PSYCHOLOGICAL STRENGTHS, COPING AND SUICIDE IDEATION IN THE SOUTH AFRICAN POLICE SERVICES IN THE NORTH WEST PROVINCE

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ABSTRACT

Relatively high numbers of suicides occur in the South African Police Services. The objective of this research was to determine the relationship between sense of coherence, generalised self-efficacy, locus of control and coping on the one hand and suicide ideation among police personnel on the other hand. The study population (N = 287) consisted of uniformed police personnel in the North West Province. The results showed that sense of coherence and generalised self-efficacy are related to suicide ideation of police members. A discriminant analysis showed that sense of coherence, coping strategies and medical status correctly classified 81,48% of participants who scored high on suicide ideation.

OPSOMMING

'n Relatiewe hoë getal selfmoorde kom in die Suid-Afrikaanse Polisiediens voor. Die doelstelling van hierdie navorsing was om die verband tussen koherensiesin, algemene selfdoeltreffendheid, lokus van beheer en coping enersyds en selfmoorddenkbeeldvorming van polisiepersoneel andersyds te bepaal. Die studiepopulasie (N = 287) het bestaan uit polisiepersoneel in die Noordwes-Provinsie. Die resultate het aangetoon dat koherensiesin en algemene selfdoeltreffendheid verband hou met selfmoorddenkbeeldvorming by polisiepersoneel. 'n Diskriminantontleding het aangetoon dat koherensiesin, coping-strategieë en mediese toestand 81,48% van die deelnemers met hoë tellings ten opsigte van selfmoorddenkbeeldvorming korrek geklassifiseer het.

A productive, motivated and healthy police service is an important contributor to the stability and resulting economic growth and development of countries. In South Africa, members of the police services are challenged by various potential stressors, such as a high crime level, organisational transformation and a lack of resources. According to Anshel (2000), law enforcement is one of the most stressful occupations world-wide. In addition to experiencing job-related stressors such as dealing with unlawful, often dangerous actions of citizens, there is abusive treatment in the workplace and a general lack of social support. Not surprisingly, increased rates of illness, posttraumatic stress, burnout, alcohol abuse and suicides, and decreased levels of job satisfaction and job performance, as compared to norms for the general population, are found in research with police members (Anshel, 2000; Nel, 1994; Rothmann & Agathagelou, 2000; Rothmann & Strijdom, 2002).

World-wide there is an increasing incidence of suicide among police members (Janik & Kravitz, 1994). Studies report that police officers have higher rates compared to the rates of the general population and those of other professions (Wagner & Brzeczek, 1983). Increasing suicide rates of police officers in recent years have also been reported for the United States (Violanti, 1995), France (Bourgoin, 1997) and Australia (Cantor, Tyman & Slater, 1995). Schmidtke, Fricke and Lester (1999) reported an average suicide rate of 23,03 per 100 000 police officers in Germany in 1996. The suicide rates per 100 000 members of the SAPS from 1994 to 2000 are substantially higher than police services elsewhere in the world. The suicide rate is also much higher than the average rate of 18 per 100 000 of the general population in South Africa.

According to Rossouw (1997, 1998, 1999), the SAPS member who is likely to commit suicide is an unmarried black or Asian male constable of between 24 and 29 years of age. His duties include visible policing and he will be likely to commit suicide during a weekend between 18:00 and 24:00 by using his service weapon.

More than 80% of the suicides in 1999 were committed with the use of a service weapon (Rossouw, 1999). The risk areas seem to be the Northern Cape, Mpumalanga, the North West Province and Gauteng. Rossouw (1998) expressed concern about the increasing tendency of police members to wound or kill others before committing suicide.

Suicidal behaviour may be considered a domain of psychological disturbance and is associated with potentially severe mental and/or physical health outcomes. According to Reynolds (1991a) suicidal behaviour may be categorised as including suicide completion, overt intention, suicide attempt, and suicide ideation. Suicidal behaviour can be plotted on a continuum varying in severity from ideation through intent and attempt to actual completion. Suicide ideation therefore constitutes but one aspect of suicidal behaviour (Reynolds, 1991a). Research about suicide ideation may be viewed as an important and critical component in evaluating and promoting adult mental health. A strong association exists between suicide ideation and suicide (Jin & Zhang, 1998). Reynolds (1991a) states that all suicide attempts, as well as threats, should be considered indications of significant psychological distress.

Suicide ideation, which refers to the thoughts and cognitions about suicidal behaviour and intent, may be considered an early marker of more serious suicidal behaviour (Bonner & Rich, 1987; Reynolds, 1991a; Shea, 1998). Suicide ideation can be characterised as ranging from relatively mild, general thoughts and wishes that one were dead to serious ideation about specific plans and means of taking one's life. Reynolds (1991a) defines suicide ideation as the domain of thoughts and ideas about death, suicide and serious self-injurious behaviour, and includes thoughts related to the planning, conduct and outcome of suicidal behaviour, particularly as the last relates to thoughts about the response of others. Individuals measuring high on suicide ideation wish 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 are dead. They have thoughts of killing themselves, as well as thoughts on specific methods they

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can use and times or places at which to kill themselves. 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. Suicide ideation is consistent with a cognitive-behavioural focus and may be viewed as a domain of self-statements.

The SAPS needs to intervene to increase and/or maintain the psychological health and decrease the suicidal behaviour of police members. However, little information is available about the reasons for the high suicide rate in the SAPS. Only one study was done to determine the level of suicide ideation of members of the SAPS in the North West Province (see Rothmann & Strijdom, 2002). It is therefore necessary to study suicide ideation of police members and possible correlates thereof. Many factors may contribute to suicidal behaviour of police members, including demands of the work situation, factors outside the work situation and personal characteristics, as well as the interaction between these variables (Jacobs, 1998; Rossouw, 1998; Schmidtke et al., 1999).

According to McCafferty (1992), suicide of police members could largely be ascribed to stressors at work. Factors that may cause distress include authoritarian structure, lack of participation in decision-making, poor interpersonal relationships with supervisors, lack of administrative support, unfair discipline, unfair promotion and the nature of police work. Irregular working hours, poor working conditions, constant fear and trauma make police members more susceptible to suicide (Maynard, Maynard, Mccubin & Shao, 1980; Rothmann & Strijdom, 2002). Shift work, the dangers involved in police work and low salaries seem to be related to stress and suicidal tendencies (Kruger, 1996; Lott, 1995). Janik and Kravitz (1994) found that marital problems and job suspension were important contributing factors to a police officer's decision to attempt suicide. Supportive families can buffer and diminish the occupational stresses that police officers experience (Graf, 1986). The alcohol abuse accelerates their isolation from both family and administrative relationships.

One of the basic issues in the suicidal behaviour domain concerns coping, or ways in which an individual can attempt to deal with job stressors to ward off aversive strains (Beehr, Johnson & Nieva, 1995). Kohn (1996) contends that "the most important thing about how a person copes with everyday hassles ... is its circumstantial appropriateness, how well it fits the specific demands of the situation" (p. 182). Anshel (2000) expresses concern about the tendency that alcohol is not only used but very much accepted as a way of coping with stress in the police service. Research by Hageman (1978) has shown that non-coping with stressors in the work environment may be related to suicide ideation.

Studies investigating the relationship between suicide ideation and personality variables have consistently indicated that neuroticism is strongly (positively) related to suicidal thinking in non-clinical samples (Lester, 1987; Lester & Francis, 1993). Jin and Zhang (1998) found that psychological well-being is a much stronger predictor of suicide ideation than physical well-being, especially when depression is introduced as an intervening variable in the model. Velting (1999) found that suicide ideation was positively associated with neuroticism and negatively associated with conscientiousness. Gender differences were found regarding suicide ideation, in that suicide ideation was positively predicted by neuroticism in females and negatively predicted by conscientiousness in males. Velting (1999) explained that depressed women tend to contemplate their own emotional distress, which may lead to more serious depressive episodes. Elevated rates of depression in women are offset by higher rates of alcohol abuse among men. Low levels of conscientiousness have been associated with impulsive and hedonistic tendencies and appear to characterise individuals with substance abuse disorders.

In this research, the causes of suicide ideation are studied from a fortigenic paradigm (which focuses on the origins of psychological strengths) (Strümpfer, 1995), rather than from a pathogenic paradigm (which focuses on the origins of illness). It could be expected that psychological strengths (Strümpfer, 1995), which are healthy, positive and pro-social, should be a buffer against suicide ideation, which is unhealthy, negative and anti-social. The objective of this research is to determine the relationship between sense of coherence, generalised selfefficacy, locus of control, coping and suicide ideation of police members. If it is found that suicide ideation is related to these variables, programmes such as recruitment, selection, induction, training and development, and performance management could be considered to facilitate the development of psychological strengths, i.e. constructive coping strategies, to reduce suicide ideation in the police service.

Sense of coherence

Sense of coherence can be described as the extent to which one has a pervasive, enduring though dynamic feeling of confidence that one's internal and external environments are predictable and that there is a high probability that things will work out as well as can be reasonably expected (Antonovsky, 1987, 1991). The definition of sense of coherence includes three dimensions that represent the concept, namely comprehensibility, manageability and meaningfulness (Antonovsky, 1987, 1991).

- Comprehensibility refers to the extent to which one perceives stimuli from the internal and external environment as information that is ordered, structured and consistent. The stimuli are perceived as comprehensible and make sense on a cognitive level.
- Manageability refers to the extent to which individuals experience events in life as situations that are endurable or manageable and that may even be seen as new challenges.
- Meaningfulness refers to the extent to which one feels that life is making sense on an emotional and not just a cognitive level.

Petrie and Brook (1992) found that a low sense of coherence is related to suicidal behaviour. Rothmann and Strijdom (2002) found that sense of coherence is related to suicide ideation in the case of white police members. Various studies also showed negative correlations between sense of coherence and negative affect (e.g. anxiety) (Carmel & Bernstein, 1990; Flannery & Flannery, 1990; Frenz, Carey & Jorgenson, 1993; Gibson & Cook, 1996; Kravetz, Drory & Florian, 1993). An individual with a strong sense of coherence will be more inclined to understand the nature and dimensions of an acute or chronic stressor and will define it as something that he or she can cope with. He or she will regard it as manageable by using resources within his or her own or others' control rather than becoming helpless. It is therefore hypothesised that a weak sense of coherence could be related to suicide ideation.

Self-efficacy

The concept of self-efficacy, which was developed by Bandura (1982, 1989), is described as the judgements of individuals regarding their skills in carrying out the required behaviour performing particular types of actions. Self-efficacy is commonly understood as being domain-specific, that is, one can have more or less firm self-beliefs in different domains or particular situations of functioning. However, some researchers have also conceptualised a general sense of self-efficacy (Schwarzer, 1993). Generalised self-efficacy is described as a general, stable cognition (trait) that individuals hold and carry with them and that reflects the expectation that they possess the ability to perform tasks successfully in a variety of achievement situations (Eden & Zuk, 1995). Frequent situation-specific experiences of personal success across time and situations give rise to generalised self-efficacy (Gardner & Pierce, 1998).

Sherer et al. (1982) found that individuals who have developed a generalised view of themselves as efficacious individuals also hold positive images of themselves. General self-efficacy has been hypothesised to be a strong determinant of specific self-efficacy (Eden, 1988). According to Judge et al. (1998), it could be expected that generalised self-efficacy would load on the same factor as self-esteem (because self-efficacy and self-worth are the core components of self-esteem).

According to theory and research (Bandura, 1989), self-efficacy makes a difference to how people think, feel and act. In terms of thinking, self-efficacy facilitates cognitive processes and performance in a variety of settings, including quality of decision-making and academic achievement. Regarding feelings, a low self-efficacy is associated with depression, anxiety and helplessness. Such individuals also have low self-esteem and harbour pessimistic thoughts about their accomplishments and personal development. In terms of acting, people with a high self-efficacy choose to perform more challenging tasks. They set themselves higher goals and stick to them. Once an action has been taken, persons with a high self-efficacy invest more effort and persist longer than those who are low in self-efficacy. When setbacks occur, they recover more quickly and maintain commitment to their goals (Schwarzer, 1999). Therefore, it seems that low self-efficacy could be related to suicide ideation.

Locus of control

The construct of locus of control was developed by Rotter (1966). Locus of control is a personality variable which denotes the degree to which individuals perceive that they control or are controlled by their environment. Spector (1988) defined locus of control as the generalised expectancy that rewards, reinforcements or outcomes in life are controlled either by one's own actions (internal locus) or by other forces (external locus). In organisational settings, rewards or outcomes include promotions, favourable circumstances, salary increases and general career advancement (Spector, 1988).

Individuals with an internal locus of control will probably feel that they can manage situations in the work context, because these situations are seen as being within their personal control (Judge et al., 1998). Compared with individuals with an external locus of control, they will be less inclined to cope with frustrations in organisations by withdrawing or by reacting aggressively (Rahim & Psenicka, 1996; Spector, 1982). They are also more successful in personal relationships than individuals with an external locus of control (Mayer & Sutton, 1996). Individuals with an external locus of control look at others for direction, while those with an internal locus of control depend on themselves for direction (Spector, 1982). Spector (1986) found that high levels of perceived control were associated with high levels of job satisfaction, commitment and involvement, and low levels of stress, absenteeism and turnover.

Although it could be expected that an individual with an internal locus of control would be less inclined to suicide ideation because of his or her perceived ability to control situations, the research results are inconsistent (Lester & Young, 1999). In a study of individuals younger than 25 years, Beautrais, Joyce and Mulder (1999) found that risk of suicidal behaviour increases with a high external locus of control. External locus of control combined with hopelessness and neuroticism made significant contributions to the risk of suicidal behaviour. Lester (1988) reported that college students with a history of attempting suicide had a lower mean external score than equally depressed students without such a history. On the other hand, Goldney (1982) found that women who had attempted suicide had a higher mean external score than non-suicidal individuals. Janik and Kravitz (1994) also suggested that anger which is externalised by blaming others, rather than oneself, serves to protect against rumination of self-criticism and self-destructive behaviour.

Lester and Young (1999) recommend that individuals who are blaming themselves for their situation might be led to consider the role of external agents, while individuals who are blaming external agents might be led to consider their own role and might be helped more actively to change these external agents.

Coping

Kleinke (1991, p. 3) defines coping as "the efforts we make to manage situations we have appraised as potentially harmful or stressful". Coping refers to perceptual, cognitive or behavioural responses that are used to manage, avoid or control situations that could be regarded as difficult (Folkman & Lazarus, 1984; Moos, 1994; Zeidner & Endler, 1996). The term "coping" could be used to refer to the strategies or results (Fleishman, 1984). As a strategy, coping refers to the different methods that a person may apply to manage his or her circumstances. As a result, coping refers to the eventual outcomes of this strategy for the person. For the purposes of this research, the focus is on coping as strategy. Callen (1993) defines non-coping as failed efforts to cope, accompanied by various physical and psychosocial disturbances, which result in higher stress. Carver, Scheier and Weintraub (1989) mention that non-coping causes higher levels of depression and anxiety. The latter emotions contribute to higher scores on neuroticism (McCrae & Costa, 1986). These characteristics are negatively related to sense of coherence (Mlonzi & Strümpfer, 1998).

Amirkhan (1994), Callan (1993) and Folkman and Lazarus (1980) 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. Beehr et al. (1995) showed that problem-focused coping strategies were negatively related to strains (somatic complaints, emotional exhaustion, depersonalisation and thoughts of suicide) among police officers. Emotion-focused coping strategies were related to every police strain except the abuse of alcohol.

Carver et al. (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 which could be used to solve a problem).
- Suppressing competing activities (placing other projects temporarily on the background).
- Restraint coping (waiting for the right opportunity to solve a problem rather than acting impulsively).
- 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:

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

Carver et al. (1989) distinguish the following coping strategies that are used less:

- Focusing on and venting of emotions (focusing on a stressful situation and expressing feelings about it).
- Behavioural disengagement (ignoring and avoiding stressors and becoming more helpless and powerless).
- Mental disengagement (excessive sleeping or daydreaming to escape from stressors).
- Alcohol-drug disengagement (using alcohol or drugs to manage stress).

One maladaptive coping strategy in police work is the excessive intake of alcohol to help reduce stress and improve psychological well-being. Anshel (2000) 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 officers who reported being unsentimental and emotionally detached and refusing to share their emotional reactions to job stressors with others (such as their partners of families). Burke (1993) found high use of alcohol, drugs, cigarettes and physical isolation from others to be methods of coping with job-related stress among police officers.

The relationship between sense of coherence, locus of control, self-efficacy and coping

The literature provides considerable amounts of research linking self-efficacy and locus of control. According to Lefcourt (1982) and Rotter (1966) individuals with an external locus of control tend to doubt their personal efficacy. Self-efficacy pertains to confidence with respect to actions or behaviour, whereas locus is more concerned with confidence in being able to control outcomes (Judge et al., 1998). Both self-efficacy and locus of control are cognitive constructs and are about control (Rotter, 1966). Kalimo and Vuori (1990) state that the sense of coherence concept involves some of the issues that can be found in locus of control theory. Sense of coherence refers to an internalised sense of control, which also guides the orientation towards coming events. Sense of coherence helps individuals understand the various facets of control and their consequences through individuals' experience of the environment. It is in this regard that the sense of coherence concept is similar to the concept of locus of control because both lead to anticipatory health-promoting orientations (Seeman & Seeman, 1983). According to Antonovsky (1987), differences exist in the conceptual definitions of sense of coherence and locus of control. Sense of coherence also views resources under the control of others as valuable, whereas locus of control views such resources as an external orientation and a failure to take control of their own destiny.

RESEARCH METHOD

Research design

A survey design was used to reach the research objective. The specific design is the cross-sectional design, whereby a sample is drawn from a population at one time (Shaughnessy & Zechmeister, 1997).

Sample

The study population (N = 287) includes availability samples of uniformed police personnel in two areas in the North West Province, as well as an availability sample of trainee police officers at the SAPS Training College. The two areas of the North West Province that were included are the Marico Area (n = 170)and the Mooi River Area (n = 72). The study population consisted mainly of constables (n = 75), sergeants (n = 93) and inspectors (n = 111) with a mean age of 32,79. A total of 252 participants were males while 35 were females. Various language groups were included in the study, namely Tswana (n = 171), Afrikaans (n = 58), English (n = 13) and others (n = 36). About 20% of the participants had been charged for previous offences. A total of 33 (12%) of the participants had medical conditions that affected their quality of work, while 14% of the participants used medicine on a regular basis. Regarding the use of alcohol, 6,41% indicated that they took 7-14 drinks per week, while 5,56% indicated that they took 14 or more drinks per week.

Measuring instruments

The Orientation to Life Questionnaire (OLQ) (Antonovsky, 1987, 1993) was used to measure participants' sense of coherence. The OLQ consists of 29 items. Antonovsky (1993) reported alpha coefficients of the OLQ in 29 research studies varying between

0,85 and 0,91. Test-retest reliability studies found coefficients between 0,41 and 0,97 (Antonovsky, 1993). Rothmann (2000) reported an alpha coefficient of 0,89 for the OLQ, which may be regarded as acceptable (Nunnally & Bernstein, 1994). Regarding the construct validity of the OLQ, it was found that there is a negative relationship between the OLQ and experienced stress and that the OLQ correlates negatively with the "State-Trait Anxiety Inventory-Trait" and the "Beck Depression Inventory" (Frenz et al., 1993).

The General Perceived Self-Efficacy Scale (GPSES) (Schwarzer, 1993) was used to measure participants' generalised self-efficacy. The GPSES consists of 10 items. Schwarzer (1993) found alpha coefficients varying from 0,75 to 0,90 for the GPSES. By confirmatory factor analyses it was found that the scale was unidimensional in all sub-samples. The scale is not only reliable, it has also proven valid in terms of convergent and discriminant validity. Schwarzer (1993) found that the scale correlates positively with self-esteem and optimism and negatively with anxiety, depression and physical symptoms.

The Work Locus of Control Scale (WLCS) (Spector, 1988) was used to measure participants' locus of control within the work environment. The WLCS consists of 16 items. Spector (1988) found Cronbach alpha coefficients for the WLCS varying between 0,75 and 0,85. In an attempt to validate the WLCS, Spector (1988) correlated it against work variables which had been correlated previously with Rotter's scale. He reported that many of the correlations between work locus of control and organisational variables were stronger than the correlations observed between those same variables and Rotter's scale. Maram en Miller (1998) and Spector (1988) found evidence for the construct validity of the WLCS. Spector (1988) argued that the WLCS predicts work behaviour more precisely than general scales which measure locus of control.

The COPE Questionnaire (COPE) (Carver et al., 1989) was used to measure participants' coping strategies. The COPE is a multidimensional 53-item coping questionnaire that indicates the different ways that people cope in different circumstances (Carver et al., 1989). It measures 13 different coping strategies. Five sub-scales (4 items each) measure different aspects of problem-focused coping: Active Coping, Planning, Suppressing of Competing Activities, Restraint Coping and Seeking Social Support for Instrumental Reasons. Five sub-scales (4 items each) measure aspects of emotion-focused coping: Seeking Social Support for Emotional Reasons, Positive Reinterpretation and Growth, Acceptance, Denial, Turning to Religion. Four sub-scales indicate coping responses that are used less: Focus on and Venting of Emotions, Behavioural Disengagement, Mental Disengagement and Alcohol-drug Disengagement (Carver et al., 1989). Carver et al. (1989) reported Cronbach alpha coefficients for the COPE varying from 0,45 to 0,92. All the sub-scales have sufficient levels of reliability except for Mental Disengagement, which measures lower than 0,60. Test-retest reliability varies from 0,46 to 0,86 and 0,42 tot 0,89 (applied after two weeks).

The Adult Suicide Ideation Questionnaire (ASIQ) (Reynolds, 1991a) was used to measure participants' current level of suicide ideation. Each of the items measures a specific suicidal behaviour or thought. Reynolds (1991a) reported that the internal consistency (coefficient alpha) of the ASIQ is 0,96, while Osman et al. (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.

Statistical analysis

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

T-tests and analysis of variance were used to determine differences where language, area, medical status and use of alcohol were used as independent variables. 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. In the case 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 members into groups who obtained low versus high suicide ideation scores. The discriminant analysis was carried out because the distribution of scores on the ASIQ was fairly skew and it is possible to categorise the level of suicide ideation of police members as high or low. In line with the recommendation of Reynolds (1991a) an ASIQ total score > 31 was regarded as high, while a score < 30 was regarded as low. The resulting discriminant function separates the members 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 OLQ, GPSES, WLCS, COPE and ASIQ.

Table 1 shows that acceptable Cronbach alpha coefficients varying from 0,63 to 0,88 were obtained for most of the scales (see Nunnally & Bernstein, 1994). The internal consistencies of two coping scales, namely Focus on Venting of Feelings and Mental Disengagement are somewhat low. The mean inter-item

correlations of all the scales are also acceptable (0,15 \leq r \leq 0,50, Clarke & Watson, 1994).

It is evident from Table 1 that most of the scores on the various measuring instruments are relatively normally distributed, with low skewness and kurtosis. The exceptions are Turning to Religion, Alcohol-drug Disengagement and the ASIQ, which show relatively high skewness and kurtosis.

The product-moment correlation coefficients between the OLQ, GPSES, WLCS, satisfaction and performance are reported in Table 2. In the case of the correlation between the ASIQ and the other constructs, Spearman correlation coefficients were computed because of the skewed distribution of suicide ideation scores. Table 2 also shows the Spearman correlation coefficients between the ASIQ and the other constructs.

Table 2

Correlation coefficients between the olq, gpses, wlcs, satisfaction, performance and the asiq (N = 287)

Item	OLQ	GPSES	WLCS	Satisfaction	Performance
GPSES	0,45*	-	-	-	-
WLCS	-0,41*	-0,25	-	-	_
Satisfaction	0,36*	0,14	-0,30*	-	_
Performance	0,23	0,25	-0,06	0,29	_
ASIQ	-0,43*	-0,32*	0,21	-0,30*	-0,08

^{*} Practically significant correlation (medium effect): $r \ge 0.30$

Table 2 shows practically significant (negative) correlation coefficients between suicide ideation (ASIQ) on the one hand and sense of coherence (OLQ), generalised self-efficacy (GPSES) and job satisfaction on the other hand. Practically significant correlation coefficients of medium effect also exist between sense of coherence on the one hand and generalised self-efficacy, an internal locus of control (WLCS) and job satisfaction.

The product-moment correlation coefficients between coping and the OLQ, GPSES, WLCS, satisfaction and performance are reported in Table 3. Spearman correlation coefficients between the ASIQ and coping are also shown in Table 3.

Table 1

Descriptive statistics, alpha coefficients and inter-item correlation coefficients of the measuring instruments (N = 287)

Item	M	SD	Range	Skewness	Kurtosis	Inter-item r	α
OLQ	133,55	24,51	130,00	-0,14	0,13	0,17	0,85
GPSES	32,83	4,93	30,00	-0,75	0,87	0,29	0,80
WLCS	45,52	11,14	60,00	-0,03	-0,32	0,13	0,70
Active Coping	12,79	2,70	12,00	-0,85	0,31	0,33	0,66
Planning	13,48	2,57	12,00	-1,19	1,47	0,35	0,69
Suppressing Competition	12,20	2,72	12,00	-0,76	0,39	0,32	0,65
Restraint Coping	11,84	2,82	12,00	-0,62	0,11	0,25	0,57
Seeking Social Support – IR	12,36	3,20	12,00	-0,88	0,30	0,45	0,75
Seeking Social Support – ER	12,06	3,47	12,00	-0,80	-0,21	0,46	0,77
Positive Reinterpretation	12,76	2,66	12,00	-0,82	0,46	0,30	0,63
Acceptance	11,69	3,04	12,00	-0,39	-0,52	0,31	0,64
Turning to Religion	13,66	2,70	12,00	-1,59	2,49	0,46	0,76
Focus on/Venting Emotions	9,78	2,95	12,00	-0,05	-0,49	0,21	0,52
Denial	9,29	3,07	12,00	0,06	-0,63	0,32	0,65
Behavioural Disengagement	9,01	3,36	12,00	0,26	-0,75	0,35	0,68
Mental Disengagement	10,67	2,66	12,00	-0,23	-0,17	0,16	0,44
Alcohol-drug Disengagement	1,48	0,92	3,00	1,83	2,04	-	
ASIQ	11,18	21,60	133,00	3,40*	13,26*	0,51	0,96
Performance	3,95	1,04	4,00	-0,89	0,44	-	-
Satisfaction	3,51	1,29	4,00	-0,53	-0,68	-	-

^{*} High skewness and kurtosis

Table 3

Correlation coefficients between coping, the olq, gpses, wlcs, satisfaction and performance (N = 287)

Item	OLQ	GPSES	WLCS	ASIQ
Active Coping	0,24	0,35*	-0,15	-0,22
Planning	0,26	0,35*	-0,15	-0,24
Suppressing Competition	0,09	0,26	-0,01	-0,13
Restraint Coping	0,11	0,25	-0,01	-0,11
Seeking Social Support – IR	0,22	0,19	-0,04	-0,22
Seeking Social Support - ER	0,16	0,16	-0,08	-0,22
Positive Reinterpretation	0,21	0,28	-0,11	-0,19
Acceptance	0,02	0,17	0,03	-0,02
Turning to Religion	0,09	0,11	-0,10	-0,11
Focus on/Venting Emotions	-0,27	-0,11	0,21	0,19
Denial	-0,23	-0,08	0,16	0,05
Behavioural Disengagement	-0,32*	-0,19	0,25	0,18
Mental Disengagement	-0,23	0,01	0,18	0,07
Alcohol-drug Disengagement	-0,33*	-0,17	0,19	0,28
ASIQ	-0,43*	-0,32*	0,21	-

^{*} Practically significant correlation (medium effect): $r \ge 0.30$

Table 3 shows practically significant negative correlation coefficients between sense of coherence (OLQ) on the one hand and Behavioural Disengagement and Alcohol-drug Disengagement on the other hand. Practically significant positive correlation coefficients exist between generalised self-efficacy on the one hand, and Active Coping and Planning on the other hand.

The differences between the sense of coherence, generalised self-efficacy, work locus of control, suicide ideation, satisfaction and performance of police members in the different areas (geographical regions) are shown in Table 4.

Table 4
Differences between police members in different areas (N = 287)

Item	Mean	Mean: Mooi River	Mean: College	Root MSE
OLQ	129,78b	137,44	141,53a	24,13
GSES	32,38	33,12	33,99	4,92
WLCS	47,59a	45,02a	38,85bc	10,74
Active Coping	13,03	12,04	13,07	2,68
Planning	13,65	12,83	13,86	2,55
Suppressing Competition	12,51	11,40	12,29	2,68
Restraint Coping	11,97	11,50	11,91	2,82
Seeking Social Support – IR	12,47	12,15	12,23	3,21
Seeking Social Support – ER	12,25	11,69	11,96	3,47
Positive Reinterpretation	12,71	12,40	13,51	2,65
Acceptance	11,81	11,12	12,19	3,03
Turning to Religion	13,80	13,07	14,07	2,69
Focus on/Venting Emotions	10,19	9,26	9,07	2,92
Denial	9,68a	9,09	8,13 ^b	3,03
Behavioural Disengagement	9,34	8,79	8,08	3,34
Mental Disengagement	10,91	10,24	10,50	2,66
Alcohol-drug Disengagement	1,60a	1,42	1,16 ^b	0,92
ASIQ	11,52	14,43a	4,75b	21,46
Performance	3,93	4,08	3,79	1,04
Satisfaction	3,25°	3,54 ^b	$4,43^{a}$	1,22

a Practically significant difference from area (in row) where b (medium effect, $d \ge 0.5$) or c (large effect, $d \ge 0.8$) are indicated

Table 4 shows that the following differences exist in the different areas:

- Compared with the police members who are currently in training, members in the Marico area show a practically significantly lower sense of coherence (medium effect), internal locus of control (large effect) as well as job satisfaction (large effect), and a practically significantly higher denial (medium effect) and alcohol-drug disengagement.
- Compared with the police members who are currently in training, members in the Mooi River area show a practically significantly lower internal locus of control (medium effect) as well as job satisfaction (medium effect) and a higher suicide ideation (medium effect).

It is evident from Table 4 that police members who have been working for a few years show higher scores on suicide ideation than those who are currently in training.

The differences between the sense of coherence, generalised self-efficacy, work locus of control, suicide ideation, satisfaction and performance of police members of the Afrikaans and Tswana language groups are shown in Table 5.

Table 5
Differences between afrikaans and tswana police members

Item	Afrikaans	s (n= 58)	Tswana (1	n = 171)	d
	Mean	SD	Mean	SD	
OLQ	128,76	28,36	134,88	23,42	0,22
GSES	48,41	13,50	33,03	5,20	1,14**
WLCS	32,08	4,90	45,07	10,25	1,27**
Active Coping	11,61	2,96	13,26	2,52	0,56*
Planning	12,21	3,00	13,84	2,39	0,54*
Suppressing Competition	11,28	2,84	12,50	2,64	0,43
Restraint Coping	11,21	2,54	12,00	2,74	0,29
Seeking Social Support - IR	10,70	3,47	12,84	3,03	0,62*
Seeking Social Support - ER	9,68	4,17	12,65	3,01	0,18
Positive Reinterpretation	12,18	2,77	12,83	3,03	0,22
Acceptance	11,76	3,21	11,52	3,12	0,08
Turning to Religion	12,59	3,39	13,96	2,47	0,40
Focus on/Venting Emotions	9,81	2,83	9,79	2,94	0,01
Denial	8,23	2,95	9,71	3,02	0,50*
Behavioural Disengagement	8,74	3,26	9,08	3,39	0,10
Mental Disengagement	10,38	2,48	10,82	2,76	0,16
Alcohol-drug Disengagement	1,63	0,98	1,39	0,84	0,25
ASIQ	18,84	27,50	8,08	15,63	0,39
Performance	3,93	0,92	3,96	1,13	0,03
Satisfaction	3,31	1,26	3,45	1,31	0,11

^{**} Practically significant difference: $d \ge 0.8$ (large effect)

Table 5 shows that Afrikaans-speaking police members obtained practically significantly higher scores than Tswana-speaking police members regarding generalised self-efficacy (GPSES) and an internal locus of control (WLCS). Tswana-speaking police members obtained practically significantly higher scores (of medium effect) regarding planning, seeking support for instrumental reasons and denial.

The differences between the sense of coherence, generalised self-efficacy, work locus of control, suicide ideation, satisfaction and performance of police members with and without medical conditions are shown in Table 6.

^{*} Practically significant difference: $d \ge 0.5$ (medium effect)

Table 6
Ddifferences between police members with or without medical conditions

Item	Medical Co		No Me Condition		d 2)
	Mean	SD	Mean	SD	
OLQ	120,76	29,78	135,30	23,36	0,50*
GSES	31,80	5,49	45,40	11,28	1,21 * *
WLCS	45,73	9,99	32,93	4,85	1,28**
Active Coping	12,49	2,85	12,85	2,69	0,31
Planning	13,21	3,12	13,50	2,51	0,09
Suppressing Competition	12,03	2,63	12,21	2,74	0,07
Restraint Coping	11,17	2,78	11,91	2,82	0,26
Seeking Social Support – IR	12,03	2,81	12,38	3,25	0,11
Seeking Social Support - ER	11,95	3,86	12,06	3,43	0,11
Positive Reinterpretation	12,46	2,73	12,77	2,65	0,11
Acceptance	11,83	3,03	11,66	3,05	0,06
Turning to Religion	13,72	2,34	13,65	2,76	0,03
Focus on/Venting Emotions	9,50	2,43	9,80	3,02	0,10
Denial	10,05	2,05	9,18	3,17	0,27
Behavioural Disengagement	9,29	2,76	8,95	3,43	0,10
Mental Disengagement	11,12	2,30	10,61	2,72	0,19
Alcohol-drug Disengagemen	t 1,52	0,96	1,48	0,93	0,04
ASIQ	21,00	34,48	9,92	19,09	0,32
Performance	3,53	1,39	4,00	0,97	0,34
Satisfaction	3,22	1,54	3,54	1,25	0,21

^{**} Practically significant difference: $d \ge 0.8$ (large effect)

Table 6 shows that police members who suffer from a medical condition (compared with those who do not suffer from such condition) obtained a practically significantly higher score on the WLCS (large effect) and practically significantly lower scores on the OLQ (medium effect) and GPSES (large effect).

The differences between the sense of coherence, generalised self-efficacy, work locus of control, suicide ideation, satisfaction and performance of police members based on the use of alcohol are shown in Table 7.

Table 7 shows that police members who take more than 14 alcoholic drinks per week obtained practically significantly lower scores on the OLQ, GPSES, active coping, planning, seeking support for instrumental reasons, seeking support for emotional reasons, positive reinterpretation, turning to religion and job satisfaction. They also obtained practically significantly higher scores on the WLCS (which indicates an external locus of control), behavioural disengagement, alcohol-drug disengagement and the ASIQ.

Next a stepwise discriminant analysis was performed in order to determine which variables discriminate between police members with a high and those with a low level of suicide ideation. The resulting linear discrimination function for police members with low and high suicide ideation is given in Table 8.

By applying the stepwise discriminant analysis, it was found that four variables should be retained for the discriminant analysis. These variables include the OLQ (total score), Planning and Suppressing of Competing Activities and Medical Status. Table 9 summarises the frequencies and percentages of police members that can be classified belonging to the high or low suicide ideation groups (based on the four variables).

Table 9 shows that the combination of sense of coherence, planning, suppressing of competing activities and medical condition of police members classify 81,48% of the high suicide

ideation cases and 88,63% of the low suicide ideation cases correctly. A total of 18,52% of the high and 11,37% of the low suicide ideation cases are classified incorrectly when using these variables.

TABLE 7
DIFFERENCES BETWEEN POLICE MEMBERS BASED ON THE USE OF ALCOHOLIC DRINKS (PER WEEK)

Item	Mean (0 - 4) (n = 172)	Mean (5 - 7) (n = 34)	Mean (8 - 13) (n = 15)	Mean (More than 14) (n = 13)	Root MSE
OLQ	133,51b	132,15b	135,91b	117,05a	24,16
GSES	32,68b	32,85b	33,83c	29,61a	4,81
WLCS	45,57 ^b	46,83 ^b	46,46 ^b	53,64a	10,64
Active Coping	12,81 ^c	12,85c	12,40b	10,69a	2,65
Planning	13,57 ^b	13,29 ^b	13,07	12,00a	2,57
Suppressing Competition	12,71	12,19	11,40	11,92	2,73
Restraint Coping	11,98	11,56	11,20	11,50	2,85
Seeking Social Support – IR	12,52 ^b	11,91	11,53	10,42a	3,18
Seeking Social Support – ER	12,26b	11,69b	11,67b	9,59a	3,49
Positive Reinterpretation	12,86 ^b	12,54	11,53a	11,25a	2,60
Acceptance	11,57	11,71	11,73	10,33	3,08
Turning to Religion	13,82 ^c	13,63 ^c	12,40	11,11a	2,59
Focus on/Venting Emotions	9,81	9,91	10,33	9,69	2,92
Denial	9,31	9,31	9,53	9,17	2,99
Behavioural Disengagement	9,04	9,18	7,98c	10,50a	3,35
Mental Disengagement	10,89	10,71	10,73	8,89	2,69
Alcohol-drug Disengagement	1,46c	1,75c	1,14 ^c	2,27a	0,96
ASIQ	8,81°	12,23 ^c	13,55 ^c	39,91a	20,37
Performance	3,97	3,59	3,86	3,92	1,05
Satisfaction	3,49c	3,59c	3,13	2,46a	1,27

a Practically significant difference from area (in row) where b (medium effect, $d \ge 0.5$) or c (large effect, $d \ge 0.8$) are indicated

Table 8
The linear discriminant function for police members with low and high suicide ideation

Variable	High Suicide Ideation	Low Suicide Ideation
Constant	-32,00	-49,02
OLQ (Total)	0,17	0,25
Plan	1,09	1,60
Suppressing of Competing Activities	0,81	0,65
Medical Status	16,03	18,03

Table 9
Classification of membership of high/
LOW SUICIDE IDEATION GROUPS

Variable	High Suicide Ideation	Low Suicide Ideation	Total
High Suicide Ideation Low Suicide Ideation	22 (81,48%)	5 (18,52%)	27 (100%)
	29 (11,37%)	226 (88,63%)	255 (100%)

DISCUSSION

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), 27 (10,58%) of the uniformed police members have significant suicide ideation levels. Reynolds (1991a) states that the ASIQ cut-off score is not meant

^{*} Practically significant difference: $d \ge 0.5$ (medium effect)

to predict future suicidal behaviour or to suggest that an individual is at definite risk of suicide. The cut-off score points to the need for further evaluation of suicidal thoughts, intentions and behaviour. Although this cut-off score may result in an over-identification of cases, it is more desirable to make a false positive decision than a false negative decision when evaluating suicidal behaviour. It is clear that suicide ideation is higher in the case of police members who are currently working in police stations than in the case of those who are in training. It appears that suicide ideation may be a problem in the SAPS.

The average sense of coherence of police members included in this study is relatively weaker than that of other samples studied by Rothmann (2000). Furthermore, it seems that the sense of coherence of uniformed police members who are working in police stations (compared with those that are currently in training) is relatively low. The research design does not allow one to determine whether the sense of coherence of police members becomes weaker after their having been involved in police work for a while. However, it is possible that the nature of the work environment and the low social status currently associated with the SAPS could have impacted negatively on police members' sense of coherence. Antonovsky (1991) regards the early adulthood and social status of an organisation as crucial factors affecting the sense of coherence of individuals. Additionally, the after-effects of poor education and deprived circumstances of Black police members in particular (who formed a large part of the study population) might also have affected their sense of coherence.

The results also show that police members who suffer from a medical condition (compared to those who did not report suffering from a medical condition) have a weaker sense of coherence, lower self-efficacy and a higher external locus of control. Police members who take more than 14 alcoholic drinks per week (compared with those who take fewer drinks) have 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. These results confirm the findings of Anshel (2000) and Burke (1993). It can be deduced that police members who suffer from medical conditions and who tend to abuse alcohol also present an early point of intervention for managing suicide ideation.

Regarding coping strategies, police members obtained the highest scores on turning to religion (focus on religion to facilitate emotional support) and planning (think about various strategies which could be used to solve a problem) as coping strategies (Carver et al., 1989). The fact that turning to religion is used as a coping strategy is understandable if one considers that the SAPS appoints trained officers to take care of the religious well-being of employees. They obtained the lowest scores on denial (experiencing stressors as unreal), focus on and venting of emotions (focusing on a stressful situation and expressing feelings about it) and behavioural disengagement (ignoring and avoiding stressors and becoming more helpless and powerless). Although probably not so effective as a coping strategy, it is a concern that police members scored low on the venting of emotions. This tendency may be the result of emotional detachment due to the nature of their work and their lack of trust in the organisation (Rothmann, Sieberhagen & Cilliers, 1998). It could be expected that police members 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 (Evens & Coman, 1992).

Consistent with previous findings (e.g. Petrie & Brook, 1992; Rothmann & Strijdom, 2002) and the predictions outlined in this study, low scores on sense of coherence were related to a greater incidence of suicide ideation in police members. It seems that the police member who understands the nature and

dimensions of stressors and regards it as manageable and meaningful tends to have fewer suicidal thoughts. A weak sense of coherence is not only related to suicide ideation, but also to low generalised self-efficacy, an external locus of control and low job dissatisfaction. These results confirm the findings of Rothmann (2000).

Low scores on generalised self-efficacy were related to a greater incidence of suicide ideation in police members. Police members who have a low generalised self-efficacy are inclined to have suicidal thoughts, probably because they experience feelings of depression, anxiety and helplessness (Schwarzer, 1999). The expected relationship between an external locus of control and suicide ideation did not realise in this study. This result is contrary to the finding of Goldney (1982), Janik and Kravitz (1994) and Beautrais et al. (1999) that the risk of suicidal behaviour increases with a high external locus of control. The results confirm that an external locus of control is related to lower job satisfaction (Rothmann, 2000).

Although it was expected that suicide ideation would be related to coping strategies of police members, no such relationships realised. However, practically significant negative relationships were found between behavioural disengagement (ignoring and avoiding stressors and becoming more helpless and powerless), alcohol-drug disengagement (using alcohol or drugs to manage stress) and sense of coherence. Furthermore, it is clear that generalised perceived self-efficacy is related to active coping (taking active steps to remove stressors or to reduce their effects) and planning (thinking about various strategies which could be used to solve a problem). Coping strategies could affect the suicide ideation of police members by affecting their sense of coherence and generalised self-efficacy. No practically significant relationships were found between locus of control and coping strategies.

It seems that suicide ideation of police members is positively related to a weak sense of coherence, low generalised selfefficacy, job dissatisfaction, the area in which they find themselves, the existence of a medical condition which affects their work and the use of more than 14 alcoholic drinks per week. In line with the theory of Hobfoll (2001), suicide ideation could result where individuals fail to gain sufficient resources following significant resource investment of time, energy, lost opportunities and borrowing from family time and intimacy to support work. Individuals with greater resources are less vulnerable to resource loss and more capable of resource gain. Conversely, those with fewer resources are more vulnerable to resource loss and less capable of resource gain. While sense of coherence is regarded as a broad-band resource, suicide ideation could be the result of a lack of resources (or resource investment). Because resources aggregate in resource caravans, i.e. having one major resource is typically linked with having others (Hobfoll, 2001), having a strong sense of coherence is likely to be linked with having high self-efficacy and constructive coping strategies. However, it is also possible that resources police members are reduced because of stress.

The results show that the discriminant analysis resulted in a better classification of police members who measured low and high on suicide ideation. The linear discriminant function for police members with low or high suicide ideation includes sense of coherence, planning and suppressing of competing activities and medical status. These variables classified almost 82% of police members who measured high on suicide ideation correctly, while they classified almost 87% of the police members who measured low on suicide ideation correctly. The moderate correlation coefficients between sense of coherence and generalised self-efficacy probably limited the classification of relevant variables in the discriminant analysis (Nunnally & Bernstein, 1994).

A limitation of this research is that the research design does not allow one to determine the direction of the relationship between the variables (see Kerlinger & Lee, 2000). Another limitation is that a non-probability sample has been used, which implies that the findings cannot be generalised to other settings.

RECOMMENDATIONS

The SAPS should attend to the suicide ideation of police personnel and correlates thereof. In predicting suicide behaviour, the role of sense of coherence, generalised self-efficacy, coping strategies and illnesses should be considered. However, it seems that the effect of the organisational and work environment on police members' psychological strengths and suicide ideation should be attended to.

The SAPS can select individuals who have a strong sense of coherence. However, more research is needed, especially because the relationship between sense of coherence and suicide ideation was not studied in a selection context. The SAPS can contribute to the development of police members' sense of coherence by giving information in a consistent, structured, ordered and understandable format. By equipping police members with the necessary knowledge, skills, material, instruments and other resources, and by ensuring a balance in the load of tasks to be handled, they will increasingly feel that the work expectations are manageable and within their or important others' power. Training and development programmes that are directed at developing sense of coherence should be investigated.

Furthermore, when a degree of independence and freedom of choice in the performance of police members' tasks is allowed, they will regard their work as meaningful. Senior police personnel should be trained in identifying individuals who tend towards suicide ideation. Support groups for uniformed police personnel should be used and lay counsellors should be trained to provide social support to individuals who are stressed. Participation in decision-making will enhance the police members' feeling of membership and contribute to the meaningfulness component of sense of coherence. Police personnel should have the freedom to disagree with their supervisors and to discuss what to do with them. The role of station commanders is crucial in this regard.

Research should be undertaken into other factors in the work and family environment that could be related to suicide ideation of uniformed police members. Future research about suicide ideation in the SAPS should include the big five personality dimensions. More research is also needed regarding the relationship between coping strategies and suicide ideation.

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