MILITARY DEPLOYMENT AND STRESS:
an empirical survey in the SANDF's operational military personnel of the Western Cape

NOEL MZWAMADODA MANGXOLA

A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS IN CLINICAL PSYCHOLOGY

UNIVERSITY OF CAPE TOWN
DEPARTMENT OF PSYCHOLOGY
FACULTY OF SOCIAL SCIENCES AND HUMANITIES
1999

SUPERVISOR: ASSOC. PROF. ANDY DAWES

ABSTRACT

This study explores the psychological impact of deployment of South African National Defence Force (SANDF) military operational personnel to community policing duties of crime and violence in the Western Cape. It is primarily motivated by the fact that, apart from the inherently stressful nature of military depolyment, there may be other organisationally induced stressors that impact on the soldiers' psychological well-being. Another concern that has frequently emerged within the SANDF is that the inclusion of the SANDF military operational personnel into community policing duties, which are primarily a responsibility of the South African Police Service (SAPS), may be an ill-informed undertaking. The basis of this concern is that the currently assigned task of community policing is different to the soldier's and military institution's primary training, design, and functional mandate. Other concerns have been in the form that (1) the ongoing deployment of the SANDF military operational personnel to a community policing function invariably politicises a defence force, (2) such deployment may undermine the image and legitimacy of the SANDF amongst some sectors of the population, and (3) efforts to apply military solutions to community problems inherently and invariably lead to acts of repression.

A number of other difficulties were anticipated given the history of the South African socio-political history, South African civil-military relations, and the current integration and rationalisation processes underway in the SANDF. These were assumed to result in a host of organisational and operational stressors in the SANDF. Recent research studies on the SAPS were used as reference literature since they provide a close reflection of what may be happening in the SANDF and its community policing duties. A quantitative approach through the use of a questionnaire was used to ascertain the following issues in this study:

- levels and patterns of stress symptomatology in this sample of SANDF military operational personnel.
- patterns of organisational and operational stressors in this SANDF sample.
- the variables that determine the stress levels of this sample.
- utilisation of support systems and coping strategies in this sample.

195 respondents took part in this study. The questionnaire included biographic details, the Symptom Checklist-90-Revised (SCL-90-R), and a modified version of the Spielberger Police Stress Survey, now renamed the Deployment Hassles Checklist (DHCL). Results of this study revealed that stress isa problem in this sample of SANDF operational personnel. Operational and organisational stressors were

found to be the main predictors of the stress symptomatology. Also members of the former Non-Statutory Forces (NSF) like the Azanian Peoples Liberation Army (APLA) and uMkhonto weSizwe (MK) were the most stressed member groups of this sample. While there was generally an elevated stress symptomatology level in the whole sample, symptoms of anxiety disorders and depression were the main forms stress manifestation in the former NSF members of this sample.

ACKNOWLEDGEMENTS

I am eternally grateful to my Ancestors who form a spiritual link to God - my Creator, for the courage and strength They gave me when I was confronted with numerous challenges that timeously disillusioned my efforts to accomplish this task. This journey would not be possible without Your care and guidance.

My gratitude for encouragement, contributions, assistance, and co-operation towards completion of this study are further extended, with much appreciation, to the following people:

My supervisor, Associate Professor Andy Dawes for his support, guidance and encouragement at the most trying times of this study. His attunement to, knowledge and appreciation of the issues related to this study proved to be a valuable factor in this journey in pursuit of knowledge. His sensitivity to my demands of personal and professional development in this learning curve is outstanding.

I am also indebted to the invaluable help and co-operation I received from Doctor Colin Tredoux. His expertise in statistical analysis, which saved me from a seemingly insurmountable obstacle of lack of background in this field is greatly appreciated. You rescued me from the sleepless nights that were going to feature on my way out of this difficulty.

Most importantly, tribute goes to the soldiers who volunteered to facilitate, take part, and inform me of the dynamics within the SANDF and the unit itself. Particular reference is made to the Officer Commanding of the unit, the head of psychology department in the WP Medical Command, the company commanders of the operational military personnel, and the soldiers who voluntarily took part in this study. Your co-operation and enthusiasm with this research project is greatly appreciated.

Completion of this project owes a lot to the love, understanding, and unfaltering support of my mother (who is still struggling with the idea of me being a soldier), my son Makhi, and all my brothersand only sister. This tribute also goes to Mildred, and all my caring friends who selflessly gave even when they had nothing.

The financial assistance of the Medical Research Council (MRC) towards completion of this study is hereby acknowledged. Opinions expressed and conclusions arrived at are those of the author and may not necessarily be attributed to the University of Cape Town, MRC, the SANDF, and/or any other institution referred to in this project.

TABLE OF CONTENTS

	Page
Abstract	ii
Acknowledgements	iv
List of Tables	viii
CHAPTER 1: INTRODUCTION TO THE STUDY	
1.1 INTRODUCTION AND OUTLINE TO THE STUDY	1
1.2 MOTIVATION FOR THE STUDY	2
1.3 AIMS OF THE STUDY	3
1.4 BRIEF RELEVANT BACKGROUND	4
1.5 THE SOUTH AFRICAN NATIONAL DEFENCE FORCE	6
1.6 MILITARY DEPLOYMENT	11
1.7 CONCLUSION	12
CHAPTER 2: LITERATURE REVIEW	
2.1 INTRODUCTION	13
2.2 STRESS: A CONCEPTUAL REVIEW	13
2.3 APPROACHES TO UNDERSTANDING STRESS	14
2.3.1 Stimulus-based approach	15
2.3.2 Response-based approach	15
2.3.3 Interactional approach	17
2.4 STRESS MODERATORS	17
2.5 STRESS MEASUREMENT	18
2.5.1 Physiological measures	18
2.5.2 Self-report measures	18
2.5.3 Unobtrusive measures	19

2.6 STRESS IN WARTIME SITUATIONS 20
2.7 STRESS IN CIVIL CONFLICT SITUATIONS 20
2.8 STRESS IN THE POLICE 23
2.9 THE SANDF'S COMMUNITY POLICING FUNCTION 26
2.10 SUMMARY 27

CHAPTER 3: THE PRESENT STUDY
3.1 INTRODUCTION 28
3.2 RATIONALE 28
3.3 CONTEXT 29
3.4 STRESSORS ASSOCIATED WITH SANDF'S MILITARY DEPLOYMENT 30
3.5 RESEARCH INSTRUMENTS 32
3.6 THE BIOGRAPHIC DETAILS 32
3.7 THE QUESTIONNAIRE 33
3.7.1 The Symptom Checklist-90-Revised (SCL-90-R) 33
3.7.2 The Deployment Hassles Checklist (DHCL) 33
3.8 THE SAMPLE 34
3.9 PROCEDURE 35
3.9.1 Securing permission for the study 35
3.9.2 Administration of the questionnaire 36
3.10 DEVELOPMENT OF MEASURES 36
3.10.1 Tables reflecting the factor structure, reliability and item loading of the DHCL 38
3.11 ANALYSIS 40

CHAPTER 4: RESULTS AND DISCUSSION
4.1 INTRODUCTION 41
4.2 DESCRIPTIVE ANALYSIS OF THE SAMPLE 41
4.3 DEMOGRAPHIC PATTERNS 43
4.3.1 Educational level and stress manifestation in the SCL-90-R

and DHCL 43
4.3.2 Area of residence in relation to stress manifestation in the SCL-90-R and DHCL 44
4.3.3 Previous Military History and stress manifestation in the SCL-90-R and DHCL 45
4.3.4 Predictors of the GSI score of the SCL-90-R for the total sample 46
4.4 COPING 46
4.5 SUMMARY AND DISCUSSION OF RESULTS 48
4.5.1 Symptom levels and stress 48
4.5.2 Demographics 49
4.5.3 Predictors of stress symptomatology 52
4.6 SOCIAL SUPPORT AND COPING 56
4.7 LIMITATIONS OF THE STUDY 58
4.8 CONCLUSION AND RECOMMENDATIONS 59

REFERENCES 61

APPENDICES

LIST OF TABLES AND FIGURES

Table 1	The 1998 population mix and rank structure inthe SANDF	8
Table 2	SANDF strength per rank, race and gender	10
Table 3	Defining characteristics of the sample	35
Table 4	Alpha coefficients for the 9 symptom dimensions of the SCL-90-R	37
Table 5 (a)	Factor 1 - Organisational stressors	38
Table 5 (b)	Factor 2 - Inherent stressors of daily military life	38
Table 5 (c)	Factor 3 - Perceived threats to safety	39
Table 5 (d)	Factor 4 - Inherent stressors of operational duty	39
Table 5 (e)	Factor 5 - Personal strains of military life	39
Table 6	Mean t-scores and Standard Deviations of the SCL-90-R for the total sample	41
Figure 1	Box and Whisker Plot of the mean SCL-90-R scores for the total sample	42
Figure 2	Mean SCL-90-R symptom scores for the total sample plotted by Previous Military History	42
Figure 3	Mean SCL-90-R symptom scores for the New Recruits and former statutory and non-statutory forces	43
Table 7	Mean t-scores and Standard Deviations for educational level	44
Table 8	Mean t-scores and Standard Deviations for area of residence	45
Table 9	Mean t-scores and Standard Deviations for Previous Military History	45
Table 10	Summary of stepwise regression with the GSI as the dependent variable	46
Table 11	Means t-scores and Standard Deviations for substance use	47
Table 12	Significant substance-use F and p values in the SCL-90-R and DHCL	48
Table 13	Comparison between SANDF and SAPS inherent stressor events	53

Table 14	**Comparison between SANDF and SAPS organisational stressor events**	**54**
Table 15	**Top five service providers indicated over three successive preference ratings**	**56**

CHAPTER 1 : INTRODUCTION TO THE STUDY

1.1 INTRODUCTION AND OUTLINE OF THE STUDY

In this brief chapter, the outline, motivation and aims of this study are presented. This is coupled with a brief background pertaining to the past and present history upon which this study is conducted. This background briefly covers the role of the military in the past three decades of apartheid rule in South Africa, presenting the flavour of political conflict and violence that characterized this period. The role of the military, particularly the South African Defence Force (SADF) is explored up to the point of its replacement with the South African National Defence Force (SANDF). Lastly, the SANDF and its current functioning is presented.

One of the most common stressors in any defence force is the deployment of its soldiers. Young and Holden (1991) maintain that during this period troops become exposed to numerous psychosocial stressors and occupationally related dangers. In particular, there are a number of training and combat related situations which involve loss of life. Merbaun and Hefez (1976: p.1) assert that "in its most violent form, military deployment confronts the soldier with a frightening array of possible and present consequences such as continual threats to physical survival, poor sanitary conditions, excessive noise levels, profoundly disturbing visual experiences, and interrupted sleep patterns, to name a few of the aversive stimuli."

The scenario stated above is equally true for the SANDF as many of its soldiers are frequently deployed for extended periods of time to attend to and maintain domestic law and order in South African civil communities. The main difference is that the SANDF has temporarily shifted its primary function of attending to external aggression directed towards the country. The current focus isnow on the secondary, but equally stressful function of maintaining domestic law and order duringcommunity policing of crime and violence activities alongside the South African Police Services (SAPS) (Defence Review, 1998).

Soldiers are exposed to a broad range of stressors which are unique to the military context. These stressors include the demand to be combat ready, frequent geographical transfers, isolation from the broader community, and a host of secondary stressors like the disruption of marital, family, and parent-child relationships (Kruger, 1997; Mathee, 1997, Van Breda, 1998). The geographical separation from the family has psychosocial implications which impact negatively on the military employee's job

performance, marriage, lifestyle, personality, and health in general (Thys, 1998).

Whilst Adler, Vaitkus, and Martin, (1996) assert that exposure to casualties is positively correlated to elevated rates of stress symptomatology, there is evidence that some, if not many of these military personnel do cope well with deployments (Van Breda, 1998). The general argument is that soldiers can show stress resilience as they are trained and prepared for the hassles associated with military routine. However, Aldwin (1994) cites denial and suppression of emotions as the main coping mechanisms in those who exhibit resilience to stress. Van Breda (1995, 1997, 1998) presents a list of other factors associated with this stress resilience. They include emotional cycles prior to and post deployment, attitudes to deployment, availability of support networks, financial preparation and security, family structures, separation and children, and civil-military relationships.

This study attempts to identify and explore the manifestation of the stress symptomatology in the SANDF military setting. Emphasis will be placed on describing the stressors as they manifest themselves in a non-combative community policing role of the SANDF during military deployment to environments infested with crime and violence. Thereafter, the sources of these stressors will be investigated and named accordingly. This would entail distinguishing between those stressors inherently found during military deployment activities alongside the SAPS and those that emanate from the day-to-day operation and management of the SANDF military organization.

In essence, this study will focus on stress experienced by a sample of an SANDF infantry unit in the Western Cape. Analysis of the results will draw on established theoretical work on stress, namely the stimulus approach which identifies and assess the impact of the environmental stressors in the SANDF operational military personnel. The results will be compared to the recent research findings on stress in the SAPS (Artz & Douglas-Hamilton, 1995; Gulle, Tredoux, & Foster, 1998; Munshi, 1998), thereby contributing to the recently emerging South African studies focusing on the South African armed forces and the nature of their work.

1.2 MOTIVATION FOR THE STUDY

This study is primarily motivated by a concern within and outside of the SANDF, about the impact supportive community policing duties have on military personnel as this function is different to their primary training (Anglin, 1996; Defence White Paper, 1996). Recent research findings have shown high stress levels within the SAPS involved in this community policing function (Gulle et al 1998). The main concern is that soldiers and military institutions are primarily designed, trained, and equiped to invoke

maximum lethality and force against an external enemy (Nathan, 1994). However, due to the current probable absence of conventional military threat to South Africa, the SANDF has had to focus more on secondary functions like peace keeping, preservation of life, health, and property, community policing of violence and crime, and maintenance and provision of essential services. Soldiers are therefore likely to experience a certain amount of stress as these functional, and the recent structural changes may demand some measure of adjustment.

Thus, as extrapolated from the research on police stress by Gulle (1996), this study is broadly motivated by the following:

a) Stress potentially undermines the effectiveness and efficiency of defence force personnel.

b) The consequences of stress in soldiers may have an adverse effect on the development and maintenance of good civil-military relations.

c) There exists the possibility that soldiers under stress can, in certain situations, constitute a real threat to their own safety, that of their fellow officers, the offenders they deal with, and indeed the general public.

The second motivation is that there appears to be a lack of research studies on stress in the South African law and order organs of state, namely the SAPS and SANDF. This has been attributed to the isolation and inaccessibility of these institutions from the wider community, journalists and scholars alike (van der Spuy, 1990), especially prior to the 1994 general elections. The other reality is that the SAPS and SANDF are relatively new compared to their predecessors, namely the South African Police (SAP) and SADF. It is for these reasons that the incidence and prevalence of stress and stress-related disorders in these institutions has remained largely undocumented (Artz & Douglas-Hamilton, 1995; Mushi, 1998). Thus, this study would contribute to the emerging, independent and systematic studies on these organizations. This would facilitate the development of effective intervention strategies and stress management programmes, which would address the above issues and facilitate a soldier's adequate adjustment to the currently identified functional roles and priorities.

1.3 AIMS OF THE STUDY

The broad aims of this study are as follows:

a) To ascertain the level of psychological stress and psychological well-being in a sample of SANDF's operational personnel deployed in support of the SAPS in community policing operations of crime and violence.

b) To generate some understanding of the sources and possible cause(s) of psychological distress

in this sample of SANDF military operational personnel.

c) To assess utilization of sources of support, including the utilization of the SANDF's Directorate of Psychological and Social Work Services (D Psych and D SW) by operational personnel. The information obtained in this research study can be used to facilitate appropriate service provision and delivery through suitably planned and informed intervention strategies, and thereby optimize the operational functioning of the SANDF's military personnel in execution of their duties.

1.4 BRIEF RELEVANT BACKGROUND

This brief background on the previous apartheid South Africa, the role ofthe military in the former South African civil conflict, and the current post-apartheid scenario of violence andcrime serve as a basis from which this study on stress in the SANDF will be examined.

Violence and warfare have played a dynamic and powerful part in the history of the South African population The blame has been largely placed on the institutionalized apartheid system of the pre-1994 General Election period . The racial, social, and economic inequalities characteristic of the past and present South Africa are largely the results of this system. Violence became the single most powerful indicator of resistance to this institutionalized system of oppression as drastic measures to enforce this discriminatory practice soared in the 1980's and early 1990's (Burman, 1986; Kane-Berman, 1993; Zille, 1986). As civil resistance to apartheid oppression and exploitation intensified, counteractive state repression practices increased to alarming proportions through the use of armed forces, namely the SAP and SADF (Chikane, 1986). The SAP also assumed an aggressive militaristic posture with a shoot-to-kill attitude in ensuring the maintenance of apartheid rule (Hanson & van Zyl-Smith, 1990; Van der Spuy, 1990).

During the struggles for liberation in South Africa, black communities lived with horror of civil conflict as the might of the armed forces was approved and supported by the apartheid legislation. The height of political conflict saw many homes gutted by fire and residents forced to flee. Individuals reported gross human rights abuses from the law and order organs of state, including incidents of shooting of innocent people, looting houses, crashing deliberately into taxis, intimidating the youth, harassing women, detaining individuals unjustifiably and torturing prisoners (Human Rights Committee, 1995). The unarmed civilian population saw violence as one of the ways to expresstheir disapproval of the repressive apartheid system and further protect themselves from the armed forces (Chikane, 1986).

As repression of communities continued through officiation of apartheid policies like separate education,

the pass laws, forced removals, and detention without trial, the oppressed majority saw violence asa socially accepted way of dealing with forces against them (Christopher, 1994). The apartheid government's response to this violence was, among others, the imposition of several states of emergency from 1976 onwards, the banning of the liberation movements, andincreased brutality of the armed forces. However, this did not suffice to curb the violence in the country as liberationmovements intensified their resistance through taking up arms and operating underground. The intensification of violent resistance to apartheid thus brought about a civil conflict situation which was waged through internal mass demonstrations and armed resistance mostly launched from neighbouring states.

Brogden and Nijhar (1998: p. 89) state that "apartheid survived for many years not because it signified an authoritarian centralised state but because it could rely on individuals and agencies at lower strata of power to contribute their own efforts to sustaining that abnormal structure". The police and the military represent that lower strata of power that ensured survival of the apartheid system. The resultant civil conflict situation was mostly as a result of oppressed masses' attempts to defeat and ensure ungovernability of the apartheid system. South Africa's undeclared war with the oppressed masses and the neighbouring states opposed to apartheid impacted negatively on public perception of both the police and the military (Stultz, 1993). As large numbers of civilians became exposed to violence in South Africa (Goldstone Commission, 1994), the perceived role of police andthe military remained that of perpetrators of this violence (Mortimer, 1996; Skinner, 1998; Race Relations Survey, 1998). These studies show that significant numbers of people still perceive the military and the police in a negative manner.

As the apartheid system started giving in to the oppressed masses demands for liberation in the early 1990's, crime and violence continued at an alarming rate in South Africa (Burger & Beard, 1998; Crime Information Management Centre, 1998). This criminal violence situation is largely attributed to the culture of ungovernability and resistance, both a legacy of apartheid resistance, poverty, and the political and economic uncertainties that characterized the change to a democratic South Africa (Reality Check Special Report, 1999). On the other hand the change to democracy in South Africa did not affect the public's perception of the police and the military as perpetrators of violence (Human Rights Committee, 1995).

The present democratic government has indicated a commitment to and a drive towards changing this perpetrator image of the military in the current South Africa (Defence White Paper, 1996; Defence Review, 1998). Integration processes of the former armed forces are such mechanisms that have been established to create national unity and reconciliation, and marked the establishment of the new SANDF.

There is now an emphasis on military professionalism within the SANDF, with priorities placed on national interests, upholding the constitution, and ensuring the protection of the inhabitants of South Africa (Defence Review, 1998). The absence of a non-military threat to South Africa has also resulted on the SANDF shifting from an aggressive force to assume a defensive posture. Its current function and role is that of peace operation, disaster relief, maintaining essential life services like search and rescue, environmental services, medical services, service corps, communication security and safety, and election support (Defence In Democracy, 1998).

Poverty, crime, and violence in South Africa are the socio-political issues that feature much in this present-day democratic dispensation. These have impacted negatively on the safety and security of the South African public as crime and violence have become the order of the day. The following report from the Crime Information Management Centre (1998) on the Western Cape (W.C.) provides a reflection of the current South African environment of violence wherein the SANDF has to execute its duties.

- The W. C. is ranked a first position in the country with regard to housebreaking at business premises, theft of/from motor vehicles, murder and attempted murder.
- It occupies second position as far as seven crimes are concerned, viz. house breaking at residential premises, other robbery, shoplifting, other theft, fraud, assault with grievous bodily harm, and common assault.
- It occupies third position with regard to the incidence of rape.

1.5 THE SOUTH AFRICAN NATIONAL DEFENCE FORCE

The SANDF was established in May 1994 when the new South African democratic political dispensation was put in place. It includes the former SADF, the former Non-Statutory Forces (NSF) and the former Transkei, Ciskei, Bophuthatswana and Venda (TBVC) states. The NSF includes the African National Congress (ANC) aligned Umkhonto WeSizwe (MK) and the Pan African Congress (PAC) aligned Azanian Peoples Liberation Army (APLA). Most of the NSF members were exiled or underground military operatives engaged in the liberation struggle against the South African apartheid government, whilst the former SADF was the organ of repression used both internally and externally of South Africa to maintain apartheid legislation. Thus, the SANDF is a new integrated defence force which harbours former enemies who have been trained differently but now have to execute the same military duties alongside each other for a common cause.

The integration of the former government, homeland and guerilla forces, many of which were once enemies, is a powerful illustration of the democratic government's commitment to national reconciliation,

unity, and transformation. The challenge that the integration process entailed was forming a single, united, and disciplined national defence force out of the former armed forces with different histories, traditions, military doctrines and training, ethnic compositions and attitudes, and differences in effective strengths (Anglin, 1996). The principles that guided this process were the following:

- all members of the SANDF should be treated with respect and dignity.
- integration should proceed in the spirit of partnership.
- there shall be no discrimination in ensuring that a professionally new and representative institution is established.

While the SANDF performance since the 1994 election has been largely constructive and co-operative, the process of integration has not been easy or trouble-free. Problems have emerged and at times giving rise to serious tension due to mass desertions and dismissals (Gevisser, 1995/September), and insubordination and ultimatums (Chandler,1995/July). Based on expert opinion and informal comments from individual members of the SANDF, the former NSF members have pointed to racism, a generalized climate of institutional neglect, discrimination, and systematic exclusion as the main problems they are currently faced with in the SANDF. Media reports have pointed to racially selective treatment of soldiers that have committed wrongful and unacceptable acts in the SANDF. For example, British military advisors reported harsh punishment of black soldiers that have committed minor crimes, including dismissal from the SANDF, whilst several incidents involving white officers in nearly fatal attacks on black soldiers have resulted in a mere reprimand (Sunday Times, 1999/September). The recent shootings and arms theft at Tempe military base in the Free State Province bears semblance to the above-stated sources of tensions in the SANDF (Department of Defence Bulletin, 1999/November; Mail and Guardian, 1999/September).

Other cited difficulties were inevitable given the political and logistical complexities of merging forces. For example, Nathan (1994) predicted a skewed chain of command where a large proportion of white officers would be holding positions of command, whilst a massive number of blacks inflated inthe lower ranks even though they may constitute higher percentage in numbers within the SANDF. Certain arms of service (e.g. the navy and the air force) and their elitist traditions were expected to be in the forefront in presenting the above scenario (Nathan, 1995) as the former liberation armies and TBVC states had limited use of these military specialities. The currently ongoing staffing process reflected in Table 1 and detailed further in Table 2 below (Defence in a Democracy, 1998), is the obvious confirmation of this prediction.

The impact of this is that the low ranking black soldiers are deprived of the mentorship, the sense of identity and belonging, and ownership of the change process that can be served by the presence of their senior black colleagues in positions of power and authority. This also can ensure the perpetration of previous military doctrines, particularly in the light of the predominantly white former SADF personnel who have been placed in and/or accorded themselves positions of power, thereby resulting in a racially stratified defence force that can place barriers to the realization of the transformation processes (Brodgen & Nijhar, 1998). This white racial dominance would also inevitably serve the economic imperative as this can place some measure of control on the promotional aspirations and acknowledgment of service excellence (merit awards) on certain sectors of the soldier community (Department of Defence Bulletin, 1999/November).

Table 1 The 1998 population mix and rank structure in the SANDF

Rank / Race	Number	Percentage
Officers		
White	7 596	71.2
Coloured	509	4.8
Asian	61	0.6
African	2 504	23.5
TOTAL	**10 670**	**100**
Non-commissioned Officers		
White	14 142	40.7
Coloured	4 928	14.2
Asian	754	2.2
African	14 909	42.7
TOTAL	**34 733**	**99.8**
Privates		
White	1 273	4.5
Coloured	1 767	6.3
Asian	71	0.3
African	25 012	88.9
TOTAL	**28 132**	**100**

There also developed a tendency in certain military circles to view integration of these former armed forces as a mechanical process which entailed the absorption of the former NSF and the TBVC state armies into the SADF (Nathan,1994). Anglin (1996, p. 16) asserts that this process is "scarcely integration" as the loyalties, symbols (e.g. uniforms), habits, doctrines, and structures (e.g. force numbers) of the SANDF reflect the former SADF, whilst the former NSF members succumb to pressures to conform due to the authority, technological, and institutionahdvantages of the former SADF members. This assimilationist approach undermines the fact that the various military formations included in the SANDF were all directly or indirectly aligned to political parties, with no impressive record for human rights and international law, and none of them designed to serve in a democracy (Nathan, 1994). This "absorption attitude" of fitting-in to the dominating authority structure ofthe former SADF has a potential of raising tension within the SANDF (Sunday Times, 1999/September).

Another problem that has emerged timeously but with inadequate attention is the attitude of denial of diversity which results in serious undervaluation of the peoples culture and identity. The frequently cited statements that "one is a soldier before anything else" or "the military did not join you" bear semblance to this fact. Although the former minister of defence Mr J. Modise and Gen. S. Nyanda (chief of the SANDF) appraise themselves on the smooth completion of the integration process within the SANDF (Salut, 1999), it can be argued that the reported daily two percent (N = 1 366) absence-without-leave (Race Relations Survey, 1998) may be a reflection of insufficiency of this process. The frequently cited reasons for these absences are insubordination, attending traditional gatherings, substance abuse, being held in detention, transport and domestic difficulties, and attending funerals (Burger & Beard, 1998).

The rationalization process aimed at downsizing the SANDF and the affirmative action policies dubbed as "fast-tracking" further complicates this integration process as soldiers are now faced with insecurities and uncertainties about career prospects. As noted with the SAPS, it can be argued that the integration, rationalisation and affirmative action policies of the SANDF equally affect the white former SADF personnel as these changes are "seen as a tremendous insult to the contributionthey'd made to the former regime, and everything they stood for" (Scharf, 1999: p. 6). In the relative lack of evidence to support this assertion within the SANDF and the similarity and relatedness of the SAPStransformation processes to that of the SANDF, the following extract from an interview conducted with an SAPS member in 1995 will be used to reflect the possibility of a similar uncertainty and insecurity within the former SADF members in the SANDF. A cautionary note is however placed that this should be taken with some reservations as, although similar, these institutions are essentially not the same.

> "Things are supposed to be getting better in the police. Now that they have all these Kaffirs running the show it's chaos all over the place. They have reconstructed the rank structures and some of these Blacks are jumping one and two ranks because of this affirmative action. Makes my blood boil. I was trained to work hard and advance with merit, not bloody skin colour".
>
> (Artz & Douglas-Hamilton, 1995, p. 10)

Table 2 presents a detailed picture of the 1998 staffing situation. The top ranks aredominated by whites while blacks predominate in low or operational command levels. Also, staffing of the supervisory and control personnel like the warrant officers is racially skewed, with excessively more white warrant officers than black. The warrant officer rank group is mainly responsible with day-to-day functioning of soldiers at operational level, maintaining the military culture of obedience, command and control of the military personnel. It also forms the crucial link between the senior level officers and the troops at

unit and/or operational level. This raises concerns as this strategic placement of the white officers and warrant officers has serious implications in the decision-making processes and management of the SANDF, which later may be reflected on the nature of organisational stressors.

Table 2 SAND F strength per rank, race and gender (Defence In Democracy, April/ 1998)

Rank	White			Coloured			Asian			African			Total		
	M	*W*	*T*	*M*	*W*	*T*	*M*	*W*	*T*	*M*	*W*	*T*	*M*	*W*	*T*
GEN	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1
LT GEN	6	0	6	0	0	0	0	0	0	2	0	2	8	0	8
MAJ GEN	24	1	25	0	0	0	0	0	0	6	1	7	30	2	32
BRIG GEN	108	3	111	1	0	1	0	0	0	30	0	30	139	3	142
COL	588	30	618	3	1	4	1	0	1	55	2	57	647	33	680
LT COL	1276	212	1488	25	0	26	2	2	4	166	11	177	1470	225	1695
MAJ	1041	377	1418	92	1	93	5	3	8	364	52	416	1502	433	1935
CAPT	1134	554	1688	92	36	128	9	11	20	510	206	716	1745	807	2552
LT	1183	520	1703	169	34	203	18	8	21	814	175	989	2179	737	2916
2 LT	295	159	454	35	11	46	5	1	6	63	9	72	398	180	578
CPLN	82	1	83	8	0	8	1	0	1	36	1	37	127	2	129
WO1	1488	197	1685	118	0	118	8	0	8	73	2	75	1687	199	1886
WO2	1367	404	1771	266	2	268	39	0	39	217	15	232	1889	421	2310
SSGT	2434	691	3125	695	17	712	154	2	156	604	87	691	3887	797	4684
SGT	2847	809	3656	1037	74	1111	172	12	184	1904	406	2346	5996	1301	7297
CPL	1981	592	2573	1469	253	1722	212	25	237	5007	688	5695	8669	1558	10227
L/CPL	1019	268	1287	844	127	971	109	21	130	5088	620	5708	7060	1036	8096
PTE	963	310	1273	1700	67	1767	61	10	71	23643	1369	25012	26367	1756	28123
TOTAL	17836	5128	22964	6555	623	7178	791	95	886	38619	3644	42263	63801	9490	73291

M = Male, W = Women, T = Total

Morley (1980) asserts that integration involves a five-stage process that includes resistance and rejection, isolation, assimilation, acculturation or parallel systems, that culminate in full integration. However, the above-stated problems in the SANDF's integration process are understood to be possible barriers and threats to successful completion of this process as suggested by Morley. Integration itself requires openness, recognition and mutual respect for each other's socio-cultural backgrounds. Perceived sectarian inequalities, dominance and subordination, being an outsider or insider, the "us-them" politics of entitlement, and the general climate of discrimination noted with the SANDF's integration process can have a negative impact of delaying the successful completion of this process. The current integration process could arguably result in high stress levels as currently envisaged and practised organisational

principles could clash with individual and/or group aspirations. The effect of this would be considerable cost to operational functioning of the SANDF.

While it is true that the SANDF is essentially made up of those who either defended the old regime or sought to overthrow it, some suggestions to a cohessive functioning of this new law and order organ of state have been presented. Higgs (1998) proposes that areview of race representivity within the SANDF can be a system that can reduce internal tension while reinforcing cultural identity and diversity within the organisation. This suggested review of race representivity is understood to relate to racial representivity along the command and/or rank structure. Heinecken (1998) further recommends formation of collective bargaining councils, with appropriate considerations being made due to the unique position defence force personnel are in relation to their functional mandate of preserving the constitution. An alternative to these collective bargaining councils woul be the creation of acceptable and effective labour relations structures which would collectively attend to individual/group problems without fear of victimisation and/or labelling.

1.6 MILITARY DEPLOYMENT

Despite the decrease in most serious crimes in South Africa between 1994 and 1997, the high levels of crime in the country continues (Race Relations Survey, 1998; Scharf, 1999). While the number of murders, robberies, and housebreakings have declined, reports of rape, child abuse, and car and truck hijacking have increased. The public perception that police are unable to protect them from crime is increasing (Munshi, 1999). Thus, as crime and violence poses a serious threat to public order and security of the citizens, the South African government adopted various approaches, including employing the services of the military and the assumption of the National Crime Prevention Strategy which focuses on improving the criminal justice system, community policing, and crime prevention strategies.

Whilst public order policing is the primary responsibility of the SAPS, large numbers of SANDF troops are deployed to community policing due to the relative ineffectiveness of the SAPS in curbing the crime and violence. This is certainly not a new phenomenon in South Africa as the militaryhas long been used in the discredited community policing role of the apartheid era. However, the Defence Review (1998) points to some reservations to this continued use of the SANDF in community policing functions. The point is that, apart from soldier's primary task of maximal lethality to external aggression, extensive use of a defence force in a non-military activity contributes to the militarisation of civil society and politicisation of the defence force (Nathan, 1994). However, the SANDF military operational personnel continue to be deployed alongside the SAPS, with firm instructions of minimal force in curtailing crime

and violence. These services particularly include taxi violence, urban terrorism, industrial action, and general community safety and peace-keeping needs.

Recent research findings has shown that stress is a problem in the SAPS (Artz & Douglas-Hamilton, 1995; Gulle, 1996; Gulle et al., 1998; Marks, 1995; Munshi, 1998). It is probable that military operational personnel will experience similar stress in their community policing duties when dealing with criminal violence. A compounding factor is that, although it is a national pride to have a racially representative and thereby legitimate SANDF, the morale and cohesion necessary for operational effectiveness is at stake with this apparently incomplete and troublesome integration and rationalisation process. The skewed command structure, the tensions associated with integration, the current race relations, and the uncertainties presented by the rationalisation processes are possible stressors detrimental to job performance and the soldiers well-being.

1.7 CONCLUSION

Based on established literature on stress in community policing functions, this study hopes to gain insight into the stress symptomatology associated with deployment of military personnel or soldiers to civil community environments troubled with criminal violence. It hopes to address the concerns about lack of systematically conducted studies on stress in community policing functions and the stresses related to lack of training of military personnel in this particular functional role. Respondents in this study are the military operational personnel of an infantry unit of the SANDF in the Western Cape Command. The study aims to obtain a sense of the military operational personnel's psychological well-being under stressful conditions, particularly in the light of the recent findings on stress in the SAPS, the inherently stressful demands of military deployment, and the organisational demands and dynamics within the SANDF. A benefit of this research is that it will facilitate the development of effective psychosocial intervention strategies that will possibly ensure optimal functioning of the military operational personnel in community policing functions. This brief background serves as a basis upon which this study will be conducted.

CHAPTER 2 : LITERATURE REVIEW

2.1 INTRODUCTION

This chapter explores the broad theoretical work on stress, including the internationally and locally conducted research on stress in wartime, civil conflict, and community policing situations. Due to the exploratory nature of this project, this study focuses on broad manifestation of stress symptomatology in community policing functions rather than relating to the various and specific stress oriented or related psychological categories. A brief overview of the conceptual entity called stress and approaches to understanding it will be presented, followed by an exploration on the nature of stress in international and the South African law and order organs. Particular reference to literature on community policing of civil conflict situations in Northern Ireland and Israel, and literature on the SAPS's crime and violence community policing function will be used. The recent studies on stress in the SAPS, albeit few, will be used to relate to the stressors that may be pertinent in the SANDF's deployment of operational military personnel to community policing functions. The reason is that the fmdings on these SAPS studies might closely relate to the SANDF's pressumed stress experiences as they work alongside each other in executing their community policing function, thereby making up for the unavailable literature on stress in the South African military.

2.2 STRESS: A CONCEPTUAL REVIEW

For both laymen and professionals alike, the central problem with the concept stress is that it is understood by all when used in a general context but very few when a more precise account is needed (Cox, 1982; Fletcher, 1991). Norton (1997) further asserts that when people are asked to give other words for stress, they usually use such response-based words like pressure, strain or tension. These focus on the responses to and/or consequences of stress rather than the stressors themselves. Thus, despite the popularity of the term and the large amount of research conducted on it, stress continues to show itself to be an enormously complex phenomenon, with little agreement on a single definition.

The natural sciences present a succinct description of stress which purports to have a clear and universal meaning of the term whilst in actual sense this approach mostly defines stress in terms of what the researchers are measuring (Rice, 1992). However, this operationally computable stress approach misses out on the qualitative aspects of stress. Thus, there have been major developments from this position culminating in an interactionist conceptualization of stress (Bittles & Parsons, 1996; Cannon, 1929; Cooper, 1991).

Stress continues to be a problematic term and has eluded strict scientific definition as used in the bio-behavioral and health sciences. However difficult this concept is, the fact is that it also has a great appeal to people outside the scientific community since it captures important aspects of life, ranging from daily hassles to major life crises. Traditionally, bio-behavioral and health sciences describe stress as any individual experiencing a deleterious environmental condition that alters a persons homeostatic settings in a negative way, such that if it continues, it will reduce one's level of well-being (Fletcher, 1991). Thus, bio-behavioral and health sciences propose an evolutionist adaptive paradigm which ensures balance and survival.

Selye (1956) proposed that there are two categories of stress, viz. positive and negative stress. Positive stress could be experienced during a highly enjoyable event like a graduation. He termed this type of stress "eustress". Negative stress could be experienced when results of that particular event are potentially demanding and harmful. He termed this type of stress "distress". Too little stress as is found in inactivity or boredom is just as bad as too much. Rice (1992) emphasizes that performance is best when arousal is optimum (not maximum). Thus, people perform best with at least some pressure.

Compton and Galaway (1989) maintain that an understanding of stress, crisis and coping is an important part of the knowledge base of social work [and hence psychology] practice. Their suggestions that stress can be defined as the tension that arises in a system - individual, family, group and so on - from the perception of an event as involving uncertainty and risk. For many systems, stress may be appropriate to problem-solving activities, leading to an effective choice of alternatives, appropriate choice-directed action, and a satisfying solution. However, too much stress may precipitate a collapse of the system.

Norton (1997) defines stress "the physiological (of the body) and psychological (of the mind) reactions people exhibit in response to environmental events called stressors" (pg. 609). He further asserts that it is even possible to experience stress whilst asleep. For example, one may wake up sweating and tense, worried about the stressful events of the day before. Thus under conditions of overwhelmingtress, even a previously stable individual may develop transient psychological problems which means the lowering or breakdown of integral adaptive functioning.

2.3 APPROACHES TO UNDERSTANDING STRESS

There are generally three basic approaches to understanding stress, namely the stimulus approach, the response approach, and the interactive approach. Further developments in general stress theory stem

from critical reviews of the above three approaches. For logistical reasons, this studywill focus on these three approaches, with a brief coverage of the viewpoints which underlie other theoretical developments that emerged later.

2.3.1 Stimulus-based approach

This approach identifies the environmental stressors involved in producing the stress symptoms. Cannon's early work (1934) led to the emergence of interest in the mediating role that life-events play in the stress-illness relation. This led to Holmes and Rahe (1967) postulating that major life events involve a need for adjustment. Thus, a lack of adaptive resourcefulness increases the likelihood of developing a variety of physical disorders associated with stress. There is a potential that any event, major or minor, can be stressful and lead to alterations in physiological and behavioral functioning. Catastrophic stress (a disaster affecting the entire population), acute stress (a consequence of crisis that necessitates urgent response), and endemic stress (continuous changes, demands, threats, and deprivations that occur on a small scale and embedded in daily lives) are three broad classifications of environmental stress (Fontana, 1990). However, this approach has been criticised due to the following reasons:

- the difficulty in deciding what makes something into a stressor, e.g. noise, work overload, or marital conflict.
- the approach does not account for individual differences.
- difficulty in measuring stress from this perspective, e.g. the intensity of a particular stressor can be measured but not the extent of its impact on the individual.

2.3.2 Response-based approach

This approach, mainly referring to the states of discomfort on exposure to a stressor, is credited to the work of Selye conducted in the early 1930's. Selye (1952) exposed laboratory animals to a diverse array of both physical and psychological stressors. He noted that the patterns of psychological arousal seen in the animals were largely the same. This led to the conclusion that stress is a non specific result of any demand made upon the body (Selye, 1956). It follows that a wide variety of stressors (e.g. frustrations, conflicts and pressures) could cause stress. Thus, cognitive, physical and emotional factors possesses stress-evoking properties.

Thus, from the point of view of the response-based approach, stress is the final stage of a three stage process called the General Adaptation Syndrome (GAS). This triphasic pattern of adaptive responses is "general" since it is produced by a variety of stressors which have a general effect on many systems of the body. It is "adaptive" because it triggers the defenses and begins a restorative process. It is a

"syndrome" because all of its components tend to occur together as a pattern.

Selye (1956) maintained that the GAS involves three predictable stages that arise out of the body's prolonged exposure to stressors. These are the alarm, resistance, and exhaustion stages.

The alarm stage involves two responses, viz. physiological and behavioral responses. The physiological responses are equivalent to the shock state wherein the body's ability to cope with the stressor is lowered. Physiological response entails the enlargement of the adrenal cortex and the limbic system. This is accompanied by an increase in hormone levels such as epinephrine, leading to high physiological arousal. This high arousal state induces the behavioral responses which entail increased sensitivity to changes in stressor intensity and mobilizing the body's resources to engage emergency reaction (Dohrenwend, 1979; Barret, 1979).

The resistance stage is activated as the duration of the stressor is prolonged. Physiological responses involved in this stage include shrinking of the adrenalin cortex and lymph nodes return to normal size. When high hormone levels continue, the parasympathetic branch of the autonomic nervous system attempts to counteract the high arousal. Behavioral responses are activated and these are understood to be due to increased sensitivity to stress and the individual attempting to endure the stressor and/or resist further debilitating effects. If the individual continues to be exposed to intense stress hormonal depletion may ensue, leading to stage three - the exhaustion stage. However, Selye (1978) also described the early part of this stage as normal and equivalent to uestress.

Physiologically during the exhaustion stage, the limbic structures become enlarged or dysfunctional, or both (Kaplan & Saddock, 1994). Hormone levels are further increased or maintained at high levels, whilst adaptive hormones are depleted. Behaviorally, resistance to stressors (including the original one) is reduced. The individual often becomes depressed, physically ill, or may die if severe stress continues. Physical, emotional, and mental exhaustion signify this stage. This is coupled with feelings of low personal accomplishment (Norton, 1997). Gulle (1996) parallels GAS with the current day conception of stress and mental illness.

Selye's work served as an impetus for much of later research on stress. It provided the first systematic theoretical notion of potential changes in physiological functioning resulting from psychological stimuli. However, it was targeted by critics for its emphasis on the non-specificity of the response (Rahe, 1974).

2.3.3 Interactional approach

The interactional approach involves merging of both the stimulus and response approach to account for the observable individual variations when exposed to a particular stressor. This approach was influenced by the behaviorism and positivism paradigms of the 1950's which proposed the observable cause and effect sequence in understanding behavior (Everly, 1989). Its inception presented with an opportunity to account for variations in individual responses from exposure to the same stressor. The major contribution of this approach was the recognition that stress is not an isolated phenomenon but a dynamic process which included numerous other factors like cognitive appraisal and coping (Lazarus & Folkman, 1984). Gulle (1996) asserts that it is necessary to conceptualize stress as a process, and coping is an inherent part of that process. The other contribution of this approach was the acknowledgment that not all stress is negative or dysfunctional, but is a necessary part of the process of adjustment and mastery of challenges.

The cybernetic phenomenon and the cognitive transactional processes are other perspectives that emerged out of this approach. The cybernetic processing model proposed by Miller (1978) incorporates both cognitive appraisal and coping processes in a dynamic and ongoing information feedback cycle to the cognitive mediational cycles of stress. Thus past experiences of successes and failures are fed back into the system and thereby determining the future responses. The cognitive transactional process conceptualizes stress as a complex and dynamic transaction between the self and the environment (Cox and MacKay, 1976). Thus stress arise when an individual's resources and his/her perceived environmental demands, especially based on previous encounters, are not balanced.

Gulle (1996) states that currently there is a shift of focus away from stress "models or approaches". Current attention is on the mediating, moderating, and protective factors that underlie the observed individual variations in cognitive and coping strategies.

2.4 STRESS MODERATORS

Collins and de Carvalho (1993) assert that the well documented response to extremely adverse conditions involves psychological and neuro-endocrine reactions perceived as stress symptoms. These are generally understood as the direct effects of the stressor, adaptation to the stressor and the after-effects of the stressor. How affected a person's response to the stressor depends on how these variables were perceived. These variables may include a magnitude and duration of the stressor, the level ofpresent and future danger, proximity to the stressor, and the individual's perceived ability to deal with the stressor in minimizing or eliminating the stressor's potentially negative outcome. Other cited variables are

exposure to death, dying, destruction, and social chaos; degree of moral conflict in the situation; role in the trauma (i.e. agent vs. victim); and impact of the trauma in the community (e.g. a natural disaster) (Wilson, 1989).

Norton (1997) cites behavior pattern, hardiness, personal resourcefulness, appraisal, and social support as the main stress moderators which determine how one would cope with a particular or a series of stressors. However variable an individual's response to stress is, Fontana(1990) states that some medical experts believe that between 50 to 70% of all illnesses and accidents can be linked to excessive levels of stress. Although these variables are of major interest in current studies, this study will mainly focus on identifying the stressors that bring about the stress symptomatology in a sample of military operational personnel of the SANDF .

2.5 STRESS MEASUREMENT

Norton (1997) states that there are three approaches to measuring stress, viz. physiological, self-report, and unobtrusive measures. However a combination of these approaches is also used by most researchers (Kasl, 1987).

2.5.1 Physiological measures

This measurement approach reflects much on the bio-medical techniques used by medical practitioners and researchers, focusing on the nervous system, muscle tone, and blood pressure, to name a few. Although these measures are generally objective and reliable, they prove to have some shortfalls. The main shortfall is that individual differences in physiological responses vary with gender, race, age, etc. Also stress responses vary according to such factors as substance intake, time of day, and physical exertion. Most importantly, if participants are not familiar with the procedure used, the very experience of having physiological measures taken may influence the readings (Kaplan & Sadock, 1994).

2.5.2 Self-report measures

This is the most widely used method of measuring stress. It mainly takes the form of structured or unstructured interviews and questionnaires. Derogatis (1982) states that this is "an extremely useful and flexible measurement modality with a rich past and a promising future"(p.271). Although it possesses both strengths and weaknesses, the former seem to outweigh the latter. The main advantage of this approach is that it is economical and cost-efficient (e.g. group administered, computer scorable, minimal training for administration, and useful in a broad spectrum of evaluation environments). This approach is also free from observer bias, with no distortions through reporting of apparent versions (Derogatis,

1982). The respondent will and can also accurately describe his relevant experiences and behavior.

Derogatis (1982) presents three categories of self-report measures, grouped according to underlying theoretical basis in designing the measure. The stimulus oriented measures focuses on the intrinsic potential for stress residing on the environment, but given the wide variety of stressful environments available, few of these measures have led to consistent results. Examples of these measures are the Schedule of Recent Experience (SRE) (Hawkins, Davies & Holmes, 1957), the Recent Life Changes Questionnaire (RLCQ) (Rahe, 1974), the Social Readjustment Rating Scale (SRRS) (Holmes,1979).

Response-oriented measures have been developed in the various areas of psychology like mood, psychological adjustment, personality, and social competence. Derogatis (1982) states that many of these scales have multi-dimensional symptom clusters, whilst others focus on specific syndromes that feature prominently on psychological literature. They include the Minnesota Multi-phasic Personality Inventory (MMPI) (Dahlstrom, Welsh & Dahlstrom, 1972), the Symptom Checklist - 90 -R (SCL-90-R) (Derogatis, 1994); the Beck Depression Inventory (BDI) (Beck & Beck, 1972); the State-Trait Anxiety Inventory (STAI) (Spielberger, Gorsuch, & Lushene, 1970); the Profile of Mood States (POMS) (McNair, Lorr, & Droppleman, 1971)

Interaction-oriented measures emphasizes the characteristics of the organism as a major mediating mechanism between stimulus characteristics of the environment and the response they invoke (Derogatis, 1982). Thus cognitive, personality traits, coping styles, and physiological characteristics can affect and become a significant part of the environmental response. Whilstthere are still few scales in this approach, the Jenkins Activity Survey (JAS) (Jenkins, Zyzansky, & Rosenman, 1974) is the example.

Norton (1997) cautions that the wording of the self-report measures also affect the apparent evidence of ill health and stress, especially in South Africa where "there are many cultural groups and eleven official languages" (pp. 630-631)

2.5.3 Unobtrusive measures

This approach reduces the bias associated with self-report measures by reducing the participant's awareness that they are being assessed. This approach makes use of archive material, naturalistic and contrived observations, and physical traces. Although favorably indicated for illiterate and semi-literate populations, strict ethical considerations should be observed at all time in this measurement approach.

2.6 STRESS IN WARTIME SITUATIONS

Literature points out that military personnel who are frequently deployed to volatile, unstable, and violent situations during military operations are at high risk of developing reactive stress symptoms. Military operational personnel deployed in combat areas are regularly exposed to the threat of injury, mutilation, and death. Other stressful situations are loss of comrades, the sight of death and injury, being in crossfire and experiencing the mission as hopeless. There are physical hardships such as lack of food, water, sleep and extremes of inclement weather. Severe psychological deprivations such as lack of social support, loneliness, sexual deprivation, lack of privacy, and being threatened or scorned by local population are a regular occurrence (Adler et al., 1996; Bremner, Southwick, Darnell, & Charney, 1996; Inbar, Solomon, Spiro, & Aviram, 1989; Stretch, Knudson, & Durand, 1998). Monotony, boredom and poor communication are other reported stressors (MacDonald, Chamberlain, Long, Pereira-Laird, & Mirfin, 1998).

Increased reports of psychological problems, psychosomatic complaints, increased alcohol consumption, irritability and homesickness become evidence of the heightened stress levels. Inbar et al. (1989) further assert that a psychiatric breakdown is the most widespread and immediate reaction to thestress of battle. The resultant impaired functioning can include a variety of symptoms, ranging from somatic, emotional, and functional symptoms; from nausea, vomiting, uncontrollable trembling, and crying; to total psychological withdrawal, confusion, and paralysis. Paranoic feelings and fear of going crazy or doing something uncontrolled become regular experiences.

Schwarzlwald, Weisenberg and Solomon (1991) also maintain that a soldier suffering from stress can be a danger to himself, to fellow fighters, and to the civilian community. Hence the common denominator primarily becomes the severe disruption of military functioning as well as the disruption of personal, family, and social functioning.

2.7 STRESS IN CIVIL CONFLICT SITUATIONS

Young and Holden (1991) assert that most studies have focused predominantly on the psychological effects of exposure and involvement in warfare situations, particularly the long-term and delayed effects presenting through Post Traumatic Stress Disorder (PTSD) and Combat Stress Reaction (CSR) during and after the Gulf and Vietnam wars (Davidson, 1992; Fairbank &Nicholson, 1987; Penk &Robinowitz, 1987; Sampson, Kobrick, & Johnson; 1996). Whereas civil conflict and terrorist wartime activity differ from conventional war, civil conflict as a potential stressor has received relatively little empirical

attention in trauma literature (McDonald et al., 1998).

The main body of research conducted around civil conflict has centered on Northern Ireland and Israel. Whilst available literature on these countries does not specify the nature, intensity, and severity of stress manifested by security forces exposed to these conflict-laden environments, a number of factors suggest that maintaining law and order in these situations can be a stressful exercise (Horowitz, 1974; Smooha, 1978). Literature on the Israeli- Arab conflict has pointed to fears, attitudes, values, opinions, convictions, and personal beliefs about the civil conflict as the main determinants of the onset and severity of the stress symptomatology in both the Israeli Defence Force and the Palestinian Liberation Organization (Yitzhaki, Solomon & Kotler, 1991). Stress at a personal level was also noted to be due to one's position in the military command structure (Smooha,1989), with those in the lower ranks likely to experience more stress than the higher ranking members. The civil conflict situation in Northern Ireland closely resembles that prevalent in South Africa prior to the 1994 General Elections (Brewer,1996; Esprey, 1996; Scharf, 1999), with the main difference being Northern Ireland's relatively higher economic resource base, and a smaller geographical territory and police community (Scharf, 1999).

Over the last thirty odd years prior to 1994, both South Africa and Northern Ireland have experienced urban terror, rioting, and political assassinations (Hoppen, 1989; Garvin, 1988; Lyons, 1979). Both situations have experienced the deployment of the police and the military in community policing roles in an effort to contain the religio-political violence. Their deployment has resulted invarious perceptions of their roles and sufficiency in achieving their goals. These negative perceptions are reported to be due to the presumed legitimacy of these law and order institutions. Conversely, the operational functioning of their respective law and order personnel becomes futile as the civilian community refuse co-operating with them, and thereby frustrating efforts to stabilize the conflict. The elevated stress levels within Northern Ireland's law and order operational personnel has resulted on certain members experiencing gross confusion in their functional mandate and reportedly contemplating killing themselves or wanting to take revenge as they fear for their lives in such situations (Brewer, 1996).

Brewer (1996) asserts that divided societies provide a severe test to the liberal modelof policing that law and order personnel would like to operationalise in conflict situation. He further states that Northern Ireland's police force was born and still remained for long periods of time in a controversy relating to policing civil conflict. Reports of sectarian policing and/or police being branded as armed convoys for a particular sector have led to increased tensions within and outside of the police force (McArdle, 1984;

Walsh, 1988). Police action has been viewed along the religio-political divide and accepted with hostility and suspicion when dealing with the tension and violence This is portrayed by the Catholic's dissatisfaction with the composition of the police force, thereby influencing how they perceive them and their implementation of security measures (Brewer, 1996). The main factor that is of importance in remedying this situation is a measure of political autonomy and professionalism that has to be exercised by these law and order institutions (Walsh, 1988).

Weitzer (1989) notes that the process of police reform in Northern Ireland has been both partial and protracted. The process was initiated in the late 1960's, with a variety of measures being introduced to achieve this. These included the formation of a civilian police authority, improving civil-military relations (through the establishment of neighbourhood policing initiatives and the establishment of liaison committees), and the formation of an independent complaints procedure (in order to foresee the adoption of a code of ethics and a strict disciplinary ethos that reinforces good conduct in use of force, interrogation, discharge of firearms, and interrogation), and the introduction of mechanisms of public accountability and transparency (the use of lay visitors to monitor behavior and conduct in police stations). Although some of these are more effective than others, Walker (1990) described them as having limited success, especially in crowd control situations as this scenario affects the security forces' image in the public's eye.

Brewer (1996) presents three images of Northern Ireland's police reform process towards liberal policing. The first image is that of the police being a sectarian force outside the rule of law and their patrols being mere representations of armed convoys. The second one is that the law and order institutions are fully professional and are liberal forces doing an exact job, with room for more improvement only when social composition is more representative. Those taking this view focus on the presently observed circumstances and use the "bad apple" theory to explain instances of misconduct. The third one is that of a modernizing force in the process of reform but subject to powerful organizational and external constraints that limits its normalization. This image implies that police reform is virtually complete in Northern Ireland, save for organisational hassles (e.g. broadening recruitment) and improving community relations (e.g. establishment of local liaison committees). Thus, attention can be focussed on organizational reforms such as the establishment of a community relations branch, an independent police authority, and introducing mechanisms of public accountability rather than focussing on police behavior during operational activities. The above organisational reforms suggested for Northern Ireland have important implications for the South African law and order organs of state, particularly as they havea history of a tarnished image of legitimacy and accountability within the civilian community.

Other studies on civil conflict focussed on the riots following the assassination of MartinLuther King and the rioting in Belfast and Kuala Lampur (Curran, 1988). However, most of these studies have been victim-oriented, and with inconsistencies in the reported results. Varying estimates of elevated psychological and psychosomatic complaints have been attributed on methodological weaknesses reflected on these studies. Apart from the victim-focus and the measurement inaccuracies reflected, there appears to be more inherent than organizational stress in American police during civil conflict (Violanti & Aron 1993, 1994; Brown & Campbell, 1994). These inherent stressors included concerns about fellow police member being killed in the line of duty, ineffectiveness of the judiciary system, and so forth. On studies on the Gulf War, Adler et al. (1996) cites victim's mobility from the area of unrest, restricted number of referrals due to delayed reactions, cases refusing to report for treatment, and denial or habituation of reactions as complicating any attempt to assess the psychological impact of civil conflict situations.

The police and the military continually fear for their lives when maintaining law and order in violence situations (Brewer, 1996). Although there is clearly a lack of studies on the police and the military during the South Africa civil conflict situation of the apartheid era, there is currently a concerted move, albeit small, towards addressing this situation in the current democratic political dispensation. Thisstudy forms part of that contribution towards this direction. The more available studies on stress in the military have focused on the secondary functioning and coping processes of military employee's dependants during deployment (Herbst, 1995; Heiw, 1992; Kruger, 1997; Mathee, 1997) and essentially pointing to the increased necessity of improving social support necessary for the members and their immediate dependants.

2.8 STRESS IN THE POLICE

The lack of literature relating to this topic of study within theSANDF has warranted some considerations being made to cover up for this short-fall. Van der Spuy (1990) attributes this unavailabilityof literature to the relative inaccessibility of the South African law and order organs of state to journalists and scholars alike, particularly in the height of apartheid oppression. Points of consideration in the use of studies on stress in the SAPS as a reference in this study are stated below.

Firstly, because the SANDF is being currently deployed in a community policingrole, literature on police stress is particularly relevant in this study. The consistency of results obtained on studies on stress in the SAPS is remarkable, and pointing to the possibility that similar stress patterns may be found in the SANDF's community policing duties alongside the SAPS.

Secondly, the unique nature of the current South African socio-political changes dictate that literature on stress in the South African community policing arena be more relevant. Whilst literature on international studies on police stress could be equally relevant for this section, the SAPS and the SANDF law and order institutions work alongside each other in community policing and thereby face the same or similar issues during their operational functioning. Of most importance of these issuesis their tainted legitimacy among the South African public, with some public perceptions that the recent changes are merely cosmetic (Scharf, 1999).

Thirdly, the characteristically militaristic attitude that has, for the past four decades or more, defined community policing in South Africa, makes it comparable to the SANDF's current functional military training and role (Artz & Douglas-Hamilton, 1995; Marks, 1995; Munshi, 1998). This image stems from their fore-runners' (the SAP) history of suppression, aggression, and militancy in support of apartheid rule in South Africa. Artz and Douglas-Hamilton (1995) assert that "their tarnished image continues to haunt them even during this period of transition" (p.15).

Police personnel are continually faced with a cycle of gruesome and terrifying situations in their community policing function (Artz & Douglas-Hamilton, 1995; Brown & Campbell, 1994; Marks, 1995; Munshi, 1998; Nel & Burgers, 1995). Brodgen and Shearing (1993) state that theovercrowded townships make community policing an intense activity in South Africa. The stress inducing situations are noted to be inherently associated with the nature of work that police personnel have to deal with and also from the organisational demands that are placed on them. Nel and Burgers (1995) further categorise the inherent police work stressors to two, namely those stressors associated with overexposure to death and disaster whilst attending to victims involved in traumatic situations, and also stress due to being victims themselves as they sometimes have to use violence against criminals. The recent South African socio-political changes have also compounded this picture of continual cycles of stress as the SAPS personnel now have to adjust to new policing rules and roles (Marks, 1995).

Recently documented studies point to more organisationally oriented sources of stress, with characteristic patterns of stress manifestation in the SAPS as compared to other police forces, for example the American police (Artz & Douglas-Hamilton, 1995; Gulle et al, 1998; Munshi, 1998). Results on two recently completed qualitative studies on stress in a sample of SAPS personnel (Artz & Douglas-Hamilton, 1995; Munshi, 1998) produced similar results as compared to a quantitative study conducted by Gulle et al. (1989) on the similar subject. Although both categories of study are marked with measurement inaccuracies and biases, significant issues emerge from them. Organisationally induced

stress showed up as the single most important factor in stress manifestation within the SAPS. This was found to be irrespective of race, gender and ethnicity (Munshi, 1998). These stressors include political pressure from within and outside of the police organization, inadequate support by the department, and disagreeable departmental regulations, among others. Lack of acknowledgement and recognition from both the community and supervisors, inadequate organisational and structural resources within the police service, and lack of mental health support services were also other reported stressors (Artz & Douglas-Hamilton, 1995).

Selye (1978) states that police work is probably the most stressful occupation in the world, with police officers being one of the most stressed populations in modern-day society (Violanti, 1985). The operationally induced stress symptomatology in police work was found to result to low morale, substance abuse, paranoia, aggression, anxiety, depression, and accumulation of emotional tension which leads up to inabilities to relate to personal, social and professional worlds (Artz & Douglas-Hamilton, 1995; Munshi, 1998; Nel & Burgers, 1995). Despair induced by worst forms of burnout and emotional exhaustion were found to lead to suicidal depression (Munshi, 1998). However, there appeared to be varying perceptions of the effect of social support programmes and services offered by the SAPS. Some perceived these as detrimental to one's career advancement, irrelevant and based on American experiences (e.g. the Critical Incident Index Debriefing), and completely absent (Munshi, 1998).

Paranioa, anxiety, fear, and low morale were found to be closely associated with organisational stressors in the SAPS (Artz & Douglas-Hamilton, 1995; Munshi, 1998). Job description, interpersonal relationships, and organisational culture, climate and structure were noted to be the main sources of organisational stressors (Munshi, 1998). Personnel shortages, lack of resources, role conflicts, lack of communication, and career frustrations were reported in the the study by Artz and Douglas-Hamilton (1995). On the other hand the quantitative study by Gulle et al. (1998) cited inadequate salary, court leniency with criminals, and ineffectiveness of the judicial system, and a host of other organizationally related issues. The impact of the stressors was found to be related to the current South African political climate, with black members reporting a positive impact, whilst the white and coloured police personnel of the SAPS reporting a negative impact. The lack of support for members of the SAPS (from the civil community, police colleagues and supervisors) was found to further precipitate the current high levels of stress (Gulle et al, 1998).

The Crime Information Management Centre (1998) asserts that the high number of police officials murdered during the execution of their duties, as well as when they are off duty, furthermore perpetuates

the high stress levels experienced by members of the SAPS. In an analysis of murder of SAPS members from 1994 to 1997, Minaar (1998) points out that 49 percent (N = 454) of these murders involved the low ranking constables who are at the entry point to the police service. These members are also the ones who carry out the bulk of daily police duty. These murder incidents involved internal arguments, family disputes, incidents of aggressive behaviour in shebeens, tarvens and hotel bars, and robbery of service pistol. Nel and Burgers (1995) state that these murder incidents are typically followed by suicide. The suicide act is attributed to dysfunctional ways of coping within the SAPS, e.g. alcohol use, humour, and the culture of denial of emotional expression.

Thus, the noted impact of the organizational stressors in the SAPS from Gulle et al (1998) may have the same effect on the SANDF as they are essentially involved in the same operational activity and faced with similar organisational issues of integration and rationalization. It is interesting to note that integration of the former NSF members into the SAPS had also assumed a racially skewed rank profile, with most black appointments being of low rank (Marks, 1995). Claims of discrimination based on race, ethnicity and gender have been reportedly practised by the white management of the SAPS, giving rise to much dissatisfaction amongst police officers (Brogden & Nijhar, 1998). However, Marks (1995) points out that stress is experienced by both black and white.

2.9 THE SANDF's COMMUNITY POLICING FUNCTION

Among other things, community policing entails the inclussion of all relevant stake-holders in the decision-making processes and/or execution of safety and security needs of a community. The civil community thus becomes an important factor in the maintainance of law and order in their environments. On the other hand, the military is expected to exercise optimal professionalism and co-operation in executing their duties. Thus, healthy civil-military relations, which refer to an equal distribution of power and influence between the armed forces and the civilian authority and compliance with international law (Defence White Paper, 1996), become an important factor in these community policing operations. However, as noted in Chapter 1, the SANDF has, since its establishment, continued with similar community policing operations as that previously carried on by the SADF and the SAP during the apartheid period. The apartheid legacy of civilian mistrust of the law and order organs of state (Scharf, 1999) has a potential of presenting a negative effect on the efficient and effective accomplishment of community policing duties due to the civil resistance military personnel might receive in their operations.

The current White Paper on South African Defence (1996) and the Defence Review (1998) are current policy documents that shape and guide the role of the present-day SANDF. These documents address

the future responsibilities and structure of the defense force, guided by the constitutional values of accountability, transparency and responsibility. The guiding idea for the improvement of civil-military relations is the fact that excessive use of a defence force in a non-military combat activity contributes to the militarization of civil society (Nathan, 1994). Although there is some move towards improved civil-military relations, some reports have indicated that this is not yet as it should be for both the police and the military (Human Rights Committee, 1995; Reality Check Special Report, 1999). In the SAPS alone, the civil community reported 1 999 cases against the police through the Independent Complaints Directorate for the period 01/April/1997 to 31/March/1998 (Annual Report, 1998).

The following concerns have also been raised concerning the use of the military in community policing duties (Defence Review, 1998). These concerns have also warranted that there be serious cautionary practices applied by the SANDF military operational personnel during exection of their community policing operations. These concerns are broadly stated in the points below:

a) The ongoing deployment of the SANDF in a policing function invariably politicizes defence force.

b) Such deployment may undermine the image and legitimacy of the SANDF amongst sectors of the population.

c) Efforts to apply military solutions to political problems are inherently limited and invariably lead to acts of repression.

2.10 SUMMARY

This study focuses on the military deployment routine as a stressful exercise which can predispose one to an unhealthy psychological balance or distress. Whilst too little stress can lead to stagnation and hamper personal growth, too much stress can sap one's energy, undermine one's personal life, resulting to a measure of ineffectiveness in job performance. Conversely, this can affect ones close associates, family, and friends and vice versa.

The stimulus approach will be used to understand the plight of this sample of SANDF military operational personnel involved in community policing alongside the SAPS. Given the previous apartheid influenced civil-military relations, the possible tensions arising out of the perception of the integration processes, and previous research results indicating high stress levels within the SAPS, it is probable that members of this target population of the SANDF may be experiencing high stress symptomatology in their community policing duties.

CHAPTER 3 : THE PRESENT STUDY

3.1 INTRODUCTION

This study sets out to examine the relationship between military deployment stressors and levels of stress symptomatology in members of the SANDF operational personnel employed in supportive community policing roles alongside the SAPS. Literature shows that deployment to community policing services is a stressful exercise for the police, and hence the possibility exists that this maybe true for the SANDF operational personnel. The stressors associated with military deployment are further intensified by the organisational processes highlighted in earlier chapters, namely the historically poor civil-military relations in South Africa; the integration, restructuring and rationalisation processes of the SANDF; and contextual issues relating to the ever-increasing rate of crime and violence in Souuth Africa.

3.2 RATIONALE

Gulle (1996) points out that literature on armed forces has essentially been organizationally oriented and aimed almost exclusively at the senior level officers and management, thus excluding the majority of junior members. This study targets the low ranking operational military personnel as they are arguably the ones who operationalise and execute the tasks defining the military installation. MacDonald et al. (1998) asserts that operational soldiers are expected to be aggressive, with military principles emphasizing the need to act swiftly, strike first, search and destroy, and so forth. Apart from this groups inherently high exposure to the dangers of military work, these members are further subjected to and are on the receiving end to an array of stressful organizational demands.

Recent studies have focused on the stress mediating processes and/or one or two stressors in isolation (Gulle, 1996). This exploratory study therefore starts at the primary level through identifying the stressors in both the operational and organisational military context using the low ranking group of an SANDF military unit. Coupled with the broad aims and motivations stated in chapter one,this study will attempt to contextualise the stress symptomatology established in this sample of SANDF operational personnel by comparing its results to the recent findings on stress in the SAPS(Gulle et al., 1998) as they are both involved in similar work.

Young and Holden (1991) state that military psychologists have long emphasized the need to itemize the predisposing and precipitating factors so that the young soldier can be appropriately placed to avoid exposure to severe military hardships. Thus, using the stimulus approach to understanding stress, this

study will ascertain the level of stress symptomatology associated with the operational and organizational stressors as experienced by the low ranking SANDF operational military personnel. It is expected that the reported distress levels would invariably differ in the constituent members of the sample due to the wide range of factors that can play a mediative role within this sample, e.g. previous military history, and support and coping mechanisms used.

3.3 CONTEXT

As stated in paragraph 1.3 of Chapter 1, soldiers fulfill an essential function insociety. This function can quite easily be undermined by abnormal stress levels, thereby resulting in anunfit and maladjusted soldier in attending to demanding military duties. Compounded by the currently high rate of crimeand violence, the poor civil-military relations, and the organizational tensions, both the SANDF and SAPS continue to experience difficulties in executing their duties (Burger & Beard, 1998). This study hopes to explore the stress experiences of the SANDF's operational personnel when executing their law and order enforcement duties during military deployment activities.

This study is conducted in a five-year post-apartheid South African context wherein there is evidence of the yet-not-so-stable post apartheid scenario of crime and violence. It is also undertakenat a time when there is the realization of the transformation processes which propose a demographically representative SANDF structure, of a moderate size, with a non-aggressive attitude (Defence White Paper,1996). With regard to structure and size, the SANDF is currently downsizing through mechanisms like severance packages, demobilization, and new staffing processes to reflect on the demographics of the new South Africa. With regard to the non-aggressive posture, the SANDF is placinga moratorium on all aggressive interventions towards its neighbouring countries and thereby assuming a defensive posture. The SANDF is now able to focus on more secondary tasks like community policing rather than the primary task of maximal aggression directed at external threats. This scenario of change is assumed to potentially present with high stress levels in individual SANDF members as they deal with uncertainties associated with these functional and organisational changes. The possibility exists that the integration members (APLA, NSF, SADF, and MK) and the new recruits will be confronted with new soldiering principles ofa democracy which may challenge their old and entrenched understanding of the military (Nathan, 1996).

Thus, it is expected that significantly high levels of stress will be found in this sample population of the SANDF due to the dangers and demands associated with the nature of their work and the organizational changes that warrants a degree of adjustment for the SANDF members. The recent incidents of shooting

in Tempe military base in the Free State and media reports of discrimination and racism in the SANDF suggest the existance of a stressful climate in this organisation.

3.4 STRESSORS ASSOCIATED WITH SANDF'S MILITARY DEPLOYMENT

Maduna (1996) asserts that policing would normally be a proud and honourable activity in a democracy, wherein people would see the police and the military as friends and protectors of a society. However, the majority of South Africans, who are the victims of the apartheid system, policing has always represented the grossest evils the white minority regime has been capable of. Coupled with the inherent dangers associated with military life, the legitimacy of the SANDF in the civil community is one of the main stressors that is assumed to be of issue within the SANDF's operational personnel and their functioning. This is despite all the good intentions of the democratic government to ensure representativeness and unity in the SANDF.

Integration and rationalisation processes are critical processes that have strong influences on the internal organisational tensions and frustrations which might affect the soldier's well-being and performance of the assigned tasks. Inadequacy of support from the organisation, poor relations with civil community, and the cultural changes that define the present SANDF, are some representations that can precipitate stress symptomatology or breakdown. The high rate of absences-without-leave, mass demonstrations and desertions in the SANDF, and so forth, may be a manifestation of this stress symptomatology (Komane & Maluleke, 1999/September). In essence, the inherent nature of the organisational structure (e.g. authoritarian structure) can be such that there is a potential for the development of stress not only from the vertical organisational pressures (e.g. disciplinary actions, frustrating promotional opportunities, and job conflicts) which affect the morale, objectives, and discipline of the organisation, but also from the horizontal pressures which are characterized by individual personality traits, socio-culultural background and peer pressure within the organisation (Gmelch, 1982; Reiser, 1972; Symonds, 1970).

Given the history of the military in South Africa and the presented tensions associated with the integration processes, race is assumed to be a significant determinant of the profile of stress symptomatology in this study. Coupled with previous military history and the mostly white and coloured command structure, the mostly black and low ranking deployment troops are presumed to be the most symptom bearers of stress in this target population (Nel & Burgers, 1995; Nathan, 1994). Thus, organisational stressors like political pressure within the unit, difficulties with the unit regulations, and lack of understanding and support from the command structure, especially from the former NSF, will be an area of interest. These stressors are then assumed to be related to the execution of operational duties as organisational stressors can affect

morale, cohesion, and combat readiness of the military operational personnel (Celliers, 1992).

Age, race, rank, level of education, proximity from home, marital status, and history of military exposure, are other variables which may have a significant influence on ones stress response in this study. An arbitrary ten year difference was used to create age categories to reflect developmental maturity. The assumption was that the younger and more inexperienced the soldier is, the more difficult it would be to assert himself against established lines of authority. However, the reverse would also be true that the younger one is, the more opportunities that lay ahead of him such that he may be comfortable to challenge the presenting repressive environment.

Rank and education were assumed to be important variables in this study. Van Breda (1997) states that low ranking soldiers show poorer coping with deployment routine. However, availability of support systems and presence of opportunities for educational upliftment greatly improved the soldier's well-being. The point is that education and training is perceived as an important determinant in the soldier's upward mobility within the rank structure (Brogden & Nijhar, 1998). Whereas education and training opportunities exist within and outside of any defence force, promotional aspirations along the rank structure can be frustrated when such opportunities are not made available or restricted to certain sectors of the military personnel. Also the racially stratified authority structure could be another direct mechanism of marginalising and frustrating certain sectors of the SANDF personnel.

Gulle (1996) asserts that no work on stress is complete without reference to support and coping.The use of available support structures and coping mechanisms within and outside of the military unit is explored in this study. Social support is explored as provided within the SANDF (e.g. military social workers, doctors, psychologists, etc), support obtained outside of the SANDF (e.g. the family, friends, traditional healers, etc.), and other coping mechanisms (e.g. substance-induced relief to stress) normally available to the SANDF community. However, some social support providers have articulated their difficulty with serving certain members of the SANDF, particaularly the mostly black former NSF members (Van Breda, 1999) Culturally based support becomes of importance considering the various cultural backgrounds the SANDF soldiers come from. Associated with support and coping was the issues of the soldier's proximity to area of residence as this is where support from the family is normally based. Anenshel (1992) also states that marriage can modify or act as an inoculator against the effects of stress.

Most currently available South African studies on stress in the SANDF have largely examined support and coping systems during military deployment periods. Thus, these studies have mainly focused on the

accessible dependants of the military employee rather than the deployed member himself (Herbst, 1995; Hiew, 1992; Mathee, 1997; Van Breda, 1997). Thus, whether it is the professional or informal social support, use of personal resources, and/or substance-induced relief these systems would be explored as they are the most frequently featured in literature. Analysis would take particular consideration of the subjects' varying military histories, background training, and socio-cultural backgrounds.

3.5 RESEARCH INSTRUMENTS

The questionnaire used for this study is a seventeen-page document covering three sections, viz. the Biographic Details, the Symptom Check List 90-Revised (SCL-90-R), and the Deployment Hassles Checklist (DHC). The Biographic details covers the variables which are considered significant in determining an individual's perception of the stressor and his resultant response to the perceived stressor. The SCL 90-R is a international self-report symptom inventory based on the response approach to understanding stress. The DHCL is a self-report inventory which identifies the SANDF's military deployment environmental stressors. This inventory is based on the stimulus approach to understanding stress and has been designed particularly for this study. The questionnaire is contained in Appendix 2.

3.6 THE BIOGRAPHIC DETAILS

The Biographic Details section of the questionnaire has three parts, viz. the personal details, military history, and crisis support and coping. Personal Details (Part A) covers the respondent's age, rank, company name, platoon, the respondent's self description, home province, marital status, and educational level. The Military History (Part B) explores the respondent's employment contract within the SANDF, length of service in the SANDF, and pre-SANDF military history and service. The Crisis Support and Coping (Part C) facilitates the respondent's awareness of available social support systems, explores the respondent's social support preference, and ascertains the use and quality of help received from available coping resources. Particular reference is made with regard to the use of alcohol, cigarettes, and drugs, with emphasis placed on the frequency of use of these substances and the quality of relief brought about by them.

The last item in the Biographical Details section of the questionnaireis presented as a general open-ended question to allow both the respondent and the researcher to cater for any important variable(s) that has been overlooked or omitted during the compilation of the questionnaire. This space is provided in the form of a general open-ended question about the respondent. Although the initial plan was to cater for such general but important input about the respondent, this space later catered for the question on the respondent's educational level which was omitted in the compilation of the questionnaire.

3.7 THE QUESTIONNAIRE

3.7.1 The Symptom Checklist-90-Revised (SCL-90-R)

The SCL 90-R is a 90-item, multi-dimensional, response-based self-report inventory (Derogatis, 1994). It is derived from the Hopkins Symptom Checklist (Gmelch, 1982) and is designed to reflect the psychological symptom patterns of community, medical, and psychiatric respondents. Its 90 items are each measured on a five point distress scale (1 - 5) from "Not at all" to "Extremely". Current psychopathology is reflected in terms of nine primary symptom dimensions and three global indices of distress. It has been revised once from its original prototype, and it is the "R" (revised) form that is utilized in this study.

The nine primary symptom dimensions are as follows: Somatization (SOM), Obsessive-Compulsive (O-C), Interpersonal Sensitivity (I-S), Depression (DEP), Anxiety (ANX), Hostility (HOS), Phobic Anxiety (PHOB), Paranoid Ideation (PAR), Psychotism (PSY). SCL-90-R has three global indices, namely the Global Severity Index (GSI), the Positive Symptom Distress Index (PSDI), and the Positive Symptom Total (PST). Each measure is to communicate in a single score, the level or depth of the individual's psychological distress (Derogatis, 1994). The GSI is the best single indicator of the current level or depth of the disorder. The PSI functions as a measure of symptom intensity. PST functions as a measure of symptom breadth. However both the PSI and the PST scores are not to be utilized for the purpose of this study as the emphasis is not on a detailed clinical profile of the sample.

Areas of utilization of this scale include a general measurement tool for psychiatric outpatient symptomatology. It is used also both in clinical and research situations and can be incorporated in other clinician personal assessment procedures. It has also been used in comparative treatment studies which involve repeated assessments of the symptom picture across time, thereby providing the clinician with a consistent basis for evaluating treatment differences. Derogatis (1994) has established both test-retest reliability and internal consistency for the nine factors of the SCL-90-R. Alpha co-efficients range from 0.77 to 0.90, and test-retest values range from 0.79 to 0.90, with a one week interval between tests. In this study, norms for community respondents are utilized.

3.7.2 The Deployment Hassles Checklist (DHCL)

MacDonald et al. (1998) state that stressors are not restricted to violent and traumatic events. In the military, separation from family is a common source of stress that may be intensified by uncertainty about return dates, poor communication to or from home, and a belief that the stress that military operational personnel experience goes unrecognized. The DHCL, developed for the current study, measured a

number of potential hassles related specifically to military deployment.

The DHCL is a 59 item environmental stressor self-report inventory. It is a measure of stress experience based on the stimulus approach to understanding stress. Forty three of the items of this inventory were taken from the Spielberger Police Stress Questionnaire (SPSQ). The remaining sixteen items were derived from interviews conducted with military operational personnel, the SouthAfrican Military Health Service (SAMHS) personnel directly or indirectly involved with support services of the military operational personnel, and from the researcher's clinical experience with the soldiers. Items used in this inventory are assumed to reflect on both deployment circumstances and organisational issues for this sample SANDF soldiers.

This self-report inventory required respondents to rate each stressor on a Likert-type scale from "1" for "Not at all" to "5" for "Extremely". Note that the scale rating is a measure of both the potential (i.e. how stressful the event would be, should it occur) and the actual stress. The wording of some of the original SPSQ items were adapted slightly such that they can be applicable to the SANDF military set-up and understandable to South Africans.

3.8 THE SAMPLE

The sample used in this study is drawn from the operational military personnel of an SANDF infantry unit in the Western Cape. The present form of the unit was established after the May 1994 General Elections. As most other smaller SADF military units closed down or were amalgamated during the formation of the SANDF in 1994, this unit has become an occupational home to many soldiers from outside the Western Cape Province. Currently it is constituted by mostly integration members from the SADF, MK, APLA, and TBVC states, and a group of new recruits with no previous military training.

Respondents included all operational military personnel with the rank of private through to full corporal who are routinely deployed to community policing duties alongside SAPS. These operational military personnel belong to the deployment companies available at the unit. The participants are black African language speaking and English/Afrikaans speaking Coloured males.

An updated name-list of members of all the deploying infantry personnel was obtained and represented the sampling frame for this study. Purposive random sampling was then executed, taking every second name in the list of privates, lance corporals, and corporals. The final sample, with its general

characteristics, is represented in Table 3.

3.9 PROCEDURE

3.9.1 Securing permission for the study

Permission for the study was sought through the command structure of the SANDF. Initial contact was made with Western Province's D. Psych regional head to assess feasibility and obtain approval of the study. Permission was also sought from the Officer Commanding of the infantry unit, who later facilitated the company commanders co-operation as they are mainly in charge of deployment activities. Approval was also sought from the Surgeon General's office who consented on the condition that a copy of the questionnaire be furnished to him for perusal prior to circulation.

Table 3 Defining characteristics of the sample

Characteristic	Number	Percentage
Race		
Coloured	95	48.7
Blacks	73	37.4
Undisclosed	27	13.3
TOTAL	(N = 195)	(99.4)
Age range (in years)		
18 - 30	6	3
31 - 40	152	77.9
41 - 50	35	17.9
51 - 60	2	1
Rank		
Private	167	85.6
Lance Corporal	16	8.2
Corporal	12	6.2
Company		
Alpha	31	15.9
Bravo	40	20.5
Charlie	42	21.5
Delta	34	17.4
Spes	48	24.6
Home Province		
Western Cape	104	53
Eastern Cape	61	31.3
Other Province	30	15.4
Marital Status		
Married/Partner	50	25.6
Single/Sep./Div./Widow	146	74.4
Educational Level		
Less than Std. 8	41	21
Std. 9	28	14.4
Std. 10	108	55.4
Undisclosed	18	9.2
SANDF service contract		
Short term	100	51.3
Medium term	58	29.7
Permanent	36	18.5
Previous Military Service		
SADF	54	27.7
APLA	22	11.3
TBVC	10	5.1
MK	51	26.1
No previous military history	58	29.7

3.9.2 Administration of the questionnaire

The questionnaire was administered in English as all participants were comfortable with this language. Administration of the questionnaire was conducted over a three week period to small groups of about 30 respondents constituting a platoon. An agreement would be reached with the company or platoon commander about the most convenient time for the researcher to administer the questionnaire. The nature of the task was briefly explained and then participants were given time to ask questions and decide on taking part in the study (Appendix 1). There were no refusals to participate onpresentation of this option to respondents.

The researcher first led the respondents through the biographic section of the questionnaire, assisting those who needed clarity. Respondents were then taken through the first item ofsection two (SCL-90-R) as an example and then requested to complete it in the same fashion. The same method was used for section three (DHCL). The average time to complete the questionnaire was thirty five to forty minutes. On submission of the completed questionnaire, respondents were asked to indicate at the last page how easy or difficulty it was to understand the questionnaire. More than 90% indicated understanding of all the questions.

3.10 DEVELOPMENT OF MEASURES

A number of preliminary steps were undertaken to prepare the data for statistical analysis. All questionnaires were subjected to examination for accuracy of data entry, missing values, and completion of items. Two questionnaires were excluded as they were substantially incomplete. The next step involved factor analysis and reliability of the scales, and deciding on the final choice of items to be included for further analysis. However, there was no factor analysis for the SCL-90-R as it is a standardized scale. Thus, the factor structure for the SCL-90-R scale was retained so that normative data could be applied to the population under investigation. Table 4 below shows the established Alpha coefficients of the nine symptom dimension for the SCL-90-R , and the Alphacoefficients obtained from the population in this study. Most of the scales demonstrate very similar reliability scoresto those shown in normative data.

The DHCL scale was submitted to factor analysis before reliability analysis. Prior to factor analysis, all items taken from the SPSQ were grouped together such that those derived from the pilot interview conducted by the researcher would form a distinct group. The minimum loading for each item on the factors was set at 0.44, and all items with lower factor loadings were dropped from further analysis.

TABLE 4 Alpha coefficients for the 9 symptom dimensions of the SCL-90-R

Dimension	Alpha coefficient s reported by Derogatis (1994)	Alpha coefficients in the present study
Somatisation	0.86	0.88
Obsessive-Compulsive	0.86	0.83
Interpersonal Sensitivity	0.86	0.81
Depression	0.90	0.87
Anxiety	0.85	0.85
Hostility	0.84	0.78
Phobic Anxiety	0.82	0.71
Paranoid Ideation	0.80	0.69
Psychotism	0.77	0.79

The SPSQ was designed to measure stress in the American police (Spielberger, Westbury, Grier, and Greenfield, 1981). Gulle et al. (1998) adapted it for the SAPS. As the present study has military personnel as respondents, a number of items were inappropriate and excluded from the scale. These items related to duties specifically assigned to the police. An example would be police duty in court, delivering a death notification, technicalities leading to case dismissal, and so forth. The factor structure established for the SPSQ items in the DHCL was different to that obtained in previous research (Gulle et al., 1998), whilst the interview items of the DHCL revealed a single factor. Where factors differed with those found in the previous research, these were given labels to reflect their content.

Item s designed specifically for this study are marked with *. Most of these items load on factor 5, and thereby constitute a distinct factor from the SPSQ factor structure. Using Kaiser's rule and Cattell's Scree test to decide on the number factors, the minimum Eigenvalue for a factor was set at 1.0. The factors used for this scale are tabulated below with their Eigenvalues, reliability coefficients and assigned labels to reflect their content.

3.10.1 Tables reflecting the factor structure, reliability and item loading of the DHCL

Table 5 (a)

FACTOR 1: Organizational stressors (Eigenvalue = 11.39, Variance = 26.49)

Reliability coefficient = 0.88

Item	Loading
Lack of recognition for good work	0.65
Ineffectiveness of my unit	0.63
Inadequate support by my unit	0.62
Inadequate support from company commander	0.60
Racial prejudices or conflicts	0.57
Difficulty with company commander	0.57
Job conflicts	0.56
Making critical on-the-spot decisions	0.54
Assignment of unpleasant duties	0.52
Inadequate or poor equipment	0.50
Disagreeable unit regulations	0.49
Political pressure within my unit	0.49

Table 5 (b)

FACTOR 2: Inherent stressors of daily military life (Eigenvalue = 1.94, Variance = 4.51)

Reliability coefficient = 0.77

Item	Loading
Confrontation with aggressive crowd	0.60
Changes from boring to demanding life	0.60
Changing from day to night shift	0.58
Personal insults from the public	0.57
Assignment to increased responsibility	0.53
Relations with non-soldier friends	0.51
Assignment to new or unfamiliar duties	0.49
Inactivity or boredom	0.44

Table 5 (c)

FACTOR 3: Perceived threats to safety (Eigenvalue = 1.51, Variance = 3.52)

Reliability coefficient = 0.71

Item	Loading
Fellow soldier killed in the line of duty	0.68
Physical attack on your colleague	0.56

Table 5 (d)

FACTOR 4: Inherent stressors of operational duty (Eigenvalue = 1.30, Variance = 3.01)

Reliability coefficient = 0.83

Item	Loading
Exposure to death of civilians	0.60
Exposure to battered or dead children	0.56
Responding to crime in progress	0.49
Excessive and inappropriate discipline	0.45
Exposure to adults in injury and pain	0.44
Situations requiring use of force	0.44

Table 5 (e)

FACTOR 5: Personal strains of military life (Eigenvalue = 4.01, Variance = 25.03)

Reliability coefficient = 0.88

Item	Loading
Not getting enough sleep*	0.77
Not enough time for entertainment and recreation*	0.69
Too many interruptions*	0.65
Working alongside police personnel*	0.55
Not enough time for family*	0.54
Hearing gunshots being fired*	0.54
Ethnic and cultural prejudices or conflicts*	0.52
Being criticised in front of other soldiers*	0.48
Attending parades*	0.48
Lack of promotions or awards*	0.47

Items marked with * are derived from interviews with unit military operational personnel

3.11 ANALYSIS

The results for this study were analyzed by means of descriptive statistics for the whole sample. Inferential statistics were also used to examine relationships and differences according to variables of age, rank, marital status, previous military history, etc. Frequency tabulations and percentages for the total population was tested to describe certain variables. ANOVA's and regression analyses were utilized to examine specific relationships.

CHAPTER 4 RESULTS AND DISCUSSION

4.1 INTRODUCTION

This chapter presents the findings of the statistical analysis of data gathered in this study. Based on reviewed literature and questions presented in earlier chapters of the study, a discussion of the results pertaining to significant findings will be presented. Firstly, there will be a descriptive commentary on the global profile of this sample, with particular reference to the SCL-90-R scores and the DHCL scores. These findings will further be compared to the normative data of the scales (particularly the SCL-90-R), the recent findings on stress in the SAPS, and on research findings on police in the USA. Further statistical analyses were conducted to examine the influence of certain of the variables on stress and responses to deployment stressors. Lastly, a descriptive commentary on this sample's social support and coping mechanisms will be made.

4.2 DESCRIPTIVE ANALYSIS OF THE SAMPLE

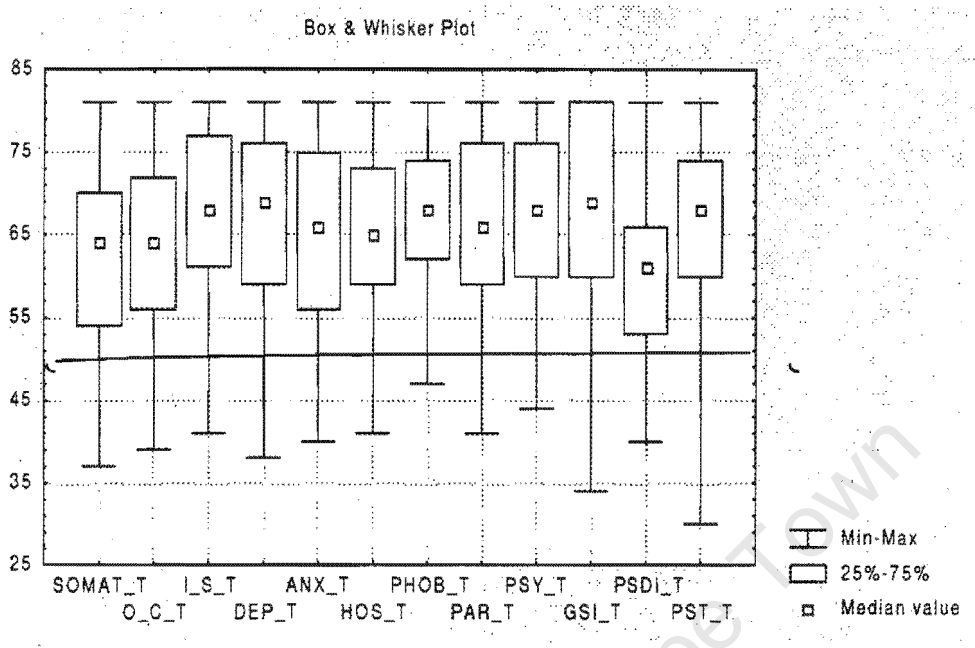
The Global Severity Index (GSI) score of the SCL-90-R suggests that stress is definitely a problem in this sample. The following table of normed mean t-scores of the SCL-90-R, reflecting the 9 symptom dimensions and the GSI score supports the above assertion. Mean t-scores ranged from 61.77 to 68.13 {the normal range for t-scores on the SCL-90-R is a t-score of 50 and a standard deviation of 10 (Derogatis, 1994)}. However, Swartz (1998) and Norton (1997) emphasize placement of adequate precautions in the use and interpretation of psychometric assessment tools derived from Western countries, given the rich cultural and racial diversity prevalent in South Africa.

TABLE 6 Mean t-scores and standard deviations of the SCL-90-R for the total sample

	SOM	O - C	I - S	DEP	ANX	HOS	PHOB	PAR	PSY	GSI
Mean	61.78	64.56	66.73	66.86	65.54	63.71	67.02	65.58	66.71	68.13
SD	12.29	11.36	10.87	11.20	12.23	11.20	9.95	10.49	10.19	11.33

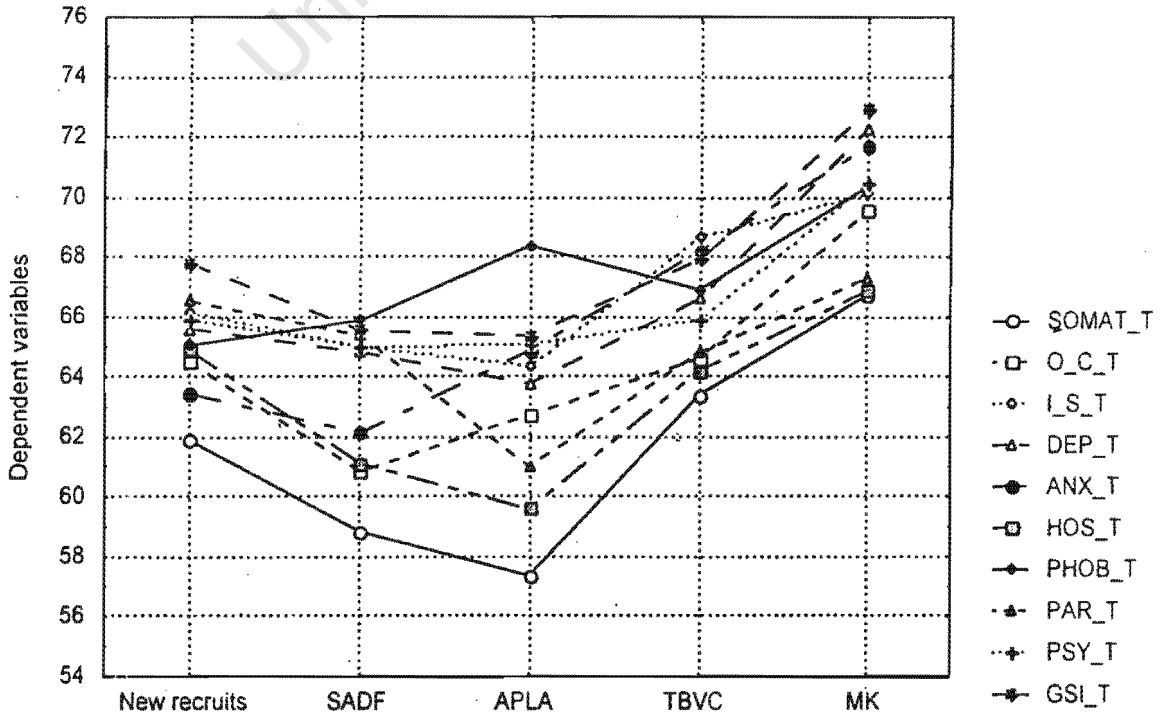
The above stress symptomatology pattern of this sample is further portrayed graphically below in Figure 1 to create a visual image of this pattern.

Figure 1 **Box and Whisker Plot of mean SCL-90-R symptom scores for the total sample.**



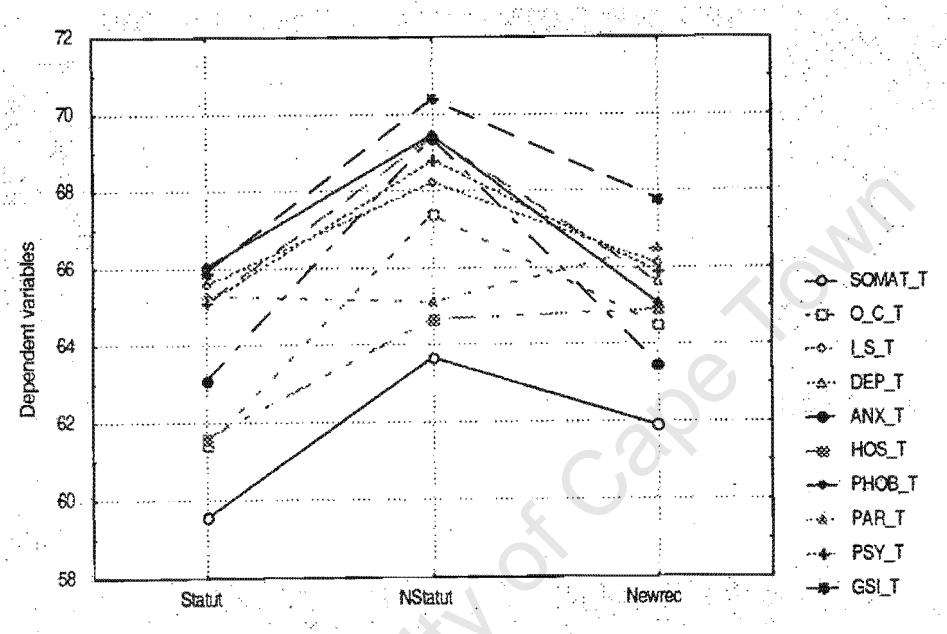
A graphical representation of the SCL-90-R mean scores of the former SADF, NSF, TBVC defence forces, and the new SANDF recruits indicates that there is markedly more stress symptomatology within the former NSF members than any other grouping within this sample. These results are displayed in Figure 2

Figure 2 **Mean SCL-90-R symptom scores for the total sample plotted by Previous Military History**



A simplified picture in which all the former statutory forces (namely the SADF and the TBVC states defence forces) are compared with all the former NSF (namely, APLA and MK) still makes it clear that the former NSF stress profile is elevated. This is graphically portrayed below in Figure 3. All the scores in Figure 3 are above the norm for non-clinical samples

Figure 3 Mean SCL-90-R symptom scores for the New Recruits and former statutory and non-statutory forces



4.3 DEMOGRAPHIC PATTERNS

An exploratory analysis of the incidence of stress symptomatology along the demographic variables age, rank, marital status, the company and platoon the soldier belongs to, the type of employment contract the soldier has within the SANDF, and the length of service in the SANDF revealed no significant correlations with stress symptomatology. However, level of education, proximity to home (as depicted by one's home province), previous military history, and (ab)use of substances (alcohol, cigarettes and drugs) revealed significant patterns and incidence of stress symptomatology within this sample. These will be discussed in more detail below.

4.3.1 Educational level and stress manifestation in the SCL-90-R and DHCL

An ANOVA with three levels of the independent variable was conducted on all the SCL-90-R subscales

and the DHCL factors. There was a significant difference between education groups. Levels of anxiety ($F = 3.22$; $p = 0.04$; $DF = 2$) and phobia ($F = 6.53$; $p = 0.001$; $DF = 2$) differed according to the educational level of the respondent in the sample. Summary means for both the anxiety and phobia are as follows:

TABLE 7 Mean t-scores and Standard Deviations for educational level

	Anxiety		Phobia	
Std. 8 or less	Mean	SD	Mean	SD
N = 36	68.53	10.50	70.61	6.32
Std. 9	Mean	SD	Mean	SD
N = 28	68.54	12.48	70.25	9.56
Std. 10 or more	Mean	SD	Mean	SD
N = 108	63.69	12.50	65.04	10.33

Tukey's *Post-hoc* testing using the LSD test revealed that soldiers with standard 10 or more were significantly less phobic than those with less education ($p = 0.003$ for Std. 8; and $p = 0.010$ for Std. 9). Soldiers with standard 10 were significantly less anxious than those with a standard 8 or less education ($p = 0.039$).

4.3.2 Area of residence in relation to stress manifestation in the SCL-90-R and DHCL

An ANOVA with two levels of the independent variable was conducted on all the SCL-90-R subscales and DHCL factors to test whether stress levels would differ in troops whose families lived relatively close to or very distant from the base. One might expect that those troops whose families and home base is situated further away would have less support and thereby experience more stress symptomatology than those residing in the Western Cape (and thus in relatively close proximity to 9 SAI Bn and their family support base). The ANOVA was significant. Significant differences between the groups at $p < 0.05$ were as follows: Obsessive-Compulsive ($F = 4.08$; $p = 0.04$; $DF = 1$); Anxiety ($F = 5.05$; $p = 0.03$; $DF = 1$); Phobic Anxiety ($F = 4.40$; $p = 0.34$; $DF = 1$). Troops whose families lived in theW.C. had lower scores than those whose families lived elsewhere. Nonetheless, all means are in the clinical range. The results are presented in Table 8.

TABLE 8 Mean t-scores and Standard Deviations for area of residence

	O-C		ANX		PHOB	
W. CAPE N = 91	Mean	SD	Mean	SD	Mean	SD
	63.03	11.35	63.72	12.07	65.64	10.16
OTHER PROV. N = 104	Mean	SD	Mean	SD	Mean	SD
	66.30	11.19	67.63	12.14	68.60	9.51

4.3.3 Previous Military History and stress manifestation in the SCL-90-R and DHCL

An ANOVA with three levels of the independent variable was used to test whether a soldiers previous military history before assuming services with the SANDF would determine the pattern of stress manifestation in this sample. One might expect that the differing military training programmes that these soldiers have received previously would require a measure of adjustment, especially considering SANDF requisite integrative processes, the racial constitution of these integrated armed forces, and the presently identified operational duties of the SANDF. Previous stressful life conditions in their respective military forces could also be expected to influence these results. Included in this analysis are those soldiers who have recently joined the SANDF and thus have no prior exposure to the military. The former non-statutory forces are MK and APLA forces, whilst the former statutory forces refer to the SADF and the TBVC defence forces. The ANOVA was significant.

The results reveal that there are differences between the groups on the following stress symptoms (significant at $p < 0.05$): Obsessive-compulsive ($F = 4.88$; $p = 0.008$; $DF = 2$), Depression ($F = 3.09$ $p = 0.047$; $DF = 2$), Anxiety ($F = 6.02$; $p = 0.003$; $DF = 2$), and Phobia ($F = 3.73$; $p = 0.025$; $DF = 2$). Means and standard deviations are presented in Table 9 below.

TABLE 9 Mean t-scores and Standard Deviations for Previous Military History

	O -C		DEP		ANX		PHOB	
Ex-Statutory N = 64	Mean	SD	Mean	SD	Mean	SD	Mean	SD
	61.42	12.06	65.09	11.67	63.07	13.41	66.03	10.53
Ex-Non Statutory N = 73	Mean	SD	Mean	SD	Mean	SD	Mean	SD
	67.38	10.23	69.39	11.39	69.37	10.99	69.45	9.31
New Recruits N = 58	Mean	SD	Mean	SD	Mean	SD	Mean	SD
	64.48	11.17	65.60	9.98	63.45	11.29	65.05	9.59

Tukey's *Post-Hoc* LSD test revealed the following at the 5% level of significance:

Former NSF soldiers have significantly higher levels of stress symptomatology than other groups on

obsessive-compulsive (p = 0.002) and depression (p = 0.020) symptom cluster. Soldiers previously from statutory forces score lower on phobia and anxiety than those from non-statutory forces. Soldiers from non-statutory forces score higher than those who are new recruits. There is no significant difference between soldiers previously from statutory forces than those who are new recruits. In essence, non-statutory forces show the highest levels of symptomatology.

4.3.4 Predictors of the GSI score of the SCL-90-R for the total sample

In this study, an attempt was made to understand the variables that determine the patterns of stress symptomatology as specifically indicated by the global severity index (GSI) score of the SCL-90-R in this sample. To achieve this, a number of independent variables were entered into a stepwise forward regression procedure, with the GSI score as the dependent variable. Independent variables were chosen on the basis of the results reported earlier on in this chapter. This independent variables included the five DHCL factors, province of residence, previous military history, substance use, substance frequency and helpfulness of substance use. The final model yielded an R-square value of 0.38, and was statistically significant.

Variables selected for the model were DHCL factor 4, DHCL factor 1, substance use, and the former NSF. The beta weights in the analysis suggested that DHCL factor 4 is the most important predictor of the GSI score and hence the patterns of stress symptomatologyin the sample. Thus, the inherent stressors of operational duty of military deployment, organisational stressors that emanate from the day-to-day management and functioning of the SANDF, the use of mind-altering substances, and respondent's previous military involvement were found to be the main determinants of the stress patterns and symptomatology in this sample. Table 10 shows the results for the stepwise regression procedure, with the four variables that were identified in the stepwise analysis.

TABLE 10 Summary of stepwise regression with the GSI as the dependent variable

	Step	Beta	R-square	t(162)	p
DHCL Factor 4	1	0.318	0.238	4.37	0.000022
DHCL Factor 1	2	0.273	0.069	3.74	0.000255
Substance use	3	-0.203	0.044	-3.19	0.001693
Ex-NSF	4	0.163	0.026	2.62	0.009760

4.4 COPING

A one way ANOVA on both the SCL-90-R subscales and the DHCL factors was used to test whether soldiers who use or (ab)use alcohol, cigarettes and/or drugs differ in levels of psychological well-being

and/or reported stress symptomatology from those who do not. The assumption is that soldiers who frequently make use of these substances may be doing so as a way of inducing temporal relief and/or "escape" from the stressors associated with stressful military routine. Thus, the use of mind-altering substances like alcohol, cigarettes or drugs might be a way of coping with military demands.

Of the whole sample, 55.4% (N = 108) admitted use of these substances. Substance users had significantly higher levels of symptomatology than those who did not. These substance users also had significantly elevated levels of organisational stress (DHCL Factor 1). These results are displayed in Tables 11 and 12.

TABLE 11 Mean t-scores and Standard Deviations for substance use

	SUBSTANCE USE (N = 108)		NON-SUBSTANCE USE (N = 87)	
SOM	Mean	SD	Mean	SD
	63.31	12.55	58.96	11.87
O - C	Mean	SD	Mean	SD
	68.04	10.25	60.25	11.36
I - S	Mean	SD	Mean	SD
	69.27	9.58	63.29	11.93
DEP	Mean	SD	Mean	SD
	69.31	10.36	63.29	11.59
ANX	Mean	SD	Mean	SD
	68.29	10.77	61.87	13.18
HOS	Mean	SD	Mean	SD
	66.42	9.97	60.29	12.28
PHOB	Mean	SD	Mean	SD
	69.62	8.75	63.72	10.16
PAR	Mean	SD	Mean	SD
	68.08	9.84	62.65	10.89
PSY	Mean	SD	Mean	SD
	69.29	8.78	63.51	10.75
GSI	Mean	SD	Mean	SD
	71.23	9.74	63.85	12.23
FACTOR 1 (ORGANISATIONAL STRESSORS)	Mean	SD	Mean	SD
	2.93	0.89	2.65	0.98

TABLE 12 Significant substance-use F and p values in the SCL-90-R and DHCL

	SOM	O - C	I - S	DEP	ANX	HOS	PHOB	PAR	PSY	GSI	FAC 1
F	5.51	24.87	14.45	14.45	16.23	14.36	15.31	12.32	20.80	22.01	7.05
p	0.0199	0.0001	0.0001	0.0001	0.0001	0.0002	0.0001	0.0005	0.0001	0.0001	0.0086

In this study, an evaluation of the impact of the above substance-induced coping with military routines was conducted. A five point scale of frequency of use of substances ranging from daily, weekly, monthly, occasionally, and never was established and its effects evaluated on a four-point scale ranging from "not helpful at all" to "extremely helpful". However no attempt was made to ascertain which substance was frequently (ab)used and its subsequent effects. An arbitrary cut-off point of frequency of (ab)use of substances was atheoritically established, with daily and weekly assumed to be of high frequency which may be bordering on abuse and/or dependence. A frequency of monthly and occasionally were atheoritically assumed to reflect on moderate forms of use of these substances. A hierarchical regression of the data showed that substance frequency and substance evaluation do not add any predictive value over and above that already held by substance use. In other words adding substance frequency and substance evaluation does not add new information to that we already have when considering only substance use.

4.5 SUMMARY AND DISCUSSION OF RESULTS

4.5.1 Symptom levels and stress

SCL-90-R's nine symptom dimension, reflecting on the nature of psychological distress in the sample under investigation, indicated high level of stress symptomatology within this sample. While all these symptom dimensions were elevated for the whole sample, phobia, depression, and interpersonal sensitivity showed up as the foremost occurring symptoms. This corresponds with Artz and Douglas-Hamilton (1995: p.16) assertion that "depression and high anxiety states appears to have disabled many members of the SAPS at some point of their policing careers", leading to inabilities to relate to their personal, social and professional worlds (Munshi, 1998). Munshi (1998) further asserts that the law and order personnel's inability to relate to their personal worlds is due to denial of their problems and presentation of an image of coping to the superiors and colleagues. However, necessary precautions (local standardization and African language speakers) are exercised in interpreting this (Norton, 1997; Swartz, 1998). Thus, these results confirm this study's initial assumption that levels of stress symptomatology might be high in this SANDF sample.

Similar to studies on stress in the SAPS, the high stress levels in the SANDF sample cannot be seen

outside the context of uncertainties, fears, insecurities, and tensions directly or indirectly induced by the integration and rationalisation processes. As extrapolated from Marks (1995), the long-serving military members mostly from the former statutory forces of South Africa may no longer see the military as a cohesive body that "parents", supports, and prescribes to the family members (SANDF soldiers). Individual members may be left feeling abandoned and their present circumstances rather anxiety provoking. Although there are few reported deaths and suicide within the SANDF, despair, emotional exhaustion and burnout are symptoms indicative of severe depressive states that has led to medical boardings and mass resignations through severance packages.

Accountability and transparency required of the present law and order organs of state towards the communities they serve may be challenging the long-serving members' entrenched ways of operational functioning. Whilst some of these members may acknowledge the political legitimacy of the former NSF members, resentment may emerge on the basis of perceived operational inexperience of these members when matched with the technological and institutional advantages that the former SADF members enjoy. On the other hand, the former NSF members may be feeling disillusioned and depressed with the apparent stronghold of former SADF members to the authority structure, especially considering the racially stratified rank structure. The adopted name changes and proposed affirmative action policies may be matched with little evidence of attitude change within the new SANDF.

4.5.2 Demographics

Whilst certain demographic variables revealed no significant results as anticipated, there emerged distinctive patterns of stress symptomatology manifestation related to certain characteristics of the sample. The variables that produced significant results were educational level, area of residence, and previous military history. Analysis of these variables was done on both the SCL-90-R and the factors of the DHCL inventory.

Education

An investigation into the effect of educational level on the soldier's psychological well-being in this sample revealed that the less educated a soldier is, the more stress symptomatology is reported. It is possible that level of education and training would relate to the promotional possibilities, aspirations and upward mobility of the soldiers within the rank structure, and thereby providing a sense of job security and stability. Both phobia and anxiety symptom clusters were higher in those with educational level less than standard 10. Carson, Butcher, and Coleman (1988) assert that an individual that has been subjected to excessive stressor demands may develop maladaptive reaction patterns which may result in persistent

feelings of threat and anxiety in attending to everyday demands of life.

Brogden and Nijhar (1998) report of preferential nomination of candidates for further education and training programmes in the SAPS. They further explore the frustrations that are experienced in the process of completing the assigned courses (e.g. course presentations in Afrikaans language which is not known by all the members) and the frustrating organisational practices towards certain sectors of the student groups (notably black police officers from the former NSF members presented with numerous hassles which make it difficult for them to complete the courses). However, this issue does not fall in the ambit of this study in the SANDF operational personnel. Further attention in this subject in the SANDF is therefore recommended as this is a potentially stress inducing scenario.

. **Area of residence**

The soldier's area of residence or home base and its proximity to the infantry unit was assumed to bea significant factor in this sample's incidence and prevalence of stress symptomatology. The basis for this was that those soldiers whose home base or families live far would have less support and thereby experience more stress symptomatology than those who live relatively closer to the military unit. Province of residence was conveniently used as a measure of how far the soldier's home base is to the military unit in which they work. This provincial yardstick was chosen on the basis that these respective areas present with differences in language(s) used, lifestyle of the inhabitants, economic situations, and so forth. 53% of the respondents were from the Western Cape, whilst 31.3% were from the Eastern Cape. The rest were from other provinces.

Higher anxiety, phobia, and obsessive-compulsive symptoms were reported among those fromareas other than the Western Cape. This confirmed the study's initial assumption that stress would be a problem for soldiers who are far from their homes and family support base. It also corresponds with recently conducted studies on stress in the military family and the importance of military families in mediating stress levels in military personnel (Kruger, 1997; Mathee, 1997; van Breda, 1998). Although anxiety and phobia can be related to other demographic variables determining the patterns stress symptomatology in this sample, there is an added component of obsessive compulsion within this demographic grouping in this sample.

Obsessive-compulsion symptom traits are a group of anxiety symptoms mainly characterized by an individual feeling compelled to think about something that they do not want to think about or to carry out some action against their will (Carson et al., 1988). There should be a realization of the excessiveness

and unreasonability of the condition as its distressing levels interfere with occupational and social functioning (APA, 1994). Thus, to some degree it can be argued that soldiers who are far from home may be experiencing frequent thoughts and elaborate plans about returning home. The high rates of absences without leave, mass desertions, insubordination, and frequent requests for detached duties to units closer home may be some forms of attempts to return home.

. **Previous military history**

The literature review on the integration process of South African armed forces has hi-lighted numerous controversies and difficulties pertaining to the current structural and operational functioning ofthe present SANDF and SAPS. Important issues are raised regarding the various integrated forces' understanding of this process, its impact on organisational and operational functioning, and the effect it had on current and future operational and management issues. Reference is also made with regard to current issues of cultural changes, dealing with diversity, and uncertainties that emerged with rationalisation and serving a democratic country, and the impact of South African socio-political change. Recently emerging studies on similar and related subject on the SAPS and SANDF, and media reports on the current state of affairs in the SANDF have been useful in supporting the validating the afore-mentioned assertions on the shortfalls of the integration process.

The respondent's previous military history emerged as a significant factor in determining the sample's stress patterns. The basic assumption was that integration of former enemies to a single, united, and representative SANDF is a difficult process marked with various shortfalls that can hamper operational and organisational functioning. This assumption was confirmed and largely corresponded with recent studies on stress in the SAPS (Artz & Douglas-Hamilton, 1995; Gulle et al., 1998; Marks, 1995; Minaar, 1998; Munshi, 1998; Scharf, 1999). Results showed that the former NSF members (APLA and MK) were the most stressed of the various previous-military-history groupings within the sample, namely the former SADF, TBVC states, and new recruits. Phobia, anxiety, obsessive-compulsive symptom traits, and depression were the main stress symptomatology clusters that emerged within this grouping in the sample.

While the reported anxiety and depression symptoms can be related to this groups past experiences in the liberation struggle, it is possible that their elevated stress symptomatology scores are also due to difficulties in their field of functioning in the SANDF. Majodina (1999) cites re-entry difficulties (e.g. meeting basic needs like housing and education, and change of role of political organisations), difficulties experienced with returning home (social, material, and political difficulties), the degree of integration

level to home country (e.g. expectations and reality), and social support as the main difficulties experienced by returnees on their return to South Africa. These experiences can further have a cumulative effect on the NSF soldier's well-being as they experience other difficulties hi-lighted in the integration processes of the SANDF.

Scharf (1999: p. 6) states that the integrated NSF members are perceived to have acquired functional "seniority that is not matched with expected competence". He further states that they are perceived as having political legitimacy but little operational experience. These perceptions could be attributed to the superiour status that has been accorded to and maintained within theformer SADF members. The afore-mentioned structural, technological, and economic advantage of the former SADF, coupled with the strategic placement of these mainly white former SADF members in positions of control within the rank structure, and the assimilationist approach that has been directly and indirectly adopted bythese members can arguably contribute to the organisational and functional stressors experienced by these members. These may have affected former NSF members who feel racially marginalised, discriminated against, and systemically neglected and/or excluded.

4.5.3 Predictors of stress symptomatology

A regression analysis of data was conducted to establish the relationships between the most critical variables and the outcome stress symptomatology. These included the demographic variables, environmental stressors as indicated in the DHCL factor structure, and theoretically indicated stress symptomatology mediators (e.g. coping and support). The main purpose for this procedure was to provide some understanding to the contributors to this sample's high stress levels as reflected by the GSI score of the SCL-90-R. The predictors of the high stress levels in the whole sample emerged in their relative order of impact as the follows; factor 4, factor 1, substance abuse, and former NSF membership.

. Inherent stressors of operational duty (factor 4)

A degree of association emerged between factor 4 of the DHCL and the high stress levels as shown by the GSI score for the whole sample. Factor four, which emerged as the foremost predictor of stress outcomes in the sample refers to the *inherent stressors of operational duty*.This confirmed this study's main assumption that deployment of military operational personnel to attend to crime and violence in their community policing duties is a stressful exercise. Inherent stressors of operational duty include exposure to death of civilians, exposure to battered or dead children, responding to crime inprogress, and so forth {see Table 5 (d)}. However, the present study involving the SANDF operational personnel did

not correspond with results on studies of stress in the SAPS (Gulle, 1996; Gulle et al. 1998; Munshi, 1998). The SAPS studies revealed that organisational stressors were the better predictors of stress symptomatology than stressors inherently found in police work. However, methodological and measurement approaches, and the subtle differences that exist between the SAPS and SANDF in their operational duties may be the main causes of these different outcomes. Table 14 below presents a comparison between inherent stressor events found most stressful by SAPS and SANDF members in this study and that conducted by Gulle et al. (1998).

TABLE 13 Comparison between SANDF and SAPS inherent stressor events

No.	SANDF's top five inherent stressors	SAPS's top five inherent stressors*
1.	Exposure to death of civilians	High speed chases*
2.	Exposure to battered or dead children	Exposure to death of civilians*
3.	Responding to crime in progress	Responding to crime in progress*
4.	Excessive and inappropriate discipline	Exposure to dead or battered children*
5.	Exposure to adults in injury and pain	Physical attacks on one's person*

Items marked * are from factor 2 (Inherent stressors) taken from Gulle et al. (1998)

A comparative analysis of the inherent stressors of both the SAPS and the SANDF reveals that incidents of exposure to death of civilians, to battered or dead children, and responding to crime in progress had a similar and comparable impact on both the SAPS and the SANDF operational personnel. Though exposure to death of civilians and exposure to adults in injury and pain are positioned differently in these studies, trauma and operational readiness are common to both. It can be argued that continual exposure to traumatic incidents might be hampering these personnel, thereby affecting their operational readiness. However, in a qualitative study of stress in the SAPS, Munshi (1998: p. 42) revealed that "... only 38% thought that debriefing was a helpful programme,...[and] were still indifferent and figured that they were not dependant on it". The following extract from an interview conducted with one of the respondents in the SAPS study confirms this:

> "...in a job like this, debriefing is useless because we have to be able to handle the dead bodies and rapes and child abuses...if we don't do it who will?...sometimes I worry because I feel there's something wrong with me...I can't feel anything anymore".
>
> Munshi (1998: p. 42)

Organisational stressors (factor 1)

The second most closely associated variable to the heightened stress levels (as shown by the GSI score for the whole sample) was factor 1on the DHCL. Factor 1 refers to *organisational sources of stress*

which include lack of recognition for good work, ineffectiveness of the military unit, inadequate support by the military unit, and so forth. Organisational stressors were found to be the best predictor of stress levels in studies with the SAPS (Gulle et al., 1998), whilst they emerged as the second most important predictors for the present study on stress in the SANDF. Note that, apart from the police study's difficulty in replicating the inherent/organisational distinction found on stress studies in American police, there is a general agreement that factor 1 of the study on stress in the SAPS refers to organisational stressors (Gulle et al., 1998). Table 15 below presents a comparison between the events found most stressful by the SANDF and the SAPS. Once again, a precaution is presented on the shortfalls of comparing the current study with results found on studies conductedn the SAPS. Different measurement approaches and tools and the essential differences of these organisations are areas where caution is emphasized in comparisons.

Table 14 Comparison between SANDF and SAPS organisational stressor events

No.	SANDF's top five organisational stressors	SAPS's top five organisational stressors*
1.	Lack of recognition for good work	Job conflicts (by-the-book versus situation)*
2.	Ineffectiveness of my unit	Ineffectiveness of correctional system*
3.	Inadequate support by my unit	Ineffectiveness of the judicial system*
4.	Inadequate support from company commander	Court leniency with criminals *
5.	Racial prejudices or conflicts	Inadequate support by department*

Items marked * are from factor 1 (Organisational stressors) taken from Gulle et al. (1998)

There emerged a number of circumscribed organisational stressors for the SANDF operational personnel in this study, as compared to other studies on stress in the SAPS which revealed an array of organisationally induced stressors relating to factors within and outside the organisation. An attempt to conduct a comparative analysis of both the SAPS and the SANDF organisational stressors did not result in meaningful results. This is largely attributed to the essential differences in the nature of these organisations and to some extent to the methodological approaches in the SAPS studies. Content analysis of this study's organisational stressors, as reflected in factor 1 {see table 5 (a)}, points to racism, discriminatory practices and conflicts occurring within the organisation, lack of support and ineffective communication channels, insufficient resources to oversee assigned tasks, and lack of appreciation and acknowledgment of the member's work (internally and externally of the organisation). It is also interesting to note that these organisational stressors were found to have a significant impact on respondents who use substances as a way of coping.

Substance use

In the regression analysis, an association also existed between this sample's high stress levels as depicted

by the GSI score as related to the respondent's use of substances like cigarettes, alcohol, and/or drugs. Thus, the respondent's use of substances was the third most important predictor of the outcome of the stress levels in this study. In essence, there was a higher incidence of stress related symptomatology amongst respondents who reportedly used substances to cope with their stress levels. This analysis confirmed the suggestion that soldiers may use mind-altering substances to cope with the demands of military deployment. These findings corresponded with studies on stress in the SAPS which revealed that SAPS personnel heavily rely on substances to cope with their stressful work situation. The following extracts taken from studies conducted in the SAPS attempt to capture the magnitude of the problem within the law and order organs of state:

> "It is hard work knowing that everyday someone will shit on you for something you can't help. I would also say that guys crack a bit when they're pressured from everyone...the bosses, the public, their wives, the prosecutors...and they turn to drink tosolve their problems. A lot of these guys are serious drinkers."
>
> Artz and Douglas-Hamilton (1995,)

> "I would say they crack, go to the bottle, start assaulting people...they are edgy...I would say drinking is a problem...couple of drinks...and then they start talking about things that worry them...It's a big outlet for them..."
>
> Munshi (1998, p. 45)

. **NSF**

The last most important variable as a predictor of stress symptomatology revealed by the regression analysis, is the respondent's previous military history, particularly being a member of the former NSF. This was in line with the study's assumption that the respondents' previous military history would have a significant impact on the soldier's experience of stress within the SANDF. As discussed in the results section of this study, anxiety disorder symptomatology (e.g. phobia, obsessive-compulsive, and anxiety) and depression occurred at a higher rate for these members. However, while these former NSF members may largely represent the black, historically disadvantaged,former members of the liberation movements, Gulle et al, (1998) forewarns that "race" does not predict the outcome of stress symptomatology. For example a former NSF soldier may not necessarily have the same level of stress as a former TBVC state member because they are both black. Thus, the high stress levels of the former NSF members may be related to their current and/or previous experience of military life, or to other variables not tested in this research.

4.6 SOCIAL SUPPORT AND COPING

An assessment of the participants' utilisation of social support services available for alleviating the soldier's stress levels was conducted in this study. A list of service seventeen service providers who generally attend, either professionally or informally, to the well-being of the soldiers was presented to the respondents. Respondents were requested to rank these support service providers in order of their preference and perceived effectiveness in meeting their needs for stability and/or reducing stress. A list of support structures was drawn from the general categories of support providers like mental health professionals, military welfare personnel, religious groups, psychosocial resources (e.g., the family, friends, and self), and traditional or cultural resources/structures. Over a series of three preference assessments, the overall rating suggested that the family, friends, self, social worker, and the chaplain appeared as the top five frequently used support systems to providing emotional stability for this sample. The least frequently used support system as shown by the overall rating was the regimental sergeant-major, the nursing sister and community health care workers (SANTA VITA), the law officer, the psychiatrist, and the company commander. The medical doctor, sangoma, company section leader, and the chaplain invariably shared the fifth position in each preference assessment. Table 14 below lists the five most frequently preferred service providers over three consecutive preference assessments, indicating their respective counts and percentages.

TABLE 15 Top five service providers indicated over three successive preference ratings

First Preference assessment		Second Preference assessment		Third Preference assessment	
(1) Family		(1) Family		(1) Friends	
% = 35.4	N = 69	% = 23.1	N = 45	% = 18.5	N = 36
(2) Self		(2) Friends		(2) Family	
% = 26.7	N = 52	% = 18.9	N = 37	% = 10.3	N = 20
(3) Social Worker		(3) Social Worker		(3) Self	
% = 12.3	N = 24	% = 15.4	N = 30	% = 7.7	N = 15
(4) Friends		(4) Self		(4) Social Worker	
% = 10.3	N = 20	% = 8.2	N = 16	% = 6.2	N = 12
(5) Sangoma		(5) Sangoma / Section Leader		(5) Medical Doctor / Chaplain	
% = 3.1	N = 6	% = 2.6	N = 5	% = 4.62	N = 9

While Social Workers emerged as one of the first five most preferred social support service providers, psychologists were rated number ten in the overall assessment of use and/or preference as a service provider. Whilst this may be reflective of the referral system (social workers and doctors being the ones who normally have first contact with the client), this may also be related to the these service providers' conventional approaches to interventions. For example, over and above rendering therapeutic input to

individuals/groups, social worker's scope of functioning invariably include practical hands-on interventions like home visits and attending to concrete issues like child maintenance and disability grants. While their intervention may be sufficient to address the individual's or group's stress levels at the time, there may also be a failure or reluctance to refer to specialised interventions indicated for the client at the time. This may be due to a real or apparent fear of losing clients. Another consideration related to the low position professional service providers (particularly psychologists) received in this social support preference assessment is related to the reported difficulties in dealing with cultural diversity within the SANDF (and SAPS). Interviews with some mental health professionals revealed some lack of understanding and/or consensus as to what debriefing entails (e.g. is it a didactic presentation, narratives on deployment experiences, emotional catharsis, or a combination of the above). Van Breda (1999), a clinical social worker within the SANDF, reflects on the difficulties he experienced with working psychodynamically with black African clients. While he proposes that service providers should first attempt to resolve their own racial prejudices, the following extract captures his experiences and difficulties with black clients within the SANDF.

> "Many of the white African clients have been able to work psychodynamically, looking at intrapsychic issues, and using dream analysis to access unconscious processes...My black clients, in contrast, seem unable to connect on anything but the most concrete of issues...Questions about feelings were typically met with blank responses, questions about internal thoughts or experiences with frank confusion."
>
> Van Breda (1999: p. 1)

The above difficulty is also related to the low level of trust these professional service providers may enjoy within the law and order organs of state. The issue of trust particularly feature in the SAPS as police officers may fear that the personal files compiled by the social support providers like social workers and psychologists contain personal demographic details on each person, the person's work experience, and details about their weaknesses. This results in SAPS members showing unwillingness to seek professional help as they fear that authorities use these details in times of promotion and assignment to duties of responsibility (Artz & Douglas-Hamilton, 1998; Marks, 1995; Munshi, 1998). However, Scharf (1999) notes that this practice is no longer acceptable in the SAPS.

The blame has also been leveled at a military culture that discourages expression of personal feelings. This relates to the soldier's ideal image of a tough, macho, and strong person capable of handling any situation with steady composure (Munshi, 1998). This relates to the findings that there is an inability to

relate stress in terms of the mental health profession and/or a misconception of what constitutes stress within the law and order organs of state (Artz & Douglas-Hamilton, 1995). Some claimed that debriefing programmes are not relevant or helping professions not visible enough.

Alcohol and other drugs may be used to deal with anxiety, depression and general distress. This is understood to be a way of coping with prevailing stressful demands. However, this coping strategy becomes a problem when it starts affecting one's personal, occupational, and family functioning. Alcohol abuse is perceived to be particularly prevalent in police and military institutions (Munshi, 1998). Availability of alcohol in military units, social gatherings of military personnel, and peer pressure are seen as factors that exacerbate alcohol abuse among soldiers. Alcohol use as a way of coping has historical bearing in the military set-up. It has enjoyed a centre-stage in combat victory celebrations and during repression of painful memories of defeat and personal loss. The fact that 55.4% of this sample admitted to use of alcohol in dealing with their stress levels corresponds with the fact that alcohol and other drugs enjoy a centre-stage in the military. This study found that those using alcohol as a coping mechanism were found to experience an array of stress symptoms and were particularly sensitive to organisational stressors in the military.

4.7 LIMITATIONS OF THE STUDY

These results should be treated with caution rather than be assumed to be the general reflection of the whole of SANDF functioning, particularly considering the fact that the SANDF is a huge organisation including the Navy, the Air Force, Military Health Service, and Infantry . This study only focused on military operational personnel deployed to community policing duties of crime and violence.

The design of this study does not allow for prediction of changes over time. The findings can therefore only inform us of the current levels of distress within this particular population. The descriptive format also means that measures of causality and inferences are not possible, and in this way doesnot add to the presented or established theory of stress. However, the above do not go against the intention of this study, viz. to ascertain the level of psychological distress in a population that is routinely involved in highly stressful military deployment activity within a community policing role latent with stressors.

There is also a likelihood that respondents may have developed a tendency to portray severe stress levels in a way to facilitate acceptance by the researcher, elicit researcher's sympathy and representation to the authorities, and a strong identification with the researcher (particular for the black former NSF). This was minimized by presenting a standard and brief introduction of the project during data gathering stage,

emphasizing mainly the need for the D. Psych to pro-actively design relevant and informed intervention strategies at unit level rather than reacting at tertiary level.

Practical considerations did not allow for a random sample to be drawn for the operational military personnel of the unit due to the respondent's mobility within and outside of the companies. Continual updating of the company name-list was requested on a weekly basis prior to the administration of the questionnaire.

4.8 CONCLUSION AND RECOMMENDATIONS

This study confirmed that stress is a problem in this sample of SANDF operational personnel. Stressors inherent in operational functioning emerged as the most critical precipitant of the stress symptomatology. The former NSF members emerged as the most affected of the groups studied. More than 50% of the total sample admitted to using alcohol and other drugs as a way of coping. These substance-(ab)using members were also as highly sensitive to organisational stressors. While there appeared to be a fair use of internal and external support systems, external sources of support like the family and friends emerged as the most widely used. Results also revealed that cultural and religious systems of support were used to deal with stress. The following recommendations, based on this study's results and conclusion, are presented for further consideration and research:

This study serves as a primary step toward researching work-related stress within the SANDF. Thus, further research work needs to be conducted by the SANDF and academics alike on this and related topics. These studies would then need to be made accessible to the public and other relevant and/or interested parties as they might have some bearing on improving civil-military relations. This accessibility would facilitate more informed and inclussive organisational practices, appropriate decision-making within the organisation, and present an opportunity for interested civil community members to understand and support this relatively new law and order organisation (especially in the light of the proposed functional rules and roles).

It is also recommended that a similar or related study be conducted on senior or higher ranking members. The reason is that the high stress levels noted within the low ranking members of this study may also be experienced by the senior and higher ranking members.

It is worth noting that while the inherently stressful military deployment duties cannot be altered, the policies and practices of the organisation can be. The lack of supportive and caring organisational

climate, with indifferent supervisors and colleagues, can have a negative and long-lasting effect on the soldier's morale, functional cohesion, and overall job performance. Lack of positive feedback, distant and autocratic supervisors and unclear channels of communication can result in loss of enthusiasm, shared beliefs and expectations, and the sense of mission, purpose and meaningfulness in the work being done. This can be marked by a growing sense of suspicion, fear, secrecy, isolation, solidarity, and conservatism which are all counter-indicated for the current changes in the SANDF and South Africa. Thus, it is recommended that the commanding authorities should always pay attention to policies and organisational practices that may have a negative effect on the members psychological well-being as this may have an adverse effect on their operational functioning.

Military social support services, which can act as stress outlets for the military operational personnel and their families, should always be engaged in a process of reviewing their role, functional effectiveness, and relevance of their approaches to providing care and support for the operational personnel. More proactive than reactive approaches should be adopted. These approaches should attempt to be as inclusive of other service providers as possible, e.g. traditional healers, the families, spiritual services, and so forth. There should be continual attempts to explore other relevant therapeutic modalities which are relevant to the present culturally diverse and multi-racially constituted SANDF. Social support service providers should take the opportunity of using therapist/client consultations to inform clients of the organisational changes and the impact these may have on the individual/group as these changes are closely related to presentation of stress symptomatology. This will be more effective if it occurs in line with the service provider's resolution of his or her own prejudices.

REFERENCES

Adler, A.B.,Vaitkus, M.A. & Martin, J.A. (1996). Combat exposure and Posttraumatic Stress Symptomatology among U.S. soldiers deployed to the Gulf War. Military Psychology, 8(1), 1-14.

Aldwin, C.M. (1994). Stress, coping, and development: An integrative perspective. New York: Guilford Press.

American Psychiatric Association, (1994). Diagnostic and statistical manual of mental disorders (4th ed.). Washington, D.C.: APA.

Aneshensel, C.S. (1992). Social stress: theory and research. Annual Review of Sociology,18, 15-38.

Anglin, D.G. (1996). Peace-building and Defense Force Integration in South Africa. In D.R. Black and L.A. Swatuk (Eds.), Southern Africa and Africa after Apartheid: Security Issues. (13 - 37), Canada: Dalhousie University.

Artz, L. & Douglas-Hamilton, D. (1995). Work Related Stress within the South African Police Services: Research Considerations. Unpublished manuscript. Institute of Criminology. University of Cape Town: Cape Town.

Barret, J.E. (Ed.), (1979). Stress and Mental Disorder. New York: Raven Press.

Baynham, S. (Ed.), (1986). Military Power and Politics in Black Africa. London: Croom Helm.

Beck, A.T. & Beck, R.W. (1972). Screeninng depressed patients in family practice: A rapid technic. Post graduate Medicine, 52(6), 81-85.

Bittles, A.H. & Parsons, P.A. (Eds.), (1996). Stress: Evolutionary, biosocial, and clinical perspectives. London: MacMillan.

Bremner, D.J., Southwick, S.M., Darnell, A. & Charney, D.S. (1996). Chronic PTSD in Vietnam combat veterans: Course of illness and substance abuse.American Journal of Psychiatry. 153 (3), 369-376.

Brewer, J.D. (1993). The History and development of Policing in Northern Ireland. In M.L. Mathews, B.P. Heymann & A.S. Mathews, Policing the conflict in South Africa. (184 - 193), Gainesville: University Press of Florida.

Brogden, M. & Nijhar, P. (1998). Corruption in the South African Police. Crime, Law and Social Change, 30, 89-106.

Brogden, M. & Shearing, C. (1993). Policing for a new South Africa, London: Routledge.

Brown, J.M. & Campbell, E.A. (1994). Stress and Policing, Chichester: John Wiley and Sons.

Burger, D. & Beard, W. (1998). South Africa Yearbook (5th Ed.). Cape Town: ABC Press.

Burman, S. (1986). The Contexts of Childhood in South Africa: An Introduction. In S. Burman and P. Reynolds (Eds.), Growing Up in a Divided Society: The contexts of childhood in South Africa, (1 - 15), Johannesburg: Ravan Press.

Cannon, W.B. (1934). Hunger and thirst. In C. Murchison (Ed.), Handbook of general experimental psychology. (16 - 35), Worcester: Clark University Press.

Cannon, W.B. (1929). Bodily changes in fear, hunger, pain, and rage:An account of recent researches into the function of emotional excitement (2nd ed.). New York: Appleton.

Carson, R.C., Butcher, J.N. & Coleman, J.C. (1988). Abnormal Psychology and Modern Life(8th ed.), London: Scott, Foresman and Company.

Chandler, N. (1995, 26/July). Long March to Integration. The Star: Johannesburg.

Chikane, F. (1986). Children in Turmoil: The Effects of Unrest on Township Children. In S. Burman & P. Reynolds (Eds.), Growing Up in a Divided Society: The contexts of childhood in South Africa. (333 - 344), Illinois: Northwestern University Press.

Christopher, A.J. (1994). The Atlas of Apartheid, New York: Routledge.

Cilliers, J. (1996, October). The SADC Organ for Defense, Politics and Security, IDP Paper No. 10.

Collins, L.L. & de Carvahlo, A.B. (1993). Chronic Stress from the Goiania Cs Radiation Accident. Behavioural Medicine, 18(4), 149-157.

Compton, B.R. & Galaway, B. (1989). Social Work Processes(4th ed.). California: Wardsworth, Inc.

Cooper, C.L. (Ed.), (1991). Industrial and Organizational Psychology (Vol. 2). England: Edward Elgar Publishing Limited.

Cox, T. (1982). Stress. London: Macmillan Press.

Cox, T. & Mackay, C.J. (1976, January). A psychological model of occupational stress. A paper presented to Medical Research Council Meeting Mental Health in Industry. London.

Coyne, J.C., Ellard, J.H. & Smith, D.A.F. (1990). Social support, interdependence, and the dillemas of helping. In B.R. Sarason, I.G.Sarason & G.R. Pierce (Eds.), Social Support: An interactional view. (76 - 95), New York: John Wiley.

Crime Information Management Centre (1998, March). Incidence of Serious Crime from January to June 1998: Quarterly Report. Pretoria: CIMC.

Dahlstrom, W.G., Welsh, G.S. & Dahlstrom, L.E. (1972). An MMPI handbook, 1: Clinical interpretation. Minneapolis: University of Minnesota Press.

Davidson, J. (1992). Drug Therapy of Post-traumatic Stress Disorder. British Journal of Psychiatry, 160, 309-314.

Defense In Democracy (1996, May). White Paper On Defense. Pretoria: Department of Defense.

Defense In Democracy (1997). Annual Report. Pretoria: Defense Corporate Communications.

Defense In Democracy (1998, April). Defense Review. Pretoria: Department of Defense.

Department of Defence Bulletin, (1999, November). Re-moderation of 1998/99 Merit Awards in the DoD. No. 72/99 (FOD No 555472).

Department of Defence Bulletin, (1999, November). Board of Enquiry: Shooting Incident at Tempe Military Base, Bul 73/99

Derogatis, L.R. (1982). Self-report Measures of Stress. In L. Golgberger & S. Breznitz (Eds.), Handbook of Stress: Theoritical and Clinical Aspects, (271 - 294). New York: The Free Press.

Derogatis, L.R. (1994). The SCL-90-R. Baltimore: Clinical Psychometric Research.

Dohrenwend, B.S. (1979). Stressful Life Events and Psychopathology: Some Issues of Theory and Method. In J.E. Barret (Ed.), Stress and Mental Disorder, (1 - 15). New York: Raven Press.

Esprey, Y. (1996). Post Traumatic Stress and Dimensions of Exposure to Violence: The individual response. Unpublished Psychology Masters' Dissertation. Univwrsity of the Witwatersrand: Johennaesburg.

Everly, G.S. (1989). A clinical guide to the human stress response. New York: Plenum Press.

Fairbank, J.A. & Nicholson, R.A. (1987). Theoritica and Empirical Issues in the Treatment of Post-traumatic Stress Disorder in Vietnam Veterans. Journal of Clinical Psychology, 43(1), 44-55.

Fletcher, B.C. (1991). Work, stress, disease and life expectancy. New York: Wiley & Sons

Fontana, D. (1990). Managing Stress. London: BPS Books.

Garvin, T. (1988). The Politics of Denial and of Cultural Defence: The referunda of 1983and 1986 in context. The Irish Review, 3, 1-7.

Gevisser, M. (1995, 8-14/September). SANDF's New Brothers in Arms. Mail and Guardian: Johannesburg.

Gmelch, W. (1982). Beyond Stress to Effective Management. London: Wiley & Sons.

Goldstone, R.J. (1994). Commission of Inquiry Regarding the Prevention of Public Violence and Intimidation. Johannesburg: The Commission.

Gulle, G. (1996). Inherent and organizational stress in the SAPS: an empirical survey in the Western Cape. Unpublished Psychology Honours Dissertation. Universtity of Cape Town: Cape Town.

Gulle, G., Tredoux, C. & Forster, D. (1998). Inherent and organizational stressors in the SAPS: An empirical survey in the Western Cape. South African Journal of Psychology, 28(3), 129-134.

Hanson, D. & Van Zyl, D. (1990). Towards Justice? Crime and State Control in South Africa Cape Town: Oxford University Press.

Hawkins, N.C., Davies, R. & Holmes, T.H. (1957). Evidence of psychosocial factors in the development of pulmonary tuberculosis. American Review of Tuberculosis and Pulmonary Disorders, 75, 768-780.

Heinecken, L. (1998). The impact of societal forces on receptiveness to trade unions in the SANDF. Africa Insight, 28(1/2), 84-86.

Herbst, A.G. (1995). Military separation - How does it affect our children. Milmed, 11(3), 12-13.

Hiew, C.C. (1992). Separated by their work: Families with fathers living apart. Environment and Behaviour, 24(2), 206- 225.

Higgs, J. (1998). Personnel Strategies and the SANDF. South African Journal of International Affairs, 6(1), 93-101.

Holmes, T.H. (1979). Development and application of a quantitative measure of life change magnitude. In J.E. Barrett, Stress and Mental Disorder. New York: Raven.

Holmes, T.H. & Rahe, R.H. (1967). The Social Readjustment Rating Scale. Journal of Psychosomatic Research, 11, 213-218.

Hoppen, K.T. (1989). Ireland since 1800: Conflict and Conformity. New York: Longman Inc.

Horowitz, M. (1974). Stress response syndromes, character style, and dynamic psychotherapy. Archives of General Psychiatry, 31, 768-781.

Human Rights Committee (1995). Human Rights Review - 1995. Braamfontein: HRC

Independent Complaints Directorate (1998, May). Report of the Independent Complaints Directorate to the Parliamentary Portfolio Committee on Safety and Security. Unpublished manuscript. Cape Town: Parliament.

Inbar, D., Solomon, Z., Spiro, S. & Avirum, U. (1989). Commander's attitude toward the nature, causality, and severity of Combat Stress Reaction. Military Psychology, 1(4), 215-233.

Jenkins, C.D., Rosenman, R.H. & Zyzansky, S.J. (1974). Prediction of clinical coronary-prone behaviour pattern. New England Journal of Medicine, 290, 1271-1275.

Kane-Burman, J. (1993). South Africa's Silent Revolution. South African Institute of Race Relations: Johannesburg.

Kaplan, H.I. & Sadock, B.J. (1994). Synopsis of Psychiatry. Batimore: Williams and Wilkins.

Kasl, S.V. (1987). Methodologies in stress and health: Past difficulties, present dillemmas, future directions. In S.V. Kasl & C.L. Cooper (Eds.), Stress and Health: Issues in research methodology, (307 - 318). London: John Wiley.

Komane, M. & Maluleke, E. (1999, 19-25/September). Soldier's Revenge. City Press.

Kruger, A. (1997). The transition to parenthood of the military family system. Unpublished Social Work Master's Dissertation. University of Stellenbosch: Stellenbosch.

Lazarus, R.S. & Folkman, S. (1984). Stress, appraisal and coping. New York: Springler.

Lyons, F.S.L. (1979). Culture and Anarchy in Ireland: 1890-1939. Belfast: Oxford University Press.

MacDonald, C., Chamberlain, K., Long, N., Pereira-Liard, J., & Mirfin, K. (1998). Mental Health, physical health, and stressors reported by New Zealand defense Force peacekeepers: A longitudinal study. Military Medicine, 167(7), 477-483.

Maduna, P. (1993). Popular Perceptions of Policing among Blacks in South Africa. In M. L. Mathews, B.P. Heymann & A.S. Mathews, Policing the conflict in South Africa. (41 - 55), Gainesville: University Press of Florida.

Mail & Guardian Editorial (1999, September/17-23). Mail and Guardian Weekly.

Majodina, Z. (1999). Home at Last: The Re-entry Adaptation of Returned South African Exiles. Unpublished Psychology Doctoral Dissertation, University Of Cape Town, CapeTown.

Marks, M. (1995, June). Stresses in the South African Police Service. Paper presented to Stress Management Self Help Group for police in Soweto, Protea Police Station.

Mathee, A. (1997). The effect of military deployment on the soldier in KwaZulu-Natal with specific reference to the family. Unpublished Social Work Master's Dissertation. University of South Africa: Pretoria.

McArdle, P. (1984). The Secret War. Dublin: Mercier Press.

McNair, D.M., Lorr, M. & Droppleman, L.F. (1971). Profile of mood states. San Diego: Educational and Industrial Testing Service.

Merbaun, M. & Hefez, A. (1976). Some Personality Characteristics of Soldiers Exposed to Extreme War Stress. Journal of Consulting and Clinical Psychiatry, 44(1), 1-6.

Milgram, N.A. & Bar, K. (1993). Stress on wives due to husbands' hazardous duty or absence. Military Psychology, 5(1), 21-39.

Miller, J.G. (1978). Living Systems. New York: McGraw-Hill Book Company.

Minnaar, A. (1998, March). An analysis of murder of members of the South African Police Service:

1994-1997. Institute for Human Rights & Criminal Justice Studies Occasional Paper No. 5, Technikon SA: Pretoria.

Morley, E. (1980). Managing integration. In W.B. Eddy and W.W. Burke (Eds.), Behavioral Sciences and The Managers' Role(2nd Ed.), (343 - 356). San Diego: University Associates.

Mortimer, B. (1996, April). The Truth Commission Report: Submission in respect ofthe former SADF. Compiled by the SANDF Nodal Point. Department of Defense: Pretoria.

Munshi, A. (1998). An Exploratory Study of the Perceptions of Stress and Trauma among Police Officers and Helping Professions in the Western Cape. Unpublished Criminology Honours Dissertation. University of Cape Town: Cape Town.

Nathan, L. (1996). Formalising conflict resolution and security arrangements in Southern Africa: Contextual considerations. In D.R. Black and L.A. Swatuk (Eds.), Southern Africa and Africa after Apartheid: Security Issues. (121 - 137), Canada: Dalhousie University.

Nathan, L. (1994). The Changing of the Guard: Armed forces and Defense Policy in a Democratic South Africa. Human Sciences Research Council: Pretoria.

Nel, J.A. & Burgers, T.J. (1995, October). The South African Police Service - "Symptom Bearer" of the new South Africa. Paper presented at the Regional Conference on Mental Health Policy, Cape Town.

Norton, G. (1997). Stress and coping. In D.A. Louw and D.J.A. Edwards, Psychology: An introduction for students in Southern Africa(2nd Ed.), (605 - 663). Johannesburg: Heinamen.

Penk, W. & Robinowitz, R. (1987). Post Traumatic Stress Disorder among Vietnam Veterans: Introduction. Journal of Clinical Psychology, 43(1), 3-5.

Rahe, R.H. (1974). The pathway between subjects' recent life changes and their near future illness reports: Representative results and methodological issues. In B.S. Dohrenwend & B.P. Dohrenwend (Eds.), Stressful Life Events: Their nature and effects. (73 - 86). New York: Wiley.

Reality Check Special Report (1999, April/28). The Cape Times.

Reiser, M. (1972). Some Orgarnisational stressors on policemen. Journal of Police Science and Administration, 2, 156- 159.

Rice, P.L. (1992). Stress and Health (2nd ed.). Carlifonia: Wardsworth, Inc.

Salut (1999, January). Message from CSANDF, 6(1), 12

Salut (1999, January). Message from the Minister of Defense, 6(1), 11

Sampson, J.B., Kobrick, J.L. & Johnson, R.F. (1996). Measurement of Subjective Reactions to Extreme Environments: The Environmental Symptoms Questionnaire. Military Psychology, 6(4), 215-233.

Scharf, W. (1999, May). Police Transformation in South Africa: What NOT to do! Paper presented at The Queen's University, Belfast: Centre for International and Comparative Human Rights Law.

Seyle, H. (1952). The Story of the Adaptation Syndrome. Montreal: Acta Inc.

Selye, H. (1956). The Stress of Life. New York: McGraw-Hill Book Company.

Selye, H. (1978). The stress of police work. Police Stress, 1, 7-8.

Skinner, D. (1998). Apartheid's Violent Legacy: A report on trauma in the Western Cape, Cape Town: Trauma Centre for Victims of Violence and Torture.

Smooha, S. (1989). Conflicting and Shared Attitudes in a Divided Society. Boulder: Westview Press.

Smooha, S. (1978). Israel: Pluralism and Conflict. London: Routledge & Kegan Paul.

South African Institute of Race Relations, (1998). South Africa Survey.: Johannesburg.

Spielberger, C.D., Westbury, L.G. Grier, K.S. & Greenfield, G. (1981). The Police Stress Survey:

Sources of stress in law enforcement. Tampa, FL: Human Resources Instutute.

Spielberger, C.D., Gorsuch, R.C. & Lushene, R.E. (1970). Manual for the State-Trait Anxiety Inventory. Palo Alto: Consulting Psychologists.

Sunday Times Editorial, (1999, September/19). The old war is continuing by other means, Sunday Times.

Stretch, R.H., Knudson, M. & Durand, D. (1998). Effects of premilitary and military trauma on the development of Post Traumatic Stress Disorder symptoms in female and male active duty soldiers. Military Medicine, 163(7), 466-470.

Stultz, N.M. (1993). South Africa as apartheid ends: An annoted bibliography with analytical introduction, Michigan: The Peirian Press.

Swartz, L. (1998). Culture and Mental Health: A South African View. Cape Town: Oxford University Press.

Symonds, M. (1970). Emotional Harzards of police work. American Journal of Psychoanalysis, 30, 155-160.

Van Breda, A.D. (1999). Parallels Between Jungian and African Views on Dreams. Clinical Social Work Journal, 27(2), 141-152.

Van Breda, A.D. (1998). Improving deployment resilience: Guidelines for families. Salut, 5(12), 48-49.

Van Breda, A.D. (1997). The development of the Deployment Resilience Seminar. Unpublished Social Work Master's Dissertation. University of Cape Town: Cape Town.

Van Breda, A.D. (1995). Facing routine father absences. Milmed, 11(3), 19-20.

Van der Spuy, E. (1990). Political Discourse and the History of the South AfricanPolice. In D. Hanson and D. Van Zyl-Smith (Eds.), Towards Justice? Crime and State Control in South Africa. (85 - 105), Cape Town: Oxford University Press.

Violanti, J.M. (1985). The police stress process. Journal of Police Science and Administration, 13, 106-110.

Violanti, J.M. & Aron, F. (1993). Sources of police stressors, job attitudes, and psychological distress. Psychological Reports, 72, 899-904.

Violanti, J.M. & Aron, F. (1994). Ranking police stressors. Psychological Reports, 75, 824-826.

Walker, C. (1990). Police and Community in Northern Ireland. Northern Ireland Legal Quartely, 41.

Walsh, D. (1988). "The RUC-A law unto Themselves?" In M. Tomlison, T. Varley & C. McCullough (Eds), Whose Law and Order? Belfast: Sociological Association of Ireland.

Weinand, L. (1996). The influence of a vehicle hijacking prevention intervention on stress experience and personal competence. Unpublished Psychology Master's Dissertation. Rand Afrikaans University: Pretoria.

Weitzer. R. (1989). Police Liberalisation in Northern Ireland. Mimeo.

Wilson, J.P. (1989). Trauma, Transformation, and Healing: An integrative approach to theory, research, and post-traumatic therapy. New York: Brunner/Mazel.

Yitzhaki, T. Solomon, Z, & Kotler, M. (1991). The clinical picture of acute combat stress reaction among Israeli soldiers in the 1982 Lebanon War. Military Medicine, 156(4), 193-197.

Young, A.S. & Holden, M.S. (1991). The Formation and Application of an Overseas Mental Health risis Intervention Team, Part II: Application. Military Medicine, 156(9), 445-447.

Zille, H. (1986). Beginning Life in an Apartheid Society: Childbirth in South Africa. In S. Burman and P. Reynolds (Eds.), Growing Up in a Divided Society: The contexts of childhood in South Africa, (139 - 157), Johannesburg: Ravan Press.

APPENDIX 1: COVERING LETTER

CONFIDENTIAL

RESEARCH QUESTIONNAIRE

RESEARCHER: Lt N.M. Mangxola

You are invited to participate in a research study that will focus upon the psychological well-being of members of the SANDF operational personnel. All information gathered in this study will be treated in absolute confidentiality, with no disclosure of the identities of those who participated. Thus, you do not record your names and force numbers on any of the forms which will be issued to you. The names of people selected for this study were chosen randomly (i.e. by chance) without any bias as to who should or should not be included. Should you require any counselling after completing these forms, you can contact the sickbay for the appropriate referral/intervention.

NOTE:

- **Do not turn to the next page until you are instructed to do so.**
- **Please complete all the forms thoroughly.**
- **No names and/or force numbers must be written on any of the forms.**
- **This is not a test and there is no time limit.**
- **You are expected to all be finished within an hour and a half.**
- **Write your responses in the spaces provided.**
- **Please answer the following questions as honestly as possible.**

APPENDIX 2: THE QUESTIONNAIRE

SECTION I

Instructions:

Below are a set of questions that relate to your background in general. Answer the following questions as honestly as possible by marking the appropriate space provided with an X.

PART A

1. **Age(in years):**

0 - 20	1	21 - 30	2	31 - 40	3	41 - 50	4	51 - 60	5	61 +++	6

2. **Rank:**

Private	1	Lance Corporal	2	Corporal	3

3. **Company Name:**

Alpha	1	Bravo	2	Charlie	3	Delta	4	Spes	5

4. **Platoon:**

HQ Platoon	1	Platoon 1	2	Platoon 2	3	Platoon 3	4

5. **How would you describe yourself (mark with an X all those applicable to you):**

Coloured	1	Black	2	White	3	Azanian	4	Urban	5
Religious	6	Muslim	7	Xhosa	8	Afrikaner	9	Shangaan	10
African	11	Zulu	12	Indian	13	Man	14	Rural	15
Male	16	Sotho	17	South African	18	Christian	19	Venda	20

6. **In which province are you based?:**

Gauteng	1	Free State	2	Western Cape	3
Mpumalanga	4	Northern Province	5	Northern Cape	6
North-West	7	KwaZulu/Natal	8	Eastern Cape	9

7. **Marital Status:**

Single	1	Married	2	Separated	3	Divorced	4	Widowed	5	Live-in Partner	6

PART B

8. **SANDF Employment Contract:**
(e.g. short-term, medium-term, permanent force)

Short term	1	Medium term	2	Permanent force	3

8.1 **If short-term contract, specify when will your contract expire.**

Jan - Dec 1999	1	Jan - Dec 2000	2	Jan - Dec 2001	3

8.2 **If medium-term contract, specify when will your contract expire**

1999 - 2001	1	2001 - 2003	2	2003 - 2005	3

9. **Length of service in the SANDF**

Less than 1 year	1	1 - 2 years	2	3 - 4 years	3	4 - 5 years	4

10. **Before serving in the SANDF, have you ever served in any of the following military forces:**

SADF	1	APLA	2	TBVC	3	MK	4	SDU/SPU	5

11. **When did you join the above-mentioned military force:**

Before 1970	1	1971 - 1980	2	1981 - 1990	3	1990 - onwards	4

PART C

12. **When you feel stressed out, have you or would you consult and/or use any of the following people or services to reduce your stress levels? (Mark with an X all those applicable to you):**

Self	1	Law officer	2	Sangoma	3	Chaplain	4
Soc. Worker	5	Nursing sister	6	Section leader	7	Comp. Commander	8
Family	9	RSM	10	Church leader	11	Psychologist	12
Med. Doctor	13	Santa Vita	14	Friends	15	Platoon leader	16
Psychiatrist	17	Other	18	Please specify			

12.1 List three of the support people and/or services in number 11 in the order of your preference

1	
2	
3	

12.2 How do you find the help offered by these support people and/or services

Not at all helpful	1	A little bit helpful	2	Quite helpful	3	Extremely helpful	4

13. Note: Some people purposely seek out alcohol, cigarettes, or drugs to relieve their stress symptoms. Have you ever used alcohol, cigarettes, or drugs to reduce your stress levels?

Yes	1	No	2

13.1 If your response is yes to question no. 12, how frequently have you made use of alcohol, cigarettes, or drugs to reduce your stress.

Daily	1	Weekly	2	Monthly	3	Occasionally	4	Never	5

13.2 How would you rate alcohol, cigarettes, or drugs in reducing your stress levels

Not helpful at all	1	A little bit helpful	2	Quite helpful	3	Extremely helpful	4

14. Any other details about yourself that you would like to bring to the attention of the researcher

1	
2	
3	

SECTION II

Instructions

Below are some descriptions of different consequences of stress. For each of the items, put an X on the number that would be most true for you, *for the past seven days, including today*, where:

1 = Not at all
2 = A little bit
3 = Moderately
4 = Quite a bit
5 = Extremely

1. Headaches

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

2. Nervousness or shakiness inside

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

3. Repeated unpleasant thoughts

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

4. Faintness or dizziness

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

5. Loss of sexual interest or pleasure

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

6. Feeling critical of others

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

7. Ideas that someone else can control your thoughts

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

8. Feeling others are to blame for your troubles

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

9. Trouble remembering things

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

10. Worried about sloppiness or carelessness

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

11. Feeling easily annoyed or irritated

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

12. Pains in heart or chest

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

13. Feeling afraid in open spaces or streets

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

14. Feeling low in energy or tired

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

15. Thoughts of ending your life

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

16. Hearing voices that other people do not hear

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

17. Trembling

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

18. Feeling that most people cannot be trusted

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

19. Poor appetite

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

20. Crying easily

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

21. Feeling shy and uneasy with the opposite sex

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

22. Feeling of being trapped or caught

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

23. Suddenly scared for no reason

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

24. Temper outburst that you could not control

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

25. Feeling afraid to go out of your house alone

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

26. Blaming yourself for things

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

27. Pains in lower back

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

28. Frustrated about getting things done

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

29. Feeling lonely

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

30. Feeling sad

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

31. Worrying too much about things

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

32. Loss of interest in things

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

33. Feeling fearful

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

34. Feelings are easily hurt

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

35. Others being aware of your private thoughts

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

36. Feeling others do not understand you

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

37. Feeling that people are unfriendly

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

38. Having to do things very slowly

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

39. Heart pounding or beating fast

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

40. Upset stomach or feeling sick

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

41. Feeling inferior to others

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

42. Soreness of muscles

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

43. Feeling that you are watched by others

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

44. Trouble falling asleep

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

45. Having to check and double-check things

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

46. Difficulty making decisions

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

47. Feeling afraid to travel

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

48. Trouble breathing or feeling you are losing your breath

1 = Not at all	2 = A little bit	3 = moderately	4 = Quite a bit	5 = Extremely

49. Suddenly feeling hot and then cold

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

50. Having to avoid certain things

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

51. Mind going blank or suddenly loosing my thoughts

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

52. Numbness or tingling of body

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

53. A lump in the throat

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

54. Feeling hopeless about the future

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

55. Trouble concentrating

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

56. Feeling weak in parts of the body

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

57. Feeling tense

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

58. Heavy feeling in arms and legs

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

59. Thoughts of death or dying

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

60. Overeating

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

61. Feeling uncomfortable when people are watching

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

62. Experiencing intrusive thoughts that are not your own

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

63. Having urges to beat, injure, or harm someone

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

64. Waking-up in the early morning before it is the normal time to get up

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

65. An uncontrollable impulse to repeat the same actions

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

66. Sleep that is restless or disturbed

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

67. Having urges to break or smash things

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

68. Having ideas or beliefs others do not share

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

69. Feeling very self-conscious with others

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

70. Feeling uneasy in crowds

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

71. Feeling everything is an effort

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

72. Experiences of terror or panic

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

73. Feeling uncomfortable in public

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

74. Getting into frequent arguments

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

75. Feeling nervous when you are left alone

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

76. Others not giving you proper credit for your achievements

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

77. Feeling alone when you are with other people

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

78. Feeling so restless you couldn't sit still

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

79. Feelings of worthlessness

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

80. Feeling something bad is going to happen

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

81. The feeling something bad is going to happen to you

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

82. Feeling afraid you will faint in public

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

83. Feeling afraid people will take advantage of you

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

84. Having thoughts about sex that bother you

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

85. Easily believing that you should be punished

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

86. Experiencing thoughts and images of a frightening nature

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

87. Experience that something is wrong with your body

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

88. Never feeling close to another person

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

89. Feelings of guilt

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

90. Ideas that something is wrong with your mind

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

SECTION III

Instructions

Below are some of the different hassles associated with military deployment. For each of the items, put an X on the number that would be most true for you in your experience of military deployment duties, where:

1 = Not at all
2 = A little bit
3 = Moderately
4 = Quite a bit
5 = Extremely

1. Fellow soldiers not doing their job

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

2. Inadequate salary

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

3. Experiencing negative public attitudes

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

4. Inadequate or poor quality equipment

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

5. Being criticised in front of other soldiers

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

6. Ineffectiveness of my unit

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

7. Political pressure from within my unit

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

8. Inadequate support by my unit

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

9. Lack of recognition for good work

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

10. Racial prejudices or conflicts

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

11. Inadequate support from company commander

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

12. Job conflicts

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

13. Making critical on-the-spot decisions

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

14. Political pressure from outside the SANDF

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

15. Responding to crime in progress

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

16. Excessive and inappropriate discipline

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

17. Disagreeable unit regulations

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

18. Difficulty with company commander

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

19. Ethnic and cultural prejudices or conflicts

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

20. Family demanding more time with them

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

21. Distorted or negative media accounts about military action during deployment

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

22. Exposure to adults in injury and pain

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

23. Assignment of unpleasant duties

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

24. Demands for high moral standards

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

25. Poor or inadequate training

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

26. Working in racial area other than your own

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

27. Having a lower rank than your colleague

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

28. Situations requiring use of force

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

29. Exposure to death of civilians

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

30. Exposure to battered or dead children

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

31. Lack of promotion or awards

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

32. Having to appear at the court of law to give evidence

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

33. Attending parades

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

34. Hearing gunshots being fired

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

35. Personal insults from the public

1 = Not alt all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

36. Changing from day to night shift

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

37. Changes from boring to demanding work

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

38. Inactivity or boredom

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

39 Assignment to a section or platoon commander I do not get along with

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

40. Relations with non-soldier friends

1 = Nit at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

41. Assignment to increased responsibility

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

42. Assignment to new or unfamiliar duties

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

43. Confrontation with aggressive crowd

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

44. Competition for promotion

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

45. Public apathy towards the SANDF

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

46. Possibility of serious injury

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

47. Physical attack on your colleague

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

48. Fellow soldier killed in the line of duty

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

49. Possibility of a minor physical injury

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

50. Having to drive a military vehicle into a crowd of civilian people

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

51. Killing someone in the line of duty

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

52. Inability to express oneself

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

53. Being lonely

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

54. Not enough time for family

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

55. Too many interruptions

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

56. Not enough time for entertainment and recreation

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

57. Not getting enough sleep

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

58. Contact with family members

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely

59. Working alongside police personnel

1 = Not at all	2 = A little bit	3 = Moderately	4 = Quite a bit	5 = Extremely