

**COPING, STRESS AND SUICIDE IDEATION IN THE
SOUTH AFRICAN POLICE SERVICE
IN KWAZULU-NATAL**

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NOTE

The reader is reminded of the following:

- The references as well as the editorial style as prescribed by the *Publication Manual (4th edition)* of the American Psychological Association (APA) were followed in this dissertation. This practice is in line with the policy of the Programme in Industrial Psychology of the PU for CHE to use the APA style in all scientific documents as from January 1999.
- The mini-dissertation is submitted in the form of a research article. The editorial style specified by the *South African Journal of Industrial Psychology* (which agrees largely with the APA style) is used, but the APA guidelines were followed in constructing tables.

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SUMMARY

Subject: Coping, stress and suicide ideation in the South African Police Service in KwaZulu-Natal.

Key terms: Suicide, suicide ideation, suicidal, social integration, law enforcement, police, stress, coping.

Suicide in the South African Police Service is a reality. The inability to cope effectively with stressful events in a working environment could lead to chronic stress, burnout and even suicide. The purpose of this research was to establish the current level of suicide ideation in police officials in the KwaZulu-Natal Province. Secondly, the purpose was to determine the relationship between coping and stress, and thirdly, whether these factors could be used to predict suicide ideation of police officials in the Kwazulu-Natal Province.

A cross-sectional survey design was used to achieve the research objectives. The study population consisted of 272 uniformed police officials in the KwaZulu-Natal Province. The following measuring battery was used: a biographical questionnaire, the Adult Suicide Ideation Questionnaire, COPE Questionnaire, and the Police Stress Inventory. Descriptive statistics (e.g. standard deviations, means, skewness and kurtosis) and inferential statistics were used to analyse the data. Cronbach alpha coefficients, inter-item correlation coefficients and confirmatory factor analysis were used to assess the reliability and validity of the measuring battery. Discriminant analysis was used to determine which variables could be used to predict suicide ideation.

The results indicated that 9 (3,30%) of the uniformed police officials have significant suicide ideation levels and that 11 (4,15%) police officials in the KwaZulu-Natal Province have attempted suicide in the past. No difference was found between the suicide ideation of males and females. A positive correlation between suicide ideation, police-specific stressors, as well as problem-focused coping, passive coping and social support was found. The results also indicated correlations between suicide ideation, medical condition and alcohol abuse, where

stress because of lack of resources was identified as the primary stressor that caused alcohol abuse.

The results also indicate that stress caused by job demands and lack of resources as well as police-specific stressors, problem-focused coping, passive coping and social support could be used to classify police officials into groups of high and low suicide ideation.

Recommendations with regard to the improvement of the South African Police Service, as well as for future research were made.

OPSOMMING

Onderwerp: Coping, stres en selfmoord-denkbeeldvorming in die Suid-Afrikaanse Polisie diens in KwaZulu-Natal.

Sleutelterme: Selfmoord, selfmoord-denkbeeldvorming, selfmoordneigings, sosiale integrasie, wetstoepassing, polisie, stres, coping.

Selfmoord in die Suid-Afrikaanse Polisie diens is 'n realiteit. Die onvermoë om doeltreffend met stresvolle gebeure in 'n werksmilieu te cope, kan tot chroniese stres, uitbranding en selfs selfmoord lei. Die doel van hierdie navorsing is om die huidige vlak van selfmoord-denkbeeldvorming onder polisiepersoneel in uniform in die KwaZulu-Natal Provinsie vas te stel. Tweedens is die doel om die verhouding tussen coping en stres te bepaal, en derdens om vas te stel of hierdie faktore selfmoord-denkbeeldvorming by polisiebeamptes in die KwaZulu-Natal Provinsie kan voorspel.

'n Dwarsdeursnit opname-ontwerp is gebruik om die navorsingsdoelstellings te bereik. Die studiepopulasie het bestaan uit 272 polisiepersoneel in uniform in KwaZulu-Natal. Die volgende meetinstrumente is gebruik, naamlik 'n biografiese vraelys, die Volwasse Selfmoord-denkbeeldvormingsvraelys, die COPE en die Polisie stres-Inventaris. Beskrywende statistiek (bv. standaardafwykings, gemiddeldes, skeefheid en kurtose) is gebruik om die data te ontleed. Cronbach-alfakoëffisiënte, inter-item korrelasiekoëffisiënte en bevestigende faktoranalises is gebruik om die betroubaarheid en geldigheid van die meetinstrumente te bepaal. Diskriminantanalise is gebruik om te bepaal watter veranderlikes gebruik kan word om selfmoord te voorspel.

Die resultate toon dat 11 (4,06%) van die funksionele polisielede betekenisvolle selfmoord-denkbeeldvormingsvlakke het en dat 11 (4,15%) van die polisielede in die KwaZulu-Natal Provinsie in die verlede al selfmoordpogings aangewend het. Geen beduidende verskille is tussen mans en dames se vlakke van selfmoord-denkbeeldvorming is gevind nie. Daar bestaan korrelasies tussen selfmoord-denkbeeldvorming, spesifieke polisie stressors, asook probleemgefokusde coping, passiewe coping en sosiale ondersteuning.

Die resultate het ook aangetoon dat daar 'n positiewe korrelasie bestaan tussen selfmoord-denkebeeldvorming, mediese toestand en alkoholmisbruik, waar 'n gebrek aan hulpbronne geïdentifiseer is as die primêre stressor wat alkoholmisbruik tot gevolg het. Die resultate toon ook dat stres veroorsaak deur werksvereistes en tekort aan hulpbronne, asook spesifieke polisiestressors, probleemgefokusde coping, passiewe coping en sosiale ondersteuning gebruik kan word om polisieledes te klassifiseer in groepe van hoë en lae selfmoord-denkebeeldvorming.

Aanbevelings aangaande die verbetering van die Suid-Afrikaanse Polisie, sowel as voorstelle vir toekomstige navorsing is aan die hand gedoen.

CHAPTER 1

INTRODUCTION

This mini-dissertation focuses on the coping, stress and suicide ideation of police officials in KwaZulu-Natal.

Chapter 1 contains the problem statement, research objectives, research method and division of chapters.

1.1 PROBLEM STATEMENT

Suicide has been a growing public health problem over the last several decades, due to a dramatic increase in occurrence. Police officials have been identified as one of the high-risk groups for suicide (Hem, Berg & Ekeberg, 2001), while there is considerable speculation as to why police officials commit suicide. Violanti (1995) suggested the following as possible precursors of police suicide, namely the immediate availability of firearms, continuous exposure to death and injury, social strain resulting from shift work, the negative public image of police officials and inconsistencies within the criminal justice system. In a study conducted by Violanti, Vena, Marshall and Petralia (1996) it was found that police suicide rates were less sensitive than the rates of other workers in detecting actual suicides and had less predictive value in determining non-suicides.

Suicidal behaviour may be considered a domain of psychological disturbance and is associated with potentially severe mental and/or physical health outcomes. Reynolds (1991a) states that suicidal behaviour may be categorised to include suicide completion, overt intention, suicide attempts, and suicide ideation. The majority of suicide studies until now have focused on people attempting or committing suicide. Only a few studies have focused on suicide ideation and those factors contributing to suicide.

According to Vilhjalmsson, Kristjansdottir and Sveinbjarnardottir (1998), suicide ideation could be regarded as a "normal", non-pathological reaction to seemingly intolerable conditions. Suicide ideation can therefore be seen as ranging from relatively mild general

thoughts about death to serious in-depth plans of one's own death. Reynolds (1991a) states that individuals measuring high on suicide ideation wish that they had never been born, feel that life is not worth living, wish they were dead, and think that others would realise their worth when they were dead.

Hem et al. (2001) argue that police officials may be more prone to sudden and unexpected situations, violence and potential death of others and themselves. A study compiled by Janik and Kravitz (1994) found that marital problems (family role) and/or job suspension (job role) were important contributing factors to a police officer's decision to attempt suicide. A recent study by Vilhjalmsen et al. (1998) showed that people in extremely stressful domestic, financial, and particularly legal circumstances, who experience extensive physical health problems and perceive their lives as stressful, are more likely to contemplate suicide.

According to McCafferty (1992), suicide of police officials could largely be ascribed to stressors at work. Stress emanating either from work or from the home could establish a vicious cycle of demands and frustrations. These demands or frustrations will at best lead to deterioration in functioning and at worst become superimposed on pre-existing psychological impairment.

Police work has long been recognised as a high-stress occupation due to the constant tension inherent in anticipating sudden and unexpected lethal situations (Janik & Kravitz, 1994). On the other hand, stress is also produced through relationships between supervisors or administrators with police officials. Police officials may feel that supervisors and administrators are not knowledgeable about their street experiences and the pressures that dictate their decisions. In a study compiled by Weyrauch, Roy-Byrne, Katon and Wilson (2001) a background of interpersonal loss and disruption occurred in the year preceding the suicide attempt. In 77% of the sample, acute interpersonal conflict preceded the attempt by 1 to 7 days.

At the beginning of 1996, the South African Police Service (SAPS) in the KwaZulu-Natal Province was described as a melting pot of rapid change, uncertainty and even despondency (Bisseker, 1997). Housebreaking, armed robbery, murder, rape, assault, theft from vehicles as well as attempted murder and robbery in the province contributed to higher levels of stress among police officials.

One of the most primary issues with regard to the prevention of suicidal behaviour and/or stress, concerns coping. Anshel (2000) states that the inability to cope effectively with stressful events could result in undesirable psychological and somatic outcomes, leading to chronic stress, burnout, and quitting of the profession. In worst-case scenarios it could even lead to suicide.

Several studies have examined the impact of different coping styles on suicide ideation. In a study done by Horesh et al. (1996), four coping styles correlated negatively with suicide ideation (minimisation, replacement, mapping and reversal), while another three (suppression, blame and substitution) correlated positively. To prevent suicide it is of great importance that coping mechanisms should be mastered. According to Horesh et al. (1996), coping mechanisms serve as an internal source of emotional strength and intervene with a person's reaction to any perceived stress, whether internal or external.

Studies show that police officials have maladaptive coping mechanisms. Burke (1993) found that police officials cope with job-related stress by a high use of alcohol, drugs, cigarettes and physical isolation from others. These findings are supported by Anshel (2000), who states that alcohol or drug intake might serve as a means of coping with stress, but that it is not effective. Evens and Coman (1992) found a tendency towards ineffective coping among police officials who reported being unsentimental and emotionally detached and refusing to share their emotional reactions to job stressors with others (such as their partners or families).

Recent research showed that personality dimensions are also related to suicide ideation. Roy, Rylander and Sarchiapone (1997) found that a family history of suicide could be associated with suicidal behaviour at all stages of the life cycle. It is also argued that genetic factors are not always transmitted, but that psychological factors play a greater role. Roy et al. (1997) also found that data suggested that genetic factors related to suicide might represent a genetic predisposition for the psychiatric disorders associated with suicide. Typical personality traits of impulsivity and aggression were also found to be associated with suicidal behaviour.

Rothmann and Van Rensburg (2001) found that police officials who suffered from a medical condition (compared to those who did not report suffering from a medical condition) had a weaker sense of coherence, lower self-efficacy and a higher external locus of control.

Police officials who took more than 14 alcoholic drinks per week (compared with those who took less drinks) had a weaker sense of coherence, lower self-efficacy, a higher external locus of control and more dysfunctional coping strategies, less job satisfaction and higher suicide ideation.

A study done by Hirsch and Ellis (1995) found that women measure higher on suicide ideation compared with men. It was also established that individuals were raised in non-traditional settings endorsed higher levels of suicide ideation. This suggests that suicidal behaviour may occur as a result of complex interactions between social factors and childhood care. According to Velting (1999), gender differences impact heavily on suicide ideation, where neuroticism in females and conscientiousness in males are a prediction of suicide ideation. Suicidal thinking in females was predicted by a tendency to experience negative emotional states. These emotional states are primarily characterised by hostility and feelings associated with depression. On the other hand, suicidal thinking in males was identified with characteristics such as a general lack of motivation, inability to initiate and complete tasks and therefore postponing it, and feelings of hopelessness (Velting, 1999).

Hirsch and Ellis (1995) identify several demands in their study that affect the individual's decision regarding whether or not to commit suicide. These demands are parental, marital and employment status as well as financial burdens and increased stress.

The research problem can be summarised by stating that research shows that the police officials are a high-risk group for suicide and that considerable speculation exists as to why police officials commit suicide. Studies that have been done suggest that stress, maladaptive coping and dispositional factors contribute to suicide ideation or in worse case scenarios, suicide in the SAPS. Although steps have been taken in the past to prevent suicides, for example the presenting of suicide workshops by Psychological Services, these interventions have a limited impact on police officials. Current ways to study suicides also provide limited information for interventions to be implemented. Furthermore, there is a lack of information regarding the levels of suicide ideation and possible causes thereof in the SAPS in the Kwazulu-Natal Province.

From the problem statement the following research questions emerge:

- How is suicide ideation conceptualised in the literature?
- What is occupational stress and which situational factors contribute to stress and suicide ideation in the SAPS in the Kwazulu-Natal Province?
- How is coping and its relationship with stress and suicide ideation conceptualised in the literature?
- What is the relationship between coping, stress and suicide ideation in the SAPS in the KwaZulu-Natal Province?
- Can coping strategies and stressors predict suicide ideation in the SAPS in the KwaZulu-Natal Province?
- What recommendations can be made to prevent and manage suicide ideation in the SAPS in the KwaZulu-Natal Province?

1.2 RESEARCH OBJECTIVES

The objectives of the research include general, as well as specific objectives.

1.2.1 General objective

With reference to the above formulation of the problem, the general objective of this research is to critically investigate the relationships between suicide ideation, stress and coping within the SAPS in the KwaZulu-Natal Province.

1.2.2 Specific objectives

The specific research objectives are as follows, namely to:

- conceptualise suicide and suicide ideation from the literature;
- determine the suicide ideation level of police officials in the SAPS in the KwaZulu-Natal Province;
- conceptualise stress and evaluate the situational factors that contribute to stress and suicide ideation in the SAPS, specifically in the KwaZulu-Natal Province;

- conceptualise coping and the relationship with stress and suicide ideation from literature;
- determine the relationships between suicide ideation, stress and coping in the SAPS in the KwaZulu-Natal Province;
- determine whether stress and coping could be used to predict suicide ideation in the SAPS in the KwaZulu-Natal Province; and
- make recommendations to prevent and manage suicide ideation in the SAPS.

1.3 RESEARCH METHOD

The research method consists of a literature review and an empirical study.

1.3.1 Phase 1: Literature review

The aim of the literature review is firstly to conceptualise suicide, suicide ideation, stress and coping. Secondly, it is to evaluate research already done - national as well as international on the different concepts as well as the relationships.

1.3.2 Phase 2: Empirical study

The following components of the empirical study are designed to assist in achieving the research objectives.

1.3.2.1 Research design

The research objectives will be achieved by employing a survey design. This specific design is the cross-sectional design, whereby a sample is drawn from a population at one time (Shaughnessy & Zechmeister, 1997). The information collected is used to describe the population at that time and is ideal for assessment of interrelationships among variables within a population. According to Shaughnessy and Zechmeister (1997), this design is ideally suited to the descriptive and predictive functions associated with correlational research. Correlational research is the method of choice when the goal of the research is predictive relationships.

1.3.2.2 Study population

The study population ($N = 272$) includes a stratified random sample of uniformed police officials from the job level of constable to that of superintendent at small, medium and large police stations in KwaZulu-Natal.

1.3.2.3 Measuring battery

The following questionnaires are used in this study:

A biographical questionnaire is developed to gather information about the demographic characteristics of the participants (Pienaar, 2002). This questionnaire gives participants the option of supplying their name and service number. Other information gathered includes: province and station, age, sex, years of service, years in current position (to assess advancement), educational qualifications, marital status, satisfaction with relationship with significant others, language, history of disciplinary action, self-rated performance, self-rated job satisfaction, medical conditions, use of prescription and over-the-counter medicine, reasons for medication, number of alcoholic drinks per week, smoking behaviour, number of cigarettes per day, other drug use, exercise behaviour and previous suicide attempt(s).

The *Adult Suicide Ideation Questionnaire* (ASIQ) (Reynolds, 1991a) is used to measure participants' current level of suicide ideation. Each of the items was designed to assess thoughts and behaviour about suicide in adults. Reynolds (1991a) report that the internal consistency (coefficient alpha) of the ASIQ is 0,96, while Osman, Kopper, Linehan, Barrios, Gutierrez, and Bagge (1999) found an alpha coefficient of 0,98. The test-retest reliability of the ASIQ varies between 0,86 and 0,95 (Reynolds, 1991b). Reynolds (1991a) provided evidence for the content, construct and criterion-related validity of the ASIQ. Osman et al. (1999) found that the ASIQ differentiated significantly between suicide attempt and psychiatric control groups.

The *Police Stress Inventory* (PSI) consists of 88 items and was developed for the purpose of this study. A number of research studies have been published with regard to stressors specific to the police environment (Anon, 1986; Bartol, Bergen, Volckens & Knoras, 1992; Biggam,

Power, MacDonald, Carcary, & Moodie, 1997; Brown & Campbell, 1990; Brown & Fielding, 1993; Brown, Cooper & Kirkcaldy 1996; Crank & Caldero, 1991; Kirkcaldy, Cooper & Ruffalo, 1995; Koortzen, 1996; Kop & Euwema, 2001; Kop, Euwema & Schaufeli, 1999; Loo, 1984; Patterson, 1992; Terry III, 1981; Violanti & Aron, 1994; Wexler & Logan, 1983; White, Lawrence, Biggerstaff & Grubb, 1985). These sources were used in the construction of the current instrument. In line with recommendations by Biggam et al. (1997) this study addressed both the intensity and frequency of stressors. Pienaar and Rothmann (2003a) subjected the PSI to a principal components factor analysis with a varimax rotation. Three internally consistent factors were extracted, namely Stress: Job Demands ($\alpha = 0,92$), Lack of Job Resources ($\alpha = 0,92$), and Police-specific Stressors ($\alpha = 0,89$). Acceptable alpha values ($\alpha > 0,70$, Nunnally & Bernstein, 1994) indicate the internal consistency of the factors of the PSI.

The *Coping Orientation for Problem Experiences Questionnaire* (COPE) (Carver, Scheier & Weintraub, 1989) is used to measure participants' coping strategies. The COPE is designed to measure both situational and dispositional coping strategies. This questionnaire consists of 53 items that after completion indicate the different ways that people cope in different circumstances (Carver et al., 1989). Response choices are from 1 (I usually don't do this at all) to 4 (I usually do this a lot). Although the original questionnaire measures 14 different coping strategies, Pienaar and Rothmann (2003b) subjected the COPE to a principal components factor analysis with a varimax rotation. Four internally consistent factors were extracted, namely Active Coping ($\alpha = 0,92$), Avoidance ($\alpha = 0,86$), Seeking Emotional Support ($\alpha = 0,80$) and Turning to Religion ($\alpha = 0,83$). The alpha coefficients of the four scales are acceptable ($\alpha > 0,70$, Nunnally & Bernstein, 1994), and thus indicate the internal consistency of the factors of the COPE.

1.3.2.4 Statistical analysis

The statistical analysis is carried out with the help of the Statistical Analysis System (SAS Institute, 2000). The reliability and validity of the measuring battery will be assessed by using the Cronbach alpha coefficients, inter-item correlation coefficients and confirmatory factor analysis (Clark & Watson, 1995). Descriptive statistics (e.g. standard deviations, means, skewness and kurtosis) are used to analyse the data.

T-tests and analysis of variance are used to determine differences between subgroups in the sample. The subgroups or independent variables are suicide attempts, medical status and gender. A cut-off point of 0,50 (medium effect, Cohen, 1988) was set for the practical significance of differences between means. The Spearman correlation coefficients will be computed, where the distribution of scores are skew and Pearson product-moment coefficient where the scores are normally distributed. A cut-off point of 0,30 (Cohen, 1988), known as a medium effect, was set for the practical significance of correlation coefficients.

Discriminant analysis is used to determine those factors that predict suicide ideation (Kerlinger & Lee, 2000). This will be done by determining which combination of variables have an influence on suicide ideation, by separating the groups in terms of low versus high suicide scores.

1.4 CHAPTER DIVISION

This mini-dissertation consists of the following chapters:

Chapter 1: Introduction

Chapter 2: Research article

Chapter 3: Conclusions, limitations and recommendations.

1.5 CHAPTER SUMMARY

This chapter sought to provide details of the motivation for this research. In addition to the problem statement, the objectives of this research, general as well as specific, the research method and the measuring battery were outlined. Finally, the envisaged chapter arrangement was indicated.

CHAPTER 2

RESEARCH ARTICLE

COPING, STRESS AND SUICIDE IDEATION IN THE SOUTH AFRICAN POLICE SERVICE IN KWAZULU-NATAL*

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ABSTRACT

The objective of this study was to determine the relationship between coping, occupational stress and suicide ideation of police officials in KwaZulu-Natal. The study population ($N = 272$) consisted of uniformed police officials from KwaZulu-Natal. The Adult Suicide Ideation Questionnaire, the Police Stress Inventory, the COPE, and a biographical questionnaire were administered. Correlations were found between suicide ideation, police-specific stressors, as well as problem-focused coping, passive coping and social support. The results also indicated that stress caused by job demands and lack of resources as well as police-specific stressors, problem-focused coping, passive coping and social support could be used to classify police officials into groups of high and low suicide ideation.

OPSOMMING

Die doel van hierdie studie was om die verband tussen coping, werkstres en selfmoord-denkebeeldvorming van polisiepersoneel in die KwaZulu-Natal Provinsie vas te stel. Die studiepopulasie ($N = 272$) het bestaan uit polisiepersoneel in uniform in die KwaZulu-Natal Provinsie. Die Volwasse Selfmoord-denkebeeldvormingsvraelys, Polisiestres-Inventaris, COPE en 'n biografiese vraelys is afgeneem. Korrelasies is tussen selfmoord-denkebeeldvorming, polisie-spesifieke stressors, asook probleemgefokusde coping, passiewe coping en sosiale ondersteuning gevind. Die resultate toon ook dat stres veroorsaak deur werkseise en 'n tekort aan hulpbronne, asook spesifieke polisiestressors, probleemgefokusde coping, passiewe coping en sosiale ondersteuning gebruik kan word om selfmoord-denkebeeldvorming te voorspel.

* The financial assistance of the National Research Foundation (NRF) towards this research is hereby acknowledged. Opinions expressed and conclusions arrived at, are those of the authors and not necessarily to be attributed to the NRF.

Suicide has been a growing public health problem over the last several decades, due to a dramatic increase in occurrence. Police officials has been identified as one of the high-risk groups for suicide (Hem, Berg & Ekeberg, 2001), while there is considerable speculation as to why police officials commit suicide. Violanti (1995) suggested the following as possible precursors of police suicide, namely the immediate availability of firearms, continuous exposure to death and injury, social strain resulting from shift work, the negative public image of police officials and inconsistencies within the criminal justice system. In a study conducted by Violanti, Vena, Marshall and Petralia (1996) it was found that police suicide rates were less sensitive than the rates of other workers in detecting actual suicides and had less predictive value in determining non-suicides.

Suicidal behaviour may be considered a domain of psychological disturbance and is associated with potentially severe mental and/or physical health outcomes. Suicide according to Pieterse (1992) is an act with a fatal outcome that is deliberately initiated and performed by the deceased himself, with the knowledge or expectation of its fatal outcome. According to Reynolds (1991a), suicidal behaviour can be categorised into suicide ideation, suicide attempts and suicide completion.

The majority of suicide studies until now have focused on people attempting or committing suicide. Few studies have focused on suicide ideation and those factors contributing to suicide.

Barlow and Durand (1999) define suicide ideation as serious thoughts about committing suicide, whereas a suicide attempt can be defined as an effort, successful or unsuccessful, to kill oneself. Schotte and Clum (1982) as well as Bonner and Rich (1987) found a relationship between the frequency of suicide ideation and the likelihood of attempts at suicide. Reynolds (1991a), however, found that a larger proportion of individuals think about suicide than those actually attempting suicide.

According to Vilhjalmsón, Kristjansdóttir and Sveinbjarnardóttir (1998) suicide ideation should be regarded as a "normal", non-pathological reaction to seemingly intolerable conditions. Suicide ideation can therefore be seen as ranging from relatively mild general thoughts about death to serious in-depth plans of one's own death. Reynolds (1991a) states that individuals who measure high on suicide ideation wish that they had never been born,

feel life is not worth living, wish they were dead, and think that others would realise their worth when they were dead.

In a study compiled by Janik and Kravitz (1994), marital problems (family role) and/or job suspension (job role) were important contributing factors to a police officer's decision to attempt suicide.

Stress can be defined as the body's physiological response to a stressor, which is any event or change that requires adaptation (Barlow & Durand, 1999). Police stress, on the other hand, can be conceptualised as any condition, which has adverse consequences for police officials' well being. According to Crank and Caldero (1991), these conditions could be linked to negative emotional outcomes such as divorce rates, suicidal behaviour and alcoholism. Physical disorders such as hypertension, gastric and duodenal ulcers, kidney and cardiovascular diseases have also been attributed to stress among police officials (Crank & Caldero, 1991; Mearns & Mauch, 1998). Stress emanating either from work or from the home could establish a vicious cycle of demands and frustrations. Therefore, Gulle, Tredoux and Foster (1998) have found that literature on police stress makes a distinction between inherent stress caused by the nature of the police work itself (dangerous work) and organisational stress caused by the bureaucratic nature of the organisation (e.g. paperwork or lack of resources). Conclusions found in the related police studies indicate that organisational stress more strongly affects police officials than inherent stress does (Crank & Caldero, 1991; Gulle et al., 1998; Kop & Euwema, 2001).

A study done by Crank and Caldero (1991) found that the organisation was the overwhelming source of stress among police officials. Studies regarding organisational stress shows that superior officials, shift work, policies and rules, favouritism, poor working conditions, excessive paperwork, fellow officials not doing their job, inadequate resources, insufficient manpower, lack of communication and inadequate salaries were among the stressors that occurred most frequently in the police (Biggam, Power, MacDonald, Carcary & Moodie, 1997; Gulle et al., 1998, Kop, Euwema & Schaufeli, 1999). On the other hand, inherent stress, for example constant fear and trauma and other dangers involved in police work (Violanti, 1995), was found to be the least frequently identified stressor (Crank & Caldero, 1991).

Taking into account the above-mentioned stressors, it is obviously best to prevent police officials from becoming stressed and to identify certain signs or stress indicators (Lowenstein, 1999). This can be done through mastering coping strategies.

One of the most primary issues regarding the prevention or minimalisation of suicidal behaviour concerns coping. Coping, according to Parry (1990), is the various ways that individuals go about when mastering or assuaging their stress which results when events challenge their routine predictions about the world. In turn, Kleinke (1998) defines coping as the efforts people make to manage situations that are appraised as potentially harmful or stressful.

Amirkhan (1994), Callan (1993), Folkmann and Lazarus (1980) and Rothmann and Van Rensburg (2001) distinguish between problem-focused and emotion-focused coping. Problem-focused coping is directed at managing and improving an unpleasant experience or reducing the effects thereof. Emotion-focused coping is directed at reducing the effects of stressful feelings caused by an unpleasant experience through relaxation, the use of alcohol and drugs, social activities and/or defence mechanisms.

Carver, Scheier and Weintraub (1989) distinguish between five variations of problem-focused coping, namely:

- Active coping (taking active steps to remove stressors or to reduce their effects).
- Planning (thinking about various strategies that could be used to solve a problem).
- Restraint coping (waiting for the right opportunity to solve a problem rather than acting impulsively).
- Suppressing competing activities (placing other projects temporarily on the background).
- Seeking social support for instrumental reasons (looking for advice, support or information).

Furthermore, Carver et al. (1989) distinguish between the following five variations of emotion-focused coping:

- Acceptance (accepting stressors as a reality).
- Denial (experiencing stressors as unreal).

- Positive reinterpretation (managing stress emotions rather than the stressors themselves by reinterpretation).
- Seeking social support for emotional reactions (reaching out to others for moral support, sympathy and understanding).
- Turning to religion (focusing on religion to facilitate emotional support, positive reinterpretation as well as active coping).

Several studies have examined the impact of different coping styles on suicide ideation. In a study done by Horesh et al. (1996) four coping styles correlated negatively with suicide ideation (minimisation, replacement, mapping and reversal), while another three (suppression, blame and substitution) correlated positively. To prevent suicide, it is of great importance that coping mechanisms are mastered. According to Horesh et al. (1996), coping mechanisms serve as an internal source of emotional strength and intervene with a person's reaction to any perceived stress, whether internal or external. Studies show that police officials have maladaptive coping mechanisms. Anshel (2000) states that the inability to cope effectively with stressful events could result in undesirable psychological and somatic outcomes, leading to chronic stress, burnout, and quitting the profession. In worst case scenarios it could even lead to suicide. Burke (1993) found that police officials cope with job-related stress by a high usage of alcohol, drugs, cigarettes and physical isolation from others.

METHOD

Research design

A survey design was used to attain the research objectives. The particular design is the cross-sectional design, whereby a sample is drawn from a population at one time (Shaughnessy & Zechmeister, 1997). This specific design is used because according to Shaughnessy and Zechmeister (1997), it is ideally suited to the descriptive and predictive functions associated with correlational research. Correlational research is the method of choice when the goal of the research is predictive analysis.

Sample

The study population ($N=272$) includes availability samples of uniformed police officials from the job level of constable to that of superintendent in seven areas in the KwaZulu-Natal Province. Stations were divided into small (less than 25 police personnel), medium (25 – 100 police personnel) and large (more than 100 police personnel) stations. All police officials at randomly identified small and medium stations in the KwaZulu-Natal Province were asked to complete the questionnaire. Stratified random samples according to sex and race were taken at the large stations.

The KwaZulu-Natal Province contains seven areas, although only six areas were accessible. The six areas include Durban North ($n = 29$), Durban South ($n = 45$), Midlands Area ($n = 26$), Tugela Area ($n = 42$), Ulundi Area ($n = 48$) and the Umzimkulu Area ($n = 65$). Seventeen (17) police officials did not indicate the area of origin. A total of 208 participants were male, while 56 participants were female and 8 respondents did not indicate their gender.

The study population consisted of various race groups, including White ($n = 30$), Black ($n=141$), Coloured ($n = 6$) and Indian ($n = 80$). The sample consisted mainly of captains ($n = 130$) and inspectors ($n = 37$). Various language groups were included in the study, namely Zulu ($n = 142$), English ($n = 92$), Afrikaans ($n = 27$), Sesotho ($n = 2$), Swati ($n = 2$), Sepedi ($n = 1$), Ndebele ($n = 1$) and Xhosa ($n = 1$). A total of 104 of the participants were married, 75 were divorced and 79 were single, whereas only 4 participants were separated and 4 have remarried.

Measuring battery

Four questionnaires were used in this research, namely a biographical questionnaire (Pienaar, 2002), the Adult Suicide Ideation Questionnaire (ASIQ) (Reynolds, 1991a), the Police Stress Inventory (PSI) (Pienaar, 2002), and the Coping Orientation to Problems Experience Questionnaire (COPE) (Carver et al., 1989).

- A *biographical questionnaire* was developed to gather information about the demographic characteristics of the participants. This questionnaire gave participants the option of supplying their name and service number. Other information that was gathered

included: province and station, age, sex, years in current position (to assess advancement), educational qualifications, marital status, satisfaction with relationships with significant others, language, history of disciplinary action, self-rated performance, self-rated job satisfaction, medical conditions, use of prescription and over-the-counter medicine, reasons for medication, number of alcoholic drinks per week, smoking behaviour, number of cigarettes per day, other drug use, exercise behaviour and previous suicide attempt(s) (Pienaar, 2002).

- The *Adult Suicide Ideation Questionnaire (ASIQ)* (Reynolds, 1991a) was used to measure participants' current level of suicide ideation. Each of the items was designed to assess thoughts and behaviour about suicide in adults. Reynolds (1991a) report that the internal consistency (coefficient alpha) of the ASIQ is 0,96, while Osman, Kopper, Linehan, Barrios, Gutierrez, and Bagge (1999) found an alpha coefficient of 0,98. The test-retest reliability of the ASIQ varies between 0,86 and 0,95 (Reynolds, 1991b). Reynolds (1991a) provided evidence for the content, construct and criterion-related validity of the ASIQ. Osman et al. (1999) found that the ASIQ differentiated significantly between suicide attempt and psychiatric control groups.
- The *Police Stress Inventory (PSI)* consists of 88 items and was developed for the purpose of this study. A number of research studies have been published with regard to stressors specific to the police environment (Anon, 1986; Bartol, Bergen, Volckens & Knoras, 1992; Biggam, Power, MacDonald, Carcary, & Moodie, 1997; Brown & Campbell, 1990; Brown & Fielding, 1993; Brown, Cooper & Kirkcaldy 1996; Crank & Caldero, 1991; Kirkcaldy, Cooper & Ruffalo, 1995; Koortzen, 1996; Kop & Euwema, 2001; Kop, Euwema & Schaufeli, 1999; Loo, 1984; Patterson, 1992; Terry III, 1981; Violanti & Aron, 1994; Wexler & Logan, 1983; White, Lawrence, Biggerstaff & Grubb, 1985). These sources were used in the construction of the current instrument. In line with recommendations by Biggam et al. (1997) this study addressed both the intensity and frequency of stressors. Pienaar and Rothmann (2003a) subjected the PSI to a principal components factor analysis with a varimax rotation. Three internally consistent factors were extracted, namely Stress: Job Demands ($\alpha = 0,92$), Lack of Job Resources ($\alpha = 0,92$), and Police-specific Stressors ($\alpha = 0,89$). Acceptable alpha values ($\alpha > 0,70$, Nunnally & Bernstein, 1994) indicate the internal consistency of the factors of the PSI.

- The *Coping Orientation for Problem Experiences Questionnaire* (COPE) (Carver et al., 1989) is used to measure participants' coping strategies. The COPE is designed to measure both situational and dispositional coping strategies. This questionnaire consists of 53 items that after completion indicate the different ways that people cope in different circumstances (Carver et al., 1989). Response choices are from 1 (I usually don't do this at all) to 4 (I usually do this a lot). Although the original questionnaire measures 14 different coping strategies, Pienaar and Rothmann (2003b) subjected the COPE to a principal components factor analysis with a varimax rotation. Four internally consistent factors were extracted, namely Active Coping ($\alpha = 0,92$), Avoidance ($\alpha = 0,86$), Seeking Emotional Support ($\alpha = 0,80$) and Turning to Religion ($\alpha = 0,83$). The alpha coefficients of the four scales are acceptable ($\alpha > 0,70$, Nunnally & Bernstein, 1994), and thus indicate the internal consistency of the factors of the COPE.

Statistical analysis

The statistical analysis was carried out with the help of the Statistical Analysis System programme (SAS Institute, 2000). Cronbach alpha coefficients, inter-item correlation coefficients, and exploratory and confirmatory factor analyses will be used to assess the reliability and validity of the measuring battery (Clark & Watson, 1995). Descriptive statistics (e.g. means, standard deviations, skewness and kurtosis) and inferential statistics were used to analyse the data.

T-tests and one-way analysis of variance (ANOVA) were used to determine differences between the subgroups in the sample. Tukey Studentised Range tests were done to indicate which groups differed significantly when ANOVAS were done. The following formula (Steyn, 1999) was used to determine the practical significance of differences (d) between two groups when t-tests were used:

$$d = \frac{Mean_A - Mean_B}{SD_{MAX}}$$

where

$Mean_A$ = Mean of the first group

$Mean_B$ = Mean of the second group

SD_{MAX} = Highest standard deviation of the two groups

The following formula (Steyn, 1999) was used to determine the practical significance of difference in means between more than two groups:

$$d = \frac{Mean_A - Mean_B}{\text{Root MSE}}$$

where

$Mean_A$ = Mean of the first group

$Mean_B$ = Mean of the second group

Root MSE = Root Mean Square Error

A cut-off point of 0,50 (medium effect, Cohen, 1988) was set for the practical significance of differences between means.

Pearson product-moment correlation coefficients were used to specify the relationships between the variables. Where the distribution of scores was skew, Spearman correlation coefficients were computed. A cut-off point of 0,30 (medium effect, Cohen, 1988) was set for the practical significance of correlation coefficients.

A discriminant analysis was carried out to determine which combination of independent variables could be used to classify police officials into groups, namely those who obtained low and those who obtained high suicide ideation scores. The resulting discriminant function separates the officials of the groups maximally. The assumption of discriminant analysis is that the independent variables are continuous but that the dependent variable is categorical (Kerlinger & Lee, 2000).

RESULTS

Table 1 shows the descriptive statistics, Cronbach alpha coefficients and inter-item correlation coefficients of the ASIQ, COPE and PSI.

Table 1

Descriptive statistics, Cronbach Alpha Coefficients and Inter-item Correlation Coefficients of the Measuring Battery (N = 272)

| Item | Mean | SD | Skewness | Kurtosis | R | α |
|---------------------------|-------|-------|----------|----------|------|----------|
| Stress: Job demands | 85,14 | 29,48 | -0,16 | -0,46 | 0,41 | 0,92 |
| Stress: Lack of resources | 81,38 | 25,45 | -0,41 | -0,36 | 0,45 | 0,92 |
| Police-specific stressors | 40,95 | 18,82 | -0,09 | -1,10 | 0,57 | 0,91 |
| Problem-focused coping | 66,48 | 12,28 | -0,56 | 0,20 | 0,31 | 0,91 |
| Passive coping | 28,02 | 8,39 | 0,48 | -0,21 | 0,31 | 0,85 |
| Social support | 20,27 | 5,28 | -0,59 | -0,23 | 0,47 | 0,86 |
| ASIQ | 9,91 | 19,22 | 3,68* | 17,12* | 0,47 | 0,95 |

* High skewness and kurtosis

Table 1 shows that acceptable Cronbach alpha coefficients ($\alpha > 0,70$) were obtained for all the scales (Nunnally & Bernstein, 1994). Most of the inter-item correlation coefficients were acceptable ($0,15 \leq r \leq 0,50$, Clark & Watson, 1995), except for the Police Stressors scale that were somewhat higher. The confirmatory factor analysis resulted in acceptable loads on the various factors, which confirm their construct validity. It is therefore apparent from Table 1 that most of the various questionnaires of the measuring battery are relatively normally distributed, with low skewness and kurtosis. The only exception is the ASIQ, which shows high skewness and kurtosis.

The correlation coefficients between the ASIQ and other variables are reported in Table 2. Spearman correlation coefficients were computed in cases where skew distributions were indicated.

Table 2

Correlation Coefficients between Suicide Ideation and other Variables

| Item | ASIQ | |
|---------------------------|----------|----------|
| | <i>r</i> | <i>p</i> |
| Stress: Job demands | 0,09 | 0,15 |
| Stress: Lack of resources | 0,09 | 0,16 |
| Police-specific stressors | 0,12 | 0,05* |
| Problem-focused coping | -0,13 | 0,03* |
| Passive coping | 0,17 | 0,00* |
| Social support | -0,12 | 0,05* |

* Statistically significant: $p \leq 0,05$

Table 2 shows statistically significant correlations between suicide ideation and police-specific stressors as well as problem-focused coping, passive coping and social support. Although police-specific stressors, problem-focused coping, social support are statistical significant, only passive coping shows a significant effect ($r = 0,17$) (small effect, Cohen 1988).

The differences between the suicide attempts of police officials and those who did not attempt suicide are shown in Table 3.

Table 3

Differences between Suicide Attempts and No Suicide Attempts among Police Officials (N=272)

| Item | Attempts | | No attempts | | <i>P</i> | <i>d</i> |
|------|----------|-----------|-------------|-----------|----------|----------|
| | Mean | <i>SD</i> | Mean | <i>SD</i> | | |
| ASIQ | 47,63 | 35,97 | 8,15 | 16,52 | 0,004* | 1,10** |

* Statistically significant: $p \leq 0,05$

** Practically significant difference: $d \geq 0,80$ (large effect)

Table 3 shows that there is a statistically practical difference of large effect between the suicide ideation of police officials that have attempted suicide in the past, compared with those who did not report suicide attempts.

Table 4 indicates the differences between police officials on the basis of their medical status.

Table 4

Differences between Police Officials With and Without Medical Conditions

| Item | Medical condition (n=37) | | No medical condition (n=227) | | p | d |
|------|-----------------------------|-------|---------------------------------|-------|-------|------|
| | Mean | SD | Mean | SD | | |
| ASIQ | 20,11 | 35,37 | 7,95 | 14,48 | 0,05* | 0,34 |

* Statistically significant: $p \leq 0,05$

Table 4 shows a statistically significant difference between police officials with a medical condition and police officials without a medical condition, regarding suicide ideation. However, the effect size, which indicates practical significance, shows that the effect is small.

The differences between the experiences of male and female police officials are reported in Table 5.

Table 5

Differences between Police Officials' Suicide Ideation based on Gender

| Item | Male (n = 207) | | Female (n = 56) | | p | d |
|------|-------------------|-------|--------------------|-------|------|------|
| | Mean | SD | Mean | SD | | |
| ASIQ | 8,88 | 19,48 | 12,66 | 18,09 | 0,18 | 0,19 |

* Statistically significant: $p \leq 0,05$

Table 5 shows that male police officials obtained a higher score on suicide ideation than female police officials did. However, the difference was not statistically significant.

The differences between police officials based on race are shown in Table 6. One-way analysis of variance (ANOVA) was used to determine differences between the different race groups in the sample. Tukey Studentised Range tests were done to indicate which groups differed significantly when ANOVAS were done.

Table 6
Differences between Police Officials based on Race

| Item | White | Black | Coloured | Indian | Root MSE | <i>p</i> |
|---------------------------|--------------------|--------------------|----------|--------------------|----------|-------------------|
| Stress: Job demands | 75,53 | 85,04 | 82,78 | 90,18 | 29,68 | 0,14 |
| Stress: Lack of resources | 78,37 | 78,87 | 86,00 | 87,40 | 25,17 | 0,09 |
| Police-specific stressors | 37,73 ^b | 37,72 ^b | 43,83 | 48,33 ^a | 18,19 | 0,00 [*] |
| Problem-focused coping | 67,93 | 68,43 ^a | 64,56 | 61,82 ^b | 12,05 | 0,00 [*] |
| Passive coping | 24,17 ^b | 29,22 ^a | 27,52 | 27,70 | 8,38 | 0,03 [*] |
| Social support | 18,70 ^b | 21,87 ^a | 18,33 | 17,7 ^c | 4,99 | 0,00 [*] |
| ASIQ | 6,94 | 8,32 | 10,28 | 14,12 | 19,38 | 0,15 |

* Statistically significant - $p < 0,05$

a Practically significant difference from area (in row) where b (medium effect, $d \geq 0,5$) or c (large effect, $d \geq 0,8$) are indicated

Table 6 shows practically significant differences between different race groups ($p \leq 0,05$). Practically significant differences were found on the following items, namely police-specific stressors, problem-focused coping, passive coping and social support. Indian police officials obtained a higher score on police stressors compared to Black and White police officials (practically significant, medium effect). On the item problem-focused coping, Black police officials obtained a higher score, followed by Indian officials (practically significant, medium effect). Black police officials also obtained a higher score on passive coping in comparison with White police officials (practically significant, medium effect). Black police officials compared to White (practically significant, medium effect) and Indian police officials (practically significant, large effect) show higher scores on social support.

The differences between the scores of different ranks in the SAPS are shown in Table 7. Through the use of one-way analysis of variance (ANOVA) the differences between the various ranks were determined. Tukey Studentised Range tests were done to indicate which groups differed significantly when ANOVAS were done.

Table 7
Differences between Police Officials based on Rank

| Item | Constable | Sergeant | Captain | Inspector | Snr. Sup | Root MSE | P |
|---------------------------|--------------------|---------------------|--------------------|-----------|----------|----------|-------|
| Stress: Job demands | 76,10 ^c | 102,48 ^a | 85,57 ^b | 82,45 | 103,26 | 28,46 | 0,01* |
| Stress: Lack of resources | 76,98 | 94,62 | 81,27 | 84,44 | 89,40 | 24,11 | 0,07 |
| Police-specific stressors | 42,99 | 46,74 | 39,37 | 44,15 | 49,00 | 18,16 | 0,22 |
| Problem-focused coping | 66,99 | 64,92 | 65,29 | 69,65 | 60,27 | 12,28 | 0,27 |
| Passive coping | 28,28 | 29,28 | 28,54 | 26,00 | 24,80 | 8,66 | 0,45 |
| Social support | 20,24 | 20,22 | 20,08 | 20,55 | 13,80 | 5,28 | 0,12 |
| ASIQ | 15,06 | 10,77 | 9,83 | 4,76 | 2,40 | 19,55 | 0,27 |

* Statistically significant - $p < 0,05$

a Practically significant difference from area (in row) where b (medium effect, $d \geq 0,5$) or c (large effect, $d \geq 0,8$) are indicated

Table 7 shows the following differences between the different ranks on the item Stress: Job Demands. Sergeants showed practically significant higher scores (large effect), followed by captains (practically significant, medium effect) and constables (practically significant, large effect), (Steyn, 1999).

The differences between scores of police officials based on the use of alcohol are shown in Table 8. Analysis of variance (ANOVA) was used to determine the significance of differences of use of alcohol of the study population. Tukey Studentised Range tests were done to indicate which groups differed significantly when ANOVAS were done.

Table 8

Differences between Police Officials based on the Use of Alcoholic Drinks (per week)

| Item | 0-4 drinks | 5-7 drinks | 8-14 drinks | 15+ drinks | Root MSE | <i>p</i> |
|---------------------------|--------------------|------------|-------------|--------------------|----------|----------|
| Stress: Job demands | 80,18 | 90,37 | 95,78 | 102,10 | 30,49 | 0,03* |
| Stress: Lack of resources | 78,75 ^b | 88,70 | 87,78 | 98,42 ^a | 25,69 | 0,02* |
| Police-specific stressors | 38,61 | 41,72 | 54,33 | 50,51 | 18,38 | 0,01* |
| Problem-focused coping | 66,51 | 65,53 | 69,04 | 66,21 | 12,78 | 0,92 |
| Passive coping | 26,33 | 31,01 | 26,57 | 29,41 | 8,18 | 0,07 |
| Social support | 20,25 | 20,00 | 19,67 | 16,93 | 5,27 | 0,17 |
| ASIQ | 8,51 | 15,84 | 8,27 | 17,50 | 19,73 | 0,21 |

* Statistically significant - $p < 0,05$

a Practically significant difference from area (in row) where b (medium effect, $d \geq 0,5$) or c (large effect, $d \geq 0,8$) are indicated

Table 8 shows that police officials who experience stress because of job demands, lack of resources and police-specific demands are inclined to consume alcohol ($p \leq 0,05$). However, post-hoc comparisons showed that police officials who consume 0-4 alcoholic drinks per week (compared to those who consumed 15 or more drinks per week) experienced significantly less stress because of lack of resources (practically significant, medium effect), (Steyn, 1999).

The differences between police officials based on their marital status are shown in Table 9. One-way analysis of variance (ANOVA) was used to determine differences between the police officials' marital status. Tukey Studentised Range tests were done to indicate which groups differed significantly when ANOVAS were done.

Table 9

Differences between Police Officials based on Marital Status

| Item | Single | Married | Divorced | Separated | Remarried | Root MSE | <i>p</i> |
|---------------------------|--------|---------|----------|-----------|-----------|----------|----------|
| Stress: Job demands | 85,71 | 84,03 | 85,68 | 71,75 | 102,75 | 29,68 | 0,66 |
| Stress: Lack of resources | 82,38 | 82,05 | 79,06 | 71,50 | 87,80 | 25,77 | 0,80 |
| Police-specific stressors | 40,26 | 42,59 | 39,34 | 36,00 | 52,00 | 18,71 | 0,54 |
| Problem-focused coping | 67,07 | 66,61 | 64,80 | 68,50 | 79,38 | 12,21 | 0,19 |
| Passive coping | 29,40 | 26,68 | 28,16 | 35,25 | 27,96 | 8,40 | 0,10 |
| Social support | 21,27 | 19,61 | 19,81 | 21,00 | 24,00 | 5,26 | 0,13 |
| ASIQ | 11,15 | 11,45 | 6,15 | 0,25 | 11,75 | 19,14 | 0,30 |

Table 9 shows no practically significant difference on any item. Therefore, it could be stated that police officials' marital status is not related to job stress, coping strategies or suicide ideation.

Next, a discriminant analysis was conducted to determine which factors could be used to predict suicide ideation of police officials in Kwazulu-Natal. Table 10 shows the linear discriminant function between police officials.

Table 10

The Linear Discriminant Function between Police Officials

| Item | High suicide ideation | Low suicide ideation |
|---------------------------|-----------------------|----------------------|
| Stress: Job demands | 0,11 | 0,16 |
| Stress: Lack of resources | -0,12 | -0,15 |
| Police-specific stressors | 0,26 | 0,22 |
| Problem-focused coping | 0,34 | 0,31 |
| Passive coping | 0,06 | -0,07 |
| Social support | 0,66 | 0,80 |

Table 11 summarises the frequencies and percentages of police officials who can be classified as belonging to the high or low suicide ideation groups (based on these variables).

Due to data that are missing, only 271 participants' data was used when Table 11 was compiled.

Table 11

Classification of Officials of High or Low Suicide Ideation Groups

| Group | High suicide ideation | Low suicide ideation | Total |
|-----------------------|-----------------------|----------------------|------------|
| High suicide ideation | 9 (81,82%) | 2 (18,18%) | 11 (100%) |
| Low suicide ideation | 26 (20,47%) | 101 (79,53%) | 127 (100%) |

Table 11 shows that the combination of stressors namely job demands, lack of resources and police-specific stressors as well as problem-focused coping, passive coping and social support classify 81,82% of the high suicide ideation cases and 79,53% of the low suicide ideation cases correctly. A total of 18,18% of the high and 20,47% of the low suicide ideation cases are classified incorrectly when using these variables. It can thus be stated that nine police officials have significant suicide ideation.

DISCUSSION

The main objective of this research was to critically investigate the relationships between suicide ideation, stress and coping within the SAPS in the KwaZulu-Natal Province.

Compared with a cut-off raw score of 31 (the 97th percentile on a norm table for community adults in the United States of America) (Reynolds, 1991a), 11 (4,06%) of the uniformed police officials have significant suicide ideation levels. Rothmann and Van Rensburg (2001) state that the cut-off score points for the need for further evaluation of suicidal thoughts, intentions and behaviour, emphasises Reynold's (1991a) statement that the ASIQ cut-off score is not meant to predict future suicidal behaviour or to suggest that an individual is at definite risk of suicide. Although the cut-off score could result in an overidentification of cases, it is more desirable to make a false positive decision than propose a false negative decision when evaluating suicidal behaviour, according to Rothmann and Van Rensburg (2001).

The results indicated that 11 (4,15%) police officials in the KwaZulu-Natal Province have attempted suicide in the past. Hirsch and Ellis (1995) state that although women think about

participating in suicide more often than men do, the suicide rate among men is approximately four times higher than in the case of women. However, the results indicate no significant difference between male and female police officials regarding suicide ideation. This could possibly be due to the fact that more male than female police officials were included in the study population. Whatever the reason for these findings, the results show that suicide ideation is a definite problem in the SAPS.

Studies showed that police officials make use of maladaptive coping strategies (i.e. high use of alcohol, drugs, cigarettes, as well as physical and psychological isolation) to manage occupational and personal stress (Burke, 1993; Rothmann & Van Rensburg, 2001). Anshel (2000) and Burke (1993) state that police officials who suffer from medical conditions and who tend to abuse alcohol have more dysfunctional coping strategies and a higher suicide ideation. The results of this study showed a practically significant correlation between stress caused by job demands, lack of resources and police-specific stressors with regard to the use of alcohol. The lack of resources was identified as the primary stressor that causes alcohol abuse. The results also indicated a practically significant correlation between suicide ideation, medical condition and alcohol abuse. A police officials medical condition and alcohol abuse can thus be used to predict suicide ideation.

Patterson (1999) states that individuals are likely to report both problem-focused and emotion-focused coping in responses following exposure to stressful events. Furthermore, Evens and Coman (1992) state that it could be expected that police officials will refuse to share their emotional reactions to job stressors with others, which may isolate them from social support at work as well as at home. However, the results of the study showed practically significant correlations between suicide ideation and police-specific stressors, as well as problem-focused coping, passive coping and social support. It can thus be stated that police stressors play a vital role in suicide ideation, as well as the officials ability to cope with this stressor, whether problem-focused or passive. According to Yang and Clum (1994), a lack of social support will result in depression and lead to suicidal behaviour.

Fain and McCormick (1988) found that coping responses are independent of a police officials rank and marital status. Nevertheless, these studies showed practically significant differences between ranks when dealing with job demands as a stressor. Sergeants showed the highest scores, followed by captains and constables. This can be due to the fact that the above-

mentioned ranks are more exposed to daily life-threatening situations, than for example superintendents are. Janik and Kravitz (1994) found that marital or relationship problems operate as precursor behaviour for depression, and would be an important focus in predicting suicide attempts among police officials. However, these results show inconsistency with the findings of Janik and Kravitz (1994), who found no practically significant correlations between suicide ideation and marital status.

This study also showed practically significant differences between race groups regarding police-specific stressors, as well as problem-focused coping, passive coping and social support. Indian police officials obtained a higher score on police-specific stressors compared to Black and White police officials (practically significant, medium effect). On the item problem-focused coping, Black police officials obtained a higher score, followed by Indian officials (practically significant, medium effect). Black police officials also obtained a higher score on passive coping, followed by White police officials (practically significant, medium effect). Black police officials compared to White (practically significant, medium effect) and Indian police officials (practically significant, large effect) show higher scores on social support.

Differences were also found between groups with different levels of education. Police officials with a technical diploma showed particular high levels of stress when having to deal with the lack of resources. This stress can be attributed to their inability to perform adequately in the current context of a lack of resources in the SAPS. Police officials with Grade 12, technical college diplomas and/or a university degree, showed high levels of scores on problem-focused coping compared to officials with a Grade 11 on the other hand. A possible explanation of this findings is that officials with a higher level of education (compared with those with a lower level) learned to cope better in stressful situations. Police officials with a Grade 12 qualification and/or a technical college diploma showed higher scores on social support than officials with a Grade 11 did.

Police officials at large police stations obtained higher scores on job demands, compared to small stations. Large stations showed higher scores on stress caused by lack of resources, followed by smaller police stations. Police stressors seem to be the item where large stations scored the highest compared with medium and small police stations. On the item social support, small stations obtained the highest score, followed by large stations.

RECOMMENDATIONS

The SAPS should attend to the suicide ideation of police officials and possible correlates thereof. Managing the mental health of police officials could start at the training college where police officials could be empowered with the relevant information on wellness. Information sessions or workshops could be presented on stress, coping, suicide and trauma. Members of Psychological Services could present these information sessions or workshops. This would also assist police psychologists in building relationships with police officials. Any enquiries concerning professional and/or ethical conduct could then be explained.

Although a suicide workshop already exists, Psychological Services could compile a more comprehensive workshop that does not only include the prevention of suicide, but also other factors that cause suicide, for example Post-Traumatic Stress Disorder. These workshops must also focus on stress and coping mechanisms and all police officials must have the opportunity to attend. Follow-up suicide workshops must also be developed and presented where commanders and members are given the opportunity to comment on how they are doing as well as expressing their needs. Support groups for police officials should be established where a safe environment is created. Direct commanders must be approachable and there must be sufficient communication in order to identify any suicide ideation.

More research on suicide ideation, stress and coping is needed, especially in smaller, remote areas where real shortages exist. Finally, future research is needed regarding the relationship between personality dimensions, coping strategies and suicide ideation in the SAPS.

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CHAPTER 3

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

The purpose of this chapter is to make conclusions based on the objectives of the study. The limitations of the research are also discussed and recommendations with regard to this research as well as future research are made.

3.1 CONCLUSIONS

Conclusions are made in the following sections with respect to the specific literature objectives and the empirical findings obtained in the present study.

3.1.1 Conclusions in terms of the specific literature review objectives

As derived from the literature, suicide can be conceptualised as an act with a fatal outcome, which the deceased deliberately initiated and performed, with the knowledge or expectation that it would bring about the desired changes in consciousness and social conditions. Suicidal behaviour may be categorised to include suicide completion, overt intention, suicide attempts, and suicide ideation. Suicide ideation is conceptualised as serious thoughts about committing suicide and should be regarded as a "normal", non-pathological reaction to seemingly intolerable conditions. Suicide ideation can thus range from relatively mild general thoughts about death to serious in-depth plans of one's own death.

Stress is conceptualised as the body's physiological response to a stressor, which is any event or change that requires adaptation. Police stress, on the other hand, is conceptualised as any condition that has adverse consequences for police officials' well being and can be linked to negative emotional outcomes such as divorce rates, suicidal behaviour and alcoholism. Physical disorders such as hypertension, gastric and duodenal ulcers, kidney and cardiovascular diseases have also been attributed to stress among police officials. Stress emanating either from work or from the home could establish a vicious cycle of demands and frustrations. Stress can be caused by two variables, namely police work itself (dangerous work) and organisational stress, which is caused by the bureaucratic nature of the

organisation (e.g. paperwork or lack of resources). Conclusions found in the related police studies indicated that organisational stress more strongly affects police officials than inherent stress does.

Coping is conceptualised as all the ways that individuals go about mastering or assuaging the stress, which results when events challenge their routine predictions about the world. The inability to cope effectively with stressful events could result in undesirable psychological and somatic outcomes, leading to chronic stress, burnout, and quitting the profession. Individuals use different coping mechanisms and it was derived from the literature study that police officials have maladaptive coping strategies (i.e. high use of alcohol, drugs, cigarettes, as well as physical and psychological isolation). Effective coping strategies would reduce and eliminate stress as well as suicidal behaviour.

3.1.2 Conclusions in terms of the specific empirical objectives

The results of the discriminant analysis showed that 11 (4,06%) of the uniformed police officials in the KwaZulu-Natal Province have significant suicide ideation levels. A relationship was found between suicide ideation and coping. Suicide ideation correlated positively with problem-focused coping and passive coping.

The results indicated that 11 (4,15%) police officials in the KwaZulu-Natal Province have attempted suicide in the past. The results show no significant difference between male and female police officials regarding suicide ideation. This could possibly be due to the fact that more male than female police officials were included in the study population. Whatever the reason for these findings, the results shows that suicide ideation is a definite problem in the SAPS.

The results of this study showed a practically significant correlation between stress caused by job demands, lack of resources and police-specific stressors with regard to the use of alcohol. The lack of resources was identified as the primary stressor that caused alcohol abuse. The results also indicated a practically significant correlation between suicide ideation, medical condition and alcohol abuse. A police officials medical condition and alcohol abuse can thus be used to predict suicide ideation.

Police officials of the KwaZulu-Natal Province indicated practically significant differences between ranks when dealing with stress caused by job demands. Sergeants showed the highest scores, followed by captains and constables. This could be due to the fact that the above-mentioned ranks are more exposed to daily life-threatening situations, than for example superintendents are. No practically significant correlations were found between suicide ideation and marital status.

This study also showed a practically significant correlation between the different race groups. A correlation was found between the different police-specific stressors, as well as problem-focused coping, passive coping and social support. Indian police officials obtained a higher score on police-specific stressors compared to Black and White police officials (practically significant, medium effect). On the item problem-focused coping, Black police officials obtained a higher score, followed by Indian officials (practically significant, medium effect). Black police officials also obtained a higher score on passive coping, followed by White police officials (practically significant, medium effect). Black police officials compared to White (practically significant, medium effect) and Indian police officials (practically significant, large effect) show higher scores on social support.

A practically significant correlation between the lack of resources and coping strategies in particular problem-focused coping and social support was found in this study. Police officials with a technical diploma showed particularly high levels of stress when they have to deal with the lack of resources. Police officials with Grade 12, technical college diplomas and/or a university degree showed high levels of scores on problem-focused coping compared to officials with a Grade 11 qualification on the other hand. Police officials with a Grade 12 certificate and/or a technical college diploma showed higher scores on social support than officials with a Grade 11 did.

Police officials at large police stations obtained higher scores on job demands, compared to small stations. Large stations showed higher scores on lack of resources, followed by smaller police stations. Police stressors seem to be the item where large stations scored the highest, compared with medium and small police stations. On the item social support, small stations obtained the highest score, followed by large stations.

3.2 LIMITATIONS OF THE STUDY

The following limitations emerged during the study:

- The sample size was one limitation of this study, because only 272 police officials participated.
- The Umfolozi area was not accessible, due to riots at the particular time of gathering data as well as poor infrastructure, thus leaving out a whole area that is not represented in this study.
- Few female police officials were included in the study.
- The influence of personality dimensions and the relationship with coping, stress and suicide ideation have not been included in this study.
- A cross-sectional design was used in this research, which means that it was not possible to determine the causality of relationships.

Practical limitations with regard to the gathering of data were also experienced:

- Police officials found it difficult to complete the questionnaires due to logistical constraints, shift work and complaints that officials needed to attend to.
- The questionnaires themselves were long and time-consuming, creating difficulties, as officials did not have the time to complete all the questionnaires.
- Vocabulary, concepts and grammar were difficult for officials to comprehend due to either poor comprehension skills or because a large number of officials are from rural areas where English is not their first language.
- Changes in format from one test to another proved to be very confusing for officials (e.g. circle some, cross some).
- Questions were very personal and despite reassurances, police officials were worried about confidentiality. Measures were taken though to ensure confidentiality, e.g. providing specially marked sealed boxes with openings.

3.3 RECOMMENDATIONS

Next, recommendations for the organisation and future research are made.

3.3.1 Recommendations for the organisation

The SAPS should attend to suicide ideation of police officials and possible correlates thereof. This can be done in a pro-active manner:

- Presenting workshops or information sessions at the training college. In this way officials would have relevant information about different psychological concepts and would have an idea what symptoms and reactions they might experience within their given work environment.
- Within this context, relationships can be built between functional officials and officials of Psychological Services. Any enquiries concerning professional and/or ethical conduct could be explained.
- Although a suicide workshop already exists, Psychological Services could compile a more comprehensive workshop that not only includes the prevention of suicide, but also other factors that cause suicide, for example Post-Traumatic Stress Disorder.
- Follow-up suicide workshops must also be compiled, where commanders and officials are given the opportunity to comment on how they are doing as well as expressing their needs.
- A workshop focussing on stress and different coping mechanisms should be compiled and presented and must be compulsory for all police officials to attend.
- Support groups for police officials should be established where a safe environment is created. Direct commanders must be approachable and there must be sufficient communication in order to identify any suicide ideation.
- Police officials must be given the opportunity to reduce stress and anxiety levels through regular sport and exercise. Time can be given to officials where they have the opportunity to participate in group sports.

3.4.2 Recommendations for future research

The following recommendations are made for future research.

- A larger, more diverse sample size is recommended for future research.
- Research can be done according to the size of the station, because of the different needs that exist.
- The relationship between personality dimensions, coping, stress and suicide ideation in the SAPS should be researched.
- Stress, coping and suicide ideation of police officials could also be researched in relation to other variables such as situational factors, job performance and job satisfaction.
- Research can be done concerning the expectations of officials before joining the SAPS.
- Longitudinal studies regarding coping as well as stress can be done to determine the factors that cause stress or influence police officials' coping.
- More research concerning coping, stress and suicide ideation is needed, especially in smaller, remote areas where real shortages exist.

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