psychological wellbeing (PWB) and perceived combat readiness (PCR). Identifying the level of PWB, GH and PCR in peacekeepers will enable prediction of their WD. It can be safely claimed that by ensuring a good level of PWB, PCR is developed and attained in advance and/or -before, during and after the deployment for peacekeeping operations, negative stress reactions, including but not limited to, psychological disorders, alcohol abuse, malingering, AWOL, looting, pillage and rape, can be pre-empted (Scully et al., 1998).

On the African continent, demographic, environmental, and societal stress has resulted from many civil wars and rebellions as was the case in Liberia and Sierra Leon (Arthur, 2010).

Soldiers have to operate in such environments and therefore a need arises for soldiers to measure highly on PWB, GH and PCR in order to claim with certainty that they are combat ready and willing to deploy. If this claim is true, a psychologically well soldier will perceive him/herself to be a combat-ready WD soldier. A unit or force with all its soldiers measuring high on PWB and GH can be expected to experience a high level of PCR and this can be expected to lead to high levels of WD and such soldier can be expected to perform and be highly productive in a PSO mission. Mission readiness, combat readiness and willingness to deploy are reflected by good performance and productivity (Bester & Stanz, 2007; Huffman, Adler, & Castro, 2000).

Whose responsibility is it then to ensure that soldiers have high levels of PWB; GH and PCR and that they are willing deploy in the African peacekeeping environments? African governments, including South Africa, necessarily must bear primary responsibility for wars and conflicts to take the lead to employ soldiers on the African continent (Kagwanja, 2006). Peacekeeping can be a confrontational exercise as the experience of the US forces in Mogadishu in 1993 attests (Bachman, 2010; Gilkes, 1993).

The SANDF contingent in Burundi shared the same experience even though with zero casualties in 2003 when Burundi's capital, Bujumbura, suffered heavy shelling in April and July from the Forces for the Defence of Democracy (FDD) and Rwasa's National Liberation Front (NLF) respectively (Bellamy & Williams, 2005). On 30th June2003, the African Mission in Burundi (AMIB) troops killed four FDD rebels while defending the rebel cantonment zone in Muyange. These events attest to the confrontational nature that a peacekeeping mission could take. Even if the mission is traditionally peacekeeping, combat in a peacekeeping mission could ensue, which further calls for serious considerations and responsibility of African governments for the PWB, GH and PCR and WD of African troops in peacekeeping.

WD is not a random walk in the park but is a function of many and diverse variables, including, but not limited to, PWB and PCR. These kinds of operations are likely to invoke anxiety, depression and post-traumatic stress disorder (PTSD) in many soldiers. The barbarism of a rebel commander displaying human skulls as trophies, for instance, is an anxiety-invoking risk factor (Temudo, 2008). Young boys and girls abducted by the Lord's Resistance Army (LRA), a rebel group in Uganda, were often forced not only to witness the barbaric killings of their family and friends, but also to actually partake in the murders themselves (Feldman, 2009). Initially, they numb themselves to the atrocious acts they are forced to perform, but many of them eventually acquire the same mind-set as their captors, and in turn force the next group of abducted children to kill their parents and friends (Feldman, 2009).

Witnessing and hearing such stories can jeopardise the PWB, GH and PCR of soldiers and ultimately their WD. This does not augur well for their mental health which, affects their productivity and performance and therefore PCR of the SANDF for PSOs. SANDF peacekeeping troops need to be strong physically and psychologically so that their very presence discourages combat. Participating willingly in the mission is suspected to be a function of higher levels of PWB, GH, and a strong PCR. Franke (1997) suggests that peacekeepers must have the capacity to shift focus and adjust effectively between combat and non-combat roles. This ability is anticipated to reside with soldiers with a high level of PWB, GH and PCR. Peace operations will not always consist only of peaceful actions but will combine combat and no-ncombat roles and shift rapidly between peacekeeping, peace enforcement, humanitarian assistance, deterrence, and conflict (Bellamy, & Williams, 2005; Franke, 1997).

The PSOs environment in Africa, thus, requires the casting away of the old dogma and doctrine and combat readiness by African militaries (Franke, 1997). New approaches and strategies of responding to new strategic environments to solve old problems need to be explored (Heinecken, 1995).

The SANDF faces a new and substantially different strategic environment, requiring a new strategic focus. It must define its new roles, tasks, and military strategies and structure itself accordingly (Gryffenberg et al., 1997).  Since South Africa has the most stable democracy on the African continent and a growing economy, expectations in Africa and internationally have grown for South Africa to play a leading role as a peace broker in African conflicts (Grobler, 2010). Many years of military counter-insurgency operations in Southern Africa meant that South Africa was perceived, both regionally and internationally, as possessing, in relative terms, a significant military capability (Heinecken, 1995; Grobler, 2010; Gryffenberg et al., 1997). However, force employment in a volatile political environment such as the African environment, must be applied with a level of caution that does not escalate the conflict (Grobler, 2010).  It is, therefore, essential to make an evaluation of what the defence force strategy is, in order to derive its mandate.

According to the SANDF military strategy paper for 2004-2007, the missions envisaged for the next ten years after 2007 can be divided into three different pillars in terms of tasks that the force needs to be capable of undertaking at any time (Mandrup, 2008). These pillars are:

- defence against external aggression, which entails, show of force, repelling of conventional onslaught, pre-emptive operations;
- promoting security which, entails among others, international and regional and sub-regional peace support-operations;
- supporting the people of South Africa, which entails, among others, border control, support to other government departments, disaster relief, maintenance of the health status of members of the SANDF and cooperation with members of the South African Police Service (SAPS).

In order to realise all these tasks, material and human resources are needed.

This study focused on human resources with specific reference to the impact of PWB, GH and PCR on WD. This does not mean that material resources are not important in combat readiness and willingness to deploy.  Human resources are often interpreted in terms of numbers and not PWB, GH and PCR. Resource commitment in all its interpretations is very important for PSOs.

The recent experiences of international deployments, indeed, show that the stated priority given to the SANDF international deployments is not followed by similar resource commitment, and the SANDF has to struggle for additional resources in competition with other government departments (Mandrup, 2008). The deployment to international PSOs is a challenge to the SANDF because this is a new task for the force, one for which it is not entirely prepared (Heinecken, 1995; Heitman, 2013) Like many other military forces in the contemporary world, the SANDF was experienced in and capable of fighting the battle, but inexperienced in winning the peace (Bellamy & Williams, 2005). According to Bellamy and Williams (2005) all these aspects have characterised peacekeepers' experiences through decades of peacekeeping. Experience, leadership and commitment offered by the state are fundamental to the overall PWB, GH, PCR and WD of a peacekeeping force (Griffith, 2006; Bartone, 2005).

As a contributor to international PSOs, the SANDF has participated and gained experience in, as mentioned above, Operation Boleas, the African Mission in Burundi (AMIB) and United Nations Operation in Burundi (ONUB) (Kagwanja, 2006; Likoti, 2007). There is no country that can have an intelligence estimate of the threat, nature and place of a peace-keeping operation to be prepared properly in advance (Likoti, 2007). South Africa is not different from other countries with regard to this, and for this the country has paid the price, for instance, loosing soldiers in CAR (Heitman, 2013). Peacekeepers are organized and trained based on the experiences gained on previous operations (Heinecken, 1999).

In operations where the SANDF had been involved, South Africa has generally followed a negotiating strategy in which it has functioned as a mediator, followed by a military commitment during the implementation phase (Heinecken, 2005). This was the case in Burundi and the Democratic Republic of the Congo (DRC) where the SANDF was required to implement a brokered peace agreement under extremely volatile circumstances when the use of forces became imperative (Heinecken, 1999). This was a test of combat readiness (CR) for the SANDF and this is going to be the case in the future of PSOs in Africa for the SANDF (Bester & Stanz, 2007).

The human element as a state of PCR and WD has not been a focal point of scrutiny in as far as PWB, GH and PCR are concerned. CR for operations means physical fitness, availability of material resources and serviceable equipment for the operation (Bester & Stanz, 2007; Griffith, 2006). Other avenues that may be rich in terms of information in explaining variance in WD have not been explored due to focus on tangible material resources (Griffith, 2006). An investigation into these avenues will enhance the capacity and quality of the force in order for the SANDF to succeed in PSOs and, therefore, South Africa's moral responsibility to provide human security towards fellow Africans whose lives are endangered by repressive governments (Meernik & Brown, 2007). This research focused on PWB, GH and PCR of soldiers in the SANDF units and assessed how PCR, PWB relate and/or affects WD.

The behaviour of South African troops, especially off duty in both Burundi and the DRC, has been a problem to South Africa and has given the force a bad reputation (Achunike, n.d). One can safely claim that a high level of PWB, GH and PCR in the SANDF operational units cannot be tallied with bad reputation, bad discipline, low morale, poor willingness to deploy and combat readiness.

High levels of GH, PCR and PWB in particular in soldiers suggest that soldiers master the environment within which they operate, that they are fulfilled by the task they do, and that they are a cohesive force that operates as a unit (Siebold, 1999; Griffith & Vaitkus, 1986). Soldiers who have positive relations with one another and who understand the purpose of the operation can be expected to be productive and combat ready (Huppert, 2009). The psychological health of a soldier is very important in a deployment setting because if a soldier has psychological problems he/she can be expected to experience some difficulties (Bartone, 2005; Ryff, 1995). The performance of a soldier with psychological such as depression, anxiety, insomnia and social dysfunctioning (Nagyova et al., 2000) may not only jeopardise the mission but can be expected to influence the soldier's WD.

The general health questionnaires measures issues such as psychological condition to ascertain the psychological health status of soldiers because the deployment environment is littered with many stressors which will invoke severe depression and anxiety in any soldier with negative stress reactions (Aviram, 1989). GH was measured by GH-28 to screen for general psychological fitness. The quality of soldiers the SANDF deploys for PSOs is important. High-level PWB and PCR for a peacekeeper could be regarded as imperative for WD in Africa and for effective and successful PSOs in the future. In the light of the above, this study sought to investigate the impact of PWB, GH and PCR on WD.

## 1.3    RESEARCH PROBLEM

South Africa has realized that it has a common destiny with the rest of Africa and that if Africa is in flames, South Africa is going to catch fire too (Nabishaka, 2011). In the quest to make Africa a better place for economic development, the South African government is using the SANDF as a foreign policy tool to extinguish conflicts in many hot spots at the continent, such as the Sudan, the DRC, Burundi and others (UN Facts Sheet, 2013).

However, this endeavour has proven to be littered with a dozen challenges. Contemporary military operations such as combat and peacekeeping are complex, demanding and hazardous. Soldiers who have to function in these environments will need to have good PWB, GH, PCR and WD. Psychological factors, especially PWB are crucial for effective individual and collective performance. Positive mental health (Edward, Ngcobo, Edwards, & Palavar, 2005) and good mental functioning (Landa, Martos, & Zafra, 2010) can be expected to be crucial for soldiers in both combat and peacekeeping operations. Soldiers working in complex military operations are expected to be effective. A subjective feeling of contentment, happiness, satisfaction with life experiences and ones role in the world of work will give rise to a sense of achievement, utility and belongingness (Huppert, 2009). When soldiers therefore measure high on PWB they can be expected to function psychologically well.

PWB can either be high or low (Ryff, 1995). When it is high it is good which can affect motivation in many ways (Motowidlo & Borman, 1977). When PWB is low it can be expected to affect motivation negatively (Bester & Stanz, 2007). On the other hand in this study, GH, as measured by GHQ-28 can be an indication of psychological fitness. Soldiers can either measure highly on it or very low 28 (Goldberg, 1972). Low general health can be an indication of lack of psychological fitness28 (Goldberg, 1972). Lack of psychological fitness could be a liability in any operational unit and can negatively affect PCR.

Given that all the challenges of peacekeeping as described in this research report, such as stressors in peacekeeping, stress outcomes and some factors that are structural and inherent in the peacekeeping policy and politics are known, it was imperative to investigate some factors that are not obviously discernible as they are built into the individual soldier, who is the first and supposedly the most important primary asset in the attainment of peace.

A soldier's perceptions about a number of determining factors about him/herself and which range from his/her standing on PWB, which includes good mental and psychological functioning, his CR as perceived by him/herself, GH and his WD proved to be a relevant research challenge.

Understanding these factors could be expected to shed more light on the understanding of CR and WD in the SANDF. Furthermore, in view of the limited research on WD, PCR and PWB in the SANDF, the findings of this study could make a relevant contribution. More research is however needed to ascertain whether soldiers' perceptions about themselves in terms of these factors are accounted for in force preparation for deployments. The researcher therefore saw a gap to gather data about the prevalence of these variables in the SANDF.

It is essential and very relevant to investigate the relationships amongst the phenomena of interest given the limited research on it and making a contribution in the process to the SANDF. High PWB, good GH, high PCR and high WD can enable soldiers to be resilient and to function effectively in military operations in African environments (Huppert, 2009; Bartone, 1998; Griffith, 2006). Recommendation which can be utilized in force preparation will be made available to the SANDF. Recommendations can be made to operational units to screen for PWB, GH, PCR and WD prior to deployment and finding strategies to enhance development of these variables in all operational units. The overall performance of the SANDF would be enhanced in the process.

The aim of the study was to show the impact of PWB, GH and PCR on WD. The researcher hypothesised that, amongst others, high levels of PWB, PCR and GH would correlate with a high level of WD. The research challenge was to present a theoretical proposition in order to conceptualise PWB, GH, PCR and WD and to investigate the relationships, at both theoretical and empirical levels between these variables.

A scientific research methodology was therefore used in order to determine the validity of the suggested propositions (Welman, Kruger, & Mitchell, 2005) regarding the relationships of the selected variables (see Figure 1.2).

## 1.4     RESEARCH OBJECTIVES

### 1.4.1  Main objective

The main objective of the study was to investigate by means of scientific methods the impact of PWB, PCR and GH on WD (Bester & Stanz, 2007; Ryff, 1995) (see par. 2.4 & 2.5) in the SANDF. The other important derivatives from the output of this study include:

a. Given limited research on and application of theory of PWB in the design and application of training and preparation for both wartime and peacekeeping operations, this study contributes to both literature and the field application of theory in training.
b. The study also contributes to a body of knowledge and awareness on the factors that contribute to willingness to deploy in the SANDF.
c. The study aimed at fill a gap in the literature by determining the relationship between PWB, GH, PCR and WD of soldiers in the SANDF.
d. Given that the SANDF was the focus of study, more theoretical and practical perspectives could be attained and interventions developed to position the SANDF better at the top of the game of peacekeeping.
e. The relationship between PWB, GH, PCR and WD yields a scientific contribution to the literature.

A scientific research methodology was used to determine the validity of predicting the proposed relationship between the variables of interest (Theron, 2009) on WD. In this study, PWB, (and dimensions), PCR (and dimensions) and GH were independent variables.

There are six factors that constitute PWB: self-acceptance, positive relations with others, autonomy, purpose in life, environmental mastery and personal growth (Ryff, 1995). PCR includes the following dimensions: support to family, confidence in team, confidence in leaders, confidence in training and weapons, moral and esprit de corp, horizontal cohesion, vertical cohesion and unit discipline (Bester & Stanz, 2007). GH is constituted by the following subscales, somatic symptoms (constituted by items 1-7), anxiety/insomnia (items 8-14), social dysfunction (items 15-21) and severe depression (22-28) (Goldberg, 1972). WD, as a dependent variable, is characterised by feeling proud of being a member of the SANDF who makes a contribution to South Africa, by willingness to voluntarily deploy for both combat and PSOs in South Africa and another country (Bester & Stanz, 2007) to realize the ideal of a peaceful Africa and the world. The conceptual model in Figures 1.2 and 1.3 depict the possible relationships among the variables. The possible relationships of PWB and WD, PCR and WD, GH and WD, as well as all the dimensions of predictor variables (PWB and PCR) and WD are illustrated. PWB was expected to relate significantly with WD (Ryff, 1995; Bester & Stanz, 2007). PWB was expected to relate significantly with WD. PCR was expected to relate significantly with WD. GH was expected to relate significantly with WD.

In addition, all the dimensions of the predictors (PWB and PCR) were also expected to relate individually and significantly to WD. PCR was expected to relate significantly with WD. GH was expected to related significantly with PCR. GH was expected to relate significantly with WD.
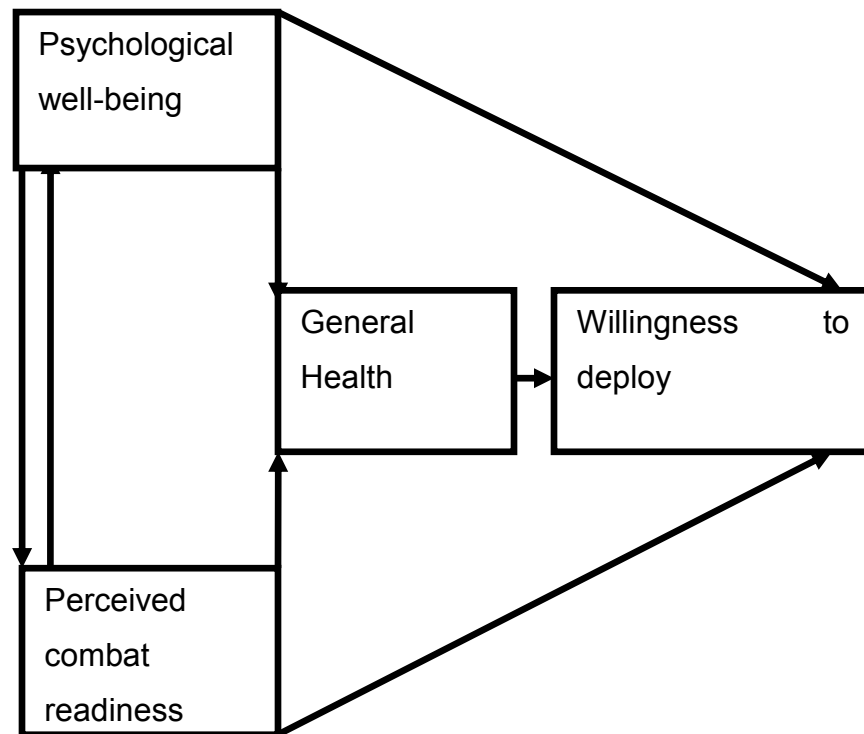
*Figure 1.2*: **Conceptual model of PWB, PCR and GH and WD**

A Further breakdown and/or expansion of the conceptual model depicting the proposed relationship between the dimensions constituting PWB and PCR with WD is illustrated in Figure 1.3.
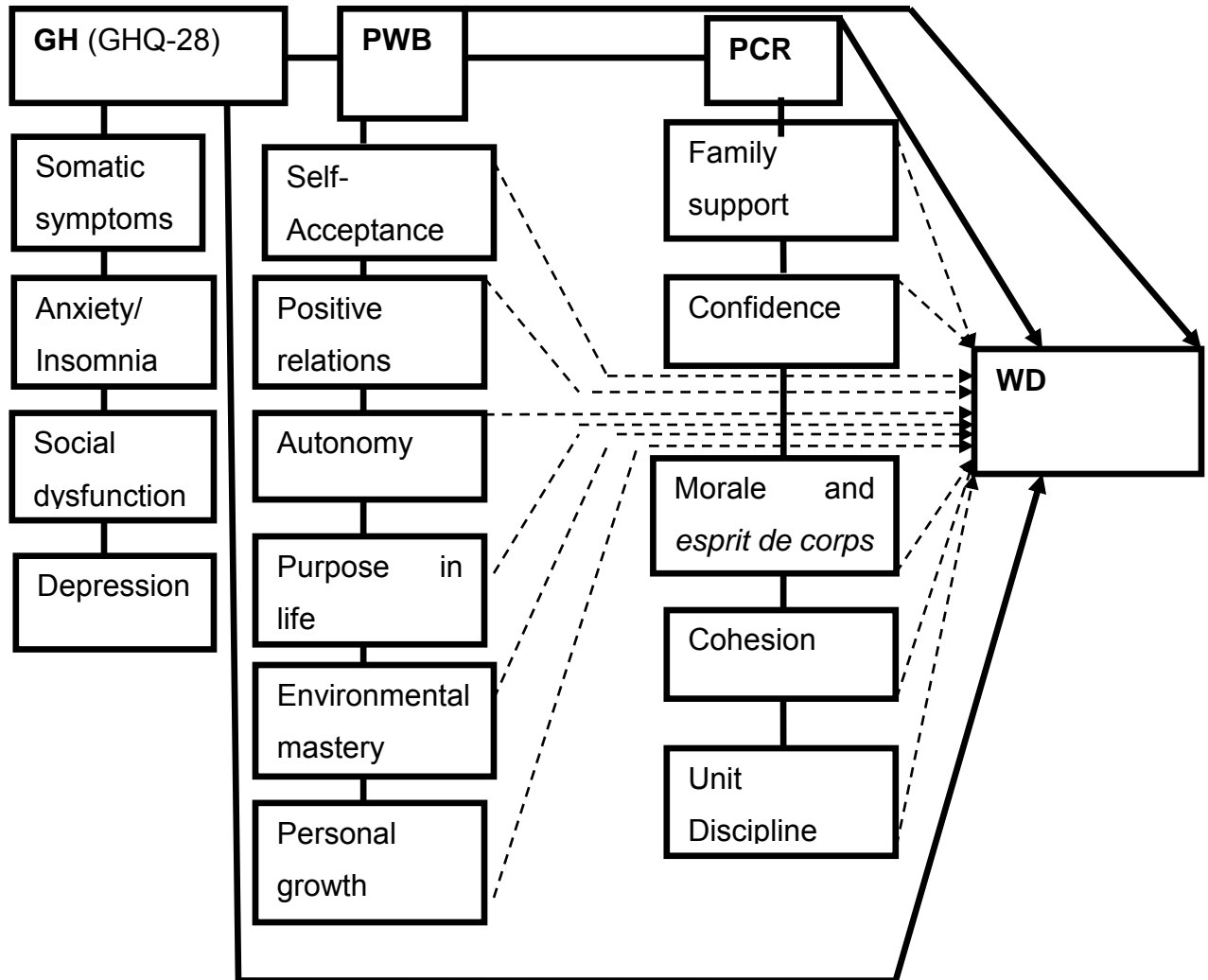
*Figure 1.3*: **Expanded conceptual model of PWB, PCR, GH and WD**

**1.4.2  Theoretical objectives**

The theoretical objectives of this study were

- to conduct an in-depth study of PWB, PCR and GH in order to understand these predictor variables and
- to determine their possible relationships with WD, and each dimension of the predictor variable with WD.

- to use the theoretical background to illustrate the presence of the relationships among the predictor variables and their dimensions and WD within the SANDF.

The possible relationships of the predictor constructs and their dimensions are depicted in the expanded conceptual model in Figure 1.3.

### 1.4.3  Empirical objective

The empirical objective of the study was

- to employ exploratory research methodology to test the relationships between the variables of interests (PWB, PCR and GH) and their impact on WD.
- The scientific aim was to reflect the relationships between the dependent (WD) and independent variables (PCR, PWB, and GH) statistically.

The study endeavoured to answer the question: about the impact of PWB, GH and PCR on WD.

### 1.5  RESEARCH PROCESS OVERVIEW

The research process is reported in seven sections, namely literature review, empirical research, reporting of results, discussion of results, conclusion, limitations and recommendations.

### 1.5.1  Phase 1:     Literature review

The focus of literature review was to describe the complex and challenging operational military environment in Africa in order to make better force preparations through understanding PWB, PCR, and WD.

A description of the theory on PWB, PCR and GH in order to create a clear understanding of the phenomenon with regards to soldiers' WD in the SANDF. The focus areas of literature review include:

- international deployment and combat readiness;
- conventional warfare and combat readiness;
- peacekeeping and combat readiness;
- deployment and combat readiness of the SANDF;
- psychological wellbeing;
- perceived combat readiness;
- general health; and
- willingness to deploy.

## 1.5.2   Phase 2:      Empirical research

Data for this research was gathered by means of various questionnaires. All the questionnaires were paper-and-pencil evaluation tools. PWB was measured by an 84-item PWB questionnaire developed by Ryff (1995) (see par. 3.5.2). The PCR was measured by an adapted Peace Support Operation Questionnaire (PSOQ) (Bester & Stanz, 2007) named PCR (see par. 3.5.4). GH was measured using the GHQ-28 (Goldberg, 1972) (see par. 3.5.3). WD was measured using a questionnaire derived from the PSOQ by Bester and Stanz (2007). Twelve items reflecting WD in Bester and Stanz's (2007) PSOQ were used to make the WD measure (see par. 3.5.5). All questionnaires were administered by the researcher to the participants with rank of private to colonel in a classroom/lecture room setting at various selected infantry operational units of the SA Army.

## 1.5.3   Phase 3:      Reporting of results

A discussion of various statistical techniques used to analyse data gathered by means of various questionnaires is presented in this section.

Summary statistics are reported by means of frequency tables (and percentages), means, minimums, maximums and standard deviations. Reliability analyses were conducted by means of Cronbach's alpha (Wells & Wollack, 2003). Pearson correlations were used to calculate univariate comparison of variables (Wells & Wollack, 2003). The combined effect of predictor variables on the dependent variable was investigated by conducting multiple regression analyses. STATISTICA was used to conduct the analyses. A significance level ($p<0.05$) of five per cent was used as criterion for significant relationships.

### 1.5.4   Phase 4:      Discussion of results

The statistical outcomes of the empirical research, the explanation of the research and the main results are discussed in this section.

### 1.5.5   Phase 5:      Conclusion

The conclusions of the research are discussed in this section.

### 1.5.6   Phase 6:      Limitations

The limitations of the study as well as the limitations of the measuring instruments are discussed.

### 1.5.7   Phase 7:      Recommendations

Further research recommendations and ways in which the results of the research may be used, and recommended intervention strategies for the SANDF are discussed.

## 1.6    CHAPTER DIVISION

The chapters of the research will be presented in the following order:

- Chapter 1:    Introduction and orientation of the study
- Chapter 2:    Theoretical framework
- Chapter 3:    Research design and methodology
- Chapter 4:    Results
- Chapter 5:    Discussion of results
- Chapter 6:    Conclusions, limitations, and recommendations

## 1.7    CHAPTER SUMMARY

The general introduction and orientation to map the many and diverse manifestations of conflicts, violence and wars were discussed. The background and motivation for the study were also discussed. As wars and conflicts leave many scars on both the physical and psychological environment, which hampers economic, social and political development, it is imperative to ensure that soldiers who are employed in such operational environments are willing to be there in order to be effective. Willingness to be part of an operational force is presumed to be a function of many and varied factors, including but not limited to psychological wellbeing, general health and perceived combat readiness.

Literature in this study has indicated the need for PWB, GH and PCR and WD as matters of importance if Africa is to be pulled out of desperation and squalor of poverty by those who share a common destiny in Africa's development. The research problem and research objective as well as phases of this study were also discussed. The study aimed to show a possible relationship between PWB, GH, PCR and WD. Figures 1.2 and 1.3 illustrated an outline of the main purpose of the study. The next chapter presents the literature review in which the main concepts of the study are discussed in detail.

# CHAPTER 2

# THEORETICAL FRAMEWORK

## 2.1   INTRODUCTION

The purpose of the study was to investigate the impact of PWB, GH and PCR on WD in the SANDF. Chapter 2 focuses on the theoretical discussion of literature in the following order: international deployment and combat readiness, conventional warfare and combat readiness, peacekeeping and combat readiness, deployment and combat readiness of the SANDF, psychological wellbeing, perceived combat readiness, general health and willingness to deploy. This chapter is aimed at the provision of an understanding of these phenomena as experienced by members of operational units. International deployments and combat readiness are discussed by looking at conventional warfare and peacekeeping. The concomitant characteristics and challenges of peacekeeping and conventional warfare are also discussed using relevant examples. From this excursion follows a close look at PWB, from its conceptual development to a measurable concept. GH is also discussed. PCR is also explored in relation to PWB. Lastly, WD in the SANDF is also discussed. The researcher wanted to investigate whether PWB, GH, and PCR have an impact on WD in the SANDF.

## 2.2   INTERNATIONAL DEPLOYMENTS AND COMBAT READINESS

Most militaries are deployed around the globe (Gilford, Ursano, Stuart, & Engel, 2006; Langmore, 2009; Meernik, & Brown, 2007). The US military is deployed in more than 50 countries outside the US and its territories. (Langmore, 2009). Most of these soldiers are deployed in combat zones in countries like the Middle East as part of the war on terror (Feldman, 2009).

In these deployments, soldiers experience traumatic events that leave indelible scars in their minds (Murdoch et al., 2003).

Wide research suggests that modern warfare is able to activate the higher functions of the nervous system and the mental activity of those called upon to take part in it (Talbott, 1997). On the other hand Ferguson (in Jones, 2006) states that soldiers survived the experience of trench warfare during the Second World War without becoming psychiatric casualties because for many of them combat was not a devastating experience but exciting, adventurous and fun because of danger. Furthermore, Ferguson suggests that men simply took pleasure in killing and proposed that Freud's death instinct might be revived to explain the readiness of millions of men during the Second World War to spend four and a quarter years killing and being killed.

However, Jones (2006) states that during the First World War, commanders and military psychologists believed that soldiers broke down or succumbed to shell-shock because they had not been sufficiently hardened. Only those whose training has made them combat ready remain standing (Bartone, 2005). Those whose training was not proper are likely to develop PTSD later (Everts, 2000). Those thrown into a conventional warfare environment must be prepared to face these circumstances (Inbar et al, 1989).

The British forces have also been tested in international deployments (Arneson, 2006). Frustration and confusion, anger and disgust have been and still are emotions derived from stressors that dominate in peacekeeping operations. Some of the challenges are traumatic, leading to PTSD.

PTSD is a psychiatric disorder that occurs after exposure to traumatic events (Regan, et al., 2006). To establish a diagnosis of PTSD, the traumatic stressor must be extreme (Costa & Khan, 2010). International deployments of US and British forces in Afghanistan and Iraq have resulted in considerable exposure to combat (Arneson, 2006). Because of the increased exposure to combat, the rate of PTSD among the soldiers is likely to increase.

Black, et al., (2004) stated that Gulf deployment led some soldiers to experience life-threatening situations, and so the high rates of PTSD are not unexpected. The increase in PTSD will provide a challenge for mental health in the military (Hoge et al., 2004). The incident that occurred in Kandahar province in Afghanistan where a US soldier (Staff Sergeant Robert Bales) slipped out of his base to attack two villages on a Saturday night killing 16 civilians  including nine children (Rosenberg, 2012; Schmitt & Yardley, 2012; Sipus, 2012) may be indicative of the consequences of stressors in peacekeeping operation. According to Dao (2012), his brief profile indicates poor psychological wellbeing in that he studied economics for three years and left without graduating in 1996 which could indicate lack of personal growth. He was found liable for financial fraud in a company he co-founded and was ordered to pay $ 1.4 million in civil damages which he never paid. The company went out of business (lack of personal growth and environmental mastery lack). He had issues with the police and once had a fight with a security guard and had to attend an anger management course (poor relationships with others). He is said to have complained about being overlooked for promotion to sergeant first class after having been on four tours and done well (lack of personal growth). He did not want to be deployed again and was informed on short notice that he is going on tour (which could have indicated his low level of WD).

These aspects indicate poor PWB as reflected by poor personal growth, negative relationships with others and lack of environmental mastery (see par. 2.4). The attorney of the US staff sergeant claimed that he had PTSD and suffered concussive head injury while serving in Iraq (Sipus, 2012). The above and other battle factors may have invoked and prompted the killing (Dao, 2012). He was said to have a very good military bearing and had done his duties well in all four tours of duty Dao (2012).

This good military bearing attribute can be expected to be worn and torn by stress derived from the terrain desert, casualties and boredom (Bartone, 2005; Kalamdien & Van Dyk, 2009; Kgosana & Van Dyk, 2010; Van Dyk, 1998) that deplete the mental capital of soldiers in international deployments. Higher PWB, PCR and WD are essential to counter the stress effects of these factors (Huppert, 2009).

International and regional deployments give rise to soldiers requiring higher PWB levels when they are expected to be extremely careful that they are not killed, sometimes by the very people they are supposed to provide security who sometimes hate them (Bartone, Vaitkus & Adler, 1994).

Furthermore, soldiers' exposure to the fog and friction of combat (Glad, 1990) during deployments lead to both physical and emotional reactions (Bartone, 1998) that are not present in tranquil circumstances. For some soldiers, these reactions can be expected to sharpen their abilities to survive and win, but it can also be expected to produce disruptive and deleterious behaviours such as murders, suicides and homicides (Feldman, 2009). International deployments impose, amongst others, a combination of heavy physical work, lack of sleep, severe noise, heat and exposure to infectious diseases (Glad, 1990, Bartone, 1998). These stressors may affect soldiers' ability to cope with the perception of danger and diminish the skill needed to accomplish the mission (Bartone, 1998). Inbar, Solomon, Spiro, and Aviram (1989) suggest that stress reactions (see Table 2.1) have a negative effect on combat readiness. Leaders are therefore required to keep each soldier's perception of danger balanced by the sense that his/her unit has the means to prevail over the challenges (Bartone, 2005; Inbar et al., 1989). The leader must keep working at a stress level that sustains performance and confidence (Griffith, 2006; Garrido & Munoz, 2006). It can be expected that when troops lose confidence in themselves and their leaders adverse stress reactions are likely to occur and mission success is compromised (Griffith, 2006; Bartone, 2005).

The importance of leadership for regional and international deployments for both war and peacekeeping cannot be overemphasised (Nabishaka, 2011; Bartone, 1998, 2005). Leadership importance becomes a reality for small unit leaders when they are trained to recognise adverse behaviours when they begin in order to intervene without delay for the safety and benefit of the affected soldier (Inbar et al., 1989). Leaders at higher levels depend on information from comrades if a soldier's baseline behaviour shows marked deviations from the normal behaviour (Griffith, 2006). This will also depend on the level of cohesion and *esprit de corps* developed and attained during training (Inbar et al., 1989). CR adverse behaviours can be manifested at both physical and emotional levels as indicates in Table 2.1(Inbar et al., 1989).

**Table 2.1**

***Stress reactions***

| Physical | Emotional |
| --- | --- |
| Trembling | Anxiety, indecisiveness |
| Jumpiness | Irritability, complaining |
| Cold sweats, dry mouth | Forgetfulness, inability to concentrate |
| Insomnia | Nightmares |
| Pounding heart | Easily startled by noise, movement and |
| Dizziness | light |
| Nausea, vomiting or diarrhoea | Tears, crying |
| Fatigue | Anger, loss of confidence in self and unit |
| Thousand-yard stare (Inbar et al., 1989) | |
| Difficulty thinking, speaking and communicating | |

Severe stress reactions may prevent the individual from performing his/her duties or create a concern for personal safety or safety of others (Inbar et al., 1989).

Some of the adverse behaviours and symptoms may not only be signs of stress reactions but can also signal potential suicide risks (Feldman, 2009). A higher level of PWB becomes the leader's responsibility if mission success is to be realised (Bartone, 2005). Learning from experience of other international forces can never be underestimated (UN Facts Sheet, 2013). The lessons learned in international deployments by US, British, Israel and Dutch troops are many and varied. For the US and coalition force troops, the early stages of the Gulf War took a heavy toll in terms of stress when the troops were preparing for the war not knowing what the outcome would be (Gilford et al., 2006).

Stressors of the Gulf War evolved over the time line of many different phases of deployment experiences (Kalamdien & Van Dyk, 2009; Norwood & Ursano, 1996) with concomitant challenges of each phase that may also have affected performance of the soldier as discussed below.

**Pre-deployment**.    this stage begins with the announcement of deployment and ends when the soldier physically leaves for deployment (Kalamdien, & Van Dyk, 2009). The stage is characterised by fluctuations between denial and anticipation of loss (Norwood & Ursano, 1996). At this stage the deploying soldier has to be proactive in terms of relinquishing his/her role to his wife/husband. Normally agreements regarding communication with the deploying member, making plans for being alone, building support systems and sharing concerns about the upcoming deployment take place at this stage (Kgosana & Van Dyk, 2010).

**Deployment**.        this stage occurs while the deploying soldier is deployed away from home (Norwood & Ursano, 1996). It begins with the soldier's departure and lasts until the soldier returns home (Norwood & Ursano, 1996). As this stage begins family members must learn to adjust to new responsibilities and new routines.

As the deployment progress they often find themselves developing resilience and increased confidence (Kgosana & Van Dyk, 2010; Norwood & Ursano, 1996). Strengthening the support systems, keeping busy, staying active and making plans to break up the time are ways of coping during this stage.

**Post-deployment**.  this stage begins with the soldier arrival home and can last for 3-6 month (Kgosana & Van Dyk, 2010). It is common for spouses to experience various emotions at this time including apprehension, excitement, worry, exhaustion and uncertainty (Kalamdien & Van Dyk, 2009). It is important to remember that the process of re-integration may take several weeks or months (Kalamdien & Van Dyk, 2009). Both spouses have experienced changes while separated, and they both may feel unneeded or unwanted (Norwood & Ursano, 1996). It is important to successfully negotiate this stage by open communication between spouses (Norwood & Ursano, 1996).

Stressors during international deployment can be expected to change depending on the phase of the deployment. The main stressors identified during the early stages (pre-deployment) of the Gulf War are listed below (Gilford et al., 2006).

*Early-phase stressors*

- uncertainty of tour length/no projected date of return;
- lack of communication;
- harsh desert conditions (heat and sand);
- cultural isolation, restricted behaviour and ambivalent perceptions of rules Uncertainty about public support amongst others

*Stressors during the build-up phase/pre-combat phase*

- lack of companionship of opposite sex;
- lack of contact with family;

- lack of private time,-leaders around too much of the time and
- lack of adequate morale, welfare, recreation equipment (MWR) amongst others

*Stressors of anticipation of combat phase*
- threat of attack with chemical biological weapons;
- possibility of friend getting killed or wounded;
- possibility of self-getting killed or wounded;
- not getting adequate medical care when hit amongst others

In peacekeeping operations, where continuous actions and danger prevails high rates of stress (Gilford et al., 2006) may be experienced. This call for leaders at all levels to have the capacity to manage stress and to ensure that forces under their command and control and that they are prepared combat ready. The level of exposure to combat could account for military personnel having an increased likelihood of developing anxiety, depression and PTSD (Diener et al. cited in Waterman et al., 2010; Arneson, 2006).

Gal (1986, p. 551) defines combat readiness as "a psychological attribute in terms of a soldiers' degree of commitment to effecting a certain course of action". Combat readiness is not a distinct concept from PCR (see par. 2.3). Part of this preparation must necessarily include strengthening PWB because of its proven positive relationship to performance (Huppert, 2009), and combat readiness (Bester & Stanz, 2007) which is a must for a conventional warfare. Part of combat readiness training must entail learning to control stress and cope with stress by leaders and then assist their troops to manage stress and its deleterious consequences (Inbar et al., 1989). This will conserve the fighting strength of the force and guarantee success of the mission (Gal, 1986).

The success of any fighting force is dependent on leadership (Bester & Stanz, 2007; Bartone, 1998; Montes, Moreno, & Morales, 2010).

A leader that maintains a balanced focus between mission success and welfare of his troops raises morale (Bester & Stanz, 2007; Garrido & Munoz, 2006). To maintain the same level of morale and combat readiness a leader must understand how to recognise, prevent stress reactions of his/her troops when these occur in his unit.

## 2.2.1   Conventional warfare and combat readiness

Conventional warfare is armed action wherein professional forces of a nation state wearing a standardized uniform utilize their weapons systems, following a set of guidelines, and strategise to destroy an identifiable enemy force under command of a commander (Naryshkin, n.d.). Williams (n.d.) states the conduct of conventional warfare is characterised by the following: clearly defined military and political objectives, swift and decisive action, thorough planning and defined tangible victory.

Conventional warfare is a very complex affair with many and varied implicit and explicit outcomes for soldiers (Gilford et al., 2006). Death and destruction of the physical infrastructure are its manifest character. Death and destruction invokes fear and stress (Inbar et al., 1989). Stress and all its derivatives are some of the less observable products of conventional warfare (Bartone, 2005). Stress does not augur well for health (Costa & Kahn, 2010; Drummet, Coleman, & Cable, 2003) and therefore for combat readiness because wide research suggests that stress decreases performance (Brailey, Vasterling, Proctor, Constans, & Friedman, 2007; Jones, 2006). Decreased performance as a result of stress can lead to poor combat readiness for conventional warfare (Drummet et al., 2003).

Although there is no universal definition of combat readiness, combat readiness includes the state of troops, allowing them to begin combat operations in an organized manner at a time designated in advance and to fulfil successfully the tasks assigned to them in the course of these operations (Naryshkin, n.d.).

According to Naryshkin, (n.d.), the enablers of combat readiness include the balance between states of quality and quantity of:

- level of strength in manpower, weapons, military hardware and supply of material resources;
- effectiveness of the weapons and military hardware;
- state of personnel (in terms of psychology, morale, physical fitness, level of military discipline and professional training) among others.

Each of the above elements of CR has to be measured for command information if success is to be realised in conventional warfare (Griffith, 2006). These elements of CR interact in such a way that, when the level of any of them is reduced, the corresponding level of combat readiness is lost (Naryshkin, n.d.). The current study focus is on the state of personnel regarding personnel human dimensions of PWB, PCR, GH, and WD.

According to Colonel Grey of Infantry School (Personal communication: 14 November 2012), combat readiness evaluations include:

- assessments of unit level tactical proficiency;
- equipment serviceability checks and
- reviews of each individuals readiness status which entails checking the DD 50 (health, medical and dental status of each soldier) among others.

Although war is fought by man and notmachines and in spite of recognition of the fact that human dimensions of capability are crucial to operational effectiveness (Murphy & Fogarty, 2009), proper assessments of psychological aspects and the way these influence one another to affect WD for conventional warfare appear to be exceptional rather than the norm in today's defence forces, including the SANDF. This is the gap that this study endeavoured to fill.

When measuring WD it is essential to investigate what best predicts it by looking at human dimensions such as PWB and PCR amongst others. According to Wild (1988) model of combat readiness of the Canadian defence force, it is hypothesised that the human components of operational readiness rest on several psychological components, including confidence, proficiency (achieved through training and experience), and understanding of and motivation towards mission as illustrated in Figure 2.1.
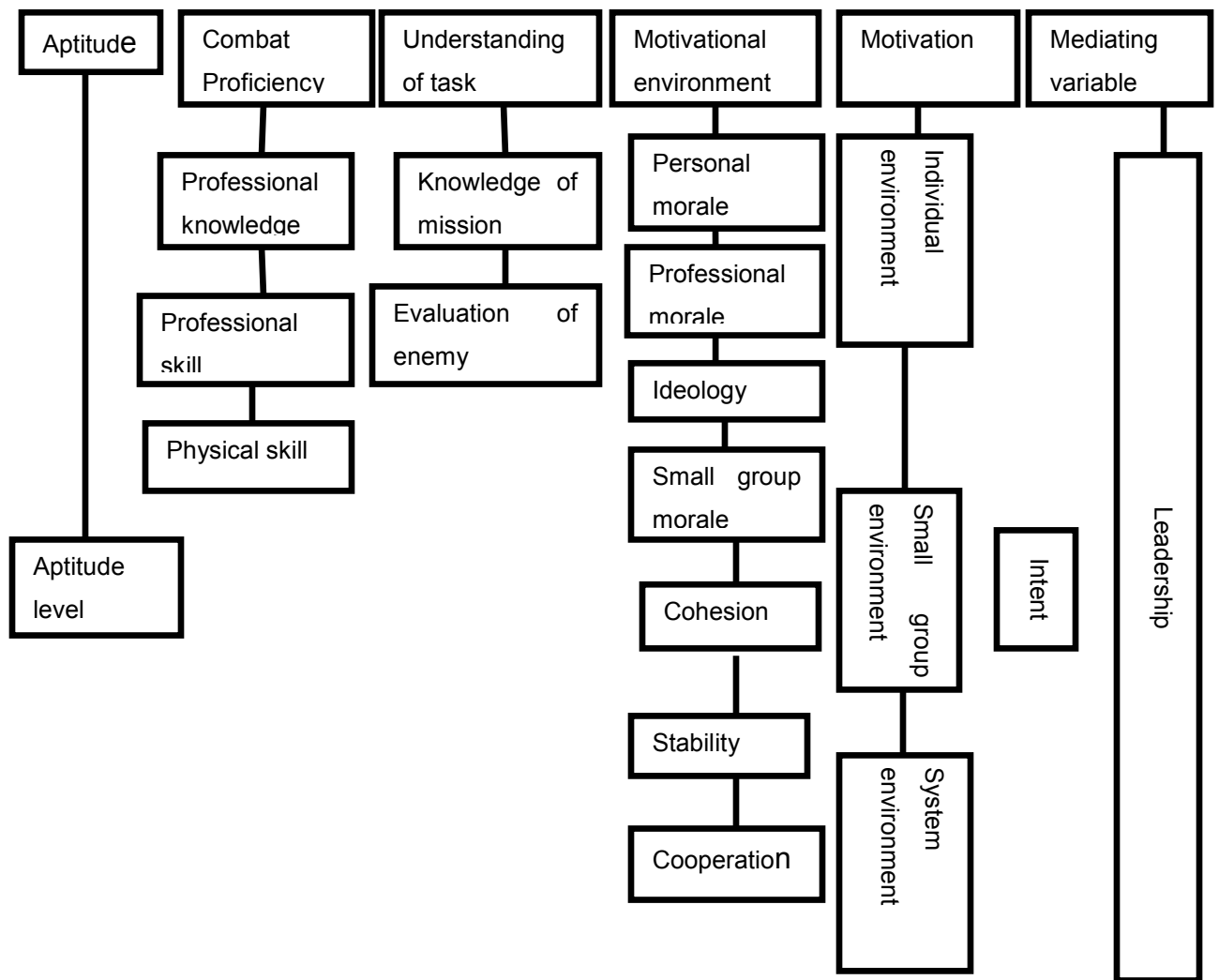
*Figure 2.1*: **Combat readiness model for the Canadian Defence Force** (Wild, 1988)

Each of these components is believed to be influenced by characteristics of leadership such as leadership behaviours, perceptions of leader competence and perceptions of genuine concern by leaders for personnel under their command (Wild, 1988). CR evaluations (other than solely equipment and logistic supply) become a complicated affair when different levels of leadership have different perceptions about CR (Shamir, Brainin, Zakay, and Popper, 2000).

Variables that predict perceived combat readiness are soldier experience, leader tenure in the unit, leader confidence in the unit, soldier confidence in leadership and unit discipline (Shamir et al. 2000). These variables should be developed and maintained in order to guarantee CR, (Barton, 1998; Griffith, 2006). Human dimensions such as the above have to be prioritised first and, executed by high command structures in order for subordinates to perceive high command as caring, which can be expected to lead to organisational commitment, self-esteem, increased CR, morale and cohesion (Maguen & Litz, 2006; Siebold & Kelly, 1988).

### 2.2.2  Peacekeeping and combat readiness

Peacekeeping is one of four concepts of PSOs (Forde, 2005; Murithi, 2008). The other three are: preventive diplomacy, peace enforcement and post-conflict peace building (Liebenberg, Malan, Cilliers, Sass & Heinecken, 1997). According to Murithi (2008) preventive diplomacy endeavours to resolve a disagreement before it deteriorate into violence. Peacekeeping differs from conventional warfare in both the form and content of the operation (Neack, 1995). Nabishaka (2011) states that peacekeeping is unpredictable and less controllable than conventional warfare (see par. 2.3). Peacekeeping is the deployment of military and sometimes civilian personnel, usually under UN command and control to control conflict and restore peace (Langmore, 2009; Neack, 1995; Williams n.d.). In peacekeeping the principles of conventional warfare are not necessarily applicable. Military objective are not clearly defined (Forde, 2005).

Peacekeeping is also characterised by an absence of an offensive role except self-defence (Fortna, 2003).

The conventional wisdom regarding peacekeeping is that lower threat levels prevails in an operation classified as both peacekeeping and peace enforcement (Likoti, 2007). This is evinced by a lack of properly equipping the peacekeeper with complete conventional equipment in both peacekeeping and enforcement operations (Williams, n.d.). These kinds of attitude assume that these operations make peacekeepers less likely to suffer adverse psychological effects than exposure to traditional warfare (Mohamed, 2005).

There is growing evidence that stressors of peacekeeping can be psychologically just as harmful as conventional warfare (Bartone, Vaitkus & Adler, 1994). The importance of combat readiness not only needs to be taken seriously for a conventional operation, but for peacekeeping operations (Ekanola, n.d.), especially by the SANDF with its broad aims of extracting the African continent from the quagmire of conflicts, which have victimised many people in the continent (Ekanola, n.d; Gilkes, 1993; Mandrup, 2008). In a nutshell, all the aspects regarding combat readiness for conventional warfare are of equal importance for peacekeeping operations (Bester & Stanz, 2007). Evaluation of combat readiness for peacekeeping must take the centre stage and claims its importance in the SANDF if it is to realise the African dream of a peaceful, economic sustainable Africa (Kagwanja, 2006).

Much remains to be done, given that combat readiness for peacekeeping requires more than that which is being done currently in developing CR, maintaining and evaluating CR (Bester & Stanz, 2007). Issues such as calibre of leadership and troop selection (Murphy, 2008) not only for tactical and operational proficiency (Tripodi, 2008) but also for proper psychological function and wellbeing, in terms of PWB and GH deemed essential for CR.

Variables such as morale, confidence, cohesion, perceptions of family support (Bester & Stanz, 2007; Kirkland & Katz 1989), GH and PWB can be expected to have an impact on WD and peacekeeping mission success (Ekanola, n.d.). Situations, countries and interventions differ but the success of a peacekeeping operation requires commanders to address three basic questions that will inform readiness:

- What is crucial for CR for peacekeepers?

What is crucial is capacity building, philosophy and collective logistical structure that will enable peacekeepers to keep peace (Kolto-Rivera et al., 2004). This can entails training in planning, support and managing peacekeeping operation.

- When is a peacekeeper CR?

A peacekeeper is CR when he/she has undergone proper tactical and operational training (Franke, 1997). Legal aspects on laws of war, humanitarian assistance and cooperation with non-governmental organisations (NGOs) (Mohamed, 2005) as well as operational and non-operational safety measures must form part of the training of peacekeepers (Bratt, 1999; Evans, 1993; Mackenzie 1993).

- What will the situation be like when the operation have finished?

The ideal of a peaceful and a safe world can only be attained when violent conflicts ends (Breen, 1998), and peace, political stability and economic development prevails (Ekanolo, n.d.; Langmore, 2009). In answering the above question, one can safely claim that a situation of a stable socio-political and economic development will prevails after a peacekeeping operation.

Until every peacekeeper has been properly trained and his/her family supported specific peacekeeping CR for a peacekeeper cannot be guaranteed (Kalamdien & Van Dyk, 2009; Kirkland & Katz, 1989).  These psychological variables are not to be underestimated when peacekeeping CR is evaluated.

## 2.3    DEPLOYMENT OF THE SANDF

The former president of South Africa, Thabo Mbeki, expressed the following in his State-of-the Nation address in February 2007 (Nabishaka, 2011):

> Among the greatest achievements of the peoples of Africa in the past two and a half years has been the restoration of peace in the Great Lakes region. We are proud as South Africans, of the role that our people have played in helping to bring this about – from the young men and women in our National Defence Force to employees of public and private institutions...we will continue to work with the sister people of DRC, as well as Burundi, the Comoros and Sudan, in particular, to ensure that the condition of peace and stability thus far obtained translate without pause into concerted action for economic reconstruction and social development. However...we cannot underplay the challenges that we face in dealing with the remaining areas of conflict…our government will respond appropriately and as our capacity as our capacity permit.

The South African government is no longer concerned with fighting border wars, terrorist suppression and internal stability (Heinecken, 1999). New challenges have necessitated the development of a new strategic focus for both the government and the SANDF. As mentioned (see par. 1.1), the SANDF must now define its new roles, tasks, military strategies and structure itself accordingly (Gryffenberg, et al., 1997). However, force employment in a volatile political environment such as the African environment, must be applied with a level of caution that does not escalate the conflict (Kagwanja, 2006). It is, therefore, essential to make an evaluation of what the defence force strategy is in order to derive its mandate.

The SANDF has been deployed in Africa and the South African Development Community (SADC) to maintain, enforce and assist in humanitarian assistance and rescue missions (Likoti, 2007; Mandrup, 2008).

The recent experiences of international deployments, indeed, show that the stated priority given to the SANDF international deployments is not followed by similar resource commitment (Heitman, 2013), and the SANDF has to struggle for additional resources (Mandrup, 2008). The deployment of the SANDF in Sudan, DRC and recently CAR has been littered with challenges which will be highlighted below. (Koopman & Van Dyk, 2012; S. Khamnqa, personal communication, 13 July 2013; G. Dunga, personal communication, 20 July 2013).

*Sudan*

In Sudan, there were allegations that soldiers on the ground were not getting their fortnightly allowances from the UN, sometimes planes could not land cell phone receptions were either bad or non-existent, ATM facilities did not exist and soldiers had to buy water as local water was not pure (S. Khamnqa, personal communication, 13 July 2013). According to Koopman and Van Dyk (2012), stressors of peacekeeping are further exacerbated by stressor of the country in which the operation takes place. They further say that in Sudan, stressors unique to Sudan increased stress levels and impaired the wellbeing of soldiers. These stressors made it uncomfortable for those not familiar with them, further jeopardising morale, physical and PWB and WD.

*Democratic Republic of Congo (DRC)*

The deployment in the DRC, where physical terrain in some areas includes thick impenetrable and impassable forest may become a challenge to some of our soldiers used to open training operational environment at Bloemfontein and Lohatla. Such physical demanding terrain may warrant strong bonds and willingness to succeed at given task for soldiers. These attributes derive and relate strongly to PWB (MacCoun, Kier, & Belkin, 2006; Ryff & Keys, 1995). Soldiers of the SANDF have been deployed in the DRC before and currently are forming part of a 3000-strong brigade constituted by the SANDF, Tanzanian and Malawian forces (Major, Sigopa, personal communication, 18 June 2013).

For a 3000-strong force, at least four to six Rooivalks, four Hawks, four Gripens, eight x 120mm mortar tubes have to be supplied if the SANDF is to stop the recurrence of what happened in the battle of Bangui (Heitman, 2013). Indeed, the SANDF must heed Heitman' words that 'what is saved in cash is paid in blood' (Heitman, 2013, p. 12) as it showed in Bangui. This miserliness by the government in supplying proper equipment for the SANDF has a propensity to negatively affect PWB and CR.

*Central African Republic (CAR)*

The Central African Republic (CAR) deployment ended with unnecessary casualties due to a lack of proper intelligence systems, reconnaissance, logistical support, support element, and with an evacuation plan in place (Dickson, 2013; Heitman, 2013). The Operation VIMBIZELA Protection Task Group was an intervention force for tactical deployment (Dickson, 2013). The force deployment in the mission area started on the second to the fourth January 2013 (Dickson, 2013). The mission was to provide security to all RSA assets, interests and allies in the CAR theatre of operations (D. Wagenaar, personal communication, 22 July 2013). The force was to perform security actions (Dickson, 2013) within 15km radius of central Bangui with tasks including, inter-alia, the following:

- provide security to SANDF personnel, RSA citizens and locals under threat,
- liase with all role players in the mission area including, Military of Central African Republic (Forces armees centrafricaines (FACA), Multinational force of Central African Republic (FOMAC), French force, NGOs etc,
- gather intelligence and prepare to fight contingencies without fighting with or along FACA or fall under their command.

Heitman (2013) suggests that the deployment of the SANDF to the CAR has not been clarified by the president, because of suspicions of many allegations against the ruling party.

What transpired in the CAR deployment is proof of the statement that 'There is no such thing as military operation on the cheap: what is saved in cash will be paid for in blood' (Heitman, 2013, p.15). What went wrong is a pure reflection of this truth and can also be tracked to the following challenges, among others:

- a restrictive mandate-reflected by rules of engagement (ROE);
- unity of command or lack thereof-reflected by the presence of both Special Forces (SP) members and paratroopers in the mission area, possibly under different immediate commands;
- an exit strategy-reflected by an apparent lack of an evacuation plan when the forces lost the ground attack (Dickson, 2013).

The deployment of the SANDF to PSOs has enabled and helped the SANDF to gain experience in both peacekeeping (see par.1.2) and enforcement (Likoti, 2007) (see par.1.1). Operation Boleas in Lesotho, the African Mission in Burundi (AMIB), the United Nations Operation in Burundi (ONUB), in the DRC and recently in the CAR are examples of these exposures (Heitman, 2013; Kagwanja, 2006; Likoti, 2007). Like many other military forces in the contemporary world, the SANDF is experienced in and capable of fighting the battle, but inexperienced in winning the peace (Mandrup, 2008). The battle of Bangui was an unfortunate incident. According to Bellamy and Williams (2005), all these aspects have characterised peacekeepers' experiences through decades of peacekeeping.

If peacekeeping in Africa is to be done (Mandrup, 2008; Kagwanja, 2006), peacekeeping surely will call for higher levels of PWB, GH and CR (Ryff, 1995; Bester & Stanz, 2007). A high level of PWB, reflected by good psychological functioning of each individual soldier of the contingent, will be an essential requisite for attaining CR and enhancing WD (Griffith, 2002). Physical and mental toughness can be safely claimed (by the researcher) to be attributes on which CR is based.

A physically and mentally tough soldier is a soldier loading high on both PWB and GH (Ryff, 1995; Goldberg, 1972). Tough day and night training and fighting requires a collective spirit of comradeship, purpose and confidence (Bartone, 1998; Montes, Moreno, & Morales, 2010). PWB and GH can be expected to be asset in such complex military environment (Bartone, 1995). Mutual support in battle is the rule rather than the exception and this can easily be seen in people with positive relationships with others (Ryff, 1995).

Soldiers who have positive relationships with others (Ryff, 1995) can further enhance an environment of mutual support, confidence and high morale (Bester & Stanz, 2007) to endure the stress of not only training but also stresses resulting from the fog and friction of the battle (Glad, 1990). PWB can be an asset in enhancing CR and WD (Ryff, 1995; Bester & Stanz, 2007; Sasson, 2003). In the following section definitions and conceptions of PWB, its theoretical origin and understanding is going to be discussed in depth.

## 2.4    PSYCHOLOGICAL WELLBEING (PWB)

Psychological wellbeing (PWB) is derived from a health concept (Hermon & Hazler, 1999). As a component of general health and wellbeing (Salami, 2011), PWB is widely researched.  As a derivative of a health concept, it is imperative to track down the development of PWB. Before this exploration, it is essential to delineate the conception of what health is. Health is described in terms of not merely the absence of disease or infirmity, but also as a state of physical, psychological, mental and social wellbeing (Doherty, & Kartalova-O'Doherty, 2010; Edward et al., 2005; Khan, Jahan, & Haque, 2007; WHO, 1948). In view of this conception of health, explorations by researchers such as Antonovsky (1979, 1987) and Strumpfer (1990, 1995) have resulted in a paradigm shift in health management strategies from a treatment *pathogenic* orientation to a promotion and illness prevention.

Antonovsky (1979, 1987) proposed *salutogenesis* which he described as the study of health.  Strumpfer (1990, 1995) coined *fortigenesis* which he described as the source of health.

The word salutogenesis comes from the Latin *salus* meaning health and the Greek word *genesis* meaning origin (Strumpfer (1990, 1995). Antonovsky (1979) developed the term from his studies of how people manage stress and stay well. He observed that stress is omnipresent, but not all individuals have negative health outcomes in response to stress. Some people achieve health despite their exposure to potentially disabling stress factors.

Antonovsky (1987) theorised that stress becomes pathogenic, neutral or healthy (salutary) depending on coping resources that are effective in avoiding or fighting a range of psychological stressors. According to Antonovsky (1979), coping resources enables the individual to make sense of and manage events. These coping resources are conceptualised in terms of the overall construct of sense of coherence (SOC) and its three components, comprehensibility, manageability, and meaningfulness. Antonovsky (1987, p. 19) defines sense of coherence as:

> "global orientation that expresses the extent to which one has a pervasive enduring though dynamic feeling of confidence that (1) the stimuli deriving from one's environment in the course of living are structured, predictable, and explicable; and (2) the resources are available to one to meet the demands posed by these stimuli; and (3) these demands are challenges worthy of investment and engagement"

Antonovsky (1990) describes the three components of SOC as:

- *Dimension of comprehensibility* refers to the sense that life is ordered, consistent and make sense. Someone high on sense of comprehensibility can be expected to anticipate that stimuli that he or she will encounter will be predictable and explicable.

- *Manageability* refers to the extent to which one perceives that resources are available to meet the demands of the stimuli one is confronted with. The person with a high sense of manageability can be expected not to feel victimised by events or that life treats him or her unfairly.
- *Meaningfulness* represents the motivational element. It refers to the extent that one feels life makes sense emotionally rather than cognitively.

Sense of coherence is a perceptual construct that is a way of seeing oneself in the world (Antonovsky, 1987). It is not a trait, and has both cognitive and affective components (Antonovsky, 1987).

The overarching assumption is that the stronger the SOC, the greater the likehood of being psychologically healthy. There are many roads to a strong SOC Antonovsky(1990). Antonovsky(1990) further states that whether stress will cause harm depends on whether it violates an individual's sense of coherence. In response to Antonovsky's (1979) salutogenesis theory Strumpfer (1990) extended salutogenesis to what he termed "fortigenesis". He proposed the consideration of a broader explanatory construct in order to understand the ways in which Antonovsky's SOC and coping resources interact. Fortigenesis focuses on strength rather than health, as Strumpfer (1990) viewed Antonovsky's (1979) meaning of health to be unlimited and ineffective especially when used to explain wellbeing. Strumpfer (1995) proposes that strength is made up of core beliefs that are difficult to validate scientifically. Strumpfer (1990) further indicates that the strengths are not readily available to deal with all stressors throughout life. Individuals are selective as to when to use their own strength. Among others, Strumpfer (1995) highlights combat experience as an area where strengths develop.

Deployment experience, where combat prevails, as has been highlighted earlier (see par 2.2), is a very demanding business (Bartone, 1998, 2005).

Soldiers survive challenges of the deployment, which is evidence of the strength (Bartone, 2005). Strength is one of the aspects of coping with challenges (Van Dyk, 1998). Coping resources are many and varied and include PWB, sense of coherence, social support, and ego strength (Antonovsky, 1979; Van Dyk, 1998). Competent and confident leadership can also be part of a social support system acting as a source (Bartone, 2005; Belenky, 1987). Battlefield challenges and stressors as well as peacekeeping challenges and stressors can be confronted gracefully by any soldier who has adequate coping resources (psychological strengths) (Bartone, 1998; Van Dyk, 1998). Sheridan and Radmacher (1992) advance a notion that people's resilience and psychological wellbeing contribute to the ways in which they can deal with stress. Dealing with stress culminates into health and wellbeing (Antonovsky, 1979; Ryff, 1995).

Previously, psychological research focusing on pathology, unhappiness and human suffering was pervasive (Akin, 2008). The paradigm shift from pathogenic to salutogenic to fortigenic views of health has led to a new conception of health known as wellbeing (Akin, 2008). Wellbeing has been defined (Hasnain & Kumar, 2006, p. 16) as "a dynamic state characterised by reasonable amount of harmony between individuals' abilities, needs and expectations, and environmental demands and opportunities". Joshi (2010, p. 20) states, "wellbeing can be defined as happiness, which is responsive to current conditions and events, and life satisfaction which is reflective of past experiences and is stable over time". Kim-Preito, Diener, Tamir, Scollon and Diener (cited in Silla, De Cuyper, Gracia, Peiro, & De Witte, 2009, p. 740) state that wellbeing has been defined as "a global assessment of life, a mental state, the absence of negative feelings, a personal state brought about by the pursuit of a meaningful life for oneself, or a state resulting from attainment of goals and rewards for efforts". While the distinct dimensions of wellbeing have been debated, the general quality of wellbeing refers to optimal psychological functioning and experience (Springer & Hauser, 2006).

Sivik, Butts, Moore and Hyde (cited in Hermon & Hazler, 1999) also state that the health model emphasises a physiological dimension and the absence of a disease. The paradigm shift to a wellbeing conception of health seems to include mental health. It seems, from the researcher, that the concept of wellbeing emerged from a conceptual shift from the negative aspects of mental health such as anxiety and depression to include positive aspects as well.

Wellbeing thus becomes a quality of life rather than focus on mental disorders (Ryan & Deci, 2000). Although the literature on wellbeing has developed during the past three decades, factors strongly affecting wellbeing have still not been identified (Hansson, Hiller, & Forsell, 2005), but the World Economic Forum (2012) states that effective work, families and effective communities are causes and effect of wellbeing. According to Ryan and Deci (2000) theories of wellbeing have followed two distinct but related approaches.

The first psychological approach is the hedonic (Ryff & Keys, 1995). The focus of this approach is on happiness, immediate human functioning, experience and satisfaction. The hedonic (Ryff & Keys, 1995) view describes wellbeing in terms of attainment of pleasure and avoidance of pain. Accordingly, Park, Park, and Peterson (2010) state that many psychologists have long believed that life has no existential purpose beyond the pursuit of pleasure and the avoidance of pain.

According to Ryff and Keys (1995), the hedonic perspective manifests itself through positive and negative affects. Positive affect represents the extent to which an individual experiences pleasurable engagements with the environment, for example, being excited, proud and feeling strong, while negative affect is characterised by subjective distress and unpleasurable engagements, for example feeling angry, jittery, distressed, guilty and fearful (Crawford & Henry, 2004).

The second approach is eudaimonia.  According to Springer and Hauser (2006), Camfield, Guillen-Royo, and Velazco (2009), Ring, Hofer, McGee, Hickey, and O'Boyle (2007), eudaimonia means striving to realize one's true potential (self-realisation), full functioning and human flourishing. People who have realised their true potential and who are fully functioning can therefore be expected to be satisfied with life and happiness (Springer & Hauser, 2006). According to Abas, Punpuing, Jirapramupitak, Tangchonlatip, and Leeset (2009), wellbeing is measured in terms of positive psychological symptoms or life satisfaction.

Joshi (2010) states that few people doubt that happiness is important. Seligman and Csikszentmihaly (cited in Salami, 2010) state that happiness promotes success across various arenas of human functioning. Diener and Chan (2011) also state that happiness is a positive subjective experience of wellbeing. Huppert (2009) advocates this notion by stating that happy people tend to function better in life than unhappy people.

Happy people are more productive and more engaged than unhappy people. Table 2.2 reflect the differentiating characteristics of both perspectives of wellbeing (hedonic and eudaimonic).

**Table 2.2**

*Approaches to PWB*

|  | Hedonic wellbeing | Eudaimonic wellbeing |
|---|---|---|
| **Representative authors** | Epicurus, Hobbes, Sade, Bentham, Brandburn, Tennen, Watson, Kahneman | Aristotle, Frankl, Ryff, Deci, Seligman |
| **Basic concepts** | Pleasure<br>Positive/Negative affect<br>Affective balance<br>Positive emotions<br>Negative affect<br>Life satisfaction | Virtues<br>Self- fulfilment<br>Psychological growth<br>Aims and needs<br>Psychological strengths |
| **Characteristic measurements (examples)** | Satisfaction With Life Scales (SWLS)<br>Positive Affect and Negative Affect Scale (PANAS)<br>Sampling of emotional moments | Psychological wellbeing Scale (PWBS)<br>Values In Action inventory (VIA) |

According to Erez and Isen (cited in Salami, 2010), inducing positive emotional states, such as happiness in people, facilitates flexible, effective problem solving, decision-making and evaluation of events. Subjective wellbeing is, therefore, an indicator of positive emotions (Salami, 2010).

Because of their adaptive and interactive nature positive emotions are expected to act as moderators in the relationship between stress or depression, behaviours patterns and attitudes in soldiers that are expected to lead to effective psychological functioning. Fiorito and Ryan (2007) state that psychological functioning is conceptualized in one of two ways:

- subjective wellbeing(SWB)
- psychological wellbeing (PWB)

SWB was the first conception of wellbeing to receive extensive and systematic empirical and theoretical attention (Waterman et al., 2010). The goal of researchers who studied SWB was to define key features of the wellbeing construct (Ansari, 2010; Diener, Suh, & Oishi, 1997; Wang, 2007). There are many definitions of SWB. According to Diener et al. (cited in Waterman et al., 2010, p. 42) SWB is defined as "the quality of an individual's life with regard to both the presence and relative frequency of positive and negative emotions over time, and one's overall level of life satisfaction". Diener, Suh and Oishi (1997) propose that SWB contains three primary components, namely:

- life satisfaction;
- pleasant affect; and
- low level of unpleasant affect.

Pleasant and unpleasant affect refer to a relatively short-term evaluation of SWB, while life satisfaction pertains to long-term and retrospective evaluation of wellbeing (Wang, 2007). According to Wang (2007), SWB is typically measured through a self-report survey asking questions regarding its three components. Commonly-used scales include Satisfaction With Life Scales (SWLS), Positive Affect and Negative Affect Scale (PANAS) and PWB (Schutte et al., 2010). However, according to Ryff (cited in Ansari, 2010.), wellbeing is not composed simply of positive affect; negative affect and life satisfaction; rather wellbeing is best conceived as a multidimensional construct made up of life attitudes. In this study, the focus was on the multidimensional conception of PWB, PCR and GH on WD in the SANDF.

The conception of wellbeing as a multidimensional construct known as PWB has been extensively researched (Ryff, 1995; Ryff & Keys, 1995; Springer & Hauser, 2006; Ring et al., 2007). Ryff's (1995) research brought about a shift in focus from a subjective to an objective conception of PWB.  The PWB model derives from the eudaimonic approach (Springer & Hauser, 2006). The theoretical origins of the model of PWB are a wide range of influences, including Allport's concept of mature personality, Roger's fully functioning individual and Maslow's self-actualization (Akin, 2008; Ryff, 1995). Studies investigating PWB drew on various conceptualizations of mental health (Keyes, Shmotkin, & Ryff, 2002). Wide research suggests that different psychological areas have applied the PWB model, its domain and items. (Salami, 2010; Landa et al., 2010; Schutte et al., 2010).

There is lack of consensus on both the definition and explanatory theory levels of PWB (Gonzalez, Casas, & Coenders, 2007). According to Edwards et al. (2005), PWB refers to positive mental health. Huppert (2009) describes PWB as lives going well. Huppert (2009) further states that PWB is a subjective feeling of contentment, happiness, satisfaction with life's experiences and of one's role in the world of work; sense of achievement, utility, belongingness; and no distress, dissatisfaction or worry. PWB is a combination of feeling good and functioning effectively. Salami (2010) proclaims that PWB entails happiness, and life satisfaction.

Landa et al., (2010), in their study of emotional intelligence and personality traits state that satisfaction and PWB can be characterised as indicators of good mental functioning. The concept of functioning effectively involves the development of one's potential, having some control over one's life, having a sense of purpose and experiencing positive relationships in the social world where one exists, work and live (Ryan & Deci, 2000).

According to Ryan and Deci (2000), PWB is derived from the fulfilment of three basic psychological needs: autonomy, competence and relatedness, which enable psychological growth or self-actualisation. The PWB questionnaire, which reflects these dimensions was used to measure PWB in this research.

Camfield et al. (2009) also express that higher needs such as belongingness, love and self-esteem seem to be universally important in sustaining PWB. Springer and Hauser (2006) state that Ryff developed a measure of PWB by consolidating conceptualisations of eudaimonic wellbeing. Salami (2010) supports the view that PWB is a multidimensional construct that includes both emotional and cognitive elements. Soldiers who have spent time in an operation have experienced something very stressful affecting their emotional and cognitive functioning (Bartone, 2005).

When the burdens of peacekeeping become unbearable the only respite for soldier is to become psychiatric casualties with symptoms of CSR, anxiety, depression and eventually PTSD (Belenky, 1987, Glad, 1990). The barbarism of a rebel commander displaying human skulls as trophies is one of the anxiety-invoking risk factors (Temudo, 2008). For example, as stated elsewhere in this thesis (see par. 1.2) abducted children were forced to kill their families and friends. These stressful experiences, coupled with the fact that some soldiers were in their fifth tour of duty for peacekeeping operation since 2003, necessitated the evaluation of these psychiatric disorders. It is possible that those who had seen the hard and rough nature of deployment at the sharp-end (in the front of the battle where the actual fighting takes place, and/or hostilities occur) experienced anxiety, depression and PTSD (Arneson, 2006; Nagyova et al., 2000). It is therefore essential to ascertain CR by also evaluating psychological fitness with the GHQ-28 as well as other psychological factors, including the complex multidimensional construct of PWB. Dush, Taylor, and Kroeger (2008) advance the same opinion by saying that PWB is a complex construct that contains various dimensions.

Many researchers (Fiorito, & Ryan, 2007; Ryff, & Keys, 1995; Schutte et al., 2010; Springer, & Hauser 2006) conceive the multidimensionality of the PWB construct as composed of the following six key dimensions as promoted by Ryff (1995):

- Self-acceptance;
- Positive relations with others;
- Autonomy;
- Purpose in life;
- Environmental mastery; and
- Personal growth.

*Self-acceptanc*e-refers to a positive attitude toward oneself. It is the most common aspect of psychological wellbeing. It is a fundamental feature of mental health and an element of optimal functioning (Ryff, 1995; Ryff & Keys, 1995). Healthy levels of self-acceptance create a positive attitude and improved satisfaction with life (Ryff, 1995) and can be expected to derive from confidence and achievement. Self-acceptance can also be boosted when positive feedback from others is obtained leading to maintenance of self-confidence and belief inself. Self-acceptance is a key component of self-actualisation, enhanced psychological functioning and development (Ryff, 1995). It entails accepting the past and the present as well as maintaining direction for the future. High levels of self-acceptance are relevant in the military because service members with high levels of self-acceptance may have positive attitudes about themselves and will be satisfied with life (Ryff, 1995). They will accept themselves for who they are as persons and as members of the defence force with all the good and bad of military service. In a nutshell, such members may have the serenity to accept the things they cannot change, the courage to change the things they can change and the wisdom to know the difference. They can therefore be expected to be willing to deploy.

This dimension can be of great value in peacekeeping operations which are littered with ethical dilemmas (Bartone, 1998; Bruwer & Van Dyk, 2005), cognitive dissonance (psychological pain that occurs when there is an inconsistency in one's thoughts…one's conscience pricking you when you do something you know is wrong) and emotional dissonance (which occurs when one expresses emotions that conform to other people's feelings, but contradict your own) which creates psychological pain for a soldier. Being human beings, soldiers have ethics and moral values which do not change easy (Koopman & Van Dyk, 2012). Peacekeepers sympathise with young hungry boys and girls and give them food, but those children could be belligerent forces that may cause death (Frowe, 2011; May, 2005). A soldier whose self-acceptance level is high can be expected to have a balanced outlook of both self and his environment (Ryff, 1995). He/she can be expected to have a will to deploy (Sasson, 2003) because of his/her confidence and determination to succeed informed by a strong need for self-actualization (Ryff, 1995).

*Positive relations with others* -refers to satisfying relationships with others. Having positive relations with others is an essential component of trusting and lasting relationships with others as well as belonging to a network of communication and support (Ryff, 1995; Ryff & Keys, 1995). A calm and relaxed approach reflects maturity, leads to improved interactions and better consideration of others (Ryff, 1995). Good relations with others increase understanding of others but poor relations can cause frustrations, and detrimental relationships are characterised by impaired social functioning; the ability to have good human relations is a key feature of positive psychological functioning (Fiorito, & Ryan, 2007; Springer & Hauser, 2006). Military tasks depend on teamwork where communication is the key and only those who score high on this dimension can be expected to be good team players (Peterson et al., 2008). They can communicate better in order to increase their knowledge, performance and empowerment (Both, 1984; Bree, 1998; Davis, 1997).

*Autonomy* -refers to independence and determination (Ryff, 1995). It is the regulation of one's behaviour through an internal locus of control (Ryff, 1995; Ryff & Keys, 1995). A fully functioning person has a high level of internal evaluation, assessing the self on personal standards and achievements while not relying on the standards of others (Ryff, 1995). They do not strive for endorsement from other individuals (Ryff, 1995), are focused on their own beliefs and are less swayed by other people's ideas.

A high level of autonomy suggests independence, with low levels suggesting concern for self-perceptions (Ryff, 1995). In an operational environment, soldiers, especially leaders who display independent thinking without being bound by inflexible rules and inanimate doctrines and procedures, would make good leaders (Arthur, 2010; Murphy, 2008).

*Purpose in life*-refers to a sense of goal directedness in life (Ryff & Keys, 1995). Purpose in life is reflected by a perceived significance of one's existence and involves the setting and reaching of goals, which contributes to the appreciation of life. Purpose in life creates direction and thus exterminates hopelessness (Ryff, 1995).

*Environmental mastery*-refers to a sense of mastery and competence (Ryan & Deci, 2000; Ryff, 1995; Wild, 1988). It involves choosing and controlling the surrounding environment, through physical and mental actions (Ryff, 1995; Ryff & Keys, 1995). While high levels of environmental mastery reflect control over one's environment, low levels reflect inability to control one's environment. In an operational environment characterised by a plethora of stressors and stress leading to many and varied stress reactions (see par. 1.1), all leaders of men must master, understand the environment and have the capacity to control events and outcomes of the environment (Evans, 1993; Ryff, 1995).

This dimension of PWB can be expected to lead to improved self-awareness, as well as enhanced situational and environmental understanding, dispositions without which no peacekeeping and combat commander can survive (Kirkland & Katz, 1989).

*Personal growth*-focuses on personal continued development (Ryff, 1995). It involves the aptitude to expand and develop the self to become a fully functioning person, to self-actualie and achieve goals (Ryff, 1995; Ryff & Keys, 1995). To achieve peak psychological functioning, one must continue to develop the self through growth in many areas of life (Ryff, 1995). This calls for increasing one's talent, skills and abilities Kellet (in Glad, 1990; Ryff, 1995). Obviously, one has to be open to new experiences such as operational exposure to grow as a soldier in the military (see par. 2.2). Personal growth entails learning new skills that enhances performance in new avenues (Franke, 1997). PWB can be measured using Ryff's PWB scale (RPWB) (Landa et al., 2010).  The RPWB scale has six dimensions.

Taken together, these six dimensions encompass a breadth of PWB that includes positive evaluations of one's self and one's life, a sense of continued growth and development as a person, the belief that life is purposeful and meaningful, evidence of good relationships with other people, the capacity to manage one's life and the surrounding world effectively, and a sense of self-determination (Ryff, 1995). The description of the six dimensions of PWB (Ryff & Keys, 1995) are provided in Table 2.3

**Table 2.3**

*Definitions of theory guided dimensions of wellbeing*

| Dimension | Characteristic of high scorer | Characteristic of low scorer |
|---|---|---|
| *Self-acceptance* | Possesses positive attitude toward self; acknowledges and accepts multiple aspects of self, including good and bad qualities; feels positive about past life | Feels dissatisfied with self; is disappointed with what has occurred in past life; is troubled about certain personal qualities; wishes to be different from what he/she is |
| *Positive relations with others people* | Has warm, satisfying, trusting relationships with others; is concerned about the welfare of others; is capable of strong empathy, affection, and intimacy; understands give-and-take of human relationships | Has few close, trusting relationships with others; finds it difficult to be warm, open, and concerned about others; is isolated and frustrated in interpersonal relationships; is not willing to make compromises to sustain important ties with others |
| *Autonomy* | Is self-determining and independent; is able to resist social pressures to think and act in certain ways; regulates behaviours from within; evaluates self by personal standards | Is concerned about the expectations and evaluations of others; relies on judgments of others to make important decisions; conforms to social pressures to think and act in certain ways |
| *Environmental mastery* | Has sense of mastery and competence in managing the environment; controls complex array of external activities; makes effective use of surrounding opportunities; is able to choose or create contexts suitable to personal needs and values | Has difficulty managing everyday affairs; feels unable to change or improve surrounding context; is unaware of surrounding opportunities; lacks sense of control over external world |
| *Purpose in life* | Has goals in life and a sense of directedness; feels there is meaning to present and past life; holds beliefs that give life purpose; has aims and objectives for living | Lacks sense of meaning in life; has few goals or aims, lacks sense of direction; does not see purpose in past life; has no outlooks or beliefs that give life meaning |
| *Personal growth* | Has feeling of continued development; sees self as growing and expanding; is open to new experiences; has sense of realizing his or her potential; sees improvement in self | Has sense of personal stagnation; lacks sense of improvement or expansion over time; feels bored and uninterested with life; feels unable to develop new attitudes or behaviours |

(Springer & Hauser, 2006, p. 7)

The descriptions for each dimension were constructed by integrating different elements from the guiding theories of Allport, Maslow, and Rogers. Ryff (1995) established the dimensions of PWB on the basis of a theoretical discussion about the needs, motives, and attributes that characterise a person with a good mental health. It is imperative to note that, on the basis of the discussions on the PWB construct, PWB can be categorised into low levels and high levels (Ryff, 1995)

Low levels of PWB could be seen as related to negative psychological functioning, and high levels as related to positive psychological functioning, and absence of distress and common mental disorders, such as anxiety and depression in the military environments especially in the operational areas (Bartone, 2005). Peace-support duties may involve a number of stressors that have a destructive influence on both the performance of members and teams and on individual and collective wellbeing (see par. 2.2) (Bowden, 1999; Breen, 1998; Davis, 1997; MacKenzie, 1993; Owen 1995; Stewart, 1994).

These stressors have a propensity for low levels of PWB, which can negatively affect CR and WD. Prolonged stress in PSOs can be expected to deplete coping resources and lower the stress threshold of an individual soldier (Campbell et al., 1991). When a soldier's appraisal of stress is of such a nature that he/she perceive that he/she does not have strength to deal with the stress, (see par 1.1, Figure .1.), she/he may manifest physiological, emotional, social, and cognitive negative reactions, and ultimately poor performance (Bartone, 1998; Ganster & Schaubroeck, 1991)

High PWB can be expected to relate to positive psychological functioning (Ryff, 1995), mental toughness and physical health. Soldiers measuring high on this attribute can be expected to be protected from mental disorders such as anxiety, depression and PTSD (Nagyova et al., 2000).

In a stressful military environments such as PSOs (Bartone, 1998, 2005; Ahronson & Carmeson, 2007; Belenky, 1987) which demand mental toughness (H. Mabeo, personnal communication, 20 July 2013), these soldiers, because they are characterised by a sense of goal directedness, satisfying relationship with others and determination, will be assets. Huppert (2009) states that PWB is associated with flexible and creative thinking, pro-social behaviour and good physical health. Vazquez and Castilla (in Vazquez, Hervas, Rahona & Gomez, 2009) advocate this view by suggesting that since PWB derives from the eudaimonic approach to wellbeing (see par 2.4), it can be associated with physical health indicators.

With peacekeeping missions posing unusual social-psychological challenges and operational stressors for participating soldiers (Bartone, 1998, 2005), it is imperative that they have high levels of PWB, which would serve as a buffer to protect them from operational stressors and challenges.

There is a strong need for high levels of PWB in soldiers generally and in the SANDF contingencies deploying in African for peacekeeping operations. Soldiers with high levels of PWB have objectives that give their lives meaning and direction (Ryff, 1995). This can be expected to translate into an understanding of the complexity of the African battle spaces (Talbott, 1997) and international deployments for peacekeeping missions (Gilford et al., 2006; Langmore, 2009). These soldiers can control a complex array of external factors impacting on them (Ryff, 1995). In the face of challenges of international deployment (Bartone, 1998) and CR (see par 1.1 and 2.2), it is essential to promote, develop and maintain PWB at high levels. A high level of PWB can, inter-alia, be safely claimed to be essential in enhancing positive PCR (Griffith, 2002, 2006).

During the study, PWB was measured using Ryff's PWB scale (PWB) (Landa et al., 2010).

The PWB comprises six sub-scales, which assess autonomy, environmental mastery, personal growth, positive relations with others, purpose in life and personal acceptance (Ryff, 1995). The SANDF as a contributor to peacekeeping endeavours on the African continent must engender high levels of PWB in order to improve PCR in its preparation for PSOs on the African continent and beyond if it is to be successful in its mission (Griffith, 2006; Mandrup, 2008; Ryff, 1995). The following discussion dwells broadly on the perceived combat readiness construct.

## 2.5     PERCEIVED COMBAT READINESS (PCR)

The ultimate goal of armed forces is to produce combat power (CP) that enables the forces to secure, defend and, if necessary attack with the potential or actual use of mass violence (Meijer & De Vries, 2005). Meijer and De Vries (2005) further state that CP is a potential power ready to be used in conflict situations. Rosenberger (1999) advances the fact that every unit faces the following two enemies that decrease the CP of the force:

- high levels of personnel turnover and skill decay.
- war fighting is an extremely complex business

Turnover and skills decay that decrease the CP of every unit are discussed relative to other organisations in the public sector by first looking at the concept and definitions of the two concepts:

- **Turnover**

Human resources are the most important assets for any organisation and need to be competitive (Chang, 2009), but employee turnover cause human resource managers in many countries sleepless nights (Abelson, 1993).

In order to understand why employees leave organisations, turnover is defined. Price (1977, p. 13) define turnover as "a movement of personnel over the boundary of the other organisation". Weibo, Kaur and Zhi (2010) add that employee turnover involves the question of organisation employee movement. This can mean entering to or leaving an organisation. Abassi and Hollman (2000) advocate this notion by saying the term refers to the rotation of employees around the labour market between firm's jobs, and occupations, and between state of employment and unemployment. Ferratt and Short (1986) further support this by stating that it is the break of the relationship between the employer and the employees irrespective of who caused it. Price (1977) further suggests that the ratio of the number of organisational members who have left the organisation divided by the average number of people in the organisation in a certain period comprises that organisation's turnover. Weibo et al. (2010) also state that managers refer to turnover indicate the entire process associated with filling a vacancy because each time a position is vacated, either voluntarily or involuntarily, a new employee has to be hired and trained. The term is often utilised in an effort to measure the relationship of employees in an organisation as they leave, regardless of reason. Traditionally, there are two types of turnover (Igbaria, 1991):

- Voluntary:-The job movement is initiated by the employee. It is a personal choice by the employee to quit and leave the organisation.

- Involuntary turnover:-The initiative to move out of the organisation or quit does not reside with the employee but with the employer (The employee retires, is dismissed or dies, aspects are beyond his or her control and the employee has no choice).

From the two types of turnover, voluntary turnover is the type of turnover that create frustration and many sleepless nights to human resource managers in many organisations, including the military organisations whose combat power is decreased by turnover (Meijer & De Vries, 2005). Loss of employees who have relatively high human capital value and who choose to leave an organisation could cause serious loss and difficulty, especially when the turnover numbers are on the rise (Zhang & Zhang, 2006).

Turnover has attracted much attention among both academics and practitioners alike (Zhang & Zhang, 2006; Chang, 2009). When the organisations talent is being depleted through voluntary turnover, its competitive advantage is blunted (Shore & Martin, 1989).The organisation can no longer compete on an equal footing with competitors in the market (Shore & Martin, 1989). Talented employees comprise the organisations core human capital and they are significant in influencing the organisation's competitive advantage (Weibo et al., 2010). The palpable loss of talent in any organisation is a reason for concern (Weibo et al., 2010).

There are many causes of employee turnover. Manager's lack of managerial skills, boring work, lack of achievement and a bad work environment are some of the many and varied factors that can cause turnover (Chang, 2009). Before actual turnover, there is an intention to quit. Past research has used turnover intention very often.  Shore and Martin (1989) and Weibo et al. (2010) identified turnover intentions as an appropriate dependent variable because it is closely linked to actual turnover.

Psychological processes, such as attitude towards the job, which lead to satisfaction and commitment culminating in intentions to quit or stay are best illustrated in Figure 2.2.
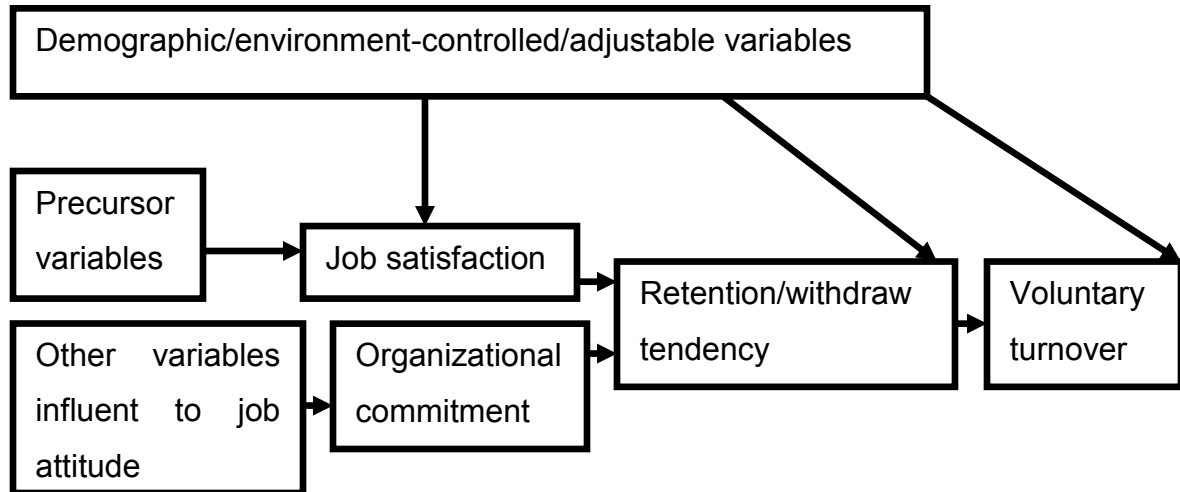
*Figure 2.2*: **The traditional turnover model.**    (Weibo et al. 2010, p. 4150).

As already stated there are many factors that are causal to turnover. Hausknecht (2008) listed 12 retention factors (see Table 2.4) that have been published in the literature over the last 60 years and obtained from 24,829 employees in the leisure and hospitality industry of US, which could help explain why employees stay or quit. A brief summary of these turnover factors is displayed in Table 2.4.

**Table 2.4**

***Employee retention factors***

| Turnover/retention factors | Definition |
|---|---|
| Job satisfaction | The degree to which individuals like their jobs |
| Extrinsic rewards | The amount of pay, benefits, or equivalents distributed in return for service |
| Constitution attachments | The degree of attachment to individuals associated with the organisation such as supervisor, co-workers, or customers |
| Organisational commitment | The degree to which individual's identify with and are involved in the organisation |
| Organisational prestige | The degree to which the organisation is perceived to be reputable and well-regarded |
| Lack of alternatives | Beliefs about the unavailability of jobs outside of the organisation |
| Investments | Perceptions about the length of service to the organisation |
| Advancement opportunities | The amount of potential for movement to higher levels within the organisation |
| Location | The proximity of the workplace relative to one's home |
| Organisational justice | Perceptions about the fairness of reward allocations, policies and procedures, and interpersonal treatment |
| Flexible-work arrangement | The nature of the work schedule or hours |
| Non-work influences | The existence of responsibilities and commitments outside of the organisation |

Hausknecht (2008)

To summarise the quit process or turnover based on Figure 2.2 and Table 2.4, the quit process can be claimed that it involves as a basic point of departure the attitude towards the job initiated by such precursor variables as poor leadership, lack of advancement opportunities and others which lead to dissatisfaction (Hausknecht, 2008). Once dissatisfaction with the job sets in an employee starts looking for alternative jobs before the actual turnover takes place (Hausknecht, 2008).

Before turnover takes place, an evaluation of such alternative jobs is undertaken and if these jobs pass the evaluation, turnover takes place (Hausknecht, 2008). Several studies indicated negative relationships between turnover intention and three demographic factors, age, tenure and income level (Arnold & Feldman, 1982; Cotton & Tuttle, 1986; Gerhart, 1990; Mobley, Griffeth, Hand, & Meglino, 1979; Price & Mueller, 1981, 1986; Wai & Robinson, 1998; Weil & Kimball, 1995). Level of education was also found to be positively associated with turnover, suggesting that more educated employees quit more often (Cotton & Tuttle, 1986). Many institutions and organisations, including institutions of higher learning of the SANDF such as the military academy, have experienced turnover of their employee who quitted for alternative employments outside the defence force and within defense force (Wai & Robinson, 1998). Findings on gender and turnover are differ (Cotton & Tuttle, 1986). However it can be expected that in the military, especially in the fighting core, more women than men would quit. If this implicit theory is correct this may suggest that more men than women should be employed as fighters in the sharp-end to conserve the combat power. Men could be expected to have greater achievement orientations than women and this can be expected to translate into fighting and winning the battle whereas women can be expected to negotiate a settlement and may be compromise security at critical moments of the battle especially when they are in leadership positions.

Organisation factors which influence job satisfaction (pay, nature of work, and supervision), organisational commitment and organisational justice (distributive and procedural) are the controllable factors in any organisation which must be harnessed effectively to arrest turnover (Mobley et al., 1979; Price, 1977, 1986). Consistent research findings indicate that job satisfaction relate negatively with turnover (Arnold & Feldman, 1982; Bluedorn, 1982; Cotton & Tuttle, 1986; Mobley et al., 1979; Price, 1977) as well as job stress and negative mental health (Marzabadi & Tarkhorani, 2007). Dissatisfied employees are more likely to quit than satisfied employees.

Furthermore availability of alternative employment can be expected to lead to turnover especially in the military characterised by physically and psychologically demanding operational environments (Nabishaka, 2011; Neack, 199). Those leavers characterised by low performance can be expected not to be a serious problem for managers but high performers are a cause for concern (Hausknecht, 2008).

Work circumstances such as salary, job security, job characteristics and job demands (physical and psychological) are some of the challenges faced by militaries, including the SANDF, in terms of career success and attracting human resources (Ditsela, 2012). Members who are already in the employment of the SANDF must be retained by means of ensuring that the retention/turnover factors illustrated in Table 2.3 are affected for the benefit of the SANDF, especially at the lowest rank levels. When these factors are not affected for benefit of the SANDF, it is possible that these factors could work harmoniously to decrease the combat power of the SANDF and/or any force. Other than turnover as deliberated above, skills decay is another factor that drains the combat power of any military (Arthur, Bennet, Stanush, & McNelly, 1998).

- **Skills decay**

Skills decay-refers to the loss or decay of trained or acquired skills (or knowledge) after periods of non-use (Arthur et al., 1998). Skills decay is particularly salient and problematic in situations where individuals receive initial training on knowledge and skills they may not be required to use or exercise for extended periods of time (Arthur et al., 1998).

Reserve personnel in the military, for example, may be provided formal training once or twice a year and be required to discharge the knowledge gained in the training setting after many years when called up for service (V. Beko, personal communication, 12 July 2013).

This is the same for regular members when familiarization training or re-retraining is not conducted regularly (L. Toni, personal communication, 20 July 2013). Reaction forces and disaster teams may also work for years after being trained without actually doing the real thing they were trained for such as evacuating people from those areas affected by disasters and treating survivors. These personnel experience extended periods of not using their acquired skills in training but are expected to perform at high proficiency levels when disasters occur (Arthur et al., 1998). Training and retraining are of vital importance, especially in the military characterised by many and varied stressors. The importance of training and retraining in the military cannot be overemphasised because it is the basis of combat power (CP).

Armed forces of the world try to enlarge CP potential (Meijer & De Vries, 2005). CP is not distinct from the PCR concept. The enlargement process of CP, and therefore PCR, entails, among other things, realistic field training, and supplies of resources such as weapons and equipment and proper staffing of qualified personnel to conduct the mission (Griffith, 2002). Realistic field training is and will remain a challenge for many military forces including the SANDF. Training is conducted in a field setting without the practical realities of the operational environment. For example, soldiers will conduct field exercises to familiarise them with their equipment and command and control procedures. This is not an undesirable state of affair but the challenge is that hardly the stressors and stresses of the practical realities of war are incorporated in these exercises and training (Hamilton, 2010). Soldiers in training are often delivers of deadly mortar fire and hardly do they train in receiving deadly mortar fire and how best to react and survive as recipients. Issuing and mastering battle procedures in a tranquil field setting cannot be expected to translate automatically into courage and bravery in the noise and confusion of war (Glad, 1990; Bartone, 1998). It is therefore suggested that training in all units in the SANDF must reflect realities of current protracted and proxy wars where combatants may be children and women, the much-proclaimed victims of war.

The Israeli troops in Gaza shelled the densely populated areas with children and women (Raska, 2013). Such areas are used as safe havens by rebels for the same reasons that they are proclaimed to be where the majority of victims of war live (MacCoun & Hix, 2010). The very same children who have to be protected are used as combatants. It is dependent on politicians who hold the power to endorse mandates with clear guidelines in deployment areas for peacekeeping for example (see par. 2.3). The operational doctrines in the SANDF are old (Barlow, 2013). However, the doctrines wing in Oudtshoorn embarked on revising and rewriting operational doctrines (P. Maphumulo, personal communication, 1 October 2013). It is imperative that, whatever is being done now to address doctrinal and operational procedure issues to reflect current battle and/or operational trends, the use of those who have experience in deployments must be employed (Barlow, 2013). However, some may not have the capacity to translate their experiences into learnable material. The consequence is that their valuable experiences and skills are not utilized and decay without having added value to the process of doctrinal refurbishment.

To counter the above challenge, officers from the Military Academy with commendable research skills and ability to design courses, must conduct research and develop courses, even if its short courses to imbue to others whatever the developing operational trends in the ever changing complex war fighting-business to maintain combat power.

- **War-fighting is an extremely complex business**

War comes at a price for soldiers (see par. 2.3). The price of war is borne by both combatants and their families (Kirkland & Katz, 1989; Hoshmand & Hoshmand, 2007; Kgosana & Van Dyk, 2010). Countries sending soldiers to war pay the price too. The price they pay is tangible in terms of resources and the logistic of war.

That is not only an economic price, but the biggest price of war is in terms of those who become physical and psychiatric casualties Ferguson (in Jones, 2006).

Stressors take a toll on the CP in battle, no matter the level of training attained. Long exposure to stress diminishes the ability to function properly in some people (Huppert, 2009; Bartone, 1998 Griffith, 2006). Conventional deployments are characterised by unconfirmed dates of return (Bartone, 1998). The deployed troops cannot be exactly sure of the date of return from deployment.

African governments, including South Africa, must necessarily bear primary responsibility for wars and conflicts (Meernik & Brown, 2007) to take the lead to employ soldiers on the African continent. The complexity and challenges of peacekeeping in Africa can range from rebels with conventional armaments such as tanks, armoured cars and heavy machine guns to women and child soldiers armed with AK 47rifles and RPG7s rocket launchers (Barlow, 2013). The possible loss of units from heavy machine-gun fire, mortars and rocket launchers in minutes or hours in war and peacekeeping (Barlow, 2013; Dickson, 2013) could leave the remaining soldiers incapacitated (Barton, 1998). Kellet (in Glad, 1990) states that isolation in the battle field add to challenges and complexities of the battle and is one of the most surprising and demoralizing features of the battle (Units may experience periods of operation where forces are intermixed and lines of communication are broken). Units will experience feelings of uncertainty and helplessness from unpredictable strikes by long-range weapon systems such as mortars (Glad, 1990).

Noise and confusion is another characteristic of combat (Bartone, 1998; Glad, 1990). Battle inoculation and/or familiarisation training reproduce sights, sounds, confusion (Bartone, 2006; Grossman, 1996) and even some of the danger of actual combat to prepare the soldier to face the operational and psychological realities of the modern battle-field (Kellet in Glad, 1990).

This could produce confidence in a soldier, not only in himself/herself but also in his/her weapons (Kellet in Glad, 1990). Inexperienced soldiers can be expected to be immobilised by noise and confusion as they are likely to equate it with death and destruction (Glad, 1990).

When the enemy weapons have been imagined to have no superiority over own force and the enemy delivers direct and indirect fire from indirect fire support bases, this could cause be extreme confusion and demoralising at worst (Bester & Stanz, 2007). This changes the pre-conceived enemy capability. Fatigue in combat and operations other than war are caused by sleep loss, intense emotional strain, strenuous physical exertion and unfavourable weather (Kellet in Glad, 1990). Performance is adversely affected by fatigue with motivation and social support offsetting the effect of it (Gelenberg et al.,2010; Bowden, 1999; Breen, 1998).

All these features and challenges of war indicate how complex war and all its outcomes may be. War and its complexities have the potential to decrease the CP of any military organisation unless it is properly prepared with PWB and CR. When the level of PWB is high it can be expected to influence soldiers in an operational environment in a positive way via their perceptions of being able to withstand the many and varied challenging stressors as mentioned. This perception of being able to cope and remain standing in the face of these challenges denotes PCR (Griffith, 2002, 2006).

What is PCR and how is it defined? Bester and Stanz (2007) proclaim that the concept of combat readiness is characterised by a proliferation of definitions. Gal (1986, p. 551) defines combat readiness as "a psychological attribute in terms of a soldiers' degree of commitment to effecting a certain course of action". According to this perspective, CR has a subjective meaning. This could be regarded as subjective combat readiness.

CR is defined by Schumm, Bell, Rice and Schuman (cited in Bester & Stanz, 2007, p. 69) as "the level of preparedness for performing one's combat mission". In this view, CR is objective in that tangible elements of CR, such as training conducted and availability of serviceable equipment are point of references (Griffith, 2006). This can be seen as objective combat readiness. Bester and Stanz (2007) also state that all CR definitions appear to have two identifiable aspects, the psychosocial (psychological attributes) and material (ammunition, tanks, and serviceability of hardware and equipment etc.) aspects. The conception of "combat readiness" that was used in this study conceptualises CR in subjective terms as it is felt by soldiers themselves. The perceptions of soldiers themselves are viewed as important in this study and therefore subjective combat readiness, (or PCR) is employed. According to Both (1984), CR consists of material readiness, personnel readiness and training level.

- Material readiness entails:
- effective weapon systems and other military hardware such as tanks, artillery systems and armoured cars, e.g. infantry combat vehicles (ICVs);
- communication tools such as radios and detection gadgets, e.g mine detectors and other tools of war and/or peacekeeping.

Personnel readiness entails the state of personnel in terms of subunit morale, psychology, physical fitness, unit discipline and training level with all its benefits of countering boredom, generating professional pride, creating unit cohesion, helping soldiers in assimilating new tactical thinking to the point where it becomes instinctive in its application and enabling soldiers to come to grips with innovative technologies and mastering them (Bester & Stanz,2007; Bartone, 2005; Maguen & Litz, 2006; Siebold & Kelly, 1988). The importance of soldier PCR was highlighted by Griffith (2006) in assessing unit readiness in the US Army. Unit readiness perception by soldiers themselves was assessed (Griffith, 2006) using a survey with items measuring areas in the following dimensions:

- unit administration

- training quality

- soldier team-work

- soldier caring

- leader skills

- leader caring

- career intentions

- unit combat ready

- equipment combat ready

- leader combat ready

Own subjective judgement of combat readiness can therefore only be inferred from perceptions, judgements and morale of those who have to conduct the operations (Griffith, 2002, 2006). According to this view, CR is a subjective judgement. It is a perceived phenomenon rather than an actual act and outcome of battle, nor the amount of standard training conduct and availability of serviceable equipment. This conception of CR, as a perceived concept rather than an actual practical outcome of the battle was adopted for this study. CR was regarded as perceived combat readiness (PCR). PCR refers to each soldier's perception of his/ her own CR. Thus PCR is defined as the extent of individual soldiers' perceptions of confidence, family support, team-work, *esprit der corps*; cohesion, discipline and confidence to effectively conduct peacekeeping and battle successfully.

The concept combat readiness as PCR and thus defined as a subjective judgement in terms of the extent of perceptions regarding, inter-alia, family support, cohesion, confidence, unit discipline and teamwork was adopted in this for this study. This concept cannot be separated totally from the concept of CR as preparedness for performing one's combat mission, which consists of material readiness, personnel readiness and training level (Griffith, 2002).

The conception of PCR denotes something over and above tangible resources such as the number of personnel qualified, serviceable military hardware and pseudo-war exercises completed. These are all available indicators that, although explicitly measurable, cannot tell the state of mind and subjective judgements of the majority of soldiers who are to meet evil face to face. Their perceptions of their state of readiness are hardly completely reflected by supply of logistics of war, training levels and operational equipment (Griffith, 2006). Rather, their perceptions regarding their PWB such as confidence, morale, leader competence, cohesion and discipline seem to be a very important aspect in CR literature. These psychological human dimensions of CR can be measured through self-report survey questionnaires (Griffith, 2006; Siebold, & Kelly, 1988) and therefore form the basis of perceptions of the status of unit readiness. PCR was the focus of the current investigation relative to other psychological dimensions that have been deliberated on and which will be discussed in depth in this study.

According to Baynes et al. (cited in Bester & Stanz, 2007), the human factor (psychosocial dimension) is mentioned as one of the important factors in battle and deployment. The state of mind of soldiers includes how they perceive their own CR (Bester & Stanz, 2007). According to Griffith (2006) the US. Army determines the readiness of soldiers by assessing them in four areas:

- personnel;
- equipment on hand;
- equipment serviceability; and
- training to meet mission-essential tasks.

*Personne*l-readiness here indicates the extent to which authorised positions in the unit are actually occupied by qualified personnel. This entails post filled with qualified personnel in a unit, personnel who are deployable and/or who are available for deployment at both junior and senior levels.

*Equipment on hand-* indicates the extent to which equipment in the unit is available to perform the unit's wartime mission according to established standards. This includes the personal kit such as battle jacket, steel helmet, boots, uniform and other individual items and major weapon systems, equipment and logistic-support items.

*Equipment readiness-* indicates the extent to which equipment in the unit is likely to be functional and continues to be operational. This relies on unit records of equipment serviceability. This is the measure of equipment that is ready and functional. Equipment that is available but not working is not included but marked as unserviceable. However, equipment readiness becomes a challenge for peacekeeping mission readiness because the same equipment rotates between the different companies as troops borrow serviceable equipment from each other in order to pass the evaluation for deployment (T. Ndengane, personal communication, 23 August 2013). This is an area with which external mission readiness evaluators in the SANDF have to deal with but it can be pervasive in all the defence forces.

*Training readiness-*indicates how soldiers individually and the unit collectively are prepared to execute assigned tasks and missions described in the unit's mission and/or as assigned. The measure of readiness here is based on the commander's judgement of his/her unit's performance of mission-related tasks. The commander is also expected to comment on the morale, unit cohesion, teamwork and other perceptions of his/ her soldiers in the unit.

Sadly, the human dimension in terms of soldiers' PCR is lacking. The researcher wants to close this research gap. In his posture statement of the US Army FY01, General Shinseki articulated that the individual soldier is first and foremost the cornerstone of the Army and not the machines and not the technological gadgetry (Burwell, 2000). Quality soldiers are the remaining constant that always provides the margin of victory (Burwell, 2000).

It can therefore be concluded that combat readiness is not only about equipment, training and capability, but more importantly, it is about the individual soldiers' PCR. PCR is each soldier's perception of his/her own CR (Griffith, 2006). In other words, CR consists of two interdependent dimensions-the psychosocial dimension and material dimension (Bester & Stanz, 2007). Gal (1986) confirms this interdependency when he concludes that motivational factors are interactive and not additive. Bester and Stanz (2007) conclude that CR is conceptualised in terms of an overlap between the psychosocial aspects (mental or human aspects) and the means at the disposal of the soldiers to conduct war (non-human aspects). In the plethora of definitions of the combat readiness conc, Bester and Stanz (2007, p. 70) propose that combat readiness be defined as "the individual and/or collective state of mind of a soldier or a group of soldiers that will determine their performance during military operations". Variables indicating this state of mind are illustrated in Figure 2.3.
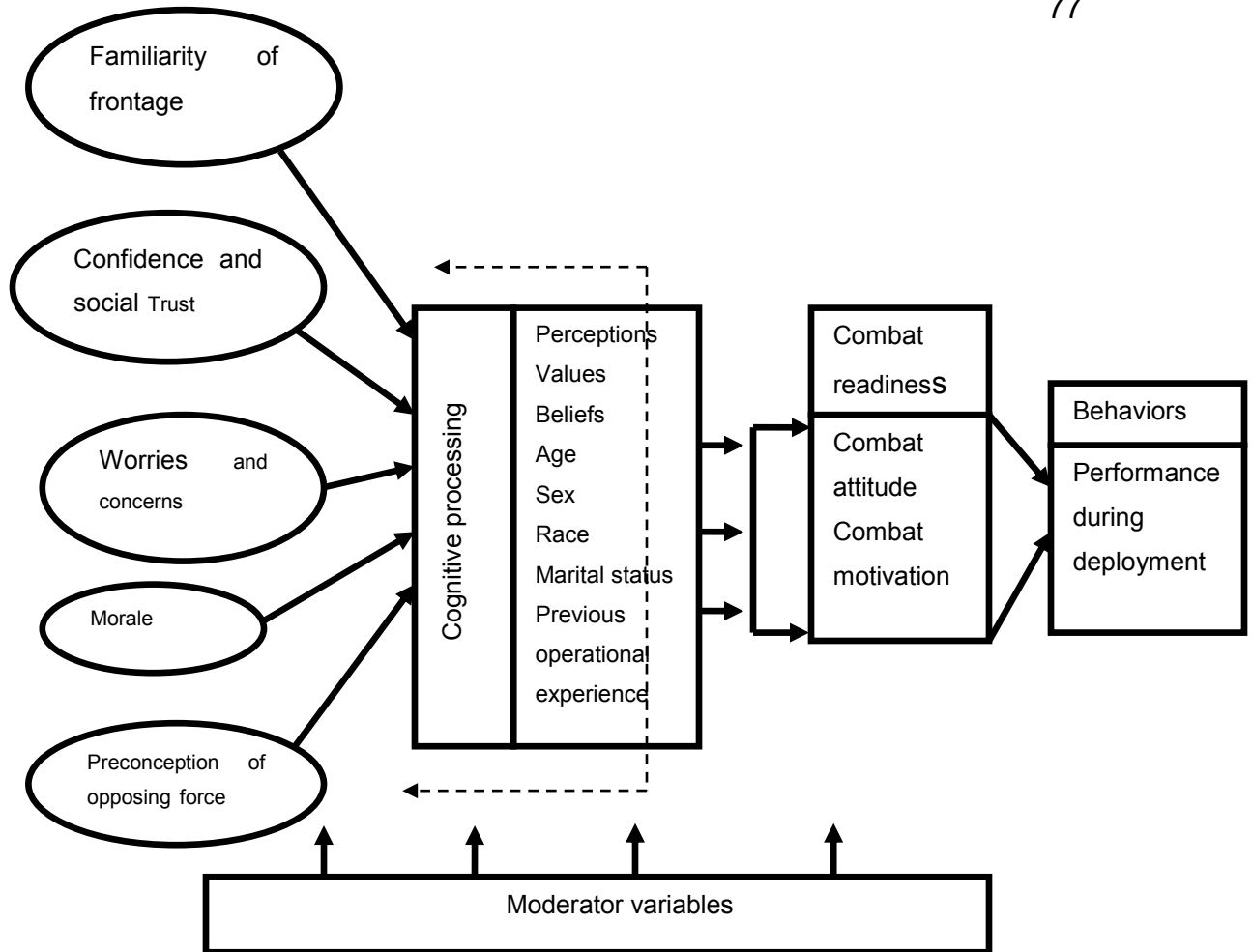
*Figure 2.3*: **Psychosocial model of combat readiness** (Bester & Stanz, 2007)

Bester and Stanz (2007) further state that this state of mind is a function of a number of variables including the following:

- familiarity with the enemy and frontage (*deployment*);
- confidence and social trust;
- worries and concerns;
- morale and;
- preconceptions of the opposing force.

In the model, combat readiness is also dependent and/or rests in combat motivation and combat attitude. Combat attitude and combat motivation effect behaviour in terms of performance (Bester & Stanz, 2007).

CR, as a function of these variables, is moderated by perceptions, values, beliefs, age, sex, race, marital status and previous operational experience, as illustrated in the psychosocial model of combat readiness in Figure 2.3.

*Familiarity with the enemy and frontage*-good leadership entails providing a clear mental picture of the sharp-end circumstances.  Battle orders convey a word picture of how the enemy force looks like and what course of actions and battle drills the force should employ to dislodge and destroy the enemy (Faulkner, 2005). This is often followed by rehearsals and war-gaming to build familiarity and confidence.

*Confidence and social trust*-generally confidence is based on technical and tactical competence exhibited by leaders and service members (Kirkland & Katz, 1989).  Confidence is a strong defence against stress and its development is critical if combat readiness is to be realised. Development of confidence is and should be the major goal for every military leader (Bester & Stanz, 2007; Garrido & Munoz, 2006; Shamir, et al., 2000). To gain confidence, soldiers must believe in themselves, their equipment, other unit members and their training. Above all they must believe in their leader's competence. Leaders must therefore show effective leadership to earn their subordinates' loyalty and trust.

They do this by committing the unit to missions for which they are properly prepared and well trained, by planning operations carefully without compromising security of his/her soldiers, by leading and guiding the unit to mission accomplishment.

Confidence in training indicates the extent to which soldiers have developed the skills required to do their jobs (Arthur et al., 1998). Confidence in training is the product of knowing that they have received the best possible training for combat and they are fully prepared for it.

Confidence in other members of the unit is critical for combat readiness and therefore PCR (Bester & Stanz, 2007; Griffith, 2006). Each unit member must be confident of other unit members' level of competence otherwise PCR is jeopardised (Griffith, 2002). This can be realized by creating an environment in which soldiers stay and train together to gain personal trust of one another. Confidence in the unit can be expected to lead to feelings of security, which in turn can allow members to feel less stress.

Confidence in equipment derives from learning to maintain, operate and employ the equipment effectively (Griffith, 2002). This confidence in equipment combines with beliefs in own personal abilities and capabilities, can be expected to raise overall confidence in fighting ability (Bester & Stanz, 2007; Both, 1984; Griffith, 2006). Each of these beliefs must be instilled and reinforced at every opportunity. Bester and Stanz (2007) view confidence and social trust as composed of the factors illustrated in Figure 2.4
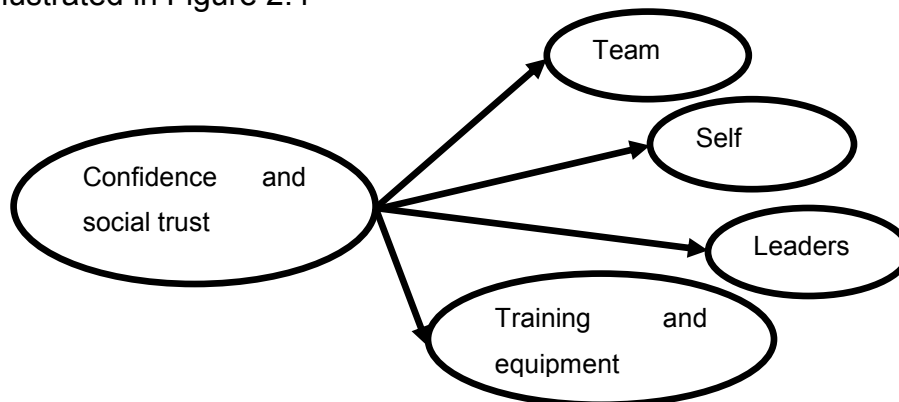


**Figure 2.4: Confidence and social trust**                    (Bester & Stanz, 2007)

*Worries and concerns-*every soldier who must go to the front is always worried about the reaction of the enemy forces when he/she starts firing the first round. Will the enemy retaliate and kill him/ her? Will his/her comrades in arms die? How is this whole thing going to evolve? These are almost always concerns of every soldier whose time has come to go to the front. Family concerns when a soldier has left for war and how will they cope in his/her absence can be expected to dominate a soldiers mind.

*Morale*-this refers to the psychological state shared by group members, consisting of general feelings of satisfaction with conditions that have influeced on the group and the motivation to accomplish group objectives (Motowidlo & Borman, 1977). Whereas Motowidlo and Borman (1977) view morale as a shared collective psychological state of mind by a group of soldiers, Manning and Ingraham (1987) view it as an individual characteristic marked by a sense of wellbeing that is based on confidence in self and the primary group. When confidence (in all its manifestations) in a soldier is operating at a higher level, PCR can be expected to amplify (Griffith, 2002). Bester and Stanz (2007) view morale as incorporating factors illustrated in Figure 2.5.



**Figure 2.5: Morale**                                             (Bester & Stanz, 2007)

*Preconceptions of the opposing force*-if soldiers know their enemy it makes them better positioned to plan, organise and train to destroy the enemy (Faulkner, 2005). Even if this knowledge is not easy to come by at least sol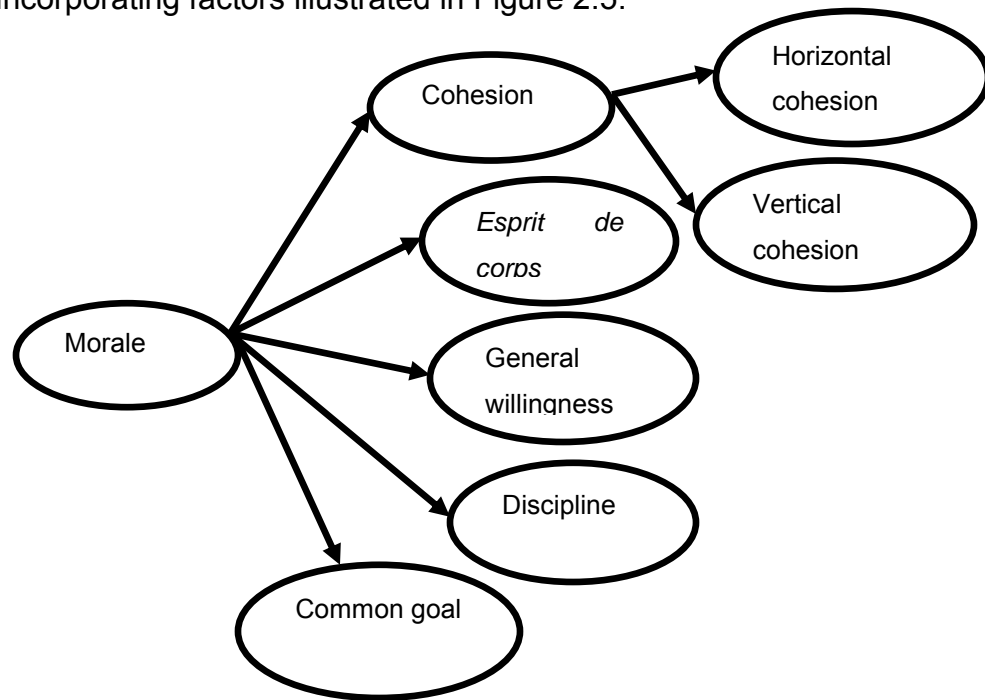diers need to have a preconceived mental image of the opposing force to form points of reference in their training and preparation (Bester & Stanz, 2007).

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Thus Bester and Stanz's (2007) proposed definition of combat readiness with variables indicating state-mind factors such as familiarity with the enemy and frontage, (deployment), confidence and social trust, worries and concerns, morale and preconceptions of the opposing force served as the basis from which PCR, as a subjective judgement of self, on which the current study focus was derived. These perceptions of collective and individual soldiers' combat readiness are defined as a subjective judgement in terms of the extent of perceptions regarding:

- family support;
- confidence ( in self, leaders, team, training and weapons);
- morale and esprit de corp;
- cohesion (vertical and horizontal) and;
- unit discipline.

These dimensions of PCR were taken and refined from the PSOQ by the researcher in consultation with the supervisor. All dimensions taken were relevant to the concept of CR as reflected in wide research (Bester & Stanz, 2007; Griffith, 2002). A brief discussion of this reflection of combat relevance of PCR dimensions follows.

*Family support*-PCR is a function of many factors, like material factors, for instance serviceable equipment, weapon systems and ICVs or human factors, for instance morale, cohesion, confidence and positive psychological functioning. These variables have been discussed and are believed by the researcher to impact each other positively to make a soldier ready to go to war and willing to deploy. Readiness of a soldier to perform his/ her functions for which she/he is employed includes other factors like family support. Gal (1986) acknowledges the family and the military as avaricious institutions because they seek special and unbroken loyalty from their members.

This state of affairs can create unacceptable levels of frustration for members of the force, necessitating interventions if harmony is to be realized. Initially, the military was predominantly an unmarried man-dominated environment, which was not perceived as necessitating a concern for family life (Drummet et al., 2003). However, modern militaries employ both male and female, leaving no room for domestic or parental roles when deployment time arrives. It is in such times that family support is essential. Family issues include child care (Dimeceli, Steinhardt, & Smith, 2010; Lagrone, 1978; Limbert, 2004), care of the elder, education, parenting concerns (Rotter, & Boveja, 2012), repeated relocations, frequent separation of service members from families and subsequent re-organisation of family life during re-union (Hoshmand & Hoshmand, 2007).

There is a reasonable suggestion of the association between family support, aspects of employee functioning and workplace performance (Statuto, 1984). There are strong views that military families contribute to the soldier's readiness (Vandesteeg, 2005) and combat effectiveness (Kirkland & Katz 1989). This notion derives from the perspective that:

- soldiers, families and their units are complex systems;
- families have a potential to help units realize combat effectiveness;
- the leadership act has the propensity to create an environment in which families can contribute to unit effectiveness and;
- building bridges between families and units can contribute cost effectively to the attainment of readiness.

*Soldiers, families and their units as complex systems*-each soldier in a unit is also a member of a family, which competes for his/her time, energy and emotional commitment (Kirkland & Katz 1989). His/her experiences in the unit have the tendency to invoke attitudes. If the attitudes are positive, the soldier takes them home and invokes positive attitudes in his family about the unit.

The soldier will then be free to devote his/her mental and physical energies to the mission and enhance effectiveness (Murphy & Fogarty, 2009).

*Families have the potential to help units realize combat effectives*-Kirkland and Katz (1989) characterised families as stable and unstable and units as integrated or poorly integrated. According to Kirkland and Katz (1989), stable families strengthen soldiers' performance, and the unit supports the soldier as a member of a family. Unstable families, however, weakens soldiers' performance but unit support for the soldier improves family morale and can enable it to strengthen the soldier. When there is no family support or unit support for the soldier there is total decline in performance (Kirkland & Katz, 1989)

*The leadership act has the propensity to create an environment in which families can contribute to unit effectiveness*-Kirkland and Katz (1989) further acknowledges characteristic ways of leaders who have an inclination to create a positive work environment that contributes to effectiveness, namely:

- trust and respect for subordinates;
- provides predictably off duty time;
- care for their soldiers' personal, professional and familial welfare and;
- development of family support groups.

Leaders who show respect and trust for subordinates boost the latter's morale, learning and innovation and self-esteem, and enhance their commitment to their units (Montes, Moreno, & Morales, 2010). Soldiers share their positive attitudes with their families which in turn reinforces their commitment to their units.

*Building bridges between families and units can contribute to readiness*-leaders who are dedicated to ensure that linkages are formed between families and units indirectly influence readiness of units (Campbell et al., 1991; Kirkland & Katz, 1989).

In his research on combat readiness and army family, Kirkland and Katz (1989) found that commanders of battalions in which companies had supportive families valued their captains' endeavour to build independent, autonomous family support groups (FSGs). Commanders respect their captains provision of resources to FSGs and organised programmes that recognised the welfare of families as elements of battalion readiness family briefings prior deployment and major exercises). Campbell et al. (1991) advocate the view that the inability of the spouse to manage the family in the military members' absence could affect the military member's readiness. They further state that younger soldiers are likely to worry about their families during deployment and in the process impair both individual and unit readiness. During training for deployment, some soldiers experience problem and have to be removed from training to resolve family problems first, as this could affect CR.

Given the importance of the family (Hunter, 1982), it may be concluded that just as soldiers must be prepared for immediate deployment, the military family and/or spouse must be prepared to assume the role and duties of the deploying member or spouse to ensure family functioning during deployment (Hoshmand & Hoshmand, 2007). When soldiers are being deployed they receive training whether it is familiarisation training or re-training to hone their operational skills exercise of leadership, personal discipline and physical fitness, in the process opening a void in the family system which necessitates family support by the military if PCR is to be attained.

The military has support systems in place for members of deployed personnel (Hunter, 1982). These support systems are of great importance in helping to alleviate anxiety and stress in the families of deployed members. Family support must not be neglected if CR is to be influenced positively. When CR-and thus PCR-is defined broadly as containing military and family components (Bester & Stanz, 2007), it yields different types of relationships.

In order for the SANDF to contribute to its goal of ultimate combat readiness and PCR, it has to realise that it has to provide support to families of the members who are deployed. Kalamdien (2008) proposed a model for the SANDF that he claims would empower the SANDF to manage the wellbeing of its soldiers and military families during deployment for peacekeeping. The model highlights seven key focus areas in which support and consideration for families of deploying members are necessary:

- psychological (make available a psychologist for family visits);
- religious (make available a chaplain for the family);
- personal (personal wellbeing planning important for the family);
- financial (help family draw up a financial plan);
- support network (make available  SANDF social work services when needed by family);
- environmental (family safety aspects in the absence of member) and;
- communication (communicate with the deployed member).

It is expected that support in these areas will positively influence PCR. Much focus has been on equipment supply resulting in what can be called manned equipment orientation focus instead of armed man focus in the armed forces. Individual readiness is determined not only by the level of job performance, but also by the soldier's perceptions of the spouse and family coping skills, and by the adequacy of the defence force agencies in caring for the family (Campbell et al., 1991).

*Confidence* - is developed through the extensive training the soldier is put through (Garrido & Munoz, 2006; Griffith, 2006; Shamir, et al., 2000) as well as through combat experience gained through battles and military operations (Rodrigues, 1989).

The value of training is, therefore, in large part, psychological; it is an enabling process, a form of empowerment, which creates self-confidence (Bartone, 2005; Bester & Stanz, 2007). The confidence construct is a multi-pronged concept that can be directed at the self, the leader, team and weapons (Griffith, 2006). Confidence in self derives from training to gain the skills required to do the jobs. A soldiers' self-confidence is the product of the soldier's knowledge that he/she has received the best possible training for combat and that he/she is fully prepared for it.

Confidence in leaders derives from their professional leadership qualities as perceived by subordinates (Shamir et.al. 2000). The higher the level of subordinates' confidence in the leader, the higher their confidence in the PCR of the unit. Leaders therefore need to be more competent, responsible and accountable (Bartone, 1998). Leaders must show effective leadership to earn their subordinates' loyalty and trust (Bester & Stanz, 2007). Peterson, Park and Sweeney (2008) also acknowledge this, and say that a good leader is one who creates, sustains and/or enhances confidence, optimism, and sacrifice in the group that he/she leads.

Confidence in team members is important for PCR (Griffith, 2006). A soldier who is confident about his/her team competence will perceive the unit as ready for combat (Peterson et al., 2008), but if there are doubts regarding this perception, PCR can be threatened. Confidence in teams is also based on understanding the tactical and technical skills of comrade soldiers.

Confidence in weapons and equipment (Griffith, 2002) derives from learning to maintain, operate and employ such weapons and equipment effectively. Confidence in equipment combines with beliefs in own personal abilities and capabilities and this could raise overall confidence in fighting ability.

Confidence in weapons is also a function of training and understanding the professional expertise of fellow soldiers in operating weapons effectively (Bester & Stanz, 2007). Development of confidence is and should be the major goal for every military leader (Garrido & Munoz, 2006; Griffith, 2002). To gain confidence soldiers must believe in themselves, their weapons and equipment, other unit members (teams) and their training. Above all they must believe in their leaders' competence.

*Morale and esprit de corp-a*ccording to Peterson et al. (2008), the word "*morale*" comes from the French, and it came into popular usage in the middle 1700s. Originally meaning morality or good conduct, it soon became to mean confidence, and was applied in particular to military forces. Demoralisation appeared later, during the French Revolution, and this meant the corruption of morals. Again, the term was used to refer to the military context and it then described the goals of lowering the confidence of an opposing army. Various authors have also long highlighted the importance of morale in the military (Bester & Stanz, 2007; Griffith, 2006; Reed, & Segall, 2000; Shamir et.al. 2000). Various authors believe that Xenophon was the first military writer to consider the importance of morale for soldiers when he stated that it is not the numbers and strength that bring victory to war, but the army that goes into battle stronger in soul (Bester & Stanz, 2007; Belenky, 1987; MacCoun, Kier, & Belkin, 2006). According to Garrido and Munoz (2006) three classical theorists Clausewitz, Fuller and Marshall established morale as an important principle of war. Garrido and Munoz (2006) state that Clausewitz, in his classical writings, stated that lack of morale is usually the main factor of defeat in battle. Garrido and Munoz (2006) further state that Fuller maintained that morale is composed of three spheres (fear, courage and morale) the sum of which produces the will which provides direction to movement. If the movement is aligned with the commander's intent, there is positive movement. According to Garrido and Munoz (2006) Marshall argued that morale is collective human emotions and that cohesion, communication and leadership are the key to maintaining and preserving morale.

There is no consensus in military psychology literature about the definition of morale (Shamir et al., 2000). Shamir et al., (2000) further acknowledge that debates on morale focus on whether it is an individual level or a group level construct as well as on its relationships with and distinction from similar constructs such as satisfaction, cohesion, *esprit de corps*, motivation and performance. Morale highlights the condition of the group, while motivation describes principally the attribute of an individual (Catignani, 2004).

Wide research suggests that morale and motivation are often used interchangeable when in fact they are two distinct psychological constructs (Bartone, 1998; Bester & Stanz, 2007; Manning & Ingraham, 1987). Among the many definitions of morale Baynes (cited in Catignani, 2004, p. 110) provide a good starting point in defining morale as "enthusiasm and persistence with which a member of a group engages in the prescribed activities of that group". Manning and Ingraham (1987) propose a definition of morale as an individual characteristic, a psychological state of mind characterised by a sense of wellbeing based on confidence in the self and the primary group. Manning (cited in Catignani, 2004, p. 110) defines morale as "a function of cohesion and *esprit de corps.*

Morale involves:
- feelings of determination to overcome obstacles (MacCoun, Kier, & Belkin, 2006);
- confidence about the likelihood of success (Griffith, 2002),
- exaltation of ideals; and
- optimism even in the face of severe adversity, courage, and discipline and group cohesion (Maguen & Litz, 2006; Peterson et al., 2008).

Morale, together with cohesion, has been found to be associated with combat effectiveness, job performance, overall wellbeing and satisfaction (Belenky, 1987; Griffith, 2002).

Gilbody et al.(2006) conducted a study aimed at improving the psychological wellbeing and morale of staff working in a psychiatric unit and came to the conclusion that poor staff morale is bad for patient care and not boosting it, and it is economically wasteful. Morale indicators include military bearing, and appearance of troops in terms of physical fitness, posture and cleanliness (Peterson et al., 2008), AWOL rates, and number of disciplinary actions.

Morale has been and will always be an important principle to the overall success of any army (Bester & Stanz, 2007, Griffith, 2006). It is a human dimension that indicates readiness, which is intangible but very powerful (Griffith, 2002). It is one of those factors that are believed to enhance or reduce the probability of the unit to accomplish its mission (Bartone, 2005). No military unit can claim to be effective if overall morale is low (Gal, 1990). Amongst factors that can be proclaimed as determinants of morale are leadership, pride in unit, patriotism and unit cohesiveness (Garrido & Munoz, 2006; Griffith, 2006; Jones, 2006; Shamir et al., 2000).

Developing a clear mission, receiving realistic field training, drawing a vivid word picture of the enemy, physical and morale superiority, weather and terrain conditions, avoiding being unreliable as a leader, and fostering a spirit of reliance in and among the unit members will surely create a healthy environment in which morale can prosper (Hamilton, 2010).

A leader must know his/her soldiers by understanding their strengths and weaknesses. To maintain morale and combat readiness, a leader must have the capacity to recognise, prevent and even try to pre-empt battle fatigue in his unit (Bartone, 1998; Gelenberg et al.,2010). Prevent spread of rumours in the unit including removing those members who spread rumours (Gelenberg et al.,2010). The fight against rumours must be treated as just as important as fighting against the enemy because rumours lower morale (Garrido & Munoz, 2006). This calls for a leader with a good military bearing (Hamilton, 2010).

Essential personal characteristics of a combat leader which can be expected to boost morale are imaginative firmness, bravery, physical health, confidence and sound practical judgement (Bartone, 2005). Technical competence, in a technical sense of the ability to operate weapon systems, together with the interpersonal orientation, are valued in a leader and may be expected to relate to subordinate morale (Bartone, 2005). As early as 1977, Motowidlo and Borman (1977) proposed that being a good soldier involves more than just performing the job in a technically proficient manner.

A good soldier has to display organisational commitment, organisational socialisation and morale (Garrido & Munoz, 2006). In an operation good leaders as good soldiers must ensure that:

- soldiers are properly trained;
- take into account during the training the fact that battle fatigue can be expected and ways to deal with it;
- place welfare of soldiers before personal welfare;
- ensure that, if circumstances permit, his/ her soldiers get as much rest as possible;
- ensure best shelters are available (weather havens);
- keep soldiers well supplied with food, water and other essentials;
- provide means of communication with the home front via mail, telephones and also provide access to information avenues such as television;
- keep, as far as is practically possible same the unit members together and;
- ensure that experienced unit members take care of and teach new members.

De Vries (in Bester & Stanz, 2007) states that, within the South African context leadership together with faith, motivation, good morale, organisational and command cohesion, group norms and cultures is important for success in battle.

*Esprit de corp*s, is a French term which is used to describe the morale of the entire group. It brings with it additional connotations of devotion to the group and concern with its honour (Manning & Ingraham, 1987). Bester and Stanz (2007) and Ingraham and Manning (1981) state that *esprit de corps* is the bonding between soldiers and their secondary group beyond primary group bonding and relates the soldier to the institution of the unit. *Esprit de corps* emanates from patriotism, ideology and politics that are important incentives for the soldier when talking about peacekeeping and combat operations (Garrido & Munoz, 2006).

Soldiers need to have justification to do something legal which speaks to their *esprit de corps* (Manning & Ingraham, 1987). Another crucial *esprit de corps* factor that affects combat readiness and motivation is the military value system a particular army embodies (Bester & Stanz, 2007). Values which are important to members are especially important. The SANDF value system comprising of professionalism, loyalty, human dignity, etc. and corps-specific values cannot be underestimated in boosting morale and *esprit de corps* (Griffith, 2002).

To engender *esprit de corps* the following must be done (Garrido & Munoz, 2006):

- give due praise to a deserving soldier;
- highlight the importance of the role of the unit;
- explicitly express trust in the unit and the soldier;
- involve the unit to elaborate future plans;
- distribute task justly and;
- motivate and give a sense of purpose to the unit.

*Cohesion-* the word comes from the Latin word *cohaerere,* which means to stick together. It is also related to the Latin *cohors*, which is an enclosure or court from which was derived the term *cohort,* a light infantry battalion-sized unit of 400-500 men (Siebold, 1999). Cohesion is commonly considered by military leaders and social scientists to be a crucial factor in contributing to the effectiveness of individuals and groups in battle (Ben-Ari, 1998) and to the post-combat survival of veterans (Ben-Shalom, Lehrer, & Ben-Ari, 2005). Ben-Shalom et al. (2005) further state that cohesion is widely accepted as a synonym for a successful military organisation. Dinter (cited in Ben-Shalom, et. al., 2005) echoes the same sentiment when stating the following:

> If the group is the right size and has sufficient time to grow together under relevant external pressure, cohesion will be achieved and in its wake will grow a group ethic which no member will dare to violate. The group then becomes the focal point in their lives, so much so, in fact, that it hardly matters any more where it is deployed, be it at home or abroad, or what it is fighting for.

Festinger (in Siebold 1999, p. 12) defines cohesion as "the results of all the forces acting on the members to remain in the group". Siebold and Kelly (1988) draw a distinction between horizontal cohesion (cohesion between members of a unit) and vertical cohesion (cohesion between members of a unit and their leaders). According to Ingraham and Manning (1981) cohesion is the lateral and vertical person-to-person bonding within the primary groups of soldiers in a particular unit.

Ingraham and Manning (1981) concur with Siebold (in Festinger, 1999) that lateral bonding denotes bonding amongst soldiers at the same level. Vertical bonding denotes leader-subordinate bonding in the military chain of command. Griffith and Vaitkus (1986) state that cohesion comprise three dimensions, two of which are group characteristic, namely vertical and lateral bonding.

Siebold and Kelly (in Ingraham and Manning, 1981) concur with this categorisation of bonding. The third dimension is commitment. According to Griffith and Vaitkus (1986), the two relational dimensions of vertical and lateral bonding have two functional aspects, namely affective and instrumental support. In a deployment and operational environment, which is characterised by stress and stressors, emotions abound (Bartone, 1998, 2005; Reed & Segal, 2000) which means comrades depend on one another for emotional support to keep going. Kahan, Webb, Shavelson, and Stolzenberg (1985) state that instrumental cohesiveness can promote group productivity, whereas affective cohesiveness could hinder productivity. A strong degree of affective cohesiveness could bring group members so close that it jeopardise critical appraisal of group performance (Ingraham & Manning, 1981; Kahan et al., 1985). The third dimension, commitment denotes the extent to which the individual feels a sense of belonging and loyalty to the group (Kahan et al., 1985).

While Catignani (2004) suggests that morale highlights the condition of the group and motivation describes the attribute of an individual, Ingraham and Manning (1981) suggest that cohesion is the group-level counterpart of morale. Maguen and Litz (2006) and Hamilton (2010) seem to suggest that cohesion and morale do not mean the same thing although used interchangeable. However, Bartone, Johnsen, Eid and Brun (2002) maintain that cohesion is a distinct concept from morale, and say that cohesion appears to influence morale. Hamilton (2010) advocates the view that cohesion is conceptually distinct from morale, and that it influences morale rather than being synonymous with it. Morale derives from and is a function of trust, realistic training, meaningful work, leadership and shared experience (Catignani, 2004) as illustrated in Figure 2.6.
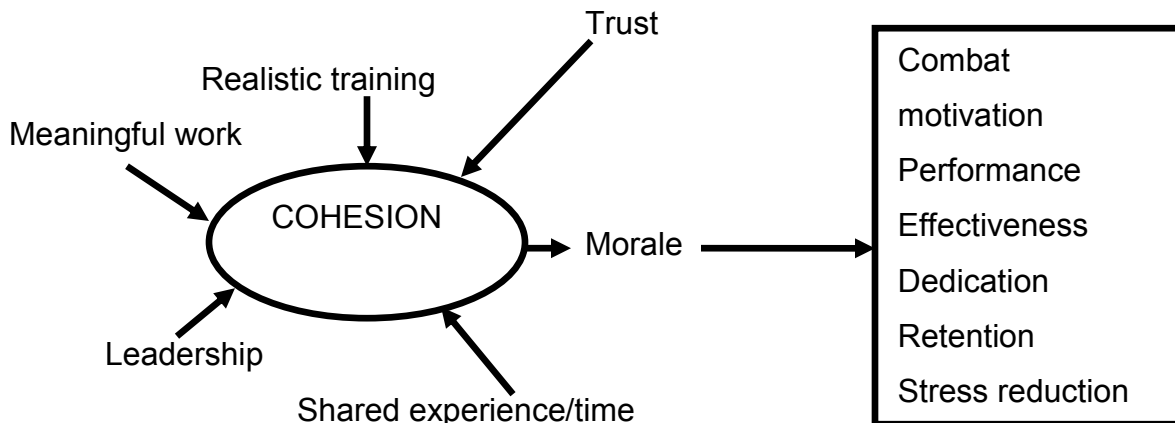
*Figure 2.6* **Conceptual model of variables affecting cohesion** (Hamilton, 2010)

Irrespective of the conception and usage of the two constructs, the fact remains that they are as essential and valued today by military commanders as they were in the olden days (Kellet in Glad, 1990). Figure 2.6 indicates the important outcomes of cohesion. (Griffith, 2002) states that social psychology literature suggests that cohesion operate at individual and group level. At individual level cohesion:

- provides a sense of enjoyment and belonging;
- satisfies personal needs;
- help in the attainment of personal goals and;
- provides self-identity and social support that enhances individual wellbeing, health and individual performance.

Cohesion reduces negative effect of stress (Pietrzak, Morgan, & Southwick, 2010) improves individual wellbeing and performance (Bartone et al., 2002; Gal 1986; Henderson, 1985) and prevents group disintegration and therefore indirectly affects group performance (Griffith, 2002).

Furthermore, cohesion explained most variance in wellbeing, identification and perceived combat readiness in a study conducted by Griffith (2002) on the relationship of cohesion with these constructs. Unit cohesion at all levels is necessary because each member of the unit depends on the other in order to survive and carry out effective combat operation (Bartone, 1998).

*Unit discipline-* in the military, this is equated with unit performance (Shamir, et. al., 2000). Shamir, et al. (2000) conducted a study on PCR focusing on individual and group analysis, and found that the higher the level of unit discipline, the higher the PCR of the unit. Disciplined soldiers work persistently to complete assigned tasks even under adverse conditions (Griffith, 2006). In any military unit, the level of discipline is an important characteristic (Shamir, et al., 2000). Discipline is encouraged and enforced in military units because it is related to the ability of the unit to perform in combat (Bester & Stanz, 2007). This relationship of unit discipline and combat performance is likely to be reflected in the beliefs of unit members (Griffith, 2002, 2006). Unit discipline is characterised by soldiers obeying without hesitating and concurring with commands that civilians would question and want to discuss (Griffith, 2006). Clausewitz (1976) identified that discipline coupled with morale, cohesion and leadership provides an iron-will to overcome the challenges present on the battle field. George (1947) discovered that even morale is founded on discipline. He stated that discipline enables a man to overcome his fears and leadership provides direction for his action. He further states that discipline produce, self-respect which produces pride, which further produces a sense of duty and of obligation.

The sum total of all these elements is self-confidence as illustrated below:

- **Discipline**—►produces **self-respect**—► produces **pride** ► produces **sense of duty and obligation** to comrade soldiers = The Sum total along with weapons training produces **self-confidence.**

PCR of fighting forces has to be developed and maintained in order to conserve military combat power if the military is to succeed in the complex fighting and peacekeeping operation. An understanding of PCR and all its explicit (equipment, administration, family support etc.) and implicit (confidence, trust, morale, cohesion, discipline, etc.) derivative constituent factors have been discussed in this section. The Peace-Support Operation Questionnaire (PSOQ) (Bester & Stanz, 2007) was adapted and named Perceived Combat Readiness Questionnaire (PCRQ).The PCRQ will be was used to measure PCR. The characteristics of the peacekeeping environment such, as killing, being shot, seeing dead bodies (Bartone et al., 1994; Likoti ,1998; Temudo, 2008) and sometimes pervasive isolation from both family and comrades (Bartone, 1998; Bester & Stanz, 2007; Garrido & Munoz, 2006) can lead to general health issues, which is discussed next.

## 2.6.    GENERAL HEALTH

Given the stressful operational circumstances under which peacekeepers find themselves, it is not uncommon to find that they have complaints of general health that may affect their performance negatively. These general health issues range from somatic symptoms, anxiety and insomnia, severe depression, and social dysfunction (Nagyova et al., 2000). During the current study, these subjective perceptions of mental health were measured using the GHQ -28. The GHQ-28 is frequently used as an indicator of psychological wellbeing (see par. 2.4) (Nagyova et al., 2000) but in this study its purpose was the assessment of individuals with mental health conditions, like depression and anxiety. A brief description of the four subscales of the GHQ-28 follows.

*Somatic symptoms* are characterised by presenting with multiple medically unexplained physical symptoms in an individual, which lead to functional impairment (Allen, Gara, Escobar, Waitzkin & Silver, 2001).

*Insomnia* is described as persistent difficulty initiating or maintaining sleep or non-restorative sleep that causes clinically significant distress and/or impairment in social, occupational and combat readiness (Marcks & Weisberg, 2009).

*Depression* is characterised by a depressed mood or loss of interest in eating or sleeping patterns, fatigue, difficulty concentrating, thoughts of death or suicide, or feelings of worthlessness and/or helplessness, which present a change from the individual's usual self (Gelenberg et al.,2010).

*Social dysfunction* is the embodiment of an umbrella term referring to a variety of emotional problems experienced in social situations. Detecting the presence and/or absence of the perceptions of general health issues can expected to strengthen the case for their screening if they affect PWB, PCR, and WD. Willingness to deploy (WD) is discussed in the next section.

## 2.7    WILLINGNESS TO DEPLOY

Machiavelli in his book, *The prince*, (Grellman, n.d.) once proclaimed that where the willingness is great, the difficulties cannot be great. Where there is a will there is a way also proclaims Maguire (2006) from the title of her book. But what is the meaning of the word?

The Oxford English Dictionary states that willingness is "quality or state of being prepared to do something". Willingness, therefore, is readiness and it relate to the will or power of choice or choosing to do something without being forced. The deployment of the SANDF in Africa is not a compulsory undertaking, which means it is a voluntary deployment and all members exercise their freedom of choice to deploy or not to deploy (T. Ndengane, personal communication, 23 August 2013).This means that the extraction of Africa out of the quagmire of socio-economic squalor and political conflict depends on members' willingness to deploy (Peltier, 2010; Neack, 1995).

Willingness to deploy can be described as a state of submission by a soldier in the event of a need to make him/herself voluntarily available for deployment for peacekeeping and war, even if death is eminent (Bester & Stanz, 2007). Willingness to deploy is a function of feeling the importance of defending the Republic of South Africa and pride in being a member of the SANDF. WD is that quality displayed by loyalty and pride in serving in the SANDF.

WD can be compared to the commitment seen in the Israeli defence force, where servicemen and women will act out of fraternity and devotion to their comrades and will always go to their assistance when they need their help irrespective of danger (Catignani, 2004; Stein, 2013).

At the core of service in the Israeli defence force (IDF), is love of Israel and commitment and devotion to the Israeli state which is a national home of the Jewish people (MacCoun & Hix, 2010; Raska, 2013). The same kind of devotion is essential in the SANDF if the bold steps taken by the RSA government to make Africa a continent free from all forms of conflicts are to be realized. This devotion and /or attitudes are synonymous with the willpower defined by Sasson (2003, p. 4) as "the inner strength, determination, decisiveness, the ability to act and exact oneself despite laziness or discomfort". This spirit of willingness to deploy (WD) must also be displayed by the SANDF as willpower to protect the country, especially the RSA, the region and Africa.

Willingness to deploy can also be an outcome of the interaction and/or influence of many and varied factors and their impact on one another (Bartone, 1989; Bester & Stanz, 2007; Griffith, 2006) These factors (see par. 2.4 & 2.5) can be expected to enhance morale, cohesion (Griffith, 2006), discipline, positive psychological functioning, self-confidence, perceived combat readiness and ultimately WD. With perceived combat readiness operating at higher levels, it is expected that soldiers' WD will increase (Bester & Stanz, 2007).

Understanding the relationship and impact between these factors and the relationship and impact of these factors on willingness to deploy can help the operational commander, military psychologist, practitioners and the SANDF as an organisation in the preparation of forces for peacekeeping mission in the volatile socio-economic and political African environments (Kagwanja, 2006).

During the current study, WD was measured by a 12-item questionnaire with sample questions such as "In the event of war, to what extent will you volunteer to deploy with possibility of engaging in battle?" and "How do you feel to be a soldier in the SANDF?"

## 2.8    CHAPTER SUMMARY

The introduction highlighted the challenges in international deployment and combat readiness, conventional warfare and combat readiness, peacekeeping and combat readiness, deployment and combat readiness of the SANDF that necessitates a high level of psychological wellbeing, perceived combat readiness, general health and willingness to deploy. Theoretical reviewing of literature raised the question whether PWB, PCR and GH have an impact on WD. The success of the SANDF will depend on the extent to which the soldiers and responsible people for management and command of the soldier are willing and ready for the task and judge themselves as such. The proposition formulated from literature is that there is a possible relationship between PWB, PCR, GH and WD.

# CHAPTER 3

# RESEARCH DESIGN AND METHODOLOGY

## 3.1.  INTRODUCTION

Literature review in Chapter 2 was used as basis for the hypothesis in this chapter. This means the hypotheses generated and derived from the theoretical framework and conceptual deliberation and discussion in Chapter 2. This chapter provides an explanation of the research design, sampling design, measuring instruments and statistical analysis.

Before providing of an explanation of the research design, sampling design, measuring instruments and statistical analysis, it is essential to know why research is done and which methods and procedures research must follow in order to provide close approximations of the truths about the nature of things a scientific manner. The word 'research' conjures up images of white-coated scientists working in a laboratory (Blanche & Durrheim, 1999, p. 8). Research is done in order to understand nature (Theron, 2009). Man must improve his chances of survival by employing his intelligence and measure his understanding of and explanation of nature (Theron, 2009). Human beings must be able to make sense of the world within which they found themselves if they want to survive. This understanding came through research in which humans tried to trap nature, making it to confess specific truths about itself (Theron, 2009).

Rosnow and Rosenthal (2008) state that research is a scientific method employed to understand the world better and to give answers to specific questions. Gravetter and Wallnau (2011) and Gravetter and Forzano (2003) are of the opinion that research is done in order to examine the relationship between variables.

According to Blanche and Durrheim (1999), research is about creating new social realities; not just about studying old ones. They further state that research is a process consisting of four stages namely: defining the research question, designing the research, implementing or executing the research (data collection and analysis) and, finally, writing up the research report. Research design, the second stage of research, refers to a strategic framework for action that serves as a bridge between research questions and the execution or implementation of the research (Blanche & Durrheim, 1999). Research design is the designed and planned nature of observations, which is different from everyday observations because it is planned. Research design has to be developed in accordance with scientific principles (Bickman, Rog, & Hendrick, 1998; Denzin, 1989) to ensure that findings will stand against criticism (Theron, 2009). When developed according to scientific principles, research design is called empirical study (Blanche & Durrheim, 1999). There are other legitimate research designs that cannot be defined as empirical (Clandinin & Connelly, 1994). Qualitative research design is one such design. Qualitative research design is more fluid and changeable than quantitative research design (Clandini & Connelly, 1994; Hugo, 1990) and not defined in technical terms (Blanche & Durrheim, 1999). A research design that is defined by technical considerations, fixed and specified in advance before implementation, therefore reflects a quantitative research design orientation.

The current study followed a quantitative research design as was defined by technical considerations of measuring the constructs of interest quantitatively (Babbie & Mouton, 1998; Blanche & Durrheim, 1999) and the process of doing so was designed and fixed in advance before the execution of the research (Nel, 1996). All the constructs of interest were measured quantitatively by the researcher using measurement instruments. Quantitative research makes provision for the employment of statistical analysis to determine the significance of results (Babbie & Mouton, 1998; Blanche & Durrheim, 1999; Rosnow & Rosenthal, 2008).

The current study took the form of an exploratory study in that the impact of PWB, PCR and GH on WD has never been researched before. When a subject of study is relatively new or provides basic familiarity with the topic, the study is referred to as an exploratory study (Babbie & Mouton, 1998). There was a lack of empirical evidence to prove the existence of the relationship between PWB, PCR, GH and WD in the SANDF. This state of affair provided an opportunity to employ an exploratory research.

## 3.2    HYPOTHESES

In order for the RSA to succeed in its international obligation of ridding Africa of all forms of conflicts (see par. 1.1) and the SANDF in particular to always attain the upper hand in African battles (see par. 2.2 & 2.3), it is imperative to investigate and understand subjective human dimensions (see par. 2.4 & 2.5) that will enable soldiers to be effective in their difficult and challenging peacekeeping tasks (see par.2.2.2). The need to investigate the relationship between PWB, PCR, GH and WD was an imperative and relevant research challenge for the SANDF (see par. 2.4 & 2.5).

By presenting the challenges facing the SANDF and relevance of PWB, PCR, GH and WD in effecting a difference in Africa, the study aimed to establish a theoretical relationship and an empirical relationship between the variables. The inescapable essentiality of providing answers to the research problem (see par. 1.3) and satisfying research objectives (see par. 1.4) necessitated the formulation of the following research hypotheses:

H1:    There is a significant and positive relationship between psychological wellbeing and willingness to deploy.

H2:    There is a significant and positive relationship between self-acceptance and willingness to deploy.

H3:    There is a significant and positive relationship between positive relations with others and willingness to deploy.

H4:    There is a significant and positive relationship between autonomy and willingness to deploy.

H5:    There is a significant and positive relationship between environmental mastery and willingness to deploy.

H6:    There is a significant and positive relationship between purpose in life and willingness to deploy.

H7:    There is a significant and positive relationship between personal growth and willingness to deploy.

H8:    There is a significant and positive relationship between perceived combat readiness and willingness to deploy.

H9:    There is a significant and positive relationship between family support and willingness to deploy.

H10:   There is a significant and positive relationship between confidence in self and willingness to deploy.

H11:   There is a significant and positive relationship between confidence in team and willingness to deploy.

H12:   There is a significant and positive relationship between confidence in leaders and willingness to deploy.

H13:   There is a significant and positive relationship between confidence in training and willingness to deploy.

H14:   There is a significant and positive relationship between morale and *esprit der corps* and willingness to deploy.

H15:   There is a significant and positive relationship between horizontal cohesion and willingness to deploy.

H16:   There is a significant and positive relationship between vertical cohesion and willingness to deploy.

H17:   There is a significant and positive relationship between unit discipline and willingness to deploy.

H18:   PCR and PWB explain unique variance in WD in a model containing the PCR and PWB main effects.

H19:   PCR moderates the effect of PWB on WD.

## 3.3    RESEARCH DESIGN

"Research design" refers to the planning of the research (see par. 3.1), presents a way to answer the research question, and guides a researcher in the collection and analysis of data (Christensen, 1985). It is blue print aimed at turning the research question into a testing project (Christensen, 1985).

A non-experimental research design was used in the current research to investigate the existence and degree of a relationship between psychological wellbeing, general health, perceived combat readiness and willingness to deploy using *ex post facto* correlation design.

In this design, the researcher does not have control over the variables of interest (Babbie & Mouton, 1998). If two variables are highly related, score on one variable could be used to predict scores on the other variable. In a relational research of this nature, direct control and manipulation of the variables of interest are not possible by the researcher, as is the case in experimental research (Elmes, Kantowitz, & Roediger, 2003). Data collected without manipulation of variables is therefore often called *ex post facto* data, meaning after the fact.

*Ex-post-facto* research design is used to test hypotheses that predict the relationship between variables that have been inferred by observing the interaction of these variables with each other (Babbie & Mouton, 1998). The hypotheses of the relationships between the variables is based on the theoretical framework and previous research and literature (Kerlinger & Lee, 2000).

There are certain inherent weaknesses in no-experimental research, such as less control and an inability to manipulate variables, a lack of power to randomise and risk of improper interpretation (Kerlinger & Lee, 2000).

Correlational and multivariate techniques were be used in the current study to determine the strength and direction of the relationship between variables. This technique allows the researcher to determine the degree and direction of the relationship between the dependent and independent variables simultaneously (Kerlinger & Lee, 2000). According to Kerlinger and Lee (2000) correlational research aims to establish objectively the indirect relationships in data and allows the researcher to establish which variables are closely associated and influence each other.

The advantages of correlational research include, among others, the fact that it can be used to explore questions that cannot be examined with experimental procedures, and it allows the researcher to determine the degree of the relationships between variables being studies.

However, Tabachnick and Fidell (1996) state that the disadvantage of correlational research is that it cannot be used to demonstrate cause-and-affect relationships between variables.

Multivariate research comprises of multiple regression, multivariate analysis of variance, factor analysis, discriminant analysis, canonical correlation and analysis of covariant structures (Kerlinger & Lee, 2000).

## 3.4    SAMPLE DESIGN

The unit of analysis in a research is always sampled from the population (Babbie & Mouton, 1998). According to Bryman and Bell (2003), "sampling" refers to taking a sub-set or segment of the population and using it as representative of that population. The sample used for the current research was selected from the uniformed members of the army. The greatest advantage would have been attained, in terms of methodology, if all the members of operational units in the SANDF were selected; however, that was unrealistic and practically impossible. A sample of operational unit members of the army was therefore selected for this study.

For this study, a total of 500 questionnaires were distributed (from which 465 were usable) to be completed by members of selected SANDF operational units (9SAI n = 120; 14SAI n = 123; 1SAI n = 60; 6SAI n = 104; 8SAI n = 58). The demographic characteristics for the sample are described in the descriptive statistics (see par. 4.2) and included age, gender, race, marital status, highest educational qualifications, and rank level. The sample was considered reasonably representative of the characteristics of the sampling population because members of these units have long operational exposure internally and externally.

Stratified systematic sampling method was used in the study in sampling SANDF members of selected operational units. Stratification entails grouping of the units comprising a population into homogeneous groups (strata) before sampling (Babbie & Mouton, 1998).

The probability of sampling error was, therefore decreased when a stratified sampling technique was employed and therefore allowing the researcher to obtain a greater degree of representativeness. Blanche and Durrheim (1999) raised a concern, namely if the sample size is not adequate, the sample does not allow inferences about the population to be made from the research findings. Bryman and Bell (2003) state that absolute rather than relative sample size makes drawing inferences about the population valid and they suggest that the sample size must be as big as is practically possible.

Prior to embarking on this study, clearance with the Stellenbosch University Ethics Committee was obtained and permission to conduct the study was also granted by the relevant authorities in the SANDF by means of a formal letter. In this study data was collected by means of a self-report questionnaire survey. Self-report questionnaires such as the ones used in this study are proclaimed to have an added advantage over other means of data collection because they can be distributed to a large number of participants at low cost in terms of both time and money (Mitchel & Jolley 2001).

The questionnaires were distributed and completed by participants in the presence of the researcher at a central venue with a lecture room setting at selected operational units of the SANDF. The researcher explained the purpose of the research to the participants and sought their consent (using consent forms). After obtaining their consent, questionnaires were distributed for completion.

Anonymity and confidentiality were maintained by participants not filling in identifying personal details on the questionnaires. Participants were given an opportunity to choose whether to participate or not in the study. This had an advantage of obtaining honest responses.

The completed questionnaires were checked for proper completion to make sure that all items had been responded to. The researcher did not interrupt or interfere with the participants while they were completing the questionnaires to make sure that all items had been responded to.

The disadvantages of self-report questionnaires such as the ones used in this study include, not returning the completed questionnaires or failing to understand the instructions and questions. In the current study, these disadvantages were minimised by the researcher collecting the completed questionnaires and clarifying where there was a misunderstanding of questions and/or instructions. Only 465 of the 500 questionnaires were completed in full and returned. There was therefore a 93% return rate.

## 3.5    MEASURING INSTRUMENTS

The research questionnaires of the study consisted of five questionnaires: the biographical questionnaire, the Psychological Wellbeing Questionnaire (PWB); the General Health Questionnaire -28 (GHQ-28) and Perceived Combat Readiness Questionnaire (PCRQ) and Willingness to deploy Questionnaire (WDQ).

### 3.5.1 Biographical questionnaire

In order to gather proper descriptive statistics for the sample in the study a biographical questionnaire gathered biographical information on gender, age, language, population group, education qualifications, arm of service and rank of each participant (see par. 4.2).

### 3.5.2  Psychological wellbeing.

PWB was measured by Ryff's scale (RPWB) (Landa, et al., 2010). The current study focused on high and low PWB, because the SANDF operates, and will operate, in stressful peacekeeping mission environments in Africa, which requires positive psychology (Antonovsky, 1979, 1987), but which may also include and/or invoke negative emotions like depression and anxiety (Diener et al. cited in Waterman et al., 2010). High PWB is characterised by happiness, a meaningful life, striving to realise the individual's potential, and competence. Low PWB is characterised by high levels of negative feelings, unhappiness, and a lack of meaning in life.

The RPWB consist of six sub-scales.
The sub-scales of the RPWB assess autonomy, environmental mastery, personal growth, positive relations with others, purpose in life and personal acceptance (Ryff, 1995). The internal consistency among items of RPWB instrument is highly significant (above .80) (Springer & Hauser, 2006). The instrument is easy to understand and the scale has high face validity.

The participants responded using a six-point Likert-type scale: strongly disagree (1), moderately disagree (2), slightly disagree (3), slightly agree (4), moderately agree (5), strongly agree (6).  Responses to negatively scored items like " I tend to worry about what other people think of me", were reversed in the final scoring procedures so that high scores indicated high self-ratings on the dimension assessed.

### 3.5.3  General health (GH)

GH was measured by the 28-item General Health Questionnaire (GHQ-28) of Goldberg (1972), (with somatic symptoms items 1-7, anxiety/insomnia items 8-14, social dysfunction items 15-21, as well as severe depression items 22-28).

The study not only focused on positive psychology with PWB (Antonovsky, 1979, 1987, 1990), but also on general health because the SANDF operates in complex peacekeeping operations in Africa and the researcher therefore expected to find conditions like depression, and anxiety. Depression and anxiety were expected to have an effect on PCR and WD.

*Scoring:* on the GHQ-28 scale, respondents rated themselves on a four-point severity scale, according to how they have recently experienced each GHQ-28 item: "better than usual", "same as usual", "worse than usual", or "much worse than usual".  Likert-type scoring was used to assign values of 0, 1, 2, and 3 for item severity.

A total score was calculated by adding the scores of each individual item. Du Toit (cited in Van Dyk, 2009) reports satisfactory levels of reliability and validity on this instrument.

Van Dyk (2009) also examined the psychometric property of the GHQ-28 in his study of first-year students at three universities in Africa by assessing the Cronbach's alpha reliability coefficient which ranged from .64 to .95.

### 3.5.4  Perceived combat readiness

In this study, the Peace-Support Operation Questionnaire (PSOQ) (Bester & Stanz, 2007) was adapted and named the Perceived Combat Readiness Questionnaire (PCRQ). The PCRQ was used to assess perceived combat readiness. The original PSOQ was constructed as a self-reporting questionnaire to determine the perceptions of respondents regarding the theoretical constructs of the various sub-domains of combat readiness (Bester & Stanz, 2007).

The PSOQ comprises two scales measuring biographical information and PCR, which is postulated to be the cornerstone of a military forc'es readiness for deployment in peace-support operations (Bester & Stanz, 2007) and which is expected to impact on WD strongly.

The PCRQ comprises by the following nine dimensions. Sample questions are also presented next to each dimension below:

- *Family support*:  How would you rate the SANDF's ability to support your family while you are deployed operationally? (Total of 18 items)

- *Confidence in one self*:  How confident are you in your ability to perform well in combat? (Total of 10 items)

- *Confidence in teams*:  How would you rate the soldiers in your troop, platoon's ability to fight if and when necessary? (Total of 11 items)

- *Confidence in leaders*:  How would you rate your direct commander's decisions and judgment? (Total of 20 items)

- *Confidence in training and weapons*:  How would you rate your unit's training for combat situations? (Total of 13 items)

- *Morale and esprit der corps:*  How would you describe your personal level of morale? (Total of 6 items)

- *Horizontal cohesion*:  How would you describe the relationship with peers from your platoon? (Total of 14 items)

- *Vertical cohesion*:  How impressed are you with the quality of your officer leadership? (Total of 27 items)

- *Unit discipline*:  Are there in your platoon incidents of fighting amongst soldiers? (Total of 7 items)

Participants responded by using seven-point formats: Not at all (1) to Very much (7) with neutral being in the middle (4). The Cronbach's alpha reliability coefficient for the new adjusted scale (PCRQ) is 0.88.

### 3.5.5  Willingness to deploy (WD)

Willingness to deploy was measured using 12 items derived from the subtest of the PSOQ of Bester and Stanz (2007) (see Appendix B). The sample questions included

"In the event of war, to what extent will you volunteer to deploy with the possibility of engaging in battle?";

and '

- "In the event of an invasion of any other African country by an enemy force, to what extent will you be willing to deploy as part of a peace support force?"

Participants responded by using seven-point format: "Not willing at all" (1) to "Very willing" (7) with neutral being in the middle (4) responses were given on a separate answer sheet. The Cronbach's alpha reliability coefficient for WD subtest is 0.92.

### 3.6    STATISTICAL ANALYSIS

The statistics were described using means of frequency tables, means, and standard deviations. Reliability analysis was conducted using Cronbach's alpha. A multiple regression analysis was conducted to investigate statistical hypotheses-combined effects of predictor variables on the dependent variable. All analyses were done using STATISTICA 10. A five per cent significance level ($p < 0.05$) was used as guideline for significant relationships.

## 3.7    CHAPTER SUMMARY

A discussion on the proposed theoretical hypotheses, the research method used, research design and sample, and the measuring instruments were presented in this chapter. A statistical analysis overview was also provided in this chapter. The results of the statistical analysis will be reported in the next chapter.

# CHAPTER FOUR
# RESULTS

## 4.1    INTRODUCTION

The current study reviewed the literature and noted the possibility of a theoretical relationship between PWB (and its individual dimensions), PCR (and its individual dimensions) independent variables and WD dependent variable, and assessed empirical relationship between these variables. Proposed hypotheses (see par.3.2) formulated to satisfy the research objectives (see par. 1.4) were aimed at answering the research problem (1.3). In this chapter the results of the various statistical analyses are presented. The results are presented by reporting descriptive statistics for the sample and the internal reliability of the different questionnaires. To obtain the correlation of the hypothesised relationships in this study, Pearson's product moment correlation coefficient of was used. Multiple regression analysis was also used in order to obtain a significant model. All analyses used STATISTICA 10.

## 4.2    DESCRIPTIVE STATISTIC FOR THE SAMPLE

Descriptive statistic are the statistical computations describing either the characteristics of a sample or the relationship among variables in a sample (Babbie & Mouton, 1998). Descriptive statistics, unlike inferential statistic which makes inferences about a larger population from which the sample is drawn, merely summarises a set of sample observations (Babbie & Mouton, 1998).

The participants in this study were drawn from the army of the SANDF. The sample comprised of 391 (84%) males and 74 (16%) females.

The age ranges, language groups, educational qualifications, field of utilization, rank and race of the participants are illustrated in Tables 4.1, Table 4.2, Table 4.3, Table 4.4, Table 4.5, and Table 4.6 respectively.

**Table 4.1**

***Age ranges of the participants***

| Percentage | Age |
|------------|-----|
| 24% | 24 or young |
| 43% | Between 25 and 34 years |
| 25% | Between 35 and 44 years |
| 17% | Were 45 years and older |

**Table 4.2**

***Language groups percentage of the participants***

| Group | Percentage |
|-------|------------|
| Xhosa | 39% |
| Zulu | 8% |
| Tswana | 10% |
| Sotho | 9% |
| Sepedi | 3% |
| Swazi | 2% |
| Ndebele | 2% |
| Shangaan | 2% |
| Vendas | 2% |
| Afrikaans | 19% |
| English | 3% |
| Other | 1% |

**Table 4.3**

*Educational qualification percentage of the participants*

| Qualification | Percentage |
| --- | --- |
| Grade 12 plus four years of study | 1% |
| Grade 12 plus three years of study | 2% |
| Grade 12 plus two years of study | 5% |
| Grade 12 plus one years of study | 10% |
| Grade 12 | 62% |
| Grade 11 | 9% |
| Grade 10 | 13% |

**Table 4.4**

*Field of utilization percentage of the participants*

| Field of utilization | Percentage |
| --- | --- |
| Infantry | 88% |
| Logistics | 2% |
| Personnel | 2% |
| Intelligence | 5% |
| Artillery | 0% |
| Signal | 1% |
| Technical service | 1% |
| Other service not specified | 0% |

**Table 4.5**

*Rank percentage of the participants*

| Rank | Percentage |
|------|------------|
| Full colonel | 1(0%) |
| Major-Lt. Col | 1(0%) |
| CO- Capt. | 4% |
| WO2-WO1 | 2% |
| S/Sgt | 2% |
| Sgt | 4% |
| L/cpl- Cpl | 23% |
| Pte | 64% |

**Table 4.6**

*Race percentage of the participants*

| Race | Percentage |
|------|------------|
| African | 79% |
| Coloured | 19% |
| Whites | 1% |
| Asians | 0% |

## 4.3    INTERNAL RELIABILITY ANALYSIS OF QUESTIONNAIRES

Reliability is a measure of consistency (Wells & Wollack, 2003). Internal reliability is therefore the extent to which a test measures item homogeneity, with large alpha values indicating that the items are tapping a common domain of a latent variable (Wells & Wollack, 2003). Internal consistency is measured with Cronbach's alpha (Wells & Wollack, 2003) denoted by the symbol α.

The literature review revealed that PWB and GH-28 were used in a number of studied (Ryff, 1995, Ryff & Keys, 1995; Van Dyk 1998) and yielded excellent internal consistency reliability (Springer & Hauser, 2006) to suggest that these questionnaires can be used with a level of confidence to produce valid outcomes (Landa, et al., 2010). However, GHQ-28 in this sample yielded no variance and was therefore not correlated with willingness to deploy.

The initial intent for the inclusion of the GHQ-28 was to identify individuals who might have reflected issues of general health, which was expected to relate to the constructs of PWB, PCR and WD. The respective zero scores on the subscales were as follows:

- On subscale A 373 (80%) scored zero
- On subscale B 405 (87%) scored zero
- On subscale C 348 (75%) scored zero
- On subscale D 393 (85%) scored zero

The above results of the GHQ-28 therefore indicated absence of signs of social dysfunctioning, anxiety, severe depression and somatic symptoms in the sample, contrary to the researcher's expectations. This meant that, with these results, the inclusion of the GHQ-28 would have explained no variance in terms of relationship with WD as previously expected.

PCR and WD were specially designed for the purpose of the study and yielded excellent internal consistency reliability of .88 and .92 respectively. The internal reliability of the scales and subscales are presented in Table 4.1. The discussion on the reliability of the scales follows after Table 4.1.

**Table 4.7**

*Internal reliability of scales and subscales*

| Scale | Cronbach's alpha |
|---|---|
| Perceived combat readiness (total) | .88 |
| Support to family | .86 |
| Confidence in self | .92 |
| Confidence in team | .94 |
| Confidence in leaders | .94 |
| Confidence in training | .92 |
| Morale and *esprit der corps* | .90 |
| Horizontal cohesion | .91 |
| Vertical cohesion | .96 |
| Unit discipline | .87 |
| PWB (total) | .91 |
| Positive relations with others | .74 |
| Autonomy | .57 |
| Environmental mastery | .70 |
| Personal growth | .68 |
| Purpose in life | .69 |
| Self- acceptance | .67 |
| WD (total) | .92 |
| GHQ-28 | .91 |
| GHQ-A | .90 |
| GHQ-B | .95 |
| GHQ-C | .89 |
| GHQ-D | .92 |

According to the results the different dimensions of the PCR questionnaire (support to family, confidence in self, confidence in team, confidence in leaders, confidence in training, morale and *esprit der corps*, horizontal cohesion, vertical cohesion, unit discipline) used to measure perceived combat readiness, yielded significant reliability coefficients ranging from .86 to .96 with a total reliability coefficient of .88. All PCR dimensions yielded significant reliability coefficients with support to family being the lowest of the PCR dimensions with α=.86 and vertical cohesion being the highest of the PCR dimensions with α=.96. The dimensions of PWB (positive relations with others, autonomy, environmental mastery, personal growth, purpose in life and self-acceptance yielded significant reliability coefficients ranging from .57 to .74 with a total reliability coefficient of .91. Autonomy yielded the lowest reliability of the PWB dimensions with α=57 and positive relations with others being the highest of the PWB dimensions wit α=74. The total reliability coefficient for WD was significant with α=92. The GHQ-28 also yielded a significant reliability coefficient with α =95 for subscale B being the highest and α=89 for subscale C being the lowest with a total reliability of α=91 for the GHQ-28 scale.

## 4.4    INFERENTIAL STATISTICS

Inferential statistics are applied in making decisions about whether or not there is statistical significance regarding criterion value set in terms of the distribution of the test statistics (Chow, 2002). Inferential statistics make it possible to make generalizations from the sample to the general population from which the sample is drawn (Babbie & Mouton, 1998; Field, 2009). In other words, inferential statistics aids in the confirmation or rejection of hypothesis.

### 4.4.1  Correlations

A review of the results of correlations as per hypothesis (see par. 3.2 and Figure 1.3) is being discussed in this section of the study.

Mukaka (2012, p. 1) states that the Webster's Online Dictionary defines correlation as "a reciprocal relationship between two or more things; a statistics representing how closely two variables co-vary and this covariance can vary from -1 (perfect negative correlation) through 0 (no correlation) to +1 (perfect positive correlation)". Pearson's product-moment correlation coefficient was used to investigate the relationship between the constructs. Pearson product-moment correlation is a measure of the degree and direction of the linear relationship between two variables (Hauke & Kossowski, 2011).

The rule of thumb for evaluating correlation coefficient, according to Westgard (1999) is reflected in Table 4.2.

**Table 4.8**

***Rule of thumb for correlation coefficient evaluation***

| Size of r | Interpretation |
| --- | --- |
| .90 to 1 | Very high correlation |
| .70 to 0.89 | High correlation |
| .50 to 0.69 | Moderate correlation |
| .30 to 0.49 | Low correlation |
| .0.00 to 0.20 | Little if any correlation |

According to Nelsen, Field, Coetzee and Schreuder (cited in Ditsela, 2012):

- a correlation of ± .80 to ± 1.00 is regarded as high correlation (most preferred);
- a correlation of ± .60 to ± .79 moderately high (acceptable);
- a correlation of ± .40 to ± .59 (also acceptable) is regarded as moderate correlation;
- a correlation of ± .20 to ± 39 is regarded as low;
- any correlation below .20 is regarded as negligible.

In the next section, correlations between the independent variables PWB (and its dimensions), PCR (and its dimensions) and the dependent variable (WD) is discussed (see Table 4.3).

**Table 4.9**

*Correlation between the independent variables PWB (and its dimensions), PCR (and its dimensions) and the dependent variable WD.*

| Independent variables | Dependent variables | Pearson r | Pearson p-value |
|---|---|---|---|
| PWB (total) | WD (total) | 0.23 | 0.00 |
| PWB(sa) | WD (total) | 0.18 | 0.00 |
| PWB(pr) | WD (total) | 0.20 | 0.00 |
| PWB(a) | WD (total) | 0.06 | 0.21 |
| PWB(em) | WD (total) | 0.25 | 0.00 |
| PWB(pl) | WD (total) | 0.24 | 0.00 |
| PWB(perg) | WD (total) | 0.21 | 0.00 |
| PCR(total) | WD (total) | 0.56 | 0.00 |
| PCR(fasu) | WD (total) | 0.38 | 0.00 |
| PCR(confise) | WD (total) | 0.55 | 0.00 |
| PCR(confite) | WD (total) | 0.50 | 0.00 |
| PCR(confile) | WD (total) | 0.51 | 0.00 |
| PCR(confitra) | WD (total) | 0.50 | 0.00 |
| PCR(m and esdc) | WD (total) | 0.40 | 0.00 |
| PCR(Hco) | WD (total) | 0.52 | 0.00 |
| PCR(Vco) | WD (total) | 0.46 | 0.00 |
| PCR(undi) | WD (total) | 0.000 | 0.99 |

Notes: PWB=Psychological wellbeing questionnaire; sa=self-acceptance; pr=positive relations with others; a=autonomy; em=environmental mastery; pl=purpose in life; perg=personal growth; PCR=Perceived combat readiness questionnaire; fasu=family support; confise=confidence in self; confite=confidence in team; confile=confidence in leaders; confitra=confidence in training; m and esdc=morale and esprit der corp; Hco=horizontal cohesion; Vco=vertical cohesion; undi=Unit discipline; WD=Willingness to deploy questionnaire.

The hypotheses in Chapter 3 are now going to be answered in descending order from the first to the last. Table 4.3 displays the correlations between variables of interest which aid in answering the hypotheses. The dimensions of the independent variables are abbreviated and meaning of abbreviations indicated below Table 4.3. The discussion of the correlations in descending order of the hypotheses follows

H1:    There is a significant and positive relationship between psychological wellbeing and willingness to deploy

The returned responses totaled 500. However, 35 responses were removed because they were incomplete and 465 responses were therefore analysed for this hypothesis. The results (Table 4.3) show a low significant positive correlation between psychological wellbeing and willingness to deploy (r=0.23; p<0.00) (see Figure 4.1). H1 was corroborated.
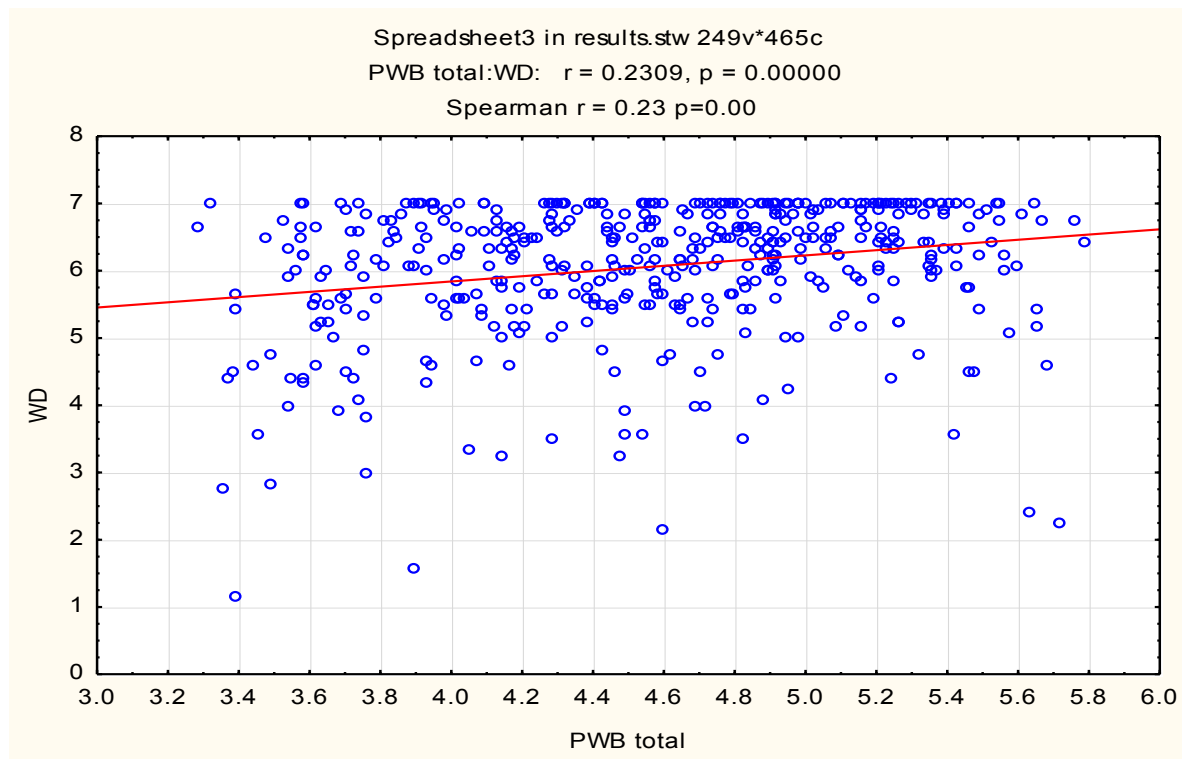


*Figure 4.1* **Scatterplot of PWD and WD.**

H2:    There is a significant and positive relationship between self-acceptance and willingness to deploy.

The returned responses totaled 500. However, 35 responses were removed because they were incomplete and 465 responses were therefore analysed for this hypothesis. The results (Table 4.3) show a low negligible positive correlation between self-acceptance and willingness to deploy (r=0.18; p<0.00) (see Figure 4.2). H2 was rejected.
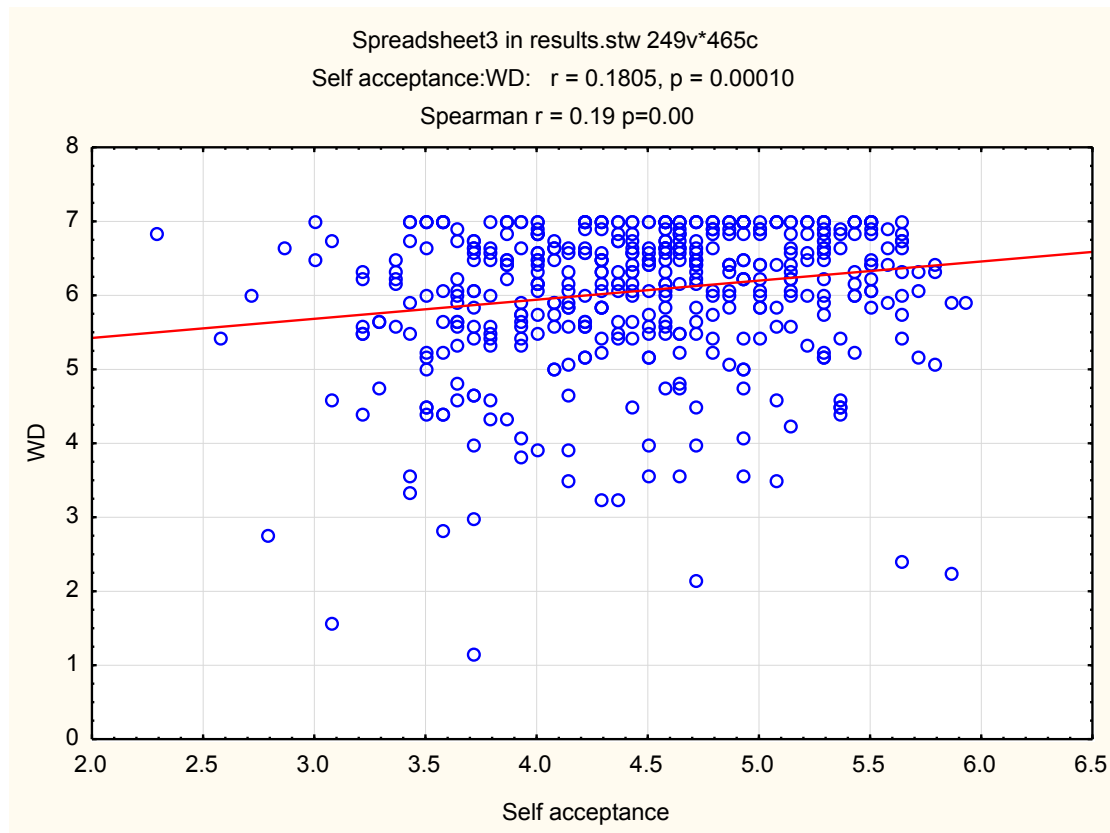


**Figure 4.2**. **Scatterplot of self-acceptance and willingness to deploy**

H3:    There is a significant and positive relationship between positive relations with others and willingness to deploy. The returned responses totaled 500. However, 35 responses were removed because they were incomplete and 465 responses were therefore analysed for this hypothesis.

The results (Table 4.3) show a low significant positive correlation between positive relations with others and willingness to deploy (r=0.20; p<0.00) (see Figure 4.3). H3 was accepted.
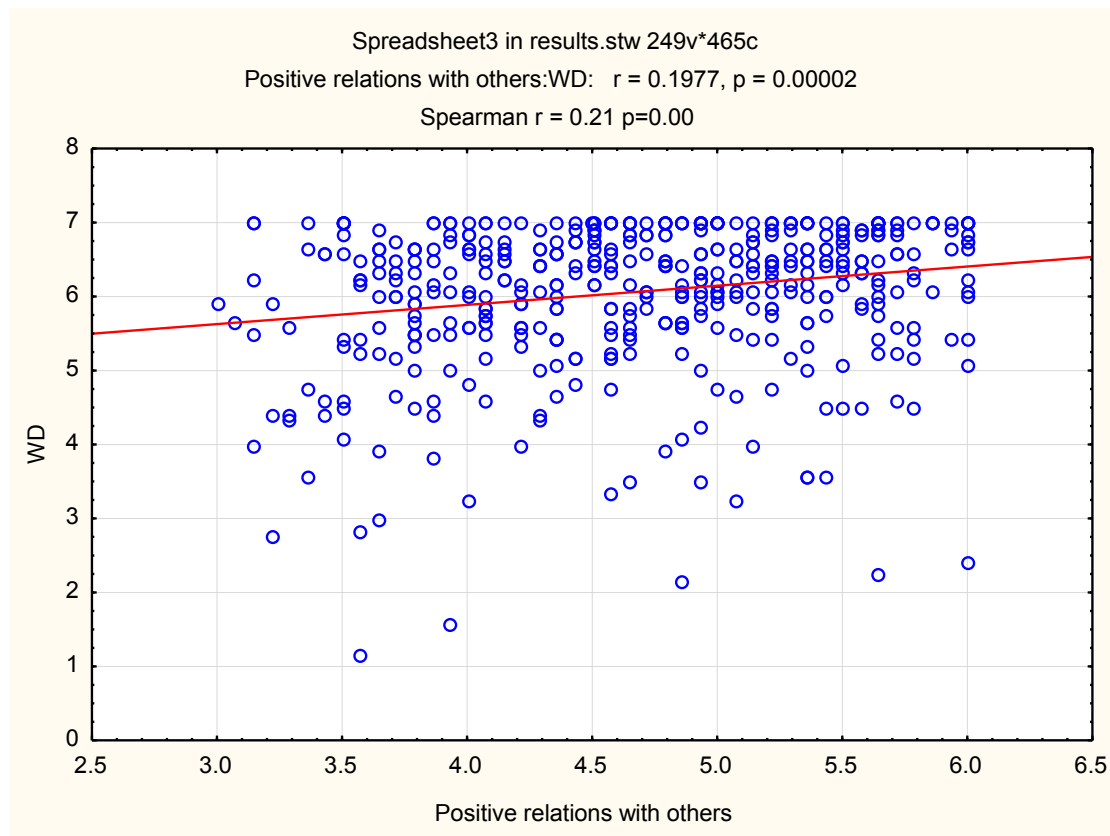


*Figure 4.3.* **Scatterplot of positive relations with others and willingness to deploy**

H4:    There is a significant and positive relationship between autonomy and willingness to deploy.

The returned responses totaled 500. However, 35 responses were removed because they were incomplete and 465 responses were therefore analysed for this hypothesis. The results (Table 4.3) show a little or no significant positive correlation between autonomy and willingness to deploy (r=0.058; p<0.22) (see Figure 4.4). H4 was rejected.
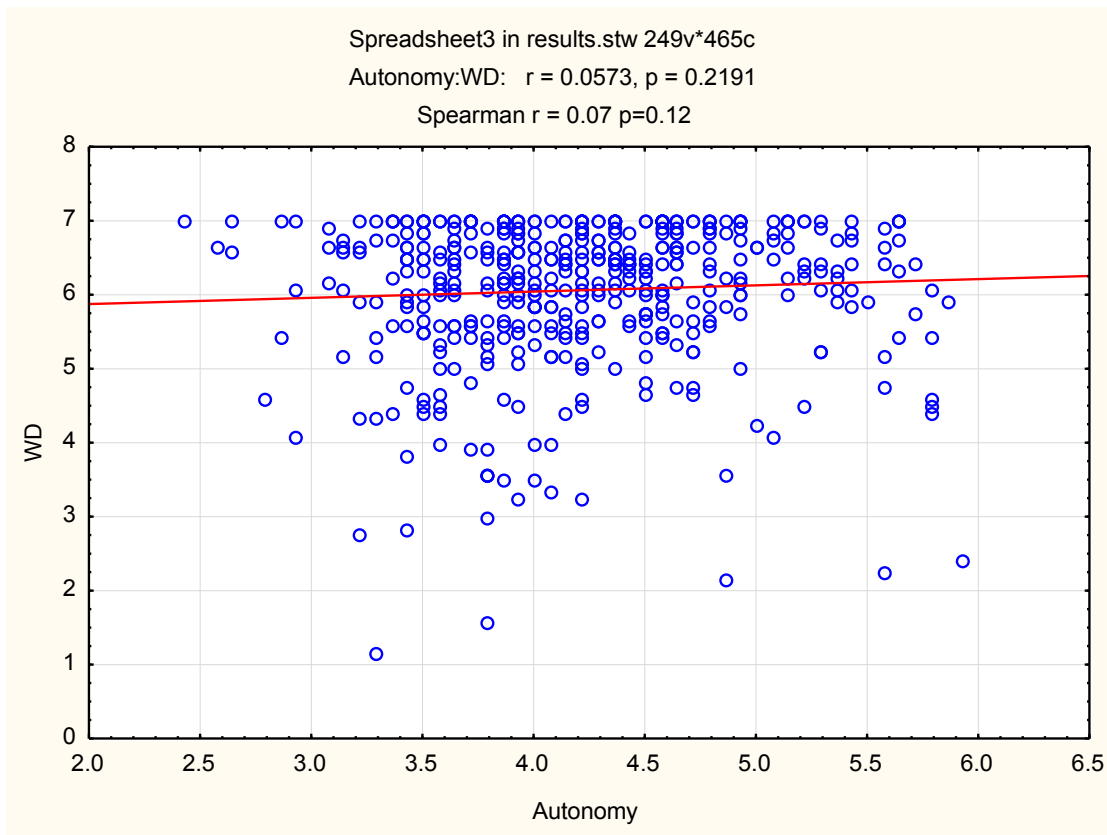
**Figure 4.4.** Scatterplot of autonomy and willingness to deploy

H5:    There is a significant and positive relationship between environmental mastery and willingness to deploy

The returned responses totaled 500. However, 35 responses were removed because they were incomplete and 465 responses were therefore analysed for this hypothesis. The results (Table 4.3) show a low significant positive correlation between environmental mastery and willingness to deploy (r=0.25; p<0.00) (see Figure 4.5). H5 was accepted.
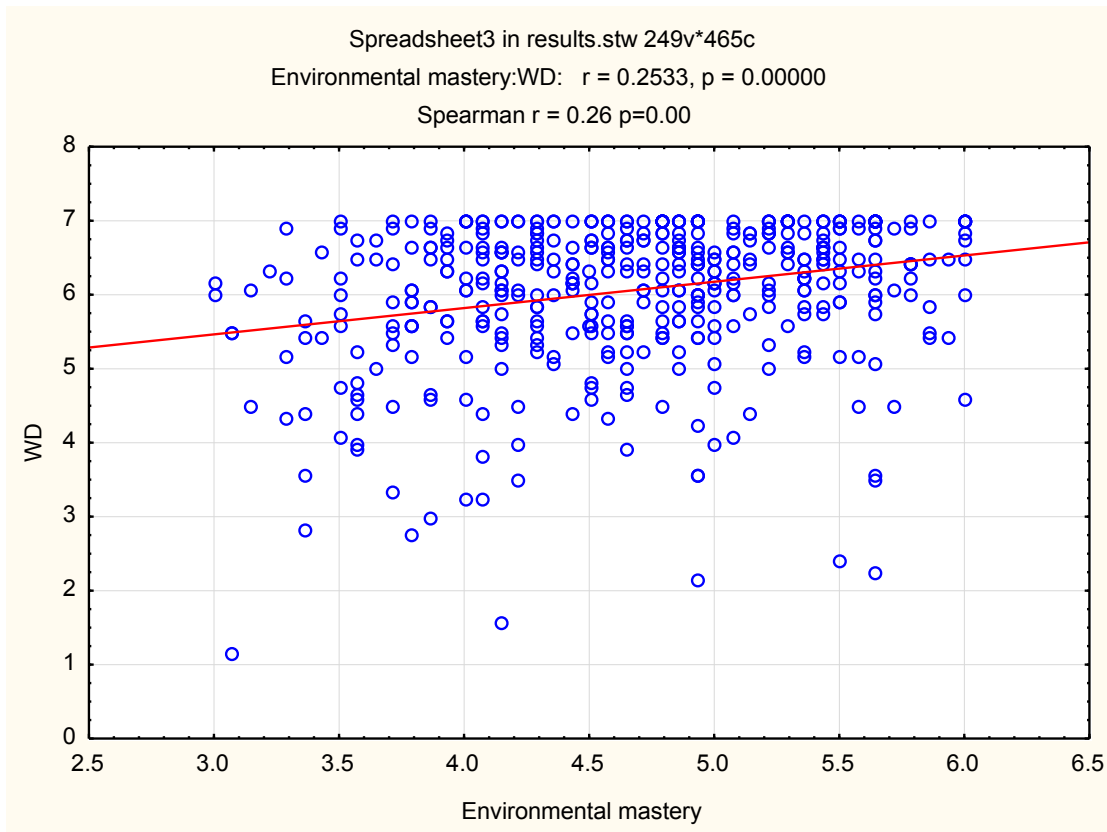
*Figure 4.5*. **Scatterplot of environmental mastery and willingness to deploy**

H6:     There is a significant and positive relationship between purpose in life and willingness to deploy.

The returned responses totaled 500. However, 35 responses were removed because they were incomplete and 465 responses were therefore analysed for this hypothesis. The results (Table 4.3) show a low significant positive correlation between purpose in life and willingness to deploy (r=0.24; p<0.00) (see Figure 4.6). H6 was accepted.
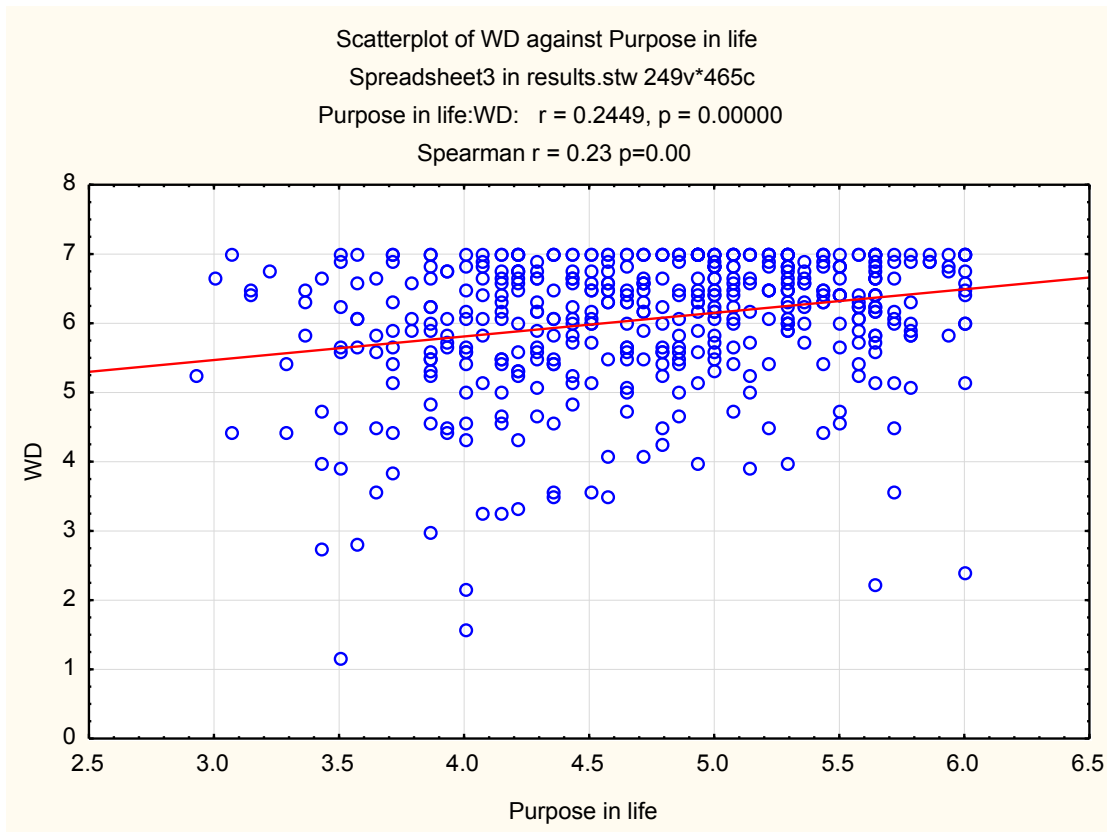
*Figure 4.6*. **Scatterplot of purpose in life and willingness to deploy**

H7:    There is a significant and positive relationship between personal growth and willingness to deploy.

The returned responses totaled 500. However, 35 responses were removed because they were incomplete and 465 responses were therefore analysed for this hypothesis. The results (Table 4.3) show a low significant positive correlation between personal growth and willingness to deploy (r=0.21; p<0.00) (see Figure 4.7). H7 was accepted.
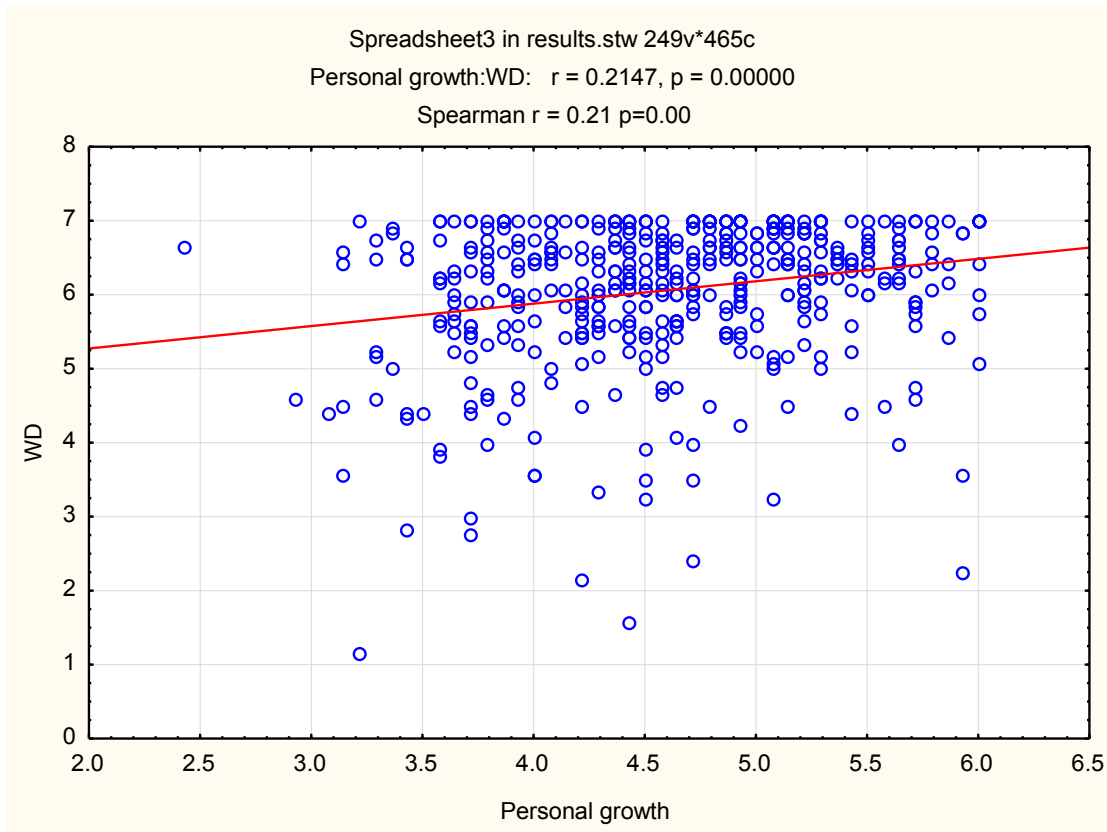
*Figure 4.7.* **Scatterplot of personal growth and willingness to deploy**

H8:     There is a significant and positive relationship between perceived combat readiness and willingness to deploy.

The returned responses totaled 500. However, 35 responses were removed because they were incomplete and 465 responses were therefore analysed for this hypothesis. The results (Table 4.3) show a moderate significant positive correlation between perceived combat readiness and willingness to deploy (r=0.56; p<0.00) (see Figure 4.8). H8 was accepted.
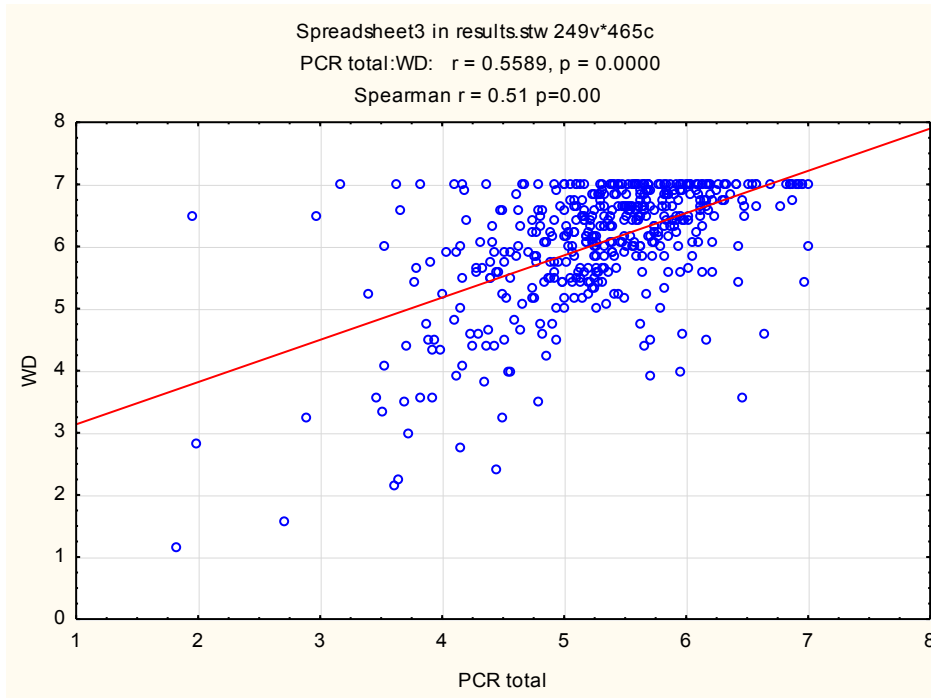
*Figure 4.8.* **Scatterplot of perceived combat readiness and willingness to deploy**

H9:     There is a significant and positive relationship between family support and willingness to deploy.

The returned responses totaled 500. However, 35 responses were removed because they were incomplete and 465 responses were therefore analysed for this hypothesis. The results (Table 4.3) show a low significant positive correlation between family support and willingness to deploy (r=0.38; p<0.00) (see Figure 4.9). H9 was accepted.

*Figure 4.9.* **Scatterplot of family support and willingness to deploy**

H10:   There is a significant and positive relationship between confidence in self and willingness to deploy.

The returned responses totaled 500. However, 35 responses were removed because they were incomplete and 465 responses were therefore analysed for this hypothesis. The results (Table 4.3) show a moderate significant positive correlation between confidence in self and willingness to deploy (r=0.56; p<0.00) (see Figure 4.10). H10 was accepted.
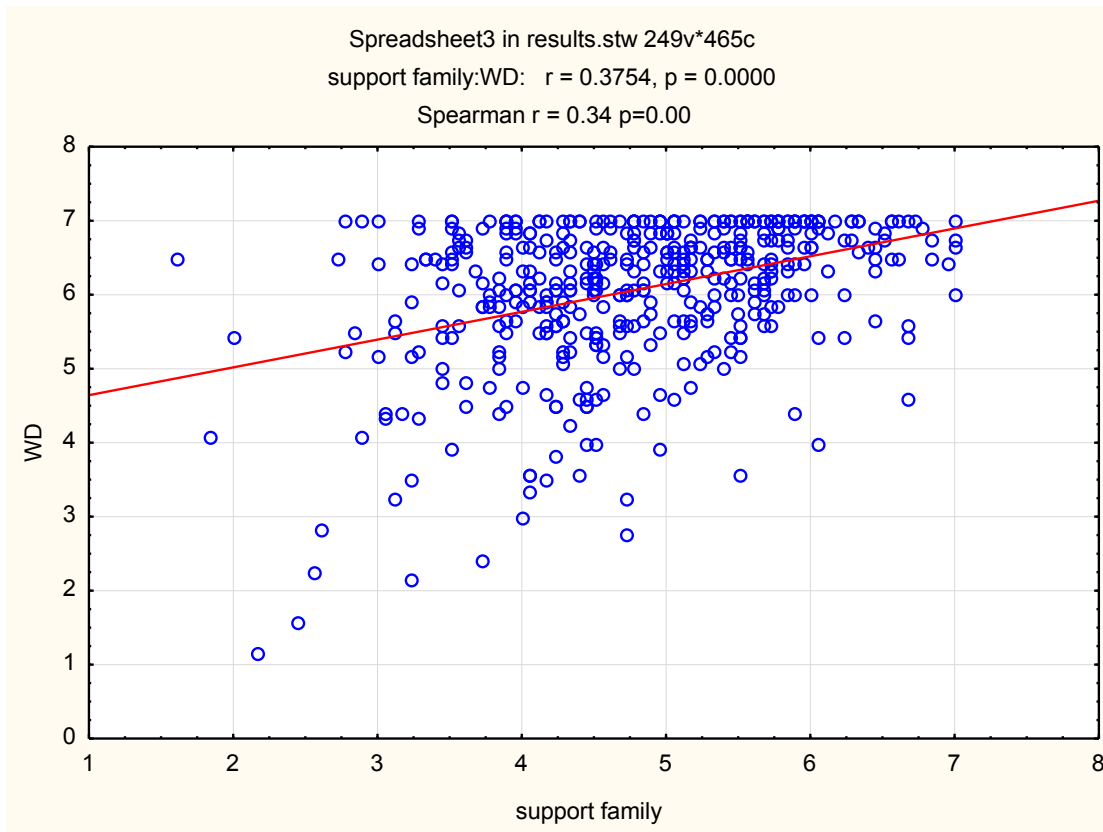
*Figure 4.10*. **Scatterplot of confidence in self and willingness to deploy**

H11:   There is a significant and positive relationship between confidence in team and willingness to deploy.

The returned responses totaled 500. However, 35 responses were removed because they were incomplete and 465 responses were therefore analysed for this hypothesis. The results (Table 4.3) show a moderate significant positive correlation between confidence in teams and willingness to deploy ($r=0.50$; $p<0.00$) (see Figure 4.11). H11 was accepted.

**Figure** *.4.11.* **Scatterplot of confidence in team and willingness to deploy**

H12: There is a significant and positive relationship between confidence in leaders and willingness to deploy.

The returned responses totaled 500. However, 35 responses were removed because they were incomplete and 465 responses were therefore analysed for this hypothesis. The results (Table 4.3) show a moderate significant positive correlation between confidence in leaders and willingness to deploy (r=0.51; p<0.00) (see Figure 4.12). H12 was accepted.
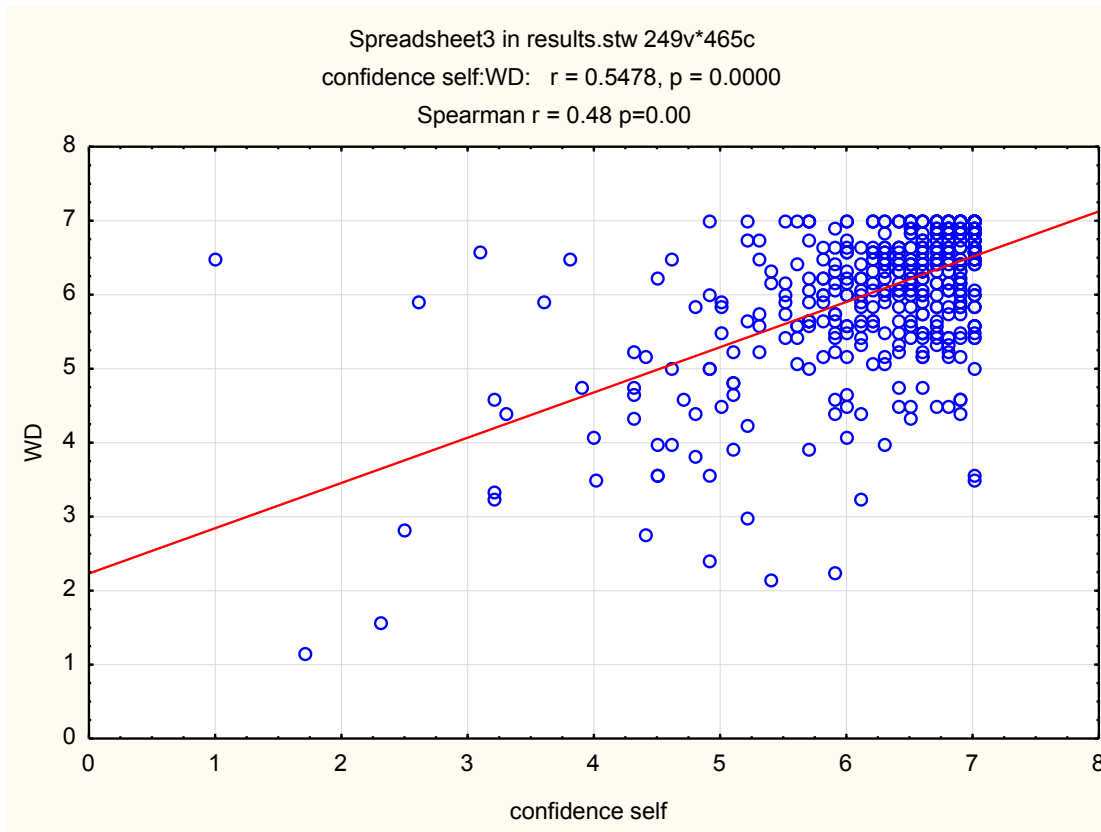
**Figure 4.12. Scatterplot of confidence in leaders and willingness to deploy**

H13: There is a significant and positive relationship between confidence in training and willingness to deploy.

The returned responses totaled 500. However, 35 responses were removed because they were incomplete and 465 responses were therefore analysed for this hypothesis. The results (Table 4.3) show a moderate significant positive correlation between confidence in training and willingness to deploy (r=0.500; p<0.00) (see Figure 4.13). H13 was accepted.
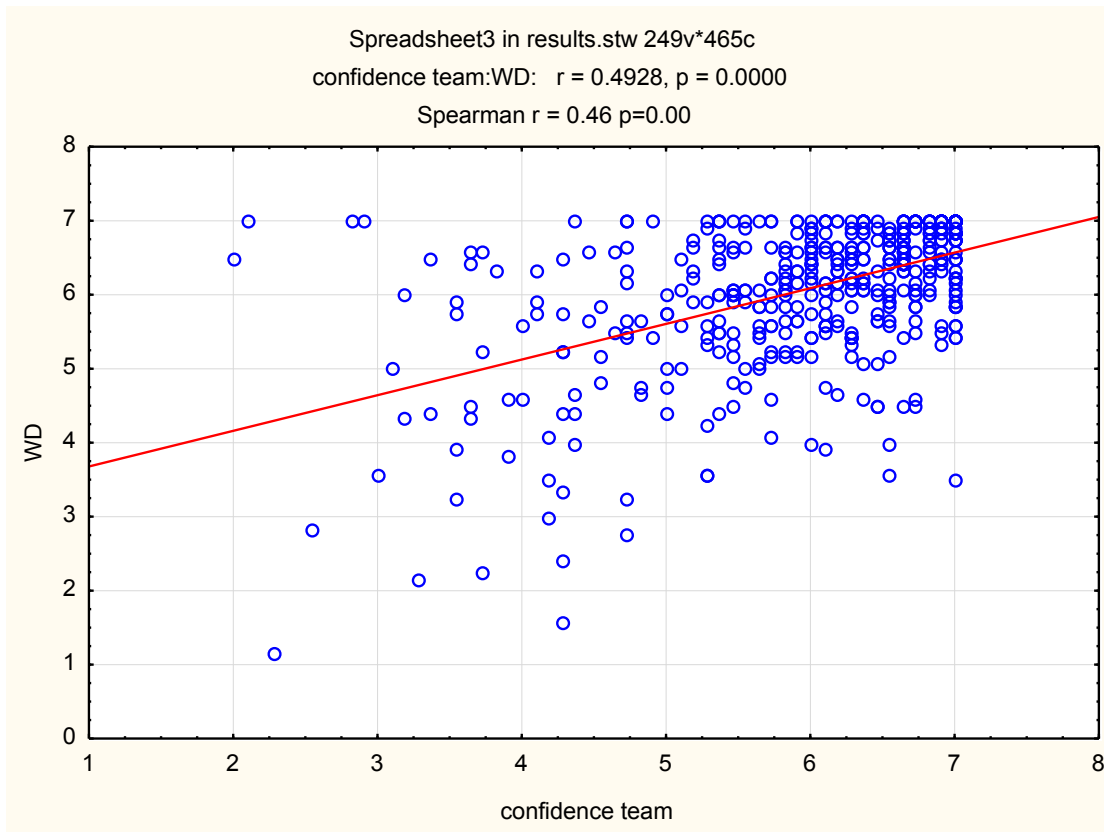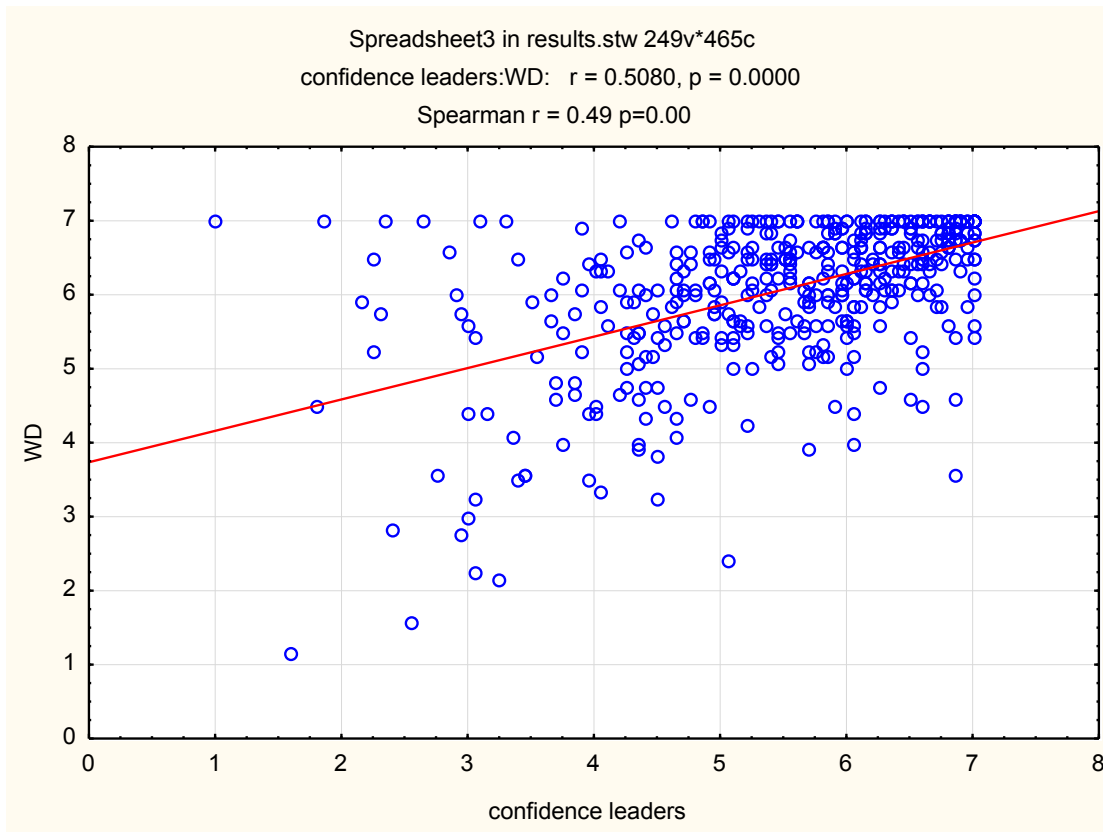
*Figure 4.13.* **Scatterplot of confidence in training and willingness to deploy**

H14:   There is a significant and positive relationship between morale and esprit der corp and willingness to deploy.

The returned responses totaled 500. However, 35 responses were removed because they were incomplete and 465 responses were therefore analysed for this hypothesis. The results (Table 4.3) show a low significant positive correlation between morale, *esprit der corps* and willingness to deploy (r=0.40; p<0.00) (see Figure 4.14). H14 was accepted.
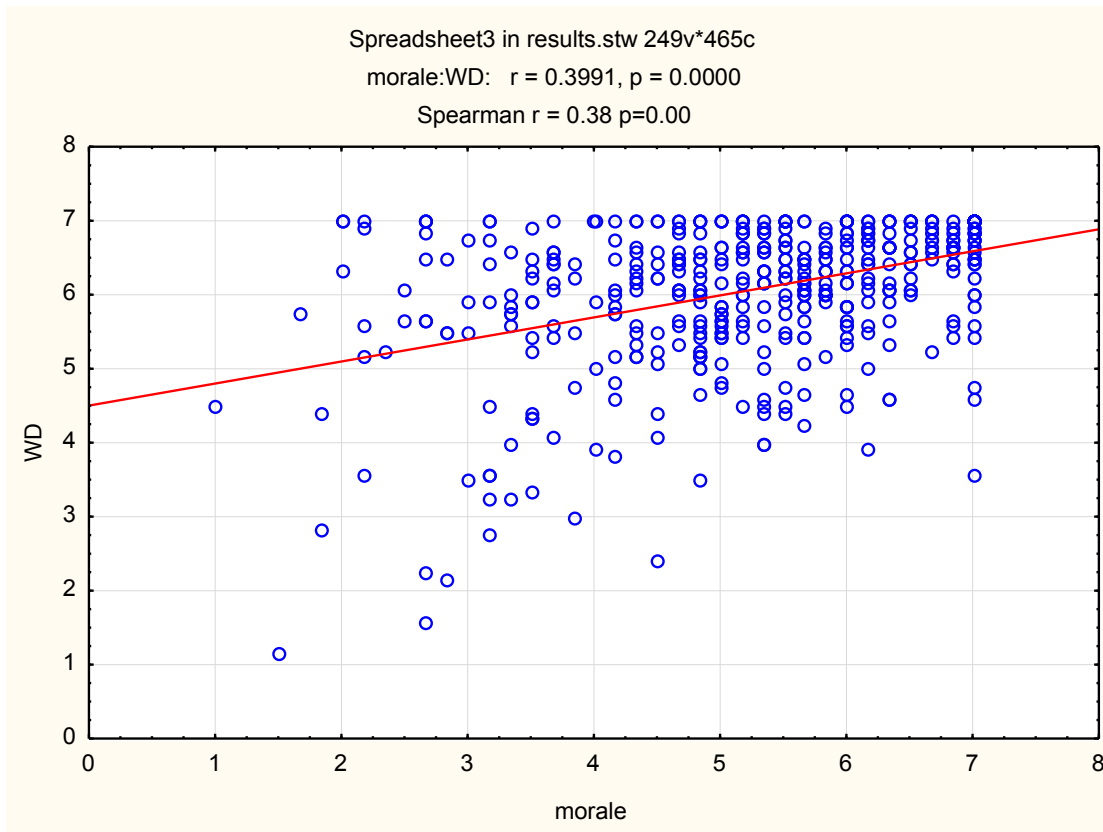
*Figure 4.14.* **Scatterplot of morale and willingness to deploy**

H15: There is a significant and positive relationship between horizontal cohesion and willingness to deploy.

The returned responses totaled 500. However, 35 responses were removed because they were incomplete and 465 responses were therefore analysed for this hypothesis. The results (Table 4.3) show a moderate significant positive correlation between horizontal cohesion and willingness to deploy (r=0.52; p<0.00) (see Figure 4.15). H15 was accepted.
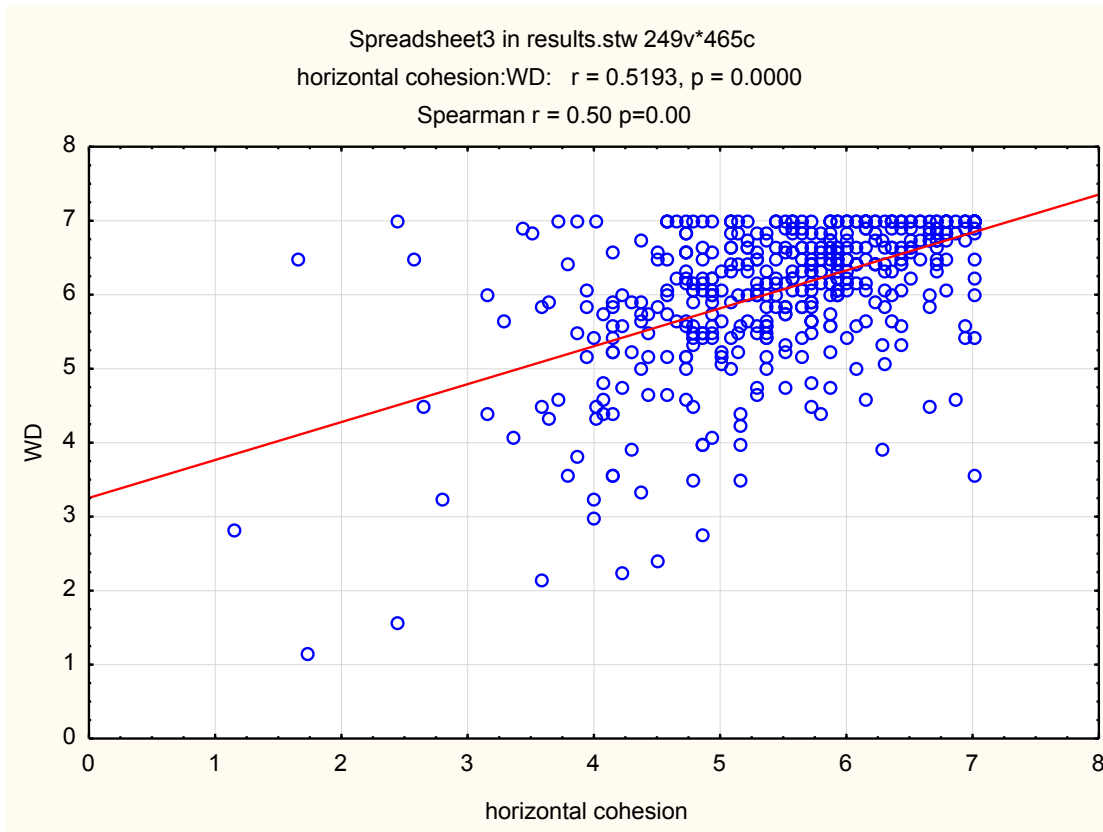
**Figure 4.15**. **Scatterplot of horizontal cohesion and willingness to deploy**

H16:   There is a significant and positive relationship between vertical cohesion and willingness to deploy.

The returned responses totaled 500. However, 35 responses were removed because they were incomplete and 465 responses were therefore analysed for this hypothesis. The results (Table 4.3) show a low significant positive correlation between vertical cohesion and willingness to deploy (r=0.46; p<0.00) (see Figure 4.16). H16 was accepted.
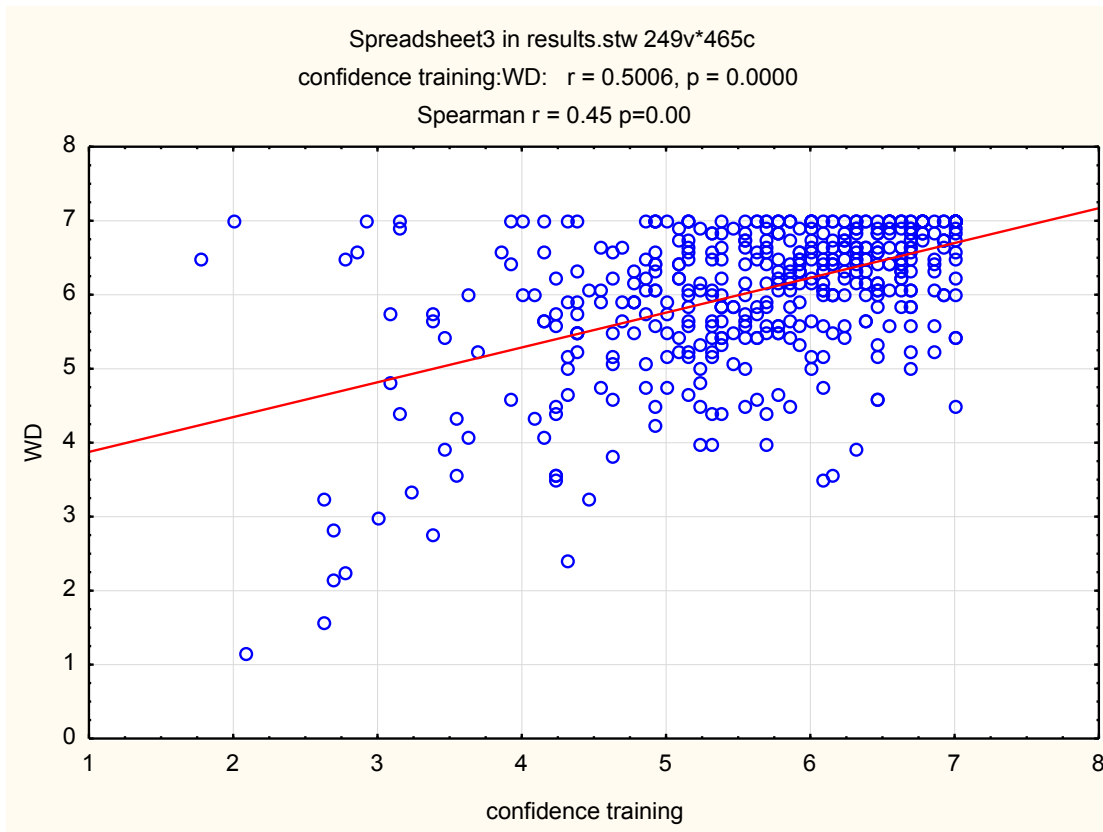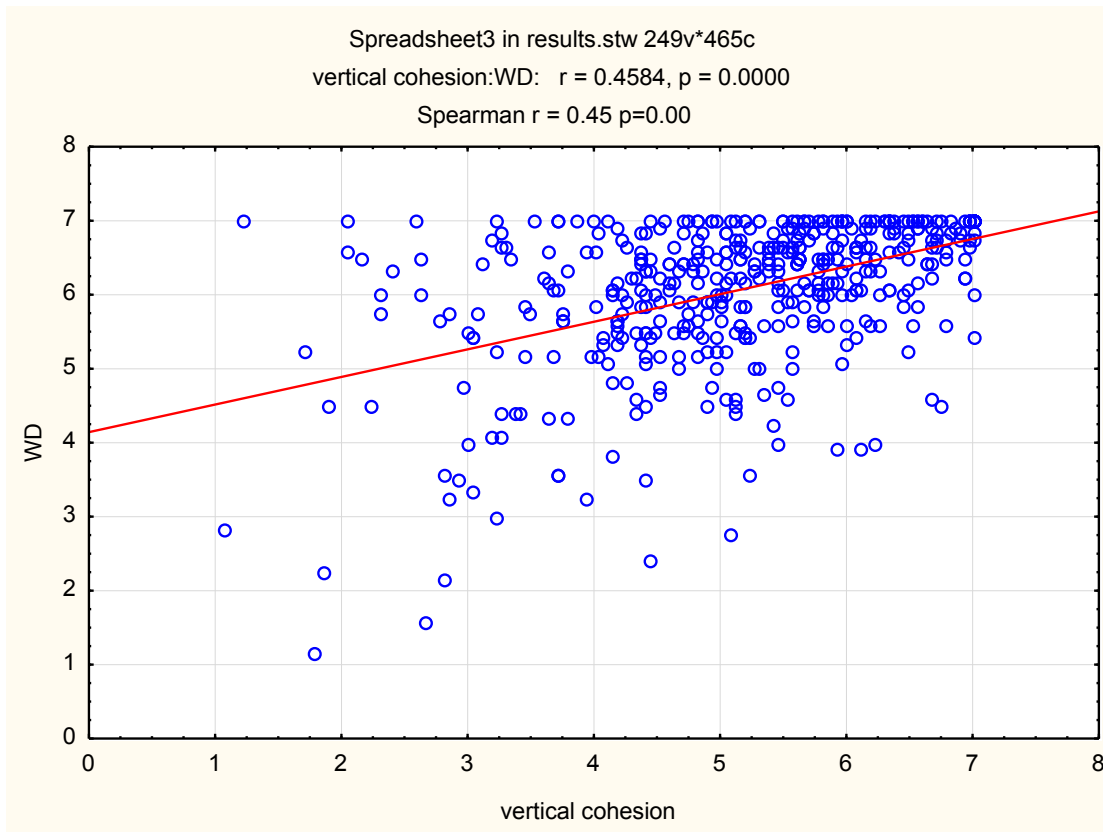
*Figure 4.16*. **Scatterplot of vertical cohesion and willingness to deploy**

H17:   There is a significant and positive relationship between unit discipline and willingness to deploy

The returned responses totaled 500. However, 35 responses were removed because they were incomplete and 465 responses were therefore analysed for this hypothesis. The results (Table 4.3) show a no significant positive correlation between unit discipline and willingness to deploy (r=-0.00; p<0.20) (see Figure 4.17). H17 was rejected.
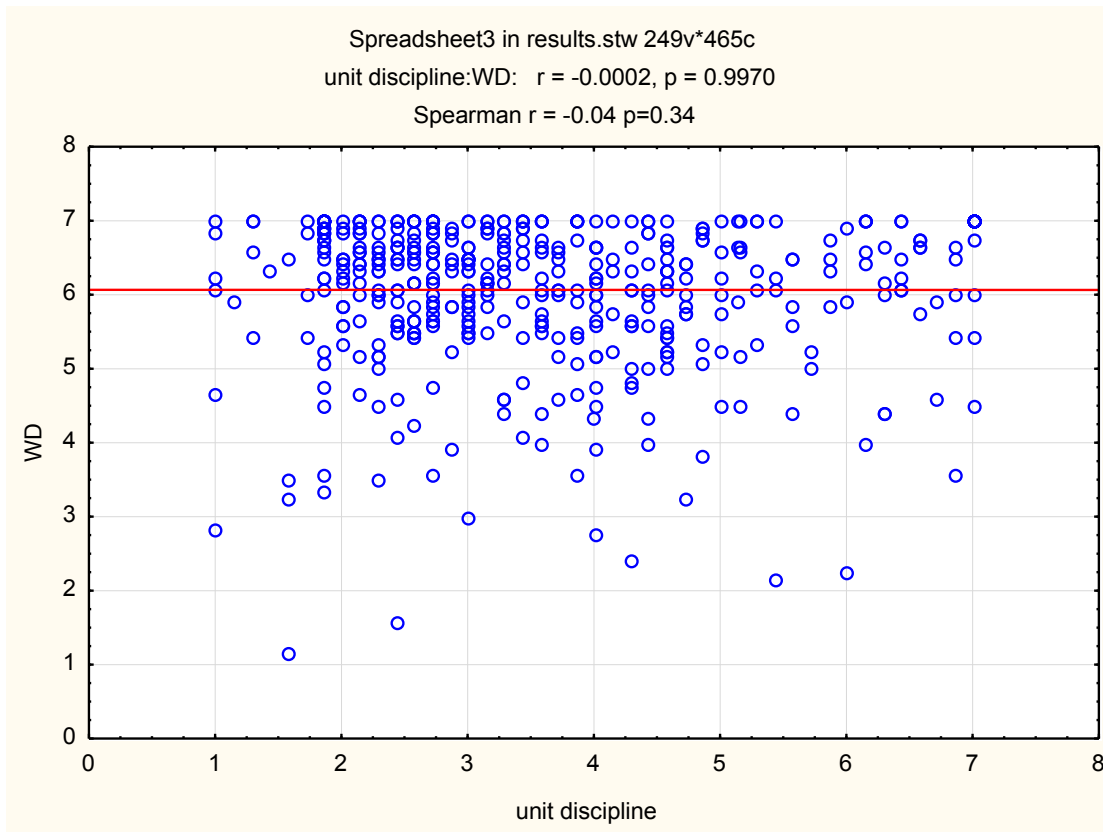
**Figure 4.17**. Scatterplot of unit discipline and willingness to deploy

### 4.4.2  Multiple regression analysis

The purpose of multiple regression analysis is to evaluate the effect of one or more independent variables on a single dependent variable (Sykes, n.d.). According to Sykes (n.d.) this technique allows additional factors to enter the analysis separately so that the effect of each can be estimated. Multiple regression analysis is valuable for measuring the impact of various influences upon a single dependent variable. For this study, the independent variables, PCR and PWB were observed to explain their contribution to the dependent variable, WD. Summary statistics for the whole regression model (see Table 4.4), regression summary for the dependent variable (see Table 4.5), test for moderation (see Table 4.6) and regression of WD on PWB for low and high PCR groups (see Figure 4.19) are provided.

**Table 4.10**

***Summary of statistics for the dependent variable***

| Summary statistics | |
| --- | --- |
| **Statistics** | **Value** |
| Multiple R | 0.57 |
| Multiple $R^2$ | 0.33 |
| Adjusted $R^2$ | 0.34 |
| F(2,436) | 107 |
| p | 0 |
| Std err of estimate | 0.8147 |

$R^2$, called the coefficient of determination, is used as a measure of goodness of fit of the linear regression (Ditsela, 2012; Grundling, 2012). The summary statistics in Table 4.4 reveal that the multiple coefficient of determination ($R^2$) of the variation in the endogenous variable (WD) accounted for by the exogenous variables (PWB and PCR) is 0.33 meaning that approximately 33 per cent of the variability in WD is accounted for by PWB and PCR in the model (see Figure 4.18). As a results of this 33 per cent of the variance in WD can be accounted for by PCR and PWB. The adjusted multiple coefficient of determination (adjusted $R^2$) of 0.34 gives an indication that about 34 percent of the variability of WD is accounted for by PWB and PCR in the model (see Figure 4.18). The p-value measures consistency between the results actually obtained in the trial and the pure chance explanation for those results (Thisted, 2010). It measures the strength of evidence against a hypothesis. If the p-value is small, then the null hypothesis is false or the sample is very unlikely. A small p-value leads to rejection of the null hypothesis in favor of the alternative hypothesis.

The p-value for the regression was statistically significant (p<0.00), indicating that the overall model was significant (see Figure 4.18).

Evaluating each of the independent variables (PWB and PCR) sustained in the model (see Figure 4.18) indicated which variable contributed to the prediction of dependent variable (WD). Use of standardized regression coefficients (beta values) was employed for this purpose (see Table 4.4). Beta is a measure of how strongly each predictor variable (independent variable) influences the criterion variable (dependent variable) (Grundling, 2012). If the beta value is high, it is an indication that the predictor variable has the greater impact on the criterion variable.

**Table 4.11**

***Regression summary for dependent variable: WD***

| N=439 | b* | Std. Err of b* | b | Std. Err of b* | t(436) | p- value |
|---|---|---|---|---|---|---|
| Regression summary for the dependent variable: WD. R= .57  R²= .33   Adjusted R²= 32 F(2.436)= 107.43   p<0.00   Std. err of estimate: 814 | | | | | | |
| Intercept | | | 1.61 | 0.36 | 4.44 | 0.00 |
| PWB total | 0.12 | 0.04 | 0.21 | 0.06 | 3.19 | 0.00 |
| PCR total | 0.53 | 0.04 | 0.65 | 0.04 | 13.35 | 0.00 |

H18:  PCR and PWB explain unique variance in WD in a model containing the PCR and PWB main effects.

In summary, statistics reveals that predictor variables accounted for 33 % variance in the WD processes F (2.436) = 107.43; p<0.00; $R^2$= .33 with PCR making the greatest contribution (see Table 4.5). When the value of p for the predictor (independent variable) is small and the value of t for the predictor (independent variable) is greater, it is an indication that the predictor (independent variable) has the greater contribution to the prediction of the dependent variable.

According to Pallant in Grundling (2012), if the p-value (sig.) is less than .05 (0.1, .0001, etc.), the variable is making a significant unique contribution to the prediction of the dependent variable. If greater than .05, the variable is not making a significant unique contribution to the prediction of the dependent variable. Table 4.5 indicates that PCR has a largest beta value with a p-value of zero. This means that this variable makes the strongest contribution to explaining the dependent variable (WD), when the variance explained by PWB in the model is controlled for. The beta value for PWB was lower (0.12) indicating that it made a smaller, but still a significant contribution with a p-value of .0.00. For this model (see Figure 4.18) PCR (β=.0.53, t=13.35, p<.00) and PWB (β=0.12, t=3.19, p<0.00) are significant predictors of WD. This means that these predictors (PWB and PCR) have a degree of importance in the model (see Figure 4.18). H18 was accepted.
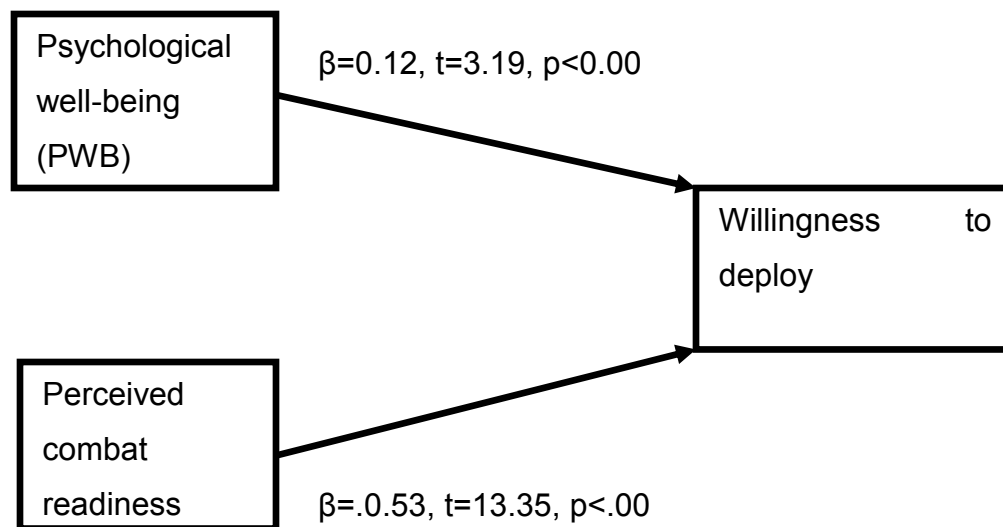


*Figure 4.18* **Predictors of WD**

H19:   PCR moderates the effect of PWB on WD.

**Table 4.12**

*Test for moderation*

| 1 | 2 | 3 | 4 | 5 |
| --- | --- | --- | --- | --- |
| *Independent variable* | *Moderator* | *Dependent variable* | *Interaction coefficient* | *R^2 with interaction* |
| PWB total | PCR total | WD | -0.98 | 0.065 |

**Table 4.12 (continue)**

*Test for moderation*

| 6 | 7 | 8 | 9 |
| --- | --- | --- | --- |
| *R^2 ind. Var only* | *R-square change* | *F-to remove* | *p-value* |
| 0.055 | -0.009 | 4.50 | 0.03 |

The summary of Table 4.6 indicates PWB as independent variable and PCR as moderator. The interaction coefficient is -0.98. The $R^2$ with interaction is 0.065 and $R^2$ with individual variable only is 0.055. The R-square change of -0.009 indicates that PCR does have a moderating effect on WD. Figure 4.19 also illustrates this moderating effect by indicating that when PCR is low WD decrease and when PCR is high WD, increase. Thus, H19 was accepted.
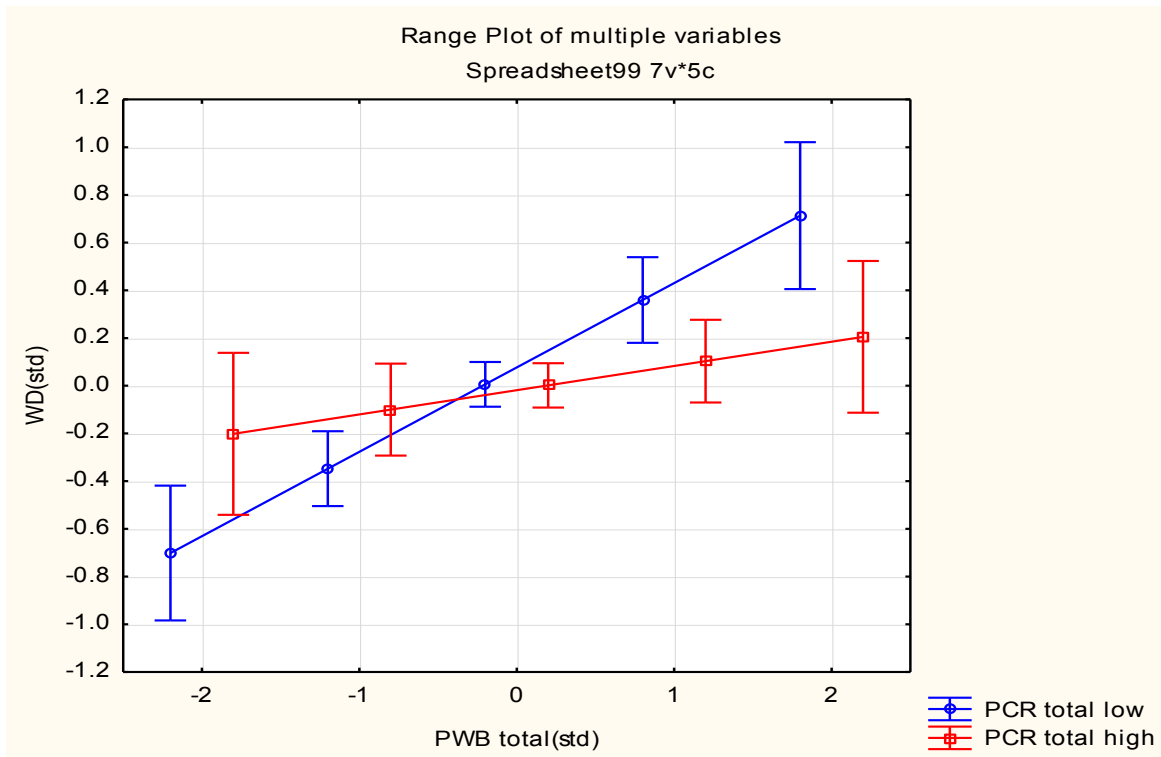
***Figure 4.19.*** **Regression of WD on PWB for low and high PCR groups**

## 4.6    CHAPTER SUMMARY

The purpose of this chapter was to report on the results of this research. Item analysis of scales used in this research was conducted to determine the reliability of the scales. This was followed by a summary of the descriptive statistics for the sample in order to describe it empirically by statistics. Correlations computed for hypotheses testing yielded significant results between PCR (and its dimensions: family support, confidence in self, confidence in team, confidence in leaders, confidence in training, morale and esprit der corp, horizontal cohesion and vertical cohesion), PWB (and its dimensions: positive relations with others, environmental mastery, purpose in life and personal growth) and WD. GH was not correlated with any of the constructs as it was deemed fruitless because it was not going to explain any variance as most of the respondents scored zero (indicating possible absence of social dysfunctioning, severe depression, somatic symptoms and anxiety, contrary to the expectation of the researcher).

Insignificant results were found between self-acceptance, unit discipline and WD. As a result the following hypotheses were accepted H1, H3, H4, H5, H6, H7, H8, H9, H10, H11, H12, H13, H14, H15, H16, H18, H19.

Lastly, multiple regression analysis was computed to determine variance explained by PWB and PCR variables on the dependent variable (WD). Multiple regression analysis indicated that 33 per cent of WD can be accounted for by PWB and PCR with PCR being the stronger contributor at predicting WD at beta level of 0.53 and PWB at beta level of 0.12 as the lesser of the two predictors of WD. A new model emerged which explains willingness to deploy (see Figure 4.18).

PWB and PCR in the study do not correlate much so there is no multicollinearity problem because the correlation between these two predictors is low (0.2). The large sample in this study dictates that deviations from normality will not influence the results as well. Conclusions drawn from the regression analysis can therefore be trusted.

## CHAPTER FIVE
## DISCUSSION OF RESULTS

### 5.1    INTRODUCTION

The research results of Chapter 4 are discussed in this chapter. Firstly the correlation results of PWB (and its dimensions), PCR (and its dimensions) and WD are discussed and from this discussion, the researcher proceed to the discussion of multiple regression analysis between PWB, PCR and WD.

### 5.2    DISCUSSION OF CORRELATION RESULTS

The study aimed to show potential significant relationships between PWB, GH, PCR and WD. In an endeavour to show potentially possible relationships, hypotheses were formulated (see par. 3.2). Almost all hypotheses were accepted. As results the study has thrown some light on and/or brought insight to an understanding of the possible role that PWB (and dimension) and PCR (and dimensions) play in WD.

The dangers associated with war and peacekeeping (Koopman & Van Dyk, 2012; Mackenzie, 1993; Van Dyk, 1998) on the African continent will continue to ravage both the minds and souls of the African people for as long as the African resource base is not under democratic governance and control by its children (Nabishaka, 2011). The peacekeeping tool of the UN aimed at extracting Africa out of this mire of wars and conflicts (Meernik & Brown, 2007) into democratic rule will continue to face challenges in Africa. Those asked to undertake this most difficult of task will have to be psychologically strong and perceive themselves as both warriors and peacekeepers because the task they face is ever-changing and politically charged.

This demands higher levels of PWB and PCR and WD. Sheridan and Radmacher (1992) advanced a notion that peoples' resilience and psychological wellbeing contribute to the ways in which they can deal with stress, leading to health and wellbeing. Dealing with stress can culminates in any soldier in confidence and willingness to deploy. Huppert (2009) states that PWB is associated with flexible and creative thinking, pro-social behaviour and good physical health which can be expected to culminate into inner strength, determination, decisiveness and the ability to act and exact oneself despite challenges and laziness. In short, this calls for WD, which is expressed as such. PWB has long been associated with good performance and success (Erez & Isen in Salami, 2010). Furthermore, psychological dimensions have long been recognized as an important factor in battle (Bester & Stanza, 2007; Gal, 1986) with combat readiness expressed as the extent of perceptions by a soldier regarding among others, family support, confidence, cohesion morale, and discipline (Bester & Stanz, 2007).

## 5.2.1  Psychological wellbeing and willingness to deploy

A positive correlation was found between psychological wellbeing and willingness to deploy. H1, stating that there is a significant and positive relationship between psychological wellbeing and willingness to deploy, was accepted. The results show a low significant positive correlation between psychological wellbeing and willingness to deploy (r=0.23; p<0.00) (see Figure 4.1) which is acceptable according to stipulations by Westgard (1999) and Nelsen (1998), Field (2009), Coetzee and Schreuder (2010) (cited in Ditsela, 2012). No previous research has been conducted with regard to psychological wellbeing and willingness to deploy in the SANDF, but seems to be in line with Ryff (1995) conception of what self-acceptance, an aspect of PWB, can do to an individual, who is creating a positive attitude and improved satisfaction with life. This finding makes a positive contribution to literature for the SANDF regarding peacekeeping in Africa. More research needs to be conducted to confirm or disconfirm this this result.

The deployment of the SANDF is conducted on a voluntary basis, which necessitates soldiers to make themselves available willingly. Willingness to deploy and factors influencing this willingness therefore become very important for the SANDF. PWB has been found in this study to relate to WD. This can form the basis on which to strengthen willingness to deploy in the SANDF. This finding holds potential benefit for the individual members of the SANDF's WD, the whole SANDF's WD, the UN and the African continent. Soldiers who measure highl on PWB will be more willing to deploy in African peacekeeping operations and are ready to defend the territorial integrity of the RSA in the event of war.

### 5.2.2  Self-acceptance and willingness to deploy

A negligible correlation was found between self-acceptance and willingness to deploy. H2, stating that there is a significant positive relationship between self-acceptance and willingness to deploy was rejected according to standards stipulated by Nelsen (1998), Field (2009), Coetzee and Schreuder (2010) (cited in Ditsela, 2012). The results showed a low negligible positive correlation between self-acceptance and willingness to deploy ($r=0.18$; $p<0.00$) (see Figure 4.2). No study could be found on self-acceptance and willingness to deploy. The low correlation between the constructs can be explained by the fact that understanding of self in all respects and acceptance of both positive and negative aspects of self is an independent attribute that has no impact on any other orientation and/or attribute (Ryff, 1995) or construct. The researcher hypothesised that understanding and or acceptance of self in all respects could be expected to have a positive effect on the will to deploy. However, this was not confirmed by empirical results.

### 5.2.3 Positive relations with others and willingness to deploy

H3, stating that there is a significant and positive relationship between positive relationship with others and willingness to deploy, was accepted (r=0.20; p<0.00) (see Figure 4.3). This correlation is not as significant and strong as expected. Having satisfying trusting relationship with others and belonging to a network of support and communication (Ryff, 1995) is expected to create strong bonds and cohesion that will reflect on willingness to deploy in a soldier. This can be explained by the fact that due to other reasons such as getting soldiers from different units for deployment and/or training exercises who do not know each other, resulting in a lack of proper cohesive spirit and morale (Bester & Stanz, 2007). The stressors of peace-support operations have a destructive effect on performance of members and teams as well as individual and collective wellbeing (Davis, 1997; Stewart, 1994), which necessitate strong bonds and cohesion among deploying members in order to have willingness to deploy. This is in line with Bester and Stanz's (2007) notion of the importance of confidence in members of the unit which is of critical importance for combat readiness. Positive relations with others in members of an operational unit who have been exposed to tough, realistic field training and who are well led will reflect the will to deploy as a positive combat team. Shamir et al.(2000) conducted a study in the Israeli defence force to research perceptions of collective combat readiness in combat units, they found that identification (which has an aspect of cohesion and positive relations with others) with the unit was a strong predictor of perceived collective combat readiness.

### 5.2.4 Autonomy and willingness to deploy

Little or no significant positive correlation was found for autonomy and willingness to deploy. H4, stating that there is a significant and positive relationship between autonomy and willingness to deploy (r=0.06; p<0.22) (see Figure 4.4,) was rejected.

No previous study had been conducted regarding the relationship between autonomy and willingness to deploy. This relationship is relatively a new discovery. The military environment is characterised by strict rules and regulations in which every soldier is continuously subjected to and/or expected to follow orders (Bartone, 1998; Dolan et al., 2005), which leaves no room for self-determination and independence in the military environment, particularly in an operational environment. There is also no room for personal standards in an operational environment and the low correlation between autonomy and willingness to deploy may exactly be a reflection of that. Furthermore, the biggest section of the sample comprised predominantly non-commissioned officers and troops with few officers. Non-commissioned officers and troops are trained in the "follower culture" which may be expected to decrease autonomy. Teamwork and unity, which do not promote independence, are also inculcated during training and exercises. Another explanation for this low correlation is that the attribute of autonomy is mostly desirable for leadership where independent thinking is essential, especially in dynamic African peacekeeping operations where the distinction between friends and foes is often unclear. Members in the units are forced to follow set rules and procedures in carrying out their task which compromise their autonomy and their willingness to deploy.

### 5.2.5  Environmental mastery and willingness to deploy

A low but significant positive correlation was found for environmental mastery and willingness to deploy. H5, stating that there is significant positive relationship between environmental mastery and willingness to deploy ($r=0.25$; $p<0.00$) (see Figure 4.5), was accepted. No research could be found on the relationship between environmental mastery and willingness to deploy. In an operational environment, which is characterised by stressors for soldiers (Gilford et al., 2006; Glad, 1990; Inbar et al., 1989; Kalamdien & Van Dyk, 2009), soldiers can be expected to lose their sense of mastery and competence in terms of what they were trained and prepared to do.

Proper reconnaissance of the operational environment leads to a sense of understanding and sense of mastery and control over what to expect (Ryff, 1995). Briefly, this creates a sense of dominance which is a valued aspect in the conduct of a military operation.

### 5.2.6  Purpose in life and willingness to deploy

A low positive correlation was found for purpose in life and willingness to deploy. H6, stating that there is significant positive relationship between purpose in life and willingness to deploy (r=0.24; p<0.00) (see Figure 4.6, was accepted. Purpose in life is characterised by embracement of goals and directedness and a feeling that there is meaning in the present and the past (see Table 2.2). Therefore, when there is a lack of sense of meaning of life (Ryff, 1995) and direction for a soldier (Motowidlo & Borman, 1977), the soldier can be expected to beunwilling to deploy andto  bring peace and/or to defend the territorial integrity of the RSA (Mandrup, 2008) in the event of war. This finding attests to the notion which necessitates proper political education for soldiers to understand the reason why they have to deploy in Africa. The squalor and sadness experienced by the continent (Kagwanja, 2006) because of many and varied forms of conflict require those who serve to bring about peace and equanimity for Africa and to be hopeful of beautiful possibilities for the African continent and its development. They have to see themselves as significant in what they do.

### 5.2.7  Personal growth and willingness to deploy

A low significant positive correlation was found for personal growth and willingness to deploy. H7, stating that there is a significant positive relationship between personal growth and willingness to deploy (r=0.21; p<0.00) (see Figure 4.7), was accepted. Growth in many areas of life (Antonovsky, 1979) results in peak psychological functioning (Ryff, 1995) through a sense of coherence.

Increasing one's skills, talents and abilities is essential if one is to experience a sense of growth (Ryff, 1995). For a soldier a sense of development and growth (Sheridan & Radmacher, 1992; Strumpfer, 1995) is attained through training in the war and peacekeeping business. Once it takes roots, the sense of growth can reflect in the will to deploy and conquer challenges, particularly in African stressful operational environments (Nabishaka, 2011; Neack, 1995). This finding attests to this notion.

### 5.2.8  Perceived combat readiness and willingness to deploy

A strong correlation was found for perceived combat readiness and willingness to deploy. H8, stating that there is a significant and positive relationship between perceived combat readiness and willingness to deploy ($r=0.56$; $p<0.00$) (see Figure 4.8), was accepted. This is partly in line with the findings by Shamir et al., (2000) who found a strong relationship between identification with the unit and perceptions of combat readiness. Identification with the unit can be expected to affect on morale, confidence, determination and therefore willingness to deploy. The SANDF combat power lies not only in the acquisition of armaments, but also in how the soldiers behind the arms feel about themselves, and whether they feel confident enough to effect the event and achieve good results when employed as a peacekeeping force in Africa. These perceptions reach further than the imagination can grasp. In this study, perceptions of combat readiness related to willingness to deploy as a relatively new finding. No previous research to investigate this relationship could be found. Material readiness, as reflected by effective weapon systems and other military hardware such as artillery systems, tanks and new infantry combat vehicles, is required (Griffith, 2006) but should not take precedence over the people behind them (Bester & Stanz, 2007, Griifith, 2002).

How they feel (Manning & Ingraham, 1987), whether they are worried and have concerns about their families and/or trust their leaders (Bester & Stanz, 2007), have morale (Motowidlo & Borman, 1997), or whether they feel competent to use the systems in war and/or peacekeeping have an impact on soldier's willingness to deploy.

Bester and Stanz (2007) acknowledge the importance of the human factor (psychosocial dimension) in battle and deployment, and indicate that soldiers' state of mind of includes how they perceive their own combat readiness. This is derived from aspects such as confidence and social trust, morale and worries and concerns (see Figure 2.3) amongst others. Addressing all the aspects from which these perceptions emanates positively can lead to positive perceptions and high levels of willingness to deploy.

### 5.2.9   Family support and willingness to deploy

A significant positive correlation was found for family support and willingness to deploy. H9, stating that there is a significant positive relationship between family support and willingness to deploy (r=0.38; p<0.00) (see Figure 4.9), was accepted. This is in line with Gal's (1986) acknowledgement of the military as an avaricious institution that seeks special and unbroken loyalties from its members, necessitating family support of the members' family in the course of deployment. Frustration ensues if support is not adequate and/or non-existent given that the military is no longer predominantly unmarried and male-dominated (Drummet et al., 2003). To preserve harmony and enhance willingness to deploy, members' families have to be taken care of in the absence of the members (Kalamdien & Van Dyk, 2009). Statuto (1984) also attests along the same lines by acquiescing that reasonable existence of the relationship between family support and employee functioning and performance. Vandesteeg (2005) states that military families contribute to combat readiness.

Kirkland and Katz (1989) bases the attainment of combat effectiveness on the notion and perspective of the complexity of the interactions between soldiers, families and their units. After al,l if the military care about its soldiers it ought to support the people loved by the soldiers.. A soldier's performance is strengthened by a stable family and a supportive unit (Kirkland & Katz, 1989). This is likely to engender a high level of willingness to deploy as evidence by the result in this study.

The results also shares both Kirkland (1989) and Montes et al. (2010) sentiments that positive work environments characterised by trust, respect for subordinates and familial welfare foster and boost morale, self-esteem, positive attitude and enhance commitment to the unit. The positive attitudes attained are likely to be shared with families which further triggers and/or culminate into willingness deploy. When a soldier is deployed and his spouse is unable to manage the family, the deployed members' individual readiness (Camp et al., 1991) and therefore willingness to deploy is compromised. Hunter (1982) also suggest that as soldiers must be prepared for immediate deployment, the military family must also be prepared to assume the role and duties of the deploying member to ensure family function during deployment. These findings hold potential benefits to the SANDF in terms of force preparation. A great need arise in terms of strengthening family support for members who are going for deployment, who are in the deployment and post deployment to ensure willingness to deploy in the future.

### 5.2.10 Confidence and willingness to deploy

Confidence comprises various building blocks (Bester & Stanz, 2007). These are confidence in self, confidence in team, confidence in leaders, and confidence in training. A significant positive relationship was found for confidence in self and willingness to deploy. H10, stating that there is a significant positive relationship between confidence in self and willingness to deploy (r=0.56; p<0.00) (see Figure

4.10), was accepted. This is in line with Griffith's (2002) notion that many studies attest to the Pygmalion of effect regarding leaders' confidence in their subordinates' achievement and abilities, which triggers subordinates' efficacy beliefs and further enhance and/or influence their performance. Self-confidence plays an important role in small group functioning and unit performance (Griffith, 2006). Members willingly involve themselves in the work group and its performance as concerns confidence in themselves to do the right thing, and confidence that they have the nerve to make things happen. Soldiers do the things in which they believe and about which they are confident in order to achieve results such as long periods away from their families, taking physical risks and foregoing career development to deploy. Rodrigues (1989) argues that personnel training is valuable for self-confidence development. Bester and Stanz (2007) agree, and say that individual soldiers may have the best equipment and may receive the best training possible, but if they do not have confidence or trust in their abilities, their mission is most likely to fail. This is in line with Garrido and Munoz's (2006) statement that a soldier's role and self-confidence are both developed through extensive training.

A significant positive relationship was found between confidence in the team and willingness to deploy. H11, stating that here is a significant and positive relationship between confidence in the team and willingness to deploy (r=0.50; p<0.00) (see Figure 4.11), was accepted. The degree to which there is an emotional bond amongst soldiers is obviously an asset rather than a liability when requiring a high level of willingness to deploy because of the feeling of unity and close emotional bonds amongst soldiers (Davis, 1997; Stewart, 1994). Confidence in team members is based on an understanding that members are tactically and technically skilled in the military, especially when having been trained as a team. When a soldier is confident in his/her team, he/she shall perceive his unit as ready for combat (Peterson et al., 2008).

A significant positive relationship was found for confidence in leaders and willingness to deploy. H12, stating that there is a significant positive relationship between confidence in leaders and willingness to deploy (r=0.51; p<0.00) (see Figure 4.12), was accepted. The degree to which subordinates have confidence and trust in their leaders can obviously be expected to invoke a strong willingness to deploy because there is trust that the leaders' decision will not compromise the followers' safety in an operation (Bester & Stanz, 2007; Bratt, 1999; Mackenzie, 1993).

A significant positive relationship was also found for confidence in training and willingness to deploy. H13, stating there is a significant positive relationship between confidence in training and willingness to deploy (r=0.500; p<0.00) (see Figure 4.13), was accepted. Griffith (2006), Garrido and Munoz (2006) and Shamir et al. (2000) state that confidence is developed through extensive training of a soldier. The finding seems to be in line with this statement. Confidence in training is a form of empowerment which creates self-confidence, and can be expected to explain and predict willingness to deploy,as the finding attests.

These findings are important for the SANDF in developing confidence, which can assist in predicting willingness to deploy by the SANDF members.

### 5.2.11 Morale and willingness to deploy

A significant positive relationship was found for morale and willingness to deploy. H14, stating that there is a significant relationship between morale *esprit de corps* and willingness to deploy (r=0.40; p<0.00) (see Figure 4.14), was accepted. This is in line with the presence of a strong connection between morale and combat effectiveness as suggested by Savage and Gabriel (cited in Griffith, 2002). Griffith (2002, p. 106) defines morale as "enthusiasm and persistence with which members of a group engage in the prescribed activities of the group".

In this view, morale reflects elements of determination and willingness to persist despite challenges. This persistence and enthusiasm (willingness) are also acknowledged in consideration of the notion that it is not the number and strength that bring victory to war, but the army that goes into "battle stronger in soul" (Bester & Stanz, 2007). This finding is also in line with the statement by Garrido and Munoz (2006) that warfare is composed of three spheres based on the threefold order of man (fear, courage and morale), the sum of which produces the will (willingness), which provides direction to movement (see par. 2.5).

Viewing morale as a feeling of determination to overcome obstacles (MacCoun et al., 2006) fundamentally acknowledges that it is a psychological state of mind characterised by a sense of wellbeing that is based on confidence (in all its dimensions).

Boosting morale is not only good for combat effectiveness, job performance, overall wellbeing and satisfaction (Belenky, 1987; Griffith, 2002), but good for willingness to deploy too. Not boosting morale is bad for willingness to deploy and economically wasteful in deploying soldiers who do not have the will.

### 5.2.12 Cohesion and willingness to deploy

Siebold and Kelly (1988) differentiate between horizontal cohesion (cohesion between unit members) and vertical cohesion (cohesion between unit leaders and members). A significant positive relationship was found between horizontal cohesion and willingness to deploy. H15, stating that there is a significant relationship between horizontal cohesion and willingness to deploy (r=0.52; p<0.00) (see Figure 4.15), was accepted. This is in line with what Griffith and Vaitkus (1986, p. 83) called "relational dimension" with two functional aspects, of cohesion, namely affective and instrumental support. These two functional aspects are very important in an operational environment.

Emotional support from comrades to keep going is necessary to survive. Horizontal cohesion brings members together and engenders a sense of belonging, commitment and satisfaction (Kahan et al., 1985), provides a sense of enjoyment, attainment of goals, social support (Griffith, 2002) and predicts willingness to deploy (Bester & Stanz 2007).

A significant positive relationship was found between vertical cohesion and willingness to deploy. H16, stating that there is a significant positive relationship between vertical cohesion and willingness to deploy (r=0.46; p<0.00) (see Figure 4.16), was accepted. This is in line with the previous acknowledgement of leadership by Bester and Stanz (2007) who state that good leaders create and sustain confidence and optimism in subordinates. Hamilton (2010) echoes these sentiments about the importance of cohesion and its determinants such as realistic training, trust, leadership amongst others when discussing morale, which ultimately produces combat motivation, stress reduction and dedication (see Figure 2.6) amongst others. These are all aspects to support willingness to deploy.

### 5.2.13 Unit discipline and willingness to deploy

No relationship was found between unit discipline and willingness to deploy. H17, stating that there is a significant positive relationship between unit discipline and willingness to deploy (r=-0.00; p<0.20) (see Figure 4.17), was therefore rejected. This finding contradicts findings on unit discipline by Shamir et al. (2000) where unit discipline was equated with higher perceived combat readiness. Disciplined soldiers are expected to complete tasks even under adverse stressful circumstances. Clausewitz (1976) acknowledges that discipline, morale, cohesion and leadership provide an ironwill to overcome challenges on the battle field. Morale itself is founded on discipline (George, 1947).

That unit discipline did not explain willingness to deploy in this study can be explained by a series of deployments the SANDF had undertaken between 2003 and 2013 resulting in lack of stability in units. Unit members who trained together were moved around to deploying units to feel the gaps leading to lack of perceived unit discipline by those left behind with an adhoc arrangement, for example, a platoon with a completely new leadership because its usual leadership is on deployment and vice-versa. This might have been the case in this study. The implication is that the SANDF must retain stability in the units if it wants to sustain unit discipline.

## 5.3  DISCUSSION OF MULTIPLE REGRESSION ANALYSIS RESULTS

Multiple regression analysis was conducted to determine whether individual variables significantly explained variance in the dependent variable in the model (see Figures 1.2 and 1.3). Multiple regression analysis indicates the unique contribution that each variable of interest makes to the dependent variable linked to it. The correlations results showed significant relationships between PWB, PCR and WD. This was in line with the results of the multiple regression analysis which indicated that PWB and PCR made a significant contribution to WD.

Multiple regression analysis was done on PWB total and PCR total. The summary statistics disclosed that 33 percent of variability of willingness to deploy could be accounted for by the predictors.

PCR had the largest beta value, making it the strongest contributor to willingness to deploy in this study. H18, stating that PCR and PWB explain unique variance in WD in a model containing the PCR and PWB main effects, $F_{(2.436)} = 107.43$; $p<0.00$; $R^2 = .33$, was accepted. This is in line with the discussion on PCR and PWB effects on functional aspects such as performance, satisfaction, persistence, sense of wellbeing and combat effectiveness, which all reflects elements and/or aspects of willingness. H19, stating that PCR moderates the

effect of PWB on WD (see Table 4.5 and Figure 1.19), was also accepted. The R-square change of -0.009 (see Table 4.5) indicates that PCR does have a moderating effect on WD. When PCR is low, WD decreases, and when PCR is high, WD increases (See Figure 1.19). These results hold potential advantages for the SANDF because it can use the results to develop PCR and PWB in order to enhance WD in members.

## 5.4    CHAPTER SUMMARY

Significant results of this study include the contribution of psychological wellbeing and perceived combat readiness in explaining and predicting willingness to deploy in the SANDF in the light of the bold steps taken by the RSA to quell conflicts in Africa using the SANDF as a foreign policy tool. Perceived combat readiness makes the biggest contribution in predicting willingness to deploy with most of its dimensions, except unit discipline, singly contributing strongly to explain and predict willingness to deploy in the SANDF. Psychological wellbeing was the second most important contributor with all its dimensions, except self-acceptance, also contributing moderately to explain willingness to deploy in the SANDF. Developing and maintaining psychological wellbeing and perceived combat readiness in the SANDF can contribute to improved willingness to deploy in members.

# CHAPTER 6
# CONCLUSIONS, LIMITATIONS AND RECOMMENDATION

## 6.1    CONCLUSIONS

The need for bringing stability on the African continent has necessitated the use of military forces for peacekeeping. Africa has seen many and varied forms of conflicts, struggles, underdevelopment and poverty. The South African government in its bold steps to help Africa attain political, economic and social stability has embarked on the employment of the SANDF in Africa for peacekeeping. This employment and/or deployment is by no means an easy task, as shown in the literature review (see Chapter 2), as those who are responsible to do the task need to be properly trained, carefully selected and logistically adequately supplied. However, training and logistical supply cannot guarantee success in the military operational environments of Africa. Deploying soldiers, in addition to being technically and tactical prepared, must be psychologically ready and prepared. This means their subjective views about themselves as individuals, and as groups and about their leaders count. This is the gap in the SANDF identified by this study. The psychological wellbeing of the deploying members, their perceived combat readiness and their willingness to do the task required of them to do have never been the focus of study in the SANDF.

The study aimed to explore the impact of and/or relationship of psychological wellbeing, combat readiness and willingness to deploy in the SANDF. Exploration of these relationships could make a contribution in terms of enriching the knowledge base of the SANDF regarding psychological wellbeing, perceived combat readiness and willingness to deploy. For this study, an empirical test was conducted on the relationship between PWB and its dimensions and PCR and its dimensions on WD.

Scientific research methodology was employed to establish the validity of the relationships among the selected independent variables on willingness to deploy (see Figures 1.2 & 1.3). Theoretical background provided connections, determinants and implications of these variables on willingness to deploy. The reflection of these relationships statistically served as an epistemic ideal of science.

The contribution of the study results could help the SANDF in the enrichment of its knowledge base on psychological wellbeing and perceived combat readiness and willingness to deploy. New knowledge has emerged regarding the possible predictors and/or explanatory variables for willingness to deploy. SANDF deployment is based on a voluntary basis and therefore depends on willingness to deploy. The existence of possible relationships between PWB, PCR and WD has been established. The strongest of these relationships was found between PCR and WD (see Figure 4.8). This finding holds important advantages for the SANDF in terms of training and development to enhance factors which are determinants of PCR, that will filter into the prediction of WD. No correlation was found between self-acceptance and WD and between unit discipline and WD as well as between autonomy and WD. The implication of the rejection of the hypothesis where no correlation was found also holds some advantages in terms of understanding which explanatory variables can be developed to yield willingness to deploy in the SANDF.

The results of the multiple regression analysis (see Figure 4.19 and Table 4.5) revealed PWB and PCR could be used to predict WD. PCR attests as the biggest predictor of WD. These findings could be used in the SANDF to predict willingness to deploy in the light of the deployment claimed to be based on voluntary basis.

## 6.2    LIMITATIONS

Limitations of this study need to be disclosed to avoid claims that the results are watertight and not vulnerable to plausible explanations. It is imperative to acknowledge the following limitations of the study.

- The first limitation of the study is that the study was conducted from a sample of the SANDF and not the entire SANDF.
- The study was limited to the army.
- The correlations found do not mean that the dependent variable is caused by the selected independent variables in this study.
- The sample may have been the wrong sample, given multiple external deployments by many members.
- The use of self-report questionnaires posed its own challenges.

Despite the above limitations, the study has proved worthwhile and provided new insights and understanding on explanatory variables for willingness to deploy in the SANDF. Harnessing this new insight and understanding could be employed for the betterment of force preparation for peacekeeping training in the SANDF, in support of AU and UN missions in Africa.

## 6.3    RECOMMENDATIONS

Recommendations from this study and other implications and pertinent issues regarding the results of the study are discussed. Further research on willingness to deploy and all its explanatory variables needs to be conducted. Developing willingness to deploy as a robust concept in the armed forces can produce a relevant theoretical basis for ushering in new insights and understanding of the concept. Given that this study was only an exploratory study aimed at venturing on new grounds, it is recommended that a more comprehensive study which includes all arms of service be undertaken.

A detailed analysis of the explanatory variable dimensions, such as self-confidence to name one, on willingness to deploy in the SANDF needs to be done. This will provide a reservoir of knowledge and understanding on predictors of willingness to deploy.

A comprehensive research on positive psychology in terms of willingness to deploy will further enhance and strengthen the force preparation for peacekeeping and future battles in Africa characterised by a plethora of stress factors and stressors, and will help with the accumulation of knowledge in this area.

Measuring PWB, PCR and WD could be utilised in the identification of a lack of positive psychological functioning, potential for mission failure derived from negative subjective perceptions and the will to perform and win in battle. The information could be filtered into training programmes aimed at developing combat readiness as perceived by SANDF members themselves about themselves. This needs a core of confident, competent and educated leadership who is geared to take the SANDF to the next level of military proficiency. Subjective experiences and perceptions are informed by confidence, morale, cohesion, perceived support and good leadership which the SANDF needs to develop and maintain.

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