

JOB STRESS, BURNOUT AND COPING STRATEGIES IN THE SOUTH AFRICAN POLICE SERVICE

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Abstract

The objective of this study was to determine if coping strategies could moderate the relationship between occupational stress and burnout in a sample of police officers. A cross-sectional design was used. A stratified random sample ($n = 340$) was taken of police members in the Western Cape. The Police Stress Inventory, Maslach Burnout Inventory – General Survey and COPE questionnaire were administered. Structural equation modelling showed that occupational stress due to job demands and a lack of resources leads to burnout. Two coping strategies were identified, namely avoidance coping and approach coping (consisting of active coping, emotional support and turning to religion). Avoidance coping moderated the relationship between occupational stress and burnout. Approach coping had an independent effect on burnout.

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1 Introduction

Police work is usually pictured as highly stressful, with police officers showing high levels of work stress and burnout. Hans Selye (1978), one of the pioneer researchers in stress literature, described police work as hazardous, even exceeding the formidable stresses and strains of air traffic control. Other researchers also describe police work as one of society's most stressful occupations (Alexander, 1999; Anshel, 2000; Paton & Violanti, 1999). This is also true for police officers in the South African Police Service (SAPS), where the socio-economic and political turmoil of the past three decades is characterised by high levels of crime and violence (Gulle, Tredoux & Foster, 1998; Marks, 1995; Nel & Burgers, 1996). The SAPS has also undergone tremendous social change and transformation since the first democratic election in 1994. Transformation from a police

force to a police service and community policing took place, the rank structure was changed from a military structure to more police-orientated terminology, and an affirmative action policy was also implemented (Van der Walt, 2002).

Because of the negative effects of job stress on employees and their work, it is necessary to look at the process involved when job stress is studied. According to Carson and Kuipers (1998), three levels of the stress process can be proposed. The first level suggests that there are stressors that come from external sources, such as specific occupational stressors (e.g. high job demands, a lack of resources, a lack of support from supervisors and colleagues). The second level of the process could be seen as variables that act as 'moderators' (e.g. variables which can act as a buffer against the negative effects of stress on individuals). The third level of the stress model consists of the stress outcomes. Outcomes of stress can be positive (e.g. mental and physical well-being) or negative (e.g., burnout and ill health).

Based on this model, the continuous stress experienced by police officers (level one of the stress process) could result in officers becoming burned out (level three) (Burke, 1994; Kop & Euwema, 2001). When individuals suffer from burnout, it could have several negative outcomes for the individual as well as for the organisation (Schaufeli & Enzmann, 1998). According to Farber (1983), burned-out workers are more frequently absent from, or late for, work than their non-burned-out colleagues. They also become noticeably less idealistic and more rigid. Their performance at work deteriorates markedly, and they may fantasise about or actually plan on leaving the organisation.

However, various variables could moderate the relationship between occupational stress and burnout (level two of the stress process). Various stress theories suggest that coping could act to moderate the impact of a stressor on the well-being of individuals (cf. Lazarus & Folkman, 1984; McCubbin & Patterson, 1983). In this study, 'moderating' or 'moderator' is being used in a methodological sense to refer to an interaction between two variables. Baron and Kenny (1986) define a moderator as a variable that affects the direction and/or the strength of the relationship between an independent predictor variable and a dependent variable. For example, the relationship between job stress and burnout might be affected (moderated) by the coping strategies that police officers adopt. If they adopt one approach to coping, then burnout may be less affected by job stress than if they adopt an alternative approach.

The premise of this study is that police officers are faced with a variety of stressors. Through coping skills, some of this stress could be alleviated. However, unrelieved stress could result in burnout. Burnout could severely limit the competence, vitality and commitment of police officers. The objective of this study was therefore to investigate the relationship between job stress and burnout and to determine if coping strategies could act as a moderator in this relationship.

1.1 Job stress, burnout and coping strategies

In the past few decades, the issues of occupational stress and burnout have been receiving increased research attention. It is therefore not surprising that occupational stress and burnout are seen as significant areas of study in view of the amount of time people spend on work-related activities.

According to Lazarus and Folkman (1984), occupational stress occurs when job demands tax or exceed the person's adaptive resources. Stress is thus a generic term that refers to the temporary adaptation process that is accompanied by mental and physical symptoms, and is caused by an imbalance between job demands and the response capability of the worker. When job demands are too high to cope with, stress reactions are likely to occur. In contrast, burnout may be considered as a final stage of a breakdown in adaptation that results from the long-term imbalance of demands and resources, and is accompanied by chronic malfunctioning at work. Burnout can thus be considered a particular kind of prolonged job stress (Brill, 1984), or the emanation of chronic, ongoing stress. Burnout also results from exposure to chronic work stressors and not only to stressors that are traumatic in nature or to stressors that evolve out of major life events (Etzion & Pines, 1986).

According to Kop and Euwema (2001), organisational factors are the most salient stressors in police organisations. These organisational stressors can be divided into two groups, namely *job demands* and *a lack of resources* (Schaufeli & Enzmann, 1998). According to Demerouti, Bakker, Nachreiner and Schaufeli (2001), job demands refer to those aspects of the job that require sustained physical or mental effort and are therefore associated with certain physiological and psychological costs (e.g. meeting deadlines, shift work, working overtime, excessive paperwork and handling crisis situations). Job resources refers to those aspects of the job that may be functional in achieving work goals, reducing job demands and the associated physiological and psychological costs, and stimulating personal

growth and development (e.g. adequate equipment, good supervision, an adequate salary, recognition and sufficient personnel). Various research findings show that occupational stress that consists of job demands and a lack of resources leads to burnout (cf. Lee & Ashforth, 1996; Leiter, 1991, 1993; Peeters & Le Blank, 2001; Schaufeli & Bakker, 2004; Taris, Schreurs & Schaufeli, 1999).

The concept of burnout was initially closely linked to human services, such as health care, education and social work, where employees work with other people to some extent. However, it subsequently became clear that burnout also exists outside the human services (Maslach & Leiter, 1997). Consequently, the original version of the Maslach Burnout Inventory (Maslach & Jackson, 1981, 1986) was adapted for use outside the human services. This new version was called the MBI – General Survey (MBI-GS) (Schaufeli, Leiter, Maslach & Jackson, 1996).

The MBI-GS assesses parallel dimensions to those contained in the original MBI, except that the items do not explicitly refer to working with people. The MBI-GS comprises three subscales. *Exhaustion* refers to fatigue, but without direct reference to people as the source of those feelings. *Cynicism* reflects an indifference or distant attitude towards one's work in general. *Professional efficacy* covers a broader scope than personal accomplishment as measured by the MBI-HSS. It encompasses both social and non-social accomplishments at work.

From a theoretical point of view, it could be argued that exhaustion and cynicism constitute the two key aspects of burnout. While exhaustion refers to the fact that the employee is *incapable* of performing because all energy has been drained, cynicism indicates that the employee is no longer *willing* to perform, because of an increased intolerance for any effort. Empirical findings point to the central role of exhaustion and cynicism as opposed to the third component, lack of professional efficacy (Schaufeli, 2003).

According to Lee and Ashforth (1996), relatively low correlations of professional efficacy are observed with exhaustion and cynicism, whereas these two burnout

dimensions are correlated relatively strongly. In a similar vein, both 'core of burnout' factors sometimes collapse into one factor (Green, Walkey & Taylor, 1991). It also seems that cynicism develops in response to exhaustion, whereas professional efficacy seems to develop independently and in parallel (Leiter, 1993). Furthermore, professional efficacy is the weakest burnout dimension in terms of significant relationships with other variables (Lee & Ashforth, 1996). Also, several scholars have argued that professional efficacy reflects a personality characteristic rather than a genuine burnout component (Cordes & Dougherty, 1993; Shirom, 1989). Based on these findings, exhaustion and cynicism will be treated as the core dimensions of burnout in this study.

Recently, various South African researchers investigated the influence of job stress (consisting of job demands and a lack of resources) on the burnout levels experienced by members of the SAPS. In a national sample of 1,910 police officers in the SAPS, Storm (2002) used Structural Equation Modelling (SEM), and found that exhaustion was influenced by stress because of high job demands and a lack of resources ($\chi^2 = 832.51$; GFI = 0.97; AGFI = 0.97; PGFI = 0.77; NFI = 0.95; TLI = 0.96; CFI = 0.96; RMSEA = 0.03). Also using SEM, Nortjé (2003) found that police members in the Limpopo province who experienced stress because of high job demands experienced higher levels of exhaustion, which led to cynicism ($\chi^2 = 326.83$; GFI = 0.88; AGFI = 0.85; PGFI = 0.72; NFI = 0.79; TLI = 0.94; CFI = 0.95; RMSEA = 0.04). Wiese, Rothmann and Storm (2003) found similar results in a sample of police officers in KwaZulu-Natal, but found no relationship between stress because of a lack of resources and cynicism ($\chi^2 = 367.28$; GFI = 0.90; AGFI = 0.88; PGFI = 0.73; NFI = 0.84; TLI = 0.94; CFI = 0.95; RMSEA = 0.04).

From a consideration of the causes of burnout at work, Gil-Monte and Peiró (1997: 44) have postulated a model integrating personal, interpersonal and organisational variables, conceptualising burnout as "... a response to perceived work stress that emerges after a process of cognitive re-evaluation, when the

coping strategies used by professionals are not efficient for reducing this perceived work stress." It is therefore clear that coping takes on great relevance for preventive intervention, in the sense that adequate coping strategies can be of great help in avoiding the appearance and development of burnout at work.

Coping is a central theme in stress and burnout research and numerous studies have focused on the individual's coping responses to various stressors. Coping can be seen as an individual's attempt to prevent, reduce or eliminate negative experiences. Eckenrode (1991: 3) summarised definitions of the coping response as "a multidimensional set of cognitions and behaviours called upon to help the person manage or tolerate the demands imposed by chronic or acute stressors." Inadequate coping resources and ineffective coping strategies strongly predispose a worker to burnout (Brill, 1984). Burnout can develop when poor coping strategies are adopted (e.g. avoidance, mental/behavioural disengagement, etc.) (Brill, 1984; Schaufeli & Enzmann, 1998). However, goals are achieved, professional efficacy is enhanced and a sense of existential significance is fostered (Schaufeli & Enzmann, 1998) when a successful coping strategy is followed (e.g. active problem-solving).

Theorists differ widely in the number of coping mechanisms they propose, from global dichotomies (Folkman & Lazarus, 1980) to lengthy lists of coping and defence mechanisms (e.g. Haan, 1977). Lazarus and his colleagues have hypothesised that primary coping strategies can best be organised into two higher-order categories: *problem-focused* strategies, which are directed at managing or altering the stressor, and *emotion-focused* strategies, which are directed at regulating emotional responses to the problem (Folkman & Lazarus, 1980; Lazarus & Folkman, 1984). Other taxonomies of coping also exist. For example, Billings and Moos (1981) identified three methods of coping: a) active-cognitive, which is understood as the management of assessing potentially stressful events; b) active-behavioural, which is understood as the observable efforts aimed at managing a stressful situation; and c) avoidance,

which is understood as refusal to face a problematic or stressful situation.

Various studies have related coping strategies with burnout and other consequences of occupational stress in professionals working in the human services. Chan and Hui (1995), for example, found that avoidance coping strategies were positively related to all three components of burnout in a group of secondary school teachers. Thornton (1992) also reported statistically significant association between avoidance coping and burnout in a sample of workers at a psychiatric clinic. Similarly, Yela (1996) reported that the greater the feelings of emotional exhaustion, the more likely these professionals were to use strategies coinciding with a passive form of coping, including strategies based on behavioural and mental disconnection from the situation, concentration on their emotions and venting their feelings when faced with difficult or stressful events.

Wisniewski and Gargiulo (1997) showed that, although stress cannot be avoided in absolute terms, it is potentially manageable, through systems of social support in the workplace by administrative management, superiors and colleagues. Zellars and Perrewé (2001) also showed that emotional support could buffer the negative effect of job stress against all three dimensions of burnout. Lastly, various research findings indicate that a relationship exists between turning to religion and burnout (Hammons, 2000; Luton, 2000; Shaddock, Hill & Van Limbeek, 1998; Turnipseed, 1994).

Various research findings in the SAPS indicate that coping plays an important role in the stress – burnout relationship. Officers of the SAPS in different provinces, using active coping strategies, experienced higher levels of professional efficacy. However, the use of an active coping strategy did not buffer the negative effect of stress on exhaustion and cynicism (Nortjé, 2003; Wiese *et al.*, 2003). Contrasting results exist regarding the relationship between avoidance and burnout in the SAPS. Storm (2002) and Wiese *et al.* (2003) found that the use of an avoidance coping strategy is associated with all three dimensions of burnout. According to Nortjé (2003), avoidance coping led to higher

levels of exhaustion and lower levels of professional efficacy. Also, most studies in South Africa indicate that emotional support is associated with burnout (Nortjé, 2003; Storm, 2002, Wiese *et al.*, 2003).

The above discussion leads to the following hypotheses:

H1: Job stress leads to burnout (exhaustion and cynicism).

H2: Coping strategies moderate the relationship between job stress and burnout.

2 Method

2.1 Research design

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

2.2 Participants

A stratified random sample ($n = 340$) was taken from police personnel in the Western Cape. Stations were divided into small (fewer than 25 staff members), medium (25–100 staff members) and large stations (more than 100 staff members). All police members at randomly identified small and medium stations in each of the provinces were asked to complete the questionnaires. At the large stations, stratified random samples were taken according to sex and race. Table 1 presents some of the characteristics of the participants.

Table 1
Characteristics of the participants

| Item | Category | % |
|------|-----------|-------|
| Race | White | 55.00 |
| | Black | 5.00 |
| | Coloured | 39.41 |
| | Indian | 0.59 |
| Rank | Constable | 5.00 |
| | Sergeant | 14.12 |

| | | |
|----------------|---------------------------|-------|
| | Inspector | 64.41 |
| | Captain | 13.82 |
| | Superintendent | 2.35 |
| | Senior Superintendent | 0.29 |
| Education | Grade 10 | 13.24 |
| | Grade 11 | 2.06 |
| | Grade 12 | 57.65 |
| | Technical college diploma | 1.76 |
| | Technikon diploma | 22.65 |
| | University degree | 2.06 |
| | Postgraduate degree | 0.59 |
| Gender | Male | 75.59 |
| | Female | 24.41 |
| Marital Status | Single | 18.82 |
| | Married | 55.59 |
| | Divorced | 22.94 |
| | Separated | 1.76 |
| | Remarried | 0.88 |
| | Afrikaans | 76.47 |
| | English | 19.71 |
| | Sesotho | 0.88 |
| Language | Setswana | 0.29 |
| | siSwati | 0.29 |
| | isiXhosa | 2.35 |

The sample was mostly male (75.59 per cent), married and had a high school education. The mean age of participants was 34.55 years, while the mean length of work experience was 12.98 years.

2.3 Measuring battery

The following questionnaires were used in the empirical study:

- The *Police Stress Inventory* (PSI) (Pienaar & Rothmann, 2003a) was used to measure occupational stress. Pienaar and Rothmann (2003a) constructed the PSI for police officers in the SAPS based on the findings of several investigations regarding stressors

specific to the policing environment. The PSI is scored on a nine-point frequency and intensity rating scale, varying from 0 (*low*) to 9 (*high*). Factor analysis with a varimax rotation of the items identified three underlying factors, namely job demands, lack of resources and inherent police stressors. Pienaar and Rothmann (2003a) found acceptable internal consistencies for the PSI (Job Demands: $\alpha = 0.92$; Lack of Resources: $\alpha = 0.92$; Police Stressors: $\alpha = 0.89$).

- b) The *Maslach Burnout Inventory – General Survey* (MBI-GS) (Schaufeli *et al.*, 1996) was used to measure burnout. The MBI-GS has three sub-scales: Exhaustion (EX), Cynicism (CY) and Professional Efficacy (PE). Internal consistencies (Cronbach coefficient alphas) reported by Schaufeli *et al.* (1996) varied from 0.87 to 0.89 for Exhaustion, 0.73 to 0.84 for Cynicism and 0.76 to 0.84 for Professional Efficacy. Test-retest reliabilities after one year were 0.65 (Exhaustion), 0.60 (Cynicism) and 0.67 (Professional Efficacy) (Schaufeli *et al.*, 1996). All items are scored on a seven-point frequency rating scale ranging from zero (*never*) to six (*daily*). High scores on EX and CY, and low scores on PE are indicative of burnout. Storm and Rothmann (2003) confirmed the three-factor structure of the MBI-GS in a sample of 2,396 SAPS members, but recommended that Item 13 be dropped from the questionnaire. They also confirmed the structural equivalence of the MBI-GS for different race groups in the SAPS. The following Cronbach alpha coefficients were obtained for the MBI-GS: Exhaustion: 0.88; Cynicism: 0.79; Professional Efficacy: 0.78 (Storm & Rothmann, 2003).
- c) The *COPE Questionnaire* (COPE) was used to measure participants' coping strategies. The COPE is a multi-dimensional 53-item coping questionnaire that indicates the various ways in which people cope in different circumstances (Carver, Scheier & Weintraub, 1989). The COPE is scored on a four-point rating scale,

varying from one (*I usually don't do this at all*) to four (*I usually do this a lot*). Although the original questionnaire measures 13 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 Approach Coping (16 items), Avoidance (13 items), Seeking Emotional Support (seven items) and Turning to Religion (three items). The alpha coefficients of the four scales are 0.92, 0.86, 0.80 and 0.83 respectively. All these values are acceptable ($\alpha > 0.70$, Nunnally & Bernstein, 1994), and thus indicate the internal consistency of the factors of the COPE. Test-retest reliability varies from 0.46 to 0.86 and from 0.42 to 0.89 (applied after two weeks). The original proposition by the authors of the COPE (Carver *et al.*, 1989) was also four factors, and the study of Pienaar and Rothmann (2003b) bears some resemblance to that. This resemblance can be found in the social/emotional, avoidance and approach coping (task- or problem-directed) factors. However, direct comparison of the current results with those of Carver *et al.* (1989) is impossible, because the item loadings on the proposed primary factors were not reported by Carver *et al.* (1989).

2.4 Statistical analysis

The statistical analysis was carried out with the SPSS program (SPSS Inc., 2003) and the AMOS program (Arbuckle, 1999). Exploratory factor analyses and Cronbach alpha coefficients were used to assess the validity and reliability of the constructs which were measured in this study. Descriptive statistics (e.g. means, standard deviations, skewness and kurtosis) and inferential statistics were used to analyse the data.

Exploratory factor analyses were carried out to determine the construct validity of the measuring instruments. The following procedure was followed: Firstly, a simple principal components analysis was conducted

on the constructs which form part of the measurement model, including a) occupational stress; b) burnout; and c) coping. The eigenvalues and scree plot were studied to determine the number of factors. Secondly, a principal components analysis with a direct Oblimin rotation was conducted if factors were related. Thirdly, a principal component analysis with a varimax rotation was used if the obtained factors were not related (Tabachnick & Fidell, 2001).

Pearson product-moment correlation coefficients were used to specify the relationships between the variables. In cases where the distribution of scores was skew, Spearman correlation coefficients were computed. The level of statistical significance was set at $p < 0,05$. Steyn (2002) criticises the sole use of statistical significance testing and recommends that effect sizes be established to determine the importance of a statistically significant relationship. While the reporting of effect sizes is encouraged by the American Psychological Association (APA) in their Publication Manual (APA, 1994), most of these measures are seldom found in published reports (Kirk, 1996; Steyn, 2002). Therefore, effect sizes (Cohen, 1988; Steyn, 2002) were used in addition to statistical significance to determine the practical significance of relationships. Effect sizes indicate whether obtained results are important, while statistical significance may often show results which are of little practical relevance (Steyn, 2002). A cut-off point of 0.30 (medium effect) (Cohen, 1988) was set for the practical significance of correlation coefficients.

Structural equation modelling (SEM) methods as implemented by AMOS (Arbuckle, 1997) were used to test the construct validity of the MBI-GS and to construct the causal model of burnout, job stress and coping. SEM is a statistical methodology that takes a confirmatory (i.e. hypothesis-testing) approach to the analysis of a structural theory bearing on some phenomenon (Byrne, 2001). A structural equations approach allows a model to be stipulated in advance of the data being examined. The model may then be tested for its goodness of fit to the covariance matrix of the measured variables, using a number of testing procedures.

Competing models may also be tested, and decisions made about the model that is most appropriate for the data set (Deary, Blenkin, Agius, Endler, Zealley & Wood, 1996).

The goodness-of-fit indices that were used to summarise the degree of correspondence between the implied and observed covariance matrices included the χ^2 goodness-of-fit statistic, χ^2 / degrees of freedom ratio (CMIN/DF), Goodness of Fit Index (GFI), Adjusted Goodness-of-Fit Index (AGFI), Normed Fit Index (NFI), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI) and the Root Mean Square Error of Approximation (RMSEA).

3

Results

3.1 Construct validity of the measuring instruments

In order to prepare the data for the purpose of testing a causal model that includes burnout, occupational stress and coping, confirmatory factor analysis was carried out on the scales of the MBI-GS, using Amos (Arbuckle, 1997). Exploratory factor analysis was carried out on the scales of the PSI and COPE, using SPSS (SPSS Inc., 2003).

Before performing SEM to confirm the factor structure of the MBI-GS, the frequency distribution of the items was checked in order to assess deviations from normality, and multivariate outliers were removed. The full-hypothesised three-factor model consisting of all 16 items was tested. However, the relatively poor fit of this model indicated problems with it. Upon looking at the regression weights, one parameter, which represents the cross-loading of Item 13 on the Efficacy factor, stood apart from the rest, accounting for substantial misspecification of the hypothesised factor loading. This is consistent with various other research findings on the factor structure of the MBI-GS (e.g. Schutte, Toppinen, Kalimo & Schaufeli, 2000; Storm & Rothmann, 2003). There were also correlated errors between Item 9 and Item 10 ($MI = 43.30$). With Item 13 deleted, the fit statistics indicate a good fit for

the 15-item MBI-GS model ($\chi^2 = 222.76$; $\chi^2 / df = 2.59$; GFI = 0.92; AGFI = 0.89; NFI = 0.91; TLI = 0.93; CFI = 0.94; RMSEA = 0.07).

Next, a simple principal component analysis was conducted on the scales of the PSI. The scree plot and eigenvalues provided evidence for a two-factor solution which explained 48.89 per cent of the total variance. Principal component analysis with an Oblimin rotation resulted in two correlated factors ($r = 0.55$), namely *Stress – Job Demands* and *Stress – Lack of Resources*.

The first factor, *Stress – Job Demands*, included the following items (loadings are shown in brackets): assignment of disagreeable duties (0.46); working overtime (0.39); assignment of new or unfamiliar duties (0.56); dealing with crisis situations (0.65); performing tasks not in job description (0.43); assignment of increased responsibility (0.70); making critical on-the-spot decisions (0.76); personal insult from colleagues (0.49); noisy work area (0.73); frequent interruptions (0.80); frequent changes (0.91); excessive paperwork (0.61); meeting deadlines (0.80); insufficient personal time (0.66); covering work for another employee (0.61); poorly motivated co-workers (0.53); conflicts with other departments (0.62); shift work (0.47); and too much supervision (0.70).

The second factor, *Stress – Lack of Resources*, included the following items: lack of

opportunity for advancement (0.88); fellow workers not doing their job (0.50); inadequate support by supervisor (0.54); lack of recognition for good work (0.72); inadequate or poor-quality equipment (0.78); insufficient personnel to handle an assignment (0.58); inadequate salary (0.64); and competition for advancement (0.53).

Lastly, a simple principal component analysis was conducted on the scales of the COPE. The scree plot and eigenvalues suggested the extraction of four factors (which explained 38.57 per cent of the total variance). Principal component analysis with an Oblimin rotation resulted in four correlated factors, namely Active Coping, Avoidance Coping, Emotional Support and Turning to Religion. A second-order principal component analysis with a varimax rotation resulted in two uncorrelated factors ($r = 0.05$), which were labelled 'Avoidance Coping' and 'Approach Coping'. Avoidance coping loaded on its own (0.97), and Active Coping (0.77), Emotional Support (0.73) and Turning to Religion (0.74) loaded on the Approach Coping factor.

3.2 Descriptive statistics

Table 2 shows the descriptive statistics, the Cronbach alpha coefficients and the mean inter-item correlation coefficients of the MBI-GS, PSI and COPE.

Table 2
Descriptive statistics, Alpha coefficients and inter-item correlations of the MBI-GS, PSI and COPE

| Item | Mean | Standard deviation | Skewness | Kurtosis | r (mean) | α |
|----------------------------|-------|--------------------|----------|----------|----------|----------|
| MBI-GS | | | | | | |
| Exhaustion | 11.33 | 7.57 | 0.47 | -0.63 | 0.63 | 0.90 |
| Cynicism | 7.29 | 5.77 | 0.81 | 0.11 | 0.52 | 0.81 |
| PSI | | | | | | |
| Stress – Job demands | 90.29 | 29.27 | -0.25 | -0.40 | 0.41 | 0.93 |
| Stress – Lack of resources | 47.79 | 14.02 | -0.64 | 0.06 | 0.44 | 0.88 |

| COPE | | | | | | |
|---------------------|-------|------|-------|-------|------|------|
| Active coping | 20.95 | 4.08 | -0.32 | -0.22 | 0.28 | 0.90 |
| Avoidance | 14.10 | 3.95 | 0.35 | -0.34 | 0.23 | 0.80 |
| Emotional support | 10.84 | 3.42 | -0.30 | -0.86 | 0.45 | 0.85 |
| Turning to religion | 9.11 | 2.58 | -0.66 | -0.53 | 0.62 | 0.87 |

The scores on the MBI-GS, PSI and COPE are normally distributed. The Cronbach alpha coefficients of all the measuring instruments are considered to be acceptable compared to the guideline of $\alpha > 0.70$ (Nunnally & Bernstein, 1994), varying from 0.81 to 0.93. Furthermore, the inter-item correlations are considered acceptable compared to the guideline of $0.15 < r < 0.50$ (Clark & Watson, 1995). It appears that the MBI-GS, PSI and

COPE have acceptable levels of internal consistency.

3.3 A causal model of occupational stress, burnout and coping

The product-moment correlation coefficients between the MBI-GS, PSI and COPE are reported in Table 3.

Table 3
Product-moment correlation coefficients between the MBI-GS, PSI and COPE

| Item | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|
| 1. Exhaustion | – | – | – | – | – | – | |
| 2. Cynicism | 0.60 ⁺⁺ | – | – | – | – | – | – |
| 3. Stress – job demands | 0.50 ⁺ | 0.36 ⁺ | – | – | – | – | – |
| 4. Stress – Lack of resources | 0.42 ⁺ | 0.31 ⁺ | 0.71 ⁺⁺ | – | – | – | – |
| 5. Active coping | -0.05 | -0.13 [*] | -0.02 | 0.02 | – | – | – |
| 6. Avoidance | 0.27 [*] | 0.27 [*] | 0.23 [*] | 0.03 | -0.03 | – | – |
| 7. Emotional support | -0.10 | -0.07 | -0.07 | -0.14 [*] | 0.36 [*] | 0.14 [*] | – |
| 8. Turning to religion | -0.11 [*] | -0.13 [*] | -0.05 | -0.11 [*] | 0.33 ⁺⁺ | 0.004 | 0.34 ⁺⁺ |

* Correlation is statistically significant $p \leq 0.05$

+ Correlation is practically significant $r > 0.30$ (the power of the inter-correlation has a medium effect)

++ Correlation is practically significant $r > 0.50$ (the power of the inter-correlation has a large effect)

As can be seen in Table 3, statistically and practically, Exhaustion correlates significantly (large effect) and with Cynicism and Job Demands, with Stress – Lack of Resources (medium effect) and only statistically significantly with Avoidance and Turning to Religion. Cynicism is practically significantly related to Stress – Job Demands and Stress – Lack of Resources (medium effect) and statistically significantly related to Active Coping, Avoidance and Turning to Religion.

A more comprehensive test of the relationships between burnout, job stress and coping can be accomplished with structural equation modelling (SEM) methods as implemented by AMOS (Arbuckle, 1997). A model was constructed based upon the results of the product-moment correlations and the consensus of findings from a review of the burnout literature, as applicable to the police profession. The fit of the hypothetical model was assessed by 1) a quick overview of the

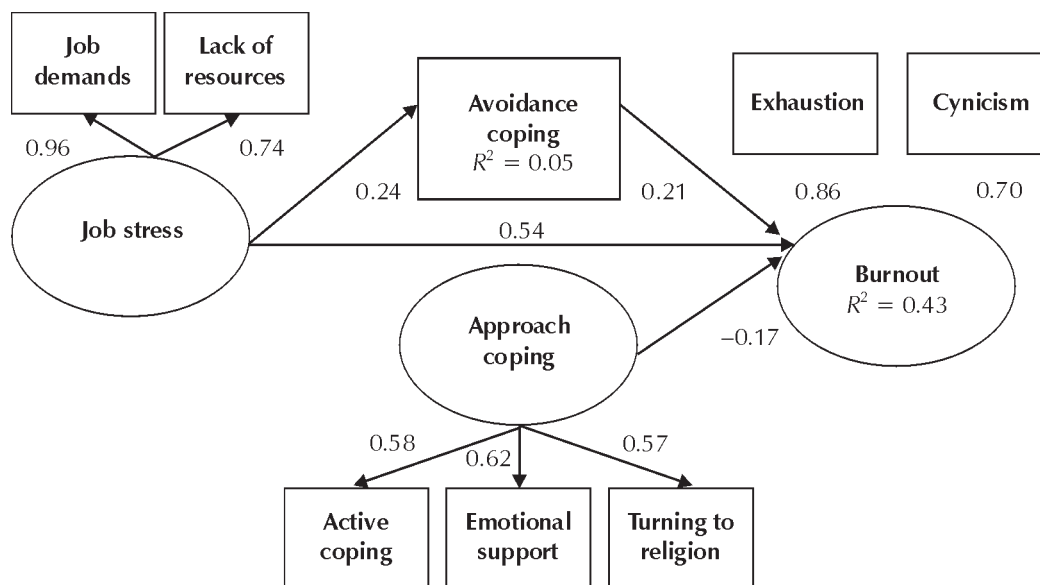
overall c^2 value, together with its degrees of freedom and probability value; and 2) global assessments of model fit based on several goodness-of-fit statistics. Given findings of an ill-fitting initially hypothesised model, possible misspecifications as suggested by the so-called modification indices were looked for and eventually a revised, re-specified model was fitted to the data.

A model that included the hypothesised relationships was tested with the SEM analysis. Results indicated that the model fitted adequately to the data: $\chi^2 = 51.38$; $\chi^2/df = 3.02$; GFI = 0.96; AGFI = 0.92; NFI = 0.93; TLI = 0.92; CFI = 0.95; RMSEA = 0.07. The standardised regression coefficients are shown in the model in Figure 1.

As can be seen in Figure 1, the path from occupational stress to avoidance coping was statistically significant. Therefore perceived stress because of job demands and a lack of resources contributed to the use of an avoidance coping strategy. Avoidance Coping moderated the effects of occupational stress on burnout. Furthermore, the model indicates that occupational stress has a strong influence on burnout and that this effect is both direct and indirect. Approach Coping had a direct influence on burnout. Based on these results, support was found for Hypothesis 1. Partial support was found for Hypothesis 2, where Avoidance Coping moderated the effect of job stress on burnout.

Figure 1

Maximum likelihood estimates for the model of occupational stress, burnout and coping
(Note: All factor loadings and path coefficients are statistically significant, $p < 0.01$)



4

Discussion

The objective of this study was to investigate the relationship between occupational stress and burnout in a sample of police officers in the Western Cape, and to determine if coping

strategies could act as a moderating variable in the relationship between job stress and burnout.

The results indicated two factors of job stress, namely job demands and lack of resources. These two factors correspond with the two factors distinguished by various researchers who based their findings on the Job Demands – Resources (JR) model (e.g. Demerouti *et al.*,

2001; Schaufeli & Bakker, 2004; Schaufeli & Enzmann, 1998). According to the structural equation model, job stress (consisting of job demands and a lack of resources) leads to burnout (exhaustion and cynicism). This confirms other research findings that occupational stress leads to higher levels of burnout (e.g. Lee & Ashforth, 1996; Leiter, 1991, 1993; Peeters & Le Blank, 2001; Schaufeli & Bakker, 2004; Taris, Schreurs & Schaufeli, 1999).

In accordance with Kop and Euwema (2001), organisational factors seemed to be salient stressors in the SAPS. As a result, when police officers have too many job demands (such as working overtime, dealing with crisis situations, performing tasks not in their job description, having to make critical on-the-spot decisions, frequent interruptions and changes, excessive paperwork, shift work, too much supervision), and too few job resources to cope with these demands (e.g., lack of opportunity for advancement, fellow workers not doing their jobs, inadequate support by supervisor, lack of recognition for good work, inadequate or poor-quality equipment, insufficient personnel to handle an assignment and inadequate salary), burnout will eventually occur. Therefore, when high job demands exist with too few resources to handle these demands, officers will experience fatigue and indifference to, or a distant attitude towards, their work. According to Schaufeli and Enzmann (1998), symptoms of burnout include increased tension, anxiety, aggression, difficulty in dealing with complex tasks, restlessness, chronic fatigue, headaches, insomnia and loss of motivation. All these factors could have a prolonged negative effect on both the wellness of the individual and on the organisation in terms of lowered productivity, increased absenteeism and labour turnover.

According to Lazarus and Folkman (1984) and McCubbin and Patterson (1983), coping could act as a moderator between the impact of a stressor and the well-being of individuals. In this study, it proved to be true regarding avoidance coping. When police officers experience elevated levels of job stress, they are more inclined to use an avoidance coping

strategy (e.g. refusing to face a problematic or stressful situation). This again will lead to higher levels of burnout.

Although there is no relationship between job stress and the use of an approach coping strategy, there is a direct relationship between approach coping and burnout. Thus, when police officers use approach coping strategies like active coping (when the person actively attempts to remove the source of stress, to minimise its effect or to avoid the source of stress), emotional support (when the person utilises support from family, friends and colleagues on an emotional level) and turning to religion (when the person turns to religious expression to understand and deal with the source of stress, e.g. he/she finds comfort and peace in his/her relationship with God), burnout levels are likely to decrease.

Thus, the use of an avoidance coping strategy will moderate the relationship between job stress and burnout, e.g. it affects the direction and/or the strength of the relationship between job stress and burnout. The use of an approach coping strategy would lead directly to decreased levels of burnout. These results confirm other research findings regarding the relationship between avoidance and burnout (Chan & Hui, 1995; Nortjé, 2003; Storm, 2003; Thornton, 1992; Wiese *et al.*, 2003; Yela, 1996), as well as between approach coping and burnout (Hammons, 2000; Luton, 2000; Storm, 2003; Wiese *et al.*, 2003; Zellars & Perrewé, 2001).

This study had various limitations. The first limitation is that the design was cross-sectional. As a result, no causal inferences could be drawn, despite the use of advanced structural equation modelling techniques. Therefore, the causal relationships between variables were interpreted rather than established, and more complex forms of non-recursive linkages could not be examined. Strictly speaking, it is inappropriate to speak of job stressors and coping 'affecting' burnout. All that has been established is that the pattern of effects is consistent with previous theoretical findings regarding the temporal order of the various variables. It also cannot be ruled out that the independent variables accompany symptoms of burnout instead of being their antecedent. However, several longitudinal studies have

shown that job characteristics such as job demands had mainly causal relationships with health outcomes, in such a way that the outcomes tended to occur *after* job perceptions, rather than vice versa (see Buunk, De Jonge, Ybema & De Wolff, 1998). To deal with the limitation of the use of a cross-sectional design, prospective longitudinal studies and quasi-experimental research designs are needed to further validate the hypothesised causal relationships between antecedents and possible consequences like burnout.

Secondly, the results were obtained solely by self-report questionnaires. This may lead to a problem commonly referred to as 'method variance' or 'nuisance'. However, a review by Spector (1987) found little evidence of common method variance among self-report measures of the kinds of constructs studied here. Another aspect to consider is that few alternative methodologies are suggested to deal with the use of self-report measures. Nonetheless, research, including more objective measures of job characteristics and/or outcomes, is still needed.

Thirdly, this research was conducted in a homogeneous sample consisting of individuals of a specific profession, namely police officers in the SAPS. This police organisation probably has some unique characteristics, such as the specific organisational culture, that could have influenced the participants' responses. The implication is that the results cannot be generalised to other contexts or professions. Therefore there is still the need for replication in other occupational groups as well as heterogeneous samples.

Another limitation of this study is that there is a possibility that some officers who participated in this research did not totally trust the confidentiality statement set out in the covering letter accompanying the questionnaires. This could have influenced some of the results. Finally, the structural equation model showed that job stress and coping explained 43 per cent of the variance in burnout. Other possible extraneous variables (e.g. personality variables and biographical factors) could therefore have influenced the findings of this study.

5

Recommendations

Given the pervasive nature of burnout, police management should design and implement planned interventions. Although it is important to assist individual police officers whose psychological well-being is affected by their work, an organisational rather than an individual approach is more likely to be effective, as most stressors were found to be at an organisational level. Furthermore, it is important to focus on police officers' coping strategies. The assessments of coping strategies might be effectively incorporated into personnel selection procedures and individual stress coping training might be beneficial. However, a more desirable strategy is to make the organisation inherently less stressful. Since job demands and a lack of resources play a central role in burnout, it is necessary to implement organisationally-based preventive strategies to tackle high job demands and to provide necessary resources.

Endnote

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