WORK-RELATED WELL-BEING OF CORRECTIONAL OFFICERS IN SOUTH AFRICA

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COMMENTS

The reader is reminded of the following:

- The references as well as the editorial style as prescribed by the *Publication Manual (5th edition)* of the American Psychological Association (APA) were followed in this thesis. This practice is in line with the policy of the Programme in Industrial Psychology of the North-West University to use APA style in all scientific documents as from January 1999.

- The thesis is submitted in the form of four research articles.

DEDICATION

To almighty GOD for richly blessing me with his divine presence throughout this study.

To my three boys for always reminding me that my success depend on my courage, and an investment in my relationship with the Lord.

To myself for refusing to climb this ladder of success dressed in a costume of failure.

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A special word of thanks goes first to my God for leading and lifting me to a rock which was higher than I (Psalm 61:2).

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SUMMARY

Topic: Work-related well-being of correctional officers in South Africa.

Key terms: Occupational stress, burnout, work engagement, organisational commitment, physical and psychological health, job demands, job resources, correctional officers.

Stress among correctional officers is widespread, according to research studies and anecdotal evidence. The threat of inmate violence against correctional officers, actual violence committed by inmates, inmate demands and manipulation and problems with coworkers are conditions that officers have reported in recent years that can cause stress. These factors, combined with understaffing, extensive overtime, rotating shift work, low pay, poor public image, and other sources of stress, can impair officers' health, cause them to burn out or retire prematurely, and impair their family life. Despite these weaknesses and malfunctioning in correctional settings, many officers are still committed in their work, until they reach their set pension dates. Such officers show intense focus and high levels of enthusiasm.

With the upcoming positive paradigm in Occupational Health Psychology, "positive" trends such as work engagement, organisational commitment and individual commitment are also common among correctional officers. The first step in the enhancement of total spectrum of work-related well-being, from unwell-being (burnout) to well-being (work engagement) is the successful diagnosis of stress, burnout and work engagement. However, it is important to use reliable and valid instruments to measure these constructs.

The objective of this study in the Department of Correctional Services was to standardise an Organisational Stress Screening Tool (ASSET), an adapted version of the Maslach Burnout Inventory - General Survey (MBI - GS) and the Utrecht Work Engagement Scale (UWES) for correctional officers in South Africa, in order to determine their levels of occupational stress, burnout, work engagement, organisational commitment and ill health (based on their biographical characteristics), and to test a structural model of work wellness. A cross-sectional survey design was used, with stratified random samples (N = 897) taken of correctional officers in the 48 prisons in South Africa. An Organisational Stress Screening Tool, the Maslach Burnout Inventory – General Survey, the Utrecht Work Engagement Scale,

the Job – Demands Resources Questionnaire, the Health and Organisational Commitment subscales of the ASSET, and a biographical questionnaire were administered. Cronbach alpha coefficients, exploratory factor analyses, multivariate analysis of variance (MANOVA), one-way analysis of variance (ANOVA), T-tests and multiple regression analysis were used to analyse the data. Structural equation modelling was used to test a structural model of work-related well-being.

Significant differences in stress levels based on biographical characteristics revealed a statistically significant difference regarding how correctional officers of different age groups experience stress as a result of job overload and commitment from the organisation towards its own employees. A practically significant difference between correctional officers aged 20-30 and 50-60 years of age, concerning the experience of stress as a result of job control, was also found. Another statistically significant difference was found concerning how correctional officers with different years of experience in the current job experienced stress as a result of job overload and work relationships. Work relationships contributed to a statistically significant difference between correctional officers with different years of experience in the current prison. Statistically significant differences also existed with regard to the experience of stress between correctional officers with different ranks as a result of job overload and work/life balance. Lastly, no statistically significant gender differences were found among male and female correctional officers in South Africa. This finding on gender, is in contrast with most of the empirical research on gender differences, which suggests that women appear to experience higher levels of stress in comparison to males.

Exploratory factor analyses with target rotations resulted in a three-factor model of burnout consisting of Exhaustion, Cynicism and Professional Efficacy. The scales showed acceptable internal consistencies and construct equivalence for two language groups (Afrikaans/English and African). Regarding the differences in the burnout levels between language groups, a significant effect of *language* on the combined dependent variable Burnout was revealed. Analysis of each individual dependent variable showed that there were no significant differences between the levels of Exhaustion and Cynicism in the two language groups. The two groups differed in terms of the level of Professional Efficacy, where the English/Afrikaans group showed higher levels of Professional Efficacy. No significant effect of *qualification* and *rank* on the combined dependent variable Burnout was found. However,

the language groups (English/Afrikaans) and (Africans) differed in terms of the level of Exhaustion where the Africans showed higher levels of Exhaustion. Furthermore, there was a significant effect of *job* on the combined dependent variable Burnout. Significant differences existed between language groups as a result of the levels of Exhaustion, Cynicism and Professional Efficacy.

Finally, compared to the normative sample, 32,4% of correctional officers experience high levels of Exhaustion, while 38,6% experience high Cynicism and 32,1% show low Professional Efficacy. Exploratory factor analyses with target rotations resulted in a one-factor model of work engagement, consisting of Vigour/Dedication. The scales showed acceptable construct and internal equivalence for two language groups (Afrikaans and English). Although no practically significant differences between language groups of correctional officers in South Africa were found, it did reveal statistically significant higher levels of work engagement for Africans as compared to the Afrikaans/English language group. Furthermore, regarding differences in engagement levels based on qualifications and ranks, the findings revealed a statistically significant difference based on qualifications, and not on rank. No significant gender differences were found.

With regard to aspects that enervated work-related well-being, the model showed that job demands (overload) and lack of job resources had an impact on burnout. Burnout, furthermore, mediated the relationship between job demands and ill health among correctional officers. The structural model revealed that work-related well-being mediated the relationship between job resources and organisational commitment. Correctional officers were likely to be victims of burnout and consequently ill health when an increase in job demands is not matched with an increase in job resources. The availability of job resources lead to work-related wellbeing, which will turn into organisational commitment.

Recommendations for future research were made.

OPSOMMING

Onderwerp: Werksverwante welstand van korrektiewe amptenare in Suid-Afrika

Sleutelterme: Werkstres, uitbranding, werksbegeestering, organisasieverbondenheid, fisiese en psigologiese gesondheid, werkseise, werkshulpbronne, korrektiewe amptenare

Volgens navorsingstudies asook anekdotiese getuienis is stres onder korrektiewe amptenare wydverspreid. Korrektiewe amptenare ervaar 'n bedreiging van geweld deur gevangenes sowel as reële geweldpleging deur gevangenes; gevangenes se eise en manipulasie en probleme met medewerkers – alles dinge wat onlangs aangemeld is as aanleidend tot stres. Hierdie faktore tesame met onderbemanning, gereelde oortydwerk, roterende skofwerk, swak betaling, swak openbare beeld en ander bronne van stres kan 'n amptenaar se gesondheid aan bande lê, veroorsaak uitbranding of vervroegde aftrede, en verhinder 'n gesonde gesinslewe. Ondanks hierdie swak punte en disfunksie in korrektiewe omgewings is heelwat amptenare steeds sterk verbonde aan hulle werk, totdat hulle hul bepaalde pensioendatums bereik. By sulke amptenare is daar 'n intense fokus en hoë vlakke van entoesiasme.

Met die huidige opkomende paradigma in Werksgesondheidspsigologie word "positiewe" neigings soos werksbegeestering, organisasieverbondenheid en individuele verbondenheid ook algemeen waargeneem onder korrektiewe amptenare. Die eerste stap in die verbetering van die totale spektrum van werksverwante welstand, vanaf siekte (uitbranding) tot by welstand (werksbegeestering) is die suksesvolle diagnosering van stres, uitbranding en werksbegeestering. Om hierdie konstrukte egter te meet is dit belangrik om geldige en betroubare meetinstrumente te gebruik.

Die doelstelling van hierdie studie in die Departement van Korrektiewe Dienste was om 'n Organisatoriese Stresgraderingsinstrument – 'n aangepaste weergawe van die Maslach-Uitbrandingsinventaris – Algemene Opname en die Utrechtse Werksbegeesteringskaal te standaardiseer vir korrektiewe amptenare in Suid-Afrika, om sodoende die vlakke van werkstres, uitbranding, werksbegeestering, organisasieverbondenheid en swak gesondheid (gebaseer op hulle biografiese eienskappe) vas te stel, en om 'n strukturele model vir werksverwante welstand te toets. 'n Dwarssnee-ontwerp is gebruik, met gestratifiseerde

ewekansige proewe (N = 897) geneem uit korrektiewe amptenare in die 48 gevangenisse in Suid-Afrika. 'n Organisatoriese Streskeuringsinstrument, die Maslach-Uitbrandingsinventaris – Algemene Opname, die Utrechtse Werksbegeesteringkaal, Werkeise-Hulpbronnevraelys, die Gesondheids- en Organisasieverbondenheidsvraelys-subskale, en 'n biografiese vraelys is aangewend. Cronbach alfa-koëffisiënte, verkennende faktoranalise, meerveranderlike variansie-analise (MANOVA), eenrigting variansie-analise (ANOVA), t-toetse en meervoudige regressie-analise is gebruik om die data te analiseer. Strukturele vergelykings-modellering is gebruik vir die toetsing van 'n strukturele model van werksverwante welstand.

Verskille in stresvlakke gebaseer op biografiese eienskappe het daarop gedui dat daar statisties beduidende verskille was ten opsigte van werksoorlading en verbondenheid van die organisasie van korrektiewe amptenare in verskillende ouderdomsgroepe. 'n Prakties beduidende verskil is ook gevind tussen korrektiewe amptenare tussen die ouderdom van 20-30 en diegene tussen 50-60 jaar, met betrekking tot die ervaring van stres as 'n gevolg van werksbeheer. Verdere statisties beduidende verskille is gevind ten opsigte van werks-oorlading en werksverhoudinge van korrektiewe amptenare met verskillende jare werks-ondervinding. Stres as gevolg van werksverhoudinge het beduidende verskil tussen korrektiewe amptenare met verskillende hoeveelheid jare ondervinding in die huidige gevangenis. Statisties beduidende verskille is ook gevind ten opsigte van die ervaring van stres as gevolg van werksoorlading en werk/lewe balans onder korrektiewe amptenare met verskillende range. In die laaste plek is daar nie beduidende verskille ten opsigte van manlike en vroulike korrektiewe amptenare in Suid-Afrika gevind nie. Hierdie bevinding ten opsigte van geslag is in teenstelling met meeste empiriese navorsing oor geslagsverskille, wat suggereer dat dit voorkom asof vroue hoër stresvlakke ervaar as mans.

Verduidelikende faktoranalise met teikenrotasie het 'n drie-faktormodel van uitbranding tot gevolg gehad, wat bestaan het uit Uitputting, Sinisme en Professionele Doeltreffendheid. Die skale het aanvaarbare interne konsekwentheid en konstrukekwivalensie getoon vir twee taalgroepe (Afrikaans/Engels en Afrika-tale). Aangaande die verskille ten opsigte van uitbrandingsvlakke tussen die taalgroepe, is daar gevind dat *taal* 'n belangrike effek gehad het op die gekombineerde afhanklike veranderlike van Uitbranding. Analise van elke individuele afhanklike veranderlike het getoon dat daar geen beduidende verskille was tussen die vlakke van Uitputting en Sinisme vir die twee taalgroepe nie. Die twee groepe het wel

verskil ten opsigte van die vlak van Professionele Doeltreffendheid waar die Engelse/ Afrikaanse groep hoër vlakke van Professionele Doeltreffendheid getoon het. Geen beduidende effek is gevind met betrekking tot *kwalifikasie* en *rang* ten opsigte van die gekombineerde afhanklike veranderlike van Uitbranding nie. Daar was egter 'n verskil tussen die taalgroepe waar die Engelse/Afrikaanse groep verskil het van die Afrika-tale se groep aangaande die vlak van Uitputting, waar die Afrika-tale se groep hoër vlakke van Uitputting getoon het. Betekenisvolle verskille het geblyk te bestaan tussen die twee taalgroepe as 'n gevolg van die vlakke van Uitputting, Sinisme en Professionele Doeltreffendheid.

In die laaste plek: in vergelyking met die normatiewe monster, ervaar 32,4% van korrektiewe amptenare hoë uitbrandingsvlakke, terwyl 38,6% hoë sinisme ervaar, en 32,1% toon lae vlakke van professionele doeltreffendheid. Verkennende faktoranalise met teikenrotasies het 'n eenfaktormodel van werksbegeestering tot gevolg gehad, wat bestaan het uit Lewenskragtigheid/Toewyding. Die skale het aanvaarbare konstrukekwivalensie getoon vir twee taalgroepe (Afrikaans en Engels). Al is geen prakties beduidende verskille gevind ten opsigte van taalgroepe onder korrektiewe amptenare in Suid-Afrika nie, is statisties beduidend hoër vlakke van werksbegeestering is gevind onder die Afrika-tale in vergelyking met die Afrikaans/Engelse taalgroep. Verder, met verwysing na die verskille ten opsigte van kwalifikasies/opleiding en rang, het die bevindinge getoon op 'n statisties beduidende verskil gebaseer op kwalifikasie, maar nie ten opsigte van rang nie. Geen beduidende geslagsverskille is gevind nie.

Met betrekking tot aspekte wat werksverwante welstand verswak, het die model getoon dat werkseise (oorlading) en 'n gebrek aan werkshulpbronne op uitbranding geïmpakteer het. Uitbranding het verder die verhouding tussen werksvereistes en swak gesondheid onder korrektiewe amptenare gemedieer. Die strukturele model het getoon dat uitgebreide werksbegeestering die verhouding tussen werkshulpbronne en organisasieverbondenheid medieer. Korrektiewe amptenare sou neig om die slagoffers van uitbranding (swak gesondheid) te wees indien 'n verhoging in werkseise nie gepaard sou gaan met 'n verhoging in werkshulpbronne nie. Die beskikbaarheid van werkshulpbronne lei tot uitgebreide werksbegeestering, wat lei tot organisasieverbondenheid.

Voorstelle ten opsigte van verdere navorsing is gemaak.

CHAPTER 1

INTRODUCTION

This thesis deals with work-related well-being (occupational stress, burnout and work engagement), in the Department of Correctional Services in South Africa.

In this chapter, the problem statement is discussed and the general and specific research objectives are set out. The research method is also explained, and a division of chapters is provided.

1.1 PROBLEM STATEMENT

The Department of Correctional Services has undergone different stages of organisational change, which had a tremendous impact on its employees' well-being. These stages of change were mainly brought about by the various political dispensations under which the Department served (Mataka, 2000). According to Dissel (1997), the real major shift or development in the history of the Department of Correctional Services took place on the 1st of April 1996 when the Department demilitarised. The decision to demilitarise dictated that the Department abandon its militaristic character for a civilian nature in performing its core business, that of rehabilitating prisoners. The military approach was deemed counter-productive to the new goals of prisoner rehabilitation as suggested in the Correctional Services Act 111 (Dissel, 1997). The new demilitarisation era involves changes in the previous military structure, rank system, mode of address, uniform insignia and daily militarised parades. Central to the demilitarisation process was the creation of a new civilian structure and mode of discipline. However, demilitarisation was unfortunately conceptualised in a narrow and mechanistic manner, and has not yet resulted in extensive change in the culture of the Department.

The Department of Correctional Services is therefore still faced with a plethora of problems in meeting the challenges brought about by the new progressive change towards rehabilitation of prisoners and the demilitarisation era. It has not yet been transformed from its militaristic nature, because no proper demilitarisation strategy was adopted with obvious negative

consequences for the staff in general. Staff members have not yet been re-trained to meet the demands of managing prisons under a democratic order (Giffard, 1997). The only training that old military staff has undergone, consisted of a basic course for six months at a College (Zonderwater or Kroonstad). Such training consisted of military drill, saluting, showing respect to senior officers and handling a range of firearms. There was nothing in the training course regarding how to work with prisoners rehabilitation, except to lock them away and keep the keys to the cells so that the 'wards' (prisoners) would not escape (Mpemva, 2000).

These new organisational changes in the Department of Correctional Services impacted negatively on how correctional officer's performed their work, as they were never trained or re-trained to assist them to comply appropriately with the requirements of their work (Giffard, 1997). Esteve (1984, p. 12) appropriately summarises the feelings or reactions towards similar new organisational changes confronting the present-day correctional officer's:

"Imagine a group of rally drivers who have to drive at high speed throughout the race. Then let's suppose that, without prior warning, all the traffic signs are changed and that in addition, new ones are added which do not appear in the Highway Code and which, to them, are totally unknown. Their first reaction is *surprise*. Then they begin to react with *hostility*. Finally, they end up with their nerves shattered because of the accumulation of *tension*, they feel bewildered by it all, or at least, seek an explanation for what has happened. If, on top of all this, the organisers know nothing about the signs which have been changed and side with the spectators in criticising the drivers for their slowness and the numerous mistakes they have made during the race, then understandably, there is no knowing what their reaction will be. There will be some who consider giving up, the best-placed ones will try to adapt to the new conditions in the continuing hope of winning, others will become aggressive or simply feel helpless or begin to feel that they are the victims of a huge joke directed at them. In any case, word "burnout" would sum up the combined reactions of the group with the majority of them feeling totally bewildered".

Just like the drivers described above, the present day correctional officials find themselves faced by circumstances which force them to do their work badly. They are also, as with the above example, subject to criticism which fails to take into consideration the above circumstances, and thus place the blame for the shortcomings of the prison system fairly and

squarely on the shoulders of the correctional officer's. Therefore, the study of work-related well-being of correctional officers seems imperative from a research point of view.

An integrated and holistic model of work-related well-being is needed in the South Africa. Schaufeli and Bakker (2001) developed a model of well-being at work which could assist when investigating the notion of work wellness. These authors distinguish between two dimensions that could be used to classify four types of well-being at work. The horizontal axis represents the extent of contentment at work (i.e., pleasurable versus unpleasurable). The vertical dimension relates to the mobilisation of energy. This taxonomy makes it possible to distinguish between work engagement and burnout.

The word or phrase 'burnout' has become a catch-word and includes all the reactions, apathy, aggression, anxiety, neurosis, defeatism or sheer bloody-mindedness, which can be researched in today's correctional officials, now totally disorientated as professionals. Burnout, which has been identified as one type of chronic response to the cumulative, long-term negative impact of work stress (Blasé, 1982), rather than a short-term, but more intense level of stress, only became a topic for research relatively recently. It was first identified by Freudenberger in 1974, and since then research has made it possible to identify and distinguish this phenomenon from stress.

Burnout as a phenomenon was originally observed primarily among people helpers such as nurses, social workers and police workers. However, today it is acknowledged that people in almost any occupation can develop burnout (Maslach & Jackson, 1986). Burnout is typically a syndrome of emotional exhaustion and cynicism that occurs frequently among individuals who do "people-work" of some kind (Maslach & Jackson, 1986). It is experienced as a state of physical, mental and emotional exhaustion caused by long-term involvement in emotionally demanding situations. It is accompanied by an array of feelings such as helplessness and hopelessness, disillusionment, negative self-concept, negative attitudes toward work, people and life itself.

The consequences of burnout are potentially serious for staff, clients and the larger institutions in which they interact. Maslach and Jackson (1986) suggested that burnout could lead to deterioration of the quality of care or service that is provided by staff. It appears to be

a factor in job turnover, absenteeism and low morale. Furthermore, it correlates with various self-reported indices of personal dysfunction, increased use of alcohol and drugs, and marital and family problems (Maslach & Jackson, 1986). According to Maslach and Jackson (1986), burnout can have severe adverse implications, including reduced quality of care, absenteeism, low organisational commitment, turnover and job dissatisfaction

The dimensions of burnout are conceptualised depending on the nature of the job concerned. Maslach (1982, 1993) and Maslach, Jackson, and Leiter, (1996), describe burnout as a syndrome consisting of three dimensions, namely feelings of emotional exhaustion, depersonalisation (cynicism) and reduced personal accomplishment. *Emotional exhaustion*, the individual stress dimension of burnout, refers to feelings of depleted physical and emotional resources and prompts actions in the worker to distance himself emotionally and cognitively from his/her work, presumably as a way to cope with work overload. The interpersonal context dimension is represented by *depersonalisation*, which entails negative, callous and cynical attitudes or excessively detached responses towards the recipients of service (e.g. the prisoner), reducing the recipient to an impersonal object. As a result of these, the two dimensions are considered as the core symptoms of burnout. The third dimension, *lack of personal accomplishment,* represents the self-evaluation dimension of burnout and refers to feelings of insufficiency (Schaufeli & Buunk, 2002), incompetence, lack of achievement, as well as feelings of unproductiveness (Maslach et al., 2001)

In the current study, the dimensions of burnout are those labelled as exhaustion, cynicism and professional efficacy (Maslach et al., 1996). Exhaustion refers to feelings of being overextended and depleted of emotional and physical resources. Cynicism is described in terms of negative, callous or detached response to various aspects of the job. Professional efficacy, on the other hand, relates to a feeling of competence, productivity and achievement at work. Byrne (1991) views burnout, as the final step in the process of unsuccessful attempts to cope with negative stress conditions and therefore reasoned that burnout is a consequence of prolonged and extensive job-related stress. This concurs with Rothmann, Malan, and Rothmann (2001) who regard burnout as a kind of prolonged job stress. In other words, a particular, multidimensional, chronic stress reaction that goes beyond the experience of mere exhaustion.

Research elsewhere in the world has established that the possible cases of burnout can be classified into organisational, biographical and personality factors. Organisational factors that contribute to burnout are work overload (Bacharach, Bamberger, & Conley, 1991; Landsbergis, 1988), poor collegial support (Golembiewski & Munzenrider, 1988) role conflict and role ambiguity (Miller, Ellis, Zook, & Lyles, 1990) and lack of feedback (participation in decision-making and autonomy). These factors represent demands on employees and are included in most models of burnout (Schaufeli & Enzmann, 1998). Burnout was also found to be related to low levels of perceived control. Burnout of correctional officials has not been investigated, despite the extensive literature suggesting that they are subjected to difficult circumstances such as demilitarisation, transformation, racial conflict, racial prejudice, ethnocentricity, stereotypes and labelling, re-deployment and long working hours. Whilst faced with these difficulties, correctional officer's must be in control of prisoner's lives while their lives are also influenced by the behaviour of the prisoners.

With the current trend in Occupational Health Psychology moving towards a more positive paradigm, it is not surprising that the concept of burnout has recently been supplemented by its positive antidote, namely work engagement (Schaufeli, 2003). While no definitive consensus regarding a formal definition of the term "engagement" appears in research literature, some common threads have emerged about the nature of the construct. One point of agreement seems to be that employee engagement involves the expression of the self through work and other employee-role activities. This conceptualisation can be seen in the definitions of engagement by Schaufeli and Bakker (2004), and Kahn (1990). Schaufeli and Bakker defined engagement as "a positive, fulfilling work-related state of mind that is characterised by vigour, dedication and absorption" (2004, p. 295). Similarly, Kahn refers to engagement as "the harnessing of organisation members' selves to their work roles (by which they) employ and express themselves physically, cognitively and emotionally during role performances" (1990, p. 264). Implicit in these definitions is a second commonality, namely, that engagement occurs on a regular, day-to-day basis, and is actively applied to and through the employee's work behaviours.

Furthermore, other researchers recently extended their views and interest to this positive pole of employees well-being, instead of looking exclusively to the negative pole. From this perspective, burnout is rephrased as an erosion of engagement with the job (Schaufeli,

Salanova, Gonzalez-Roma, & Bakker, 2002). The concept was developed from a perspective of positive psychology that focuses on human strengths and optimal functioning rather than on weaknesses and malfunctioning (Seligman & Csikszentmihalyi, 2000).

Schaufeli et al. (2002) further define work engagement - the opposite of burnout - as a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication and absorption. According to these authors, vigour refers to high levels of energy and mental resilience while working, as well as a willingness to exert effort and to persist even through difficult times. Dedication is described as a sense of significance, enthusiasm, inspiration, pride and challenge. Absorption refers to a tendency to be fully concentrated and deeply engrossed in work, as a result of which time passes quickly and one has difficulty to detach oneself from one's work. Schaufeli et al. (2002) consider burnout and work engagement as opposite concepts that should be measured independently with different instruments.

Mullins (1999) argues that stress is individually defined; one person's stress can be another's excitement or energiser. Although stress may activate people (while for some it may be immobilising) with possible positive behavioural consequences, the physiological impact upon the person should not be forgotten. In other words people bring along individual differences in terms of their personality and life experience (i.e. coping strategies) that will determine their responses to stress (Rees, 1995). The person's role in appraising the situation determines whether the situation is a stressor or not (Siu, 2002). For instance, if a person thinks or feels that he/she is unable to cope with a large workload, then workload becomes a stressor or something that causes a person to feel stressed.

In order to explain the causal pattern or relationship between occupational stress and the outcomes thereof, several theoretical models have been developed. The Person-Environment Fit model views stress as arising from a misfit between the requirements of the job (e.g. demands and resources) and the values, skills and traits of the individual (Cooper, Dewe, & O'Driscoll, 2001; Winefield, Gillespie, Stough, Dua, & Hapuararchchi, 2002). Implicit in the notion such misfit, is the persons ability to handle or cope with the encounter, while aspects such as values, resources, demands and skills available will help to determine the perceived misfit. Subjectivity of the person (how the individual perceives the encounter) will furthermore increase the likelihood that strain will occur. The Job Demand-Control Model is

based on the proposition that the interaction between job demands and job control (decision latitude) is the key in explaining strain-related outcomes (Cooper et al., 2001); in other words, jobs that combine high levels of demand with low levels of autonomy, control or decision latitude are the most stressful (Winefield et al., 2002). According to the Conservation of Resources Theory (COR), people strive to retain, protect and build resources and any threats towards the person are the potential or actual loss of their valued resources. Negative outcomes (i.e. stress, burnout and low work engagement) are likely to occur when there is (a) a threat of a net loss of resources, (b) a net loss of resources, or (c) a lack of resource gain following the investment of resources.

Siu (2002) argues that it is the utmost importance to identify potential occupational stressors as well as variables, which have beneficial consequences for both employees and their organisations. According to the author, it is possible that certain variables might moderate the effects of occupational stress on physical and psychological ill health. Cooper et al., (2001), also define a moderator as a variable that affects the direction and/or strength of the relationship between an independent or criterion variable.

According to Blau and Boal (1987), two approaches can be followed in defining organisational commitment. Commitment is seen as a behaviour during which the individual is viewed as loyal to an organisation because it is too costly to leave. In the second approach, the individual is committed to the organisation because of shared goals and the wish to maintain membership (Blau & Boal, 1987). However, organisational commitment has recently been expanded to a more comprehensive view, consisting of three components; affective, continuance and normative commitment (Blau & Boal, 1987; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002; Siu, 2002). Affective commitment denote an emotional attachment to, identification with and involvement in the organisation. Continuance commitment denotes the perceived cost associated with leaving the organisation, while normative commitment reflects a perceived obligation to remain in the organisation (Meyer et al., 2002).

In most burnout research that has been conducted, the Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1986) was used (Schaufeli & Enzmann, 1998). However, except for a study of burnout in police officers in South Africa (Storm, 2002), the Maslach Burnout

Inventory – General Survey (MBI-GS) has not yet been validated and standardised for employees of all occupations in South Africa. It is therefore difficult to assess the levels of burnout of employees other than those occupations such as police officers in South Africa among whom the research were conducted.

Furthermore, in studying the wellness of employees, it must be kept in mind that South Africa is a multicultural society with diverse cultures. Individuals of all cultures are found among correctional officials in South Africa, and therefore scores obtained for one culture will not necessarily represent the views of other cultures. Prior to any comparison of scores across cultures, construct equivalence as well as any item of bias should be tested (Van de Vijver & Leung, 1997).

Engagement is characterised by energy, involvement and efficacy, which are direct opposites of the three burnout dimensions namely exhaustion, cynicism and lack of professional efficacy (Maslach & Leiter, 1997). Schaufeli et al. (2002) further developed the Utrecht Work Engagement Scale (UWES) to measure engagement and found acceptable reliability for this scale. Confirmative factor analysis has demonstrated the factorial validity of UWES (Schaufeli et al., 2002). Of the studies, Schaufeli et al., (2002) and Storm, (2002) were found focusing on engagement and its relationship with burnout. The study by Storm (2002) was the only one found in South Africa focusing on internal consistency, factorial validity, structural equivalence and bias of the UWES. Storm (2002) tested the full hypothesised 3-factor model consisting of all 17 items (Schaufeli et al., 2002), using structural equation modelling (SEM). Because the study by Storm (2002) was the first study in South Africa to examine the psychometric properties of UWES and only for police officers, there is a significant need to also examine the construct validity and internal consistency of the UWES for correctional officials is of great importance. The fact that the study mentioned above was conducted among police officers and not has not yet been standardised for other occupations in South Africa, makes it difficult to place the research results in context.

The above discussion necessitates that an integrated and a holistic model of work wellness should be developed for correctional officers in South Africa. The only problem for the current study is that there is a lack of information exists with regard to a structural wellness model that incorporates a combination of burnout, work engagement, organisational

commitment, health outcomes and situational causes (job demands and job resources) for correctional officers in South Africa.

Based on the above mentioned problem, the following research questions arise:

- Is the Organisational Stress Screening Tool (ASSET) an internally consistent measuring instrument of occupational stress for correctional officers in South Africa?
- Do significant differences exist between the occupational stress levels of correctional officer's of the different language groups in South Africa, based on the biographical characteristics (gender, age, years of experience in the current job, years of experience in the current prison and rank), and does organisational commitment moderate the effects of occupational stress on occupational stress and ill health?
- What are the psychometric properties of an adapted version of the Maslach Burnout Inventory-General Survey (MBI-GS) for correctional officer's in South Africa and do differences exist between the levels of burnout of different demographic groups?
- What are the psychometric properties of an adapted version of the Utrecht Work Engagement Scale (UWES) for correctional officers from different language groups in South Africa and are there differences between the levels of work engagement among different language groups?
- Is it possible to develop and test a structural model of work wellness, which could be used to predict and serve as a guideline for work-related well-being programmes for correctional officers in South Africa?

This study will make the following contributions to Industrial Psychology as a science:

- It will provide scientific information about the nature of stressors in correctional services in South Africa. It will also show whether occupational stress predicts ill health and organisational commitment. It will also show whether organisational commitment might protect correctional officers against the negative effects of occupational stress.
- It will result in measuring instruments for work-related well-being (e.g. stress, burnout and work engagement), which have been proven to be reliable, equivalent and valid for different language groups.

- A structural model of work-related well-being will exist, which could be used to predict the effects of job demands and job resources on burnout and work engagement, and which in turn could predict ill health and organisational commitment of correctional officers in South Africa.

1.2 RESEARCH OBJECTIVES

1.2.1 General objective

The general objective of this study is to investigate the work-related well-being of officials in the Correctional Services in South Africa.

1.2.2 Specific objectives

- To assess the psychometric properties of the Organisational Stress Screening Tool (ASSET) for correctional officers in South Africa.
- To analyse differences between the occupational stress levels for correctional officer's of the different language groups in South Africa, based on the biographical characteristics (gender, age, years of experience in the current job, years of experience in the current prison and rank) and to investigate whether organisational commitment moderates the effects of occupational stress on ill health.
- To assess the psychometric properties of an adapted version of the Maslach Burnout Inventory-General Survey (MBI-GS) for correctional officer's in South Africa and to investigate differences between the levels of burnout of different language groups.
- To assess the psychometric properties of an adapted version of the Utrecht Work Engagement Scale (UWES) for correctional officer's of different language groups in South Africa and to investigate whether differences exist between the work engagement of different language groups.
- To develop and test a structural model of work wellness, which could be used to predict and serve as a guideline for work-related well-being programmes for correctional officer's in South Africa.

1.3 RESEARCH METHOD

1.3.1 Research design

A cross-sectional survey design is used to reach the research objectives of this study, whereby a sample will be drawn from a population at one time (Shaughnessy & Zechmeister, 1997). Data gathered is used to describe the population at that time. This approach can be also used to investigate interrelationships among variables within a population. According to Shaughnessy and Zechmeister (1997), the design is suited to the descriptive and predictive functions associated with this design (Byrne, 2001). Structural equation modelling is used to test a structural model of work-related well-being.

1.3.2 Participants

Random samples are taken from 40 prisons (with a total population of 10 000 correctional officers) in all nine Provinces: Free State, Gauteng, Limpopo, KwaZulu/Natal, Western Cape, Eastern Cape, North West, Northern Cape and Mpumalanga. A formula proposed by Kerlinger and Lee (2000) will be used to determine the sample size for this study. Prisons will be divided into small (fewer than 50 staff members), medium (50 – 100 staff members) and large (more than 100 staff members). All prison staff at randomly identified small and medium prison in each of the provinces will be asked to complete the questionnaire. In the large prison stations stratified random samples will be taken according to sex and race.

1.3.3 Measuring instruments

The *Maslach Burnout Inventory-General Survey* (MBI-GS) (Maslach et al., 1996) is used to measure burnout. The MBI-GS has three subscales: *Exhaustion* (five items), *Cynicism* (five items) and *Professional Efficacy* (six items). Together the sub-scales of the MBI-GS provide a three-dimensional perspective on burnout. Internal consistencies 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 8,84 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 scores on a seven-point frequency-rating scale ranging from 0 (*never*) to 6 (*daily*). High scores on

Exhaustion and Cynicism, and low scores on Professional Efficacy are indicative of burnout. Storm (2002) confirmed the three-factor structure of the MBI-GS in a sample of 2396 members of the South African Police Service (SAPS), but recommended that Item 13 should be dropped from the questionnaire. She 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, 2002).

The *Utrecht Work Engagement Scale* (UWES) (Schaufeli et al., 2002) is used to measure the levels of engagement in the participants. The UWES includes three dimensions namely *Vigour, Dedication and Absorption*, which is conceptually seen as the opposite of burnout and is scored on a seven-point frequency-rating scale, varying from 0 (*never*) to 6 (*every day*). The questionnaire consists of 17 questions. The alpha coefficients for the three subscales varied between 0,68 and 0,91. The alpha coefficient could be improved (α varies between 0,78 and 0,89 for the three subscales) by eliminating a few items without substantially decreasing the scales internal consistency. Storm (2002) obtained the following alpha coefficients for the UWES in a sample of 2396 members of the South African Police Services: Vigour: 0,78; Dedication: 0,89; Absorption: 0,78.

The *ASSET* (which refers to An Organisational Stress Screening Tool) was developed by Cartwright and Cooper (2002) as an initial screening tool, based on a large body of academic and empirical research to help organisations assess the risk of occupational stress in their workforce. It measures potential exposure to stress in respect of a range of common workplace stressors. It also provides important information on current levels of physical health, psychological well-being and organisational commitment, and provides data to which the organisation can be compared. The first questionnaire (37 items) measures the individuals perception of his or her job. This sub-scale includes questions relating to eight potential sources of stress, namely work relationship; work-life balance; overload; job security; control; resources and communication; job overall; and pay and benefits. The second questionnaire (9 items) measures the individual's attitude toward his or her organisation, and includes questions relating to perceived levels of commitment both from and to the organisation. The third questionnaire (19 items) focuses on the individuals health, aimed at specific outcomes of stress, and includes questions relating to both physical and

psychological health. The fourth questionnaire (24 items) focuses on supplementary information, i.e. the background information, and includes questions relating to factors, which may affect stress. The first three questionnaires of the ASSET are scored on a six-point scale with 1 (*strongly disagree*) to 6 (*strongly agree*). The fourth questionnaire is scored on a four-point scale with 1 (*never*) to 4 (*often*).

The ASSET (An Organisational Stress Screening Tool) has an established set of norms from a database of responses from 9188 workers in the public and private sector organisations in UK. Validity verification is still to be completed (Cartwright & Cooper, 2002). Reliability is based on the Guttman split-half coefficient. All but two factors returned coefficients in excess of 0,70, ranging from 0,60 to 0,91 (Cartwright & Cooper, 2002). Johnson and Cooper (2003) found that the psychological well-being subscale has good convergent validity with an existing measure of psychiatric disorders, the General Health Questionnaire (GHQ-12; Goldberg & Williams, 1988). Tytherleigh (2003) used the ASSET as an outcome measure of job satisfaction in a nationwide study of occupational stress levels in 14 English higher education institutions. A series of Cronbach alphas was carried out on each of the question for the five ASSET subscales to identify the reliability of the ASSET questionnaire with these data. The results ranged from 0,64 to 0,94 showing good reliability.

The *Job Demands-Resources Scale* (JDRS) was developed to measure job demands and job resources for Correctional Officers. The JDRS consists of 48 items. The questions are rated on a scale ranging from 1 (*never*) to 4 (*always*). The dimensions of the JDRS include organisational support, growth opportunities, advancement, job overload, colleagues and job security.

The *Health subscales* of the ASSET (which refers to An Organisational Stress Screening Tool) (Cartwright & Cooper, 2002) were used to measure physical and psychological ill health. The Health subscales consists of 19 items arranged on two subscales: the Physical Health and Psychological Well-being. The questionnaire is scored on a scale varying from 1(*never*) to 4 (*often*). All items on the Physical Health subscale relate to physical symptoms of stress. The role of this subscale is to provide insight into physical health. The items listed on the Psychological Well-being subscale are symptoms of stress-induced mental ill health. Johnson and Cooper (2003) found a Guttman split-half reliability coefficient of 0,74 and 0,91

for the Physical and Psychological Health subscales, respectively. They also found that the Psychological Well-being subscale has good convergent validity with an existing measure of psychiatric disorders, the General Health Questionnaire (Goldberg & Williams, 1988).

The *Organisational Commitment Subscale* of the ASSET (Cartwright & Cooper, 2002) is used to measure the individual's attitude towards his or her organisation, and includes questions relating to perceived levels of commitment to the organisation. The subscale consists of seven items, which are scored on a scale varying from 1 (strongly disagree) to 6 (strongly agree). Examples of items are "I feel valued and trusted by the organisation", "I enjoy working for this organisation to the extent that I am not seeking a job elsewhere" and "I am proud of this organisation". Johnson and Cooper (2003) found a split – half reliability coefficient of 0,74 for the scale.

A biographical questionnaire is used to gather information about the demographic characteristics of all the participants. This questionnaire will give participants the option of supplying their name and personnel number. Other information that is gathered includes: province and prison, age, gender, years of service, years in current position (to assess advancement), educational qualifications, marital status, language, history of disciplinary action, self-rated performance, self-rated job satisfaction, medical conditions, use of prescription and over-the-counter medicine, reasons for medication, number of alcoholic drinks per week, smoking behaviour, number of cigarettes per day, other drug use and physical exercise

1.3.4 Data analysis

The data analysis is conducted with the help of the SPSS program (SPSS Inc., 2003) and the AMOS program (Arbuckle, 1999). The SPSS-program is used to conduct statistical analysis regarding reliability, validity and construct equivalence of the measuring instruments, descriptive statistics, t-tests, analysis of variance, correlation coefficients and moderated multiple regression analysis. The AMOS-program is used to carry out structural equation modelling.

Principal component extraction with direct oblimin and varimax rotations are performed on the items of the measuring instruments. Cronbach alpha coefficients are used to investigate the internal consistency of measuring instruments (Clark & Watson, 1995).

The level of statistical significance is set at $p < 0,05$. The statistical effect sizes will determine the significance of the findings. Pearson product-moment correlation coefficients are used to specify the relationships between variables. T-tests, MANOVA and ANOVA are used to determine differences between the language groups.

Construct equivalence is used to compare the factor structures of the MBI-GS and UWES for the language groups. Exploratory factor analysis and target rotation are used to determine construct equivalence (Van de Vijver & Leung, 1997). After target rotation has been completed, factorial agreement is estimated using Tuckers coefficient of agreement (Tuckers phi). Values higher than 0,95 are seen as evidence for factorial similarity, while those lower than 0,85 point to non-incongruities (Van de Vijver & Leung, 1997).

Structural equation modelling (SEM) as implemented by AMOS (Arbuckle, 1997) is used to test factorial models for the MBI-GS and UWES, and to test a structural model of work-related well-being. The hypothesised relationships are tested empirically for goodness of fit with the sample data. The χ^2 statistic and several other goodness-of-fit indices to summarise the degree of correspondence between the implied and the observed covariance matrices is used in this study.

The Goodness of Fit Index (GFI) which indicates the relative amount of variance/co-variance in the sample predicted by the estimates of the population is used in this research study. It varies from 0 to 1, and a result of 0,90 or above indicates a good model fit. The Adjusted Goodness-of-fit (AGFI), the Normed Fit Index (NFI), the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI) and the Root Mean Square Error of Approximation (RMSEA) will also be used in this research study.

A multiple regression analysis is conducted to determine the percentage of variance in the dependent variables (physical and psychological ill health) that is predicted by the independent variables (occupational stressors). The multiple correlation coefficient (R^2) is

used to determine the links that bind together the various aspects of multiple regression and analysis of variance (Kerlinger & Lee, 2000).

1.4 DIVISION OF CHAPTERS

Chapter 2 deals with *occupational stress* among of the correctional officers and the construct validity and internal consistency of the ASSET (An Organisational Stress Screening Tool) as well as its construct equivalence and bias for different language groups in the Department of Correctional Services (South Africa). Chapter 3 deals with *burnout* and the internal consistency of the MBI-GS as well as its construct equivalence for different language groups in the Department of Correctional Services (South Africa). Chapter 4 deals with *work engagement* levels of correctional officers and the internal consistency of the UWES as well as its construct equivalence for different language groups in the Department of Correctional Services (South Africa). In Chapter 5, a *work-related well-being model* for correctional officers in the Department of Correctional Services (South Africa) is developed and tested. Further *conclusions, limitations and recommendations* to the Department of Correctional Services are presented in Chapter 6.

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CHAPTER 2

Article 1

OCCUPATIONAL STRESS OF CORRECTIONAL OFFICERS IN SOUTH AFRICA

ABSTRACT

The objectives of this study were to analyse the occupational stress of correctional officers, to assess the relationship between occupational stress and health, and to determine whether organisational commitment moderates the effects of occupational stress on ill health. A cross-sectional survey design was used. A stratified random sample (N=897) was taken of correctional officers in South Africa. An Organisational Stress Screening Evaluation Tool (ASSET) and biographical questionnaire were administered. The results confirmed the internal consistency of the ASSET. Occupational stress explained 14% of variance in physical ill health, and 22,2% of the variance in psychological ill health. Commitment from individual to the organisation moderated the effects of occupational stress on physical and psychological health.

OPSOMMING

Die doelstellings van hierdie studie was om die beroepstres van korrektiewe beamptes te ontleed, die verwantskap tussen beroepstres en gesondheid te bepaal, en vas te stel of organisasieverbondenheid die die effek van beroepstres op swak gesondheid matig. 'n Dwarsdeursnee-opnameontwerp is gebruik. 'n Gestratifiseerde ewekansige steekproef (N=897) van korrektiewe beamptes in Suid-Afrika is gebruik. 'n Organisasiestres-graderings-instrument (ASSET) en 'n biografiese vraelys is afgeneem. Die resultate het die interne konsekwentheid van die ASSET bevestig. Beroepstres het 14% van die variansie in fisieke siekte en 22,2% van die variansie in psigologiese welstand verklaar. Toewyding van die individu aan die organisasie het die effek van werkstres op fisieke en psigologiese gesondheid gematig.

The body of literature on correctional officers has grown in recent years, particularly in the area of correctional officers' stress and stress-related problems. Researchers have explored alienation, tedium and job burnout (Dignam, Barrera, & West, 1986; Dignam & West, 1988; Gerstein, Topp, & Correll, 1987; Whitehead & Lindquist, 1986), as well as stress (Cullen, Link, Wolfe, & Frank, 1985). According to anecdotal evidence and newspaper reports, stress is widespread among correctional officers. According to Huckabee (1992), the threat of inmate violence against correctional officers, actual violence committed by inmates, inmate demands and manipulation and problems with co-workers, are conditions that correctional officers have reported as stressful over recent years. The author further contend that these factors combined with under staffing, extensive overtime, rotating shift work, low pay, poor public image, role conflict and role ambiguity, can impair correctional officers health, cause them to experience burnout or retire prematurely, and impair their family life.

Excessive stress can result in at least four serious problems for correctional officers. Stress may result in physical illnesses, ranging from heart diseases to eating disorders. It may also precipitate substance abuse among susceptible individuals. Stress can, furthermore, lead to burnout among correctional officers. Stress can also result in excessive disability retirements. Even when physical ailments are the reason for the disability, such the illnesses may have been brought on by stress (Slate, 1993). Correctional officers experiencing excessive stress may damage their family relationships by displacing their frustration onto their spouses and children, ordering family members around just as they issue commands to inmates (one officer locked his son out of the boy's room and searched it) (Stephan, 1997), and becoming distant by withholding information about their work that they feel family members will not understand. Shift work and overtime can create stress by preventing correctional officers from attending to important family responsibilities. Research conducted by the Public Service Commission during 2002 has revealed that correctional officers take excessive sick leave as a means of coping with stress on the job, and that the Department of Correctional Services is spending millions to cover posts for officers on sick leave (Public Service Commission Report, 2002)

The situation in South Africa's Correctional Services has precipitated a serious concern with the stressfulness of the job of correctional officers. Severe overcrowding of prison facilities as a result of longer prison terms, awaiting trial detainees, plus the presence of more ill

inmates - often undiagnosed and untreated before admitted into prison - have resulted in severe pressure upon the officers (Pete, 2000). Resulting officer stress and burnout among officers, have led to soaring organisational costs due to high rates of absenteeism and turnover. Moreover, impaired job performance in terms of passivity, disinterest, negativity, and displaced hostility has threatened custodial control, with an increasing frequency of violent incidents. Thus, a strong interest has developed in examining correctional officer's stress, its nature, causes, and consequences and how it may be relieved has developed.

In South Africa, little attention has been paid to the demanding role of correctional work. Research by Storm and Rothmann (2003) focussed primarily upon the stress and burnout of the correctional officer's colleagues in the criminal justice system, namely police officers. According to Storm and Rothmann (2003), many studies have identified police work as a highly stressful occupation, revealing high rates of suicide attempts, heart disease, circulatory and digestive problems, drug addiction, and alcoholism, which have sometimes resulted in premature death among police.

Stress of criminal justice personnel might be attributed to the unique characteristic of their roles. For instance, being a police officer sets a person apart from the rest of the community and makes him or her subject to the prejudice, fear and sometimes open hostility of a large segment of society. In the case of a correctional officer, everyday activities subject him to even greater hostility and disrespect in an environment of isolation and confinement. More recently, A. T. Wall, Director of the Rhode Island Department of Corrections, confirmed this observation based on firsthand experience: "You have a captive population that doesn't want to be in prison and wants to be as comfortable as possible for as long as they have to be incarcerated. And correctional officers stand in the way of those desires, so there is built-in tension and manipulation" (Finn, 2000, p. 12).

Interest in work-related stress arises from both a theoretical interest in understanding human behaviour and the practical desire to increase organisational efficiency and thus to guard against employee burnout and turnover. As interest in the causes of stress shifts away from stressful life events to an examination of chronic stressors, or the conditions of daily life that result in stress, concern for stress at work could become even more important (Wheaton, 1994). Out of this concern a large body of literature on occupational stress has developed

(Quick, Quick, Nelson, & Hurrell, 1997), as well as a more limited body of literature on correctional officer stress. Despite the existence of a developed literature on occupational stress, few have employed it in their analysis of stress among correctional officers (Cullen et al., 1985). Cullen et al, explain why this topic is ignored and the problems caused doing so: "Existing studies in the field, as well as our research, focus on correctional officers as though they were a distinct occupational group. To an extent, this is an accurate conceptualisation since correctional officers work in an unusual social setting and have an unusual technical task. However, such a narrow research design has an inherent bias, because findings tend to be interpreted as though they were specific to correctional officers" (Cullen et al., 1985, p. 525).

In the Department of Correctional Services (South African), a need exit for an extensive research study which will investigate the severity and actual sources of correctional officer's stress levels countrywide. Chaka (1998) focussed on the prison conditions e.g. rotating shifts, unpleasant physical surroundings and so forth, as main stressors for the Pietermaritzburg correctional centre. Bergh (1997) also highlighted in a departmental newsletter article (*Nexus*), the turnover crisis facing correctional professionals such as psychologists as a result of the job demands and unpleasant working conditions inside the overcrowded prison walls in some prisons in South Africa.

Stress as a social phenomenon (Lai, Chan, Ko, & Boey, 2000) is a reality of life. It is unavoidable; good and bad; constructive and destructive. The potential direct and indirect costs of stress to the organisation and employees command more than adequate attention, especially if the negative effects thereof are taken into account, i.e., diminishing levels of customer service, health problems, industrial accidents, alcohol, drug usage and purposefully destructive behaviours such as spreading rumours and stealing (Cooper & Payne, 1988; Karasek & Theorell, 1990; Levi, 1988; Perrewé, 1991; Quick et al., 1997; Wright & Smye, 1996). According to the above researchers it seems that individuals immediate reaction to stressors within the work environment may result in positive (warming up, increased performance, learning), neutral, or negative (over/under-taxing) short-term, reversible consequences, depending on an individual's personal resources and his/her perception of the situation (Demerouti, Bakker, Nachreiner, & Ebbinghaus, 2002).

The Department of Correctional Services annual report for the 2003/2004 financial year has revealed the following statistics regarding the sick leave days used by correctional officers and the number of resignations among them (see Table 1 and 2):

Table 1

Sick Leave for January 2003 to December 2003

Salary Band	Total Days	% Days with Medical Certification Leave	Number of Employees using Sick Leave	% of Total Employees using Sick Leave	Average Days per Employees	Estimated Cost (R'000)	Total number of days with medical certification
Lower skilled (Level 1-2)	176	79,5	19	0,1	9	22	140
Skilled (Level 3-5)	65047	73,8	7166	28,5	9	12,250	47990
Highly skilled production (Level 6-8)	138678	73,5	17170	68,4	8	43,806	101869
Highly skilled supervision (Level 9-12)	4794	74,2	703	2,8	7	2,916	3555
Senior Management (Level 13-16)	374	85	59	0,2	6	597	318
TOTAL	209069	7666	25117	100	8	59,591	153872

Table 2

Disability Leave (Temporary and Permanent) for January to December 2003

Salary Band	Total Days	% Days with medical certification leave	Number of employees using disability leave	% of total employees using sick leave	Average days per employee	Estimated Cost (R'000)	Total number of days with medical certification
Lower skilled (Level 1-2)	117	100	2	0,1	59	16	117
Skilled (Level 3-5)	10678	99,5	844	25,1	13	2,162	10624
Highly skilled production (Level 6-8)	55768	99,4	2444	27,7	23	17,762	55444
Highly skilled supervision (Level 9-12)	2924	99,9	72	2,1	41	1,895	2921
Senior Management (Level 13-16)	43	100	2	0,1	22	33	43
TOTAL	69530	99,5	3364	100	21	21868	69149

The above-mentioned figures could be the result of a number of factors as outlined in the departmental report on ill health retirement per health condition for the 2001/2/3 financial years. The Public Service Commission Report of 2002 further indicated that the increase in stress-related health conditions may play a significant role in absenteeism and resignations among correctional officers at all levels. Therefore, it is important to investigate the antecedents and consequences of stress among correctional officers in the Department of Correctional Services.

Occupational stress

In majority of stress theories and models, stress is described as a series of factors that have their beginnings in one's actual surroundings and conclude with the individual's reactions (Rothmann, Jackson, & Kruger, 2003). The individual forms a conception of the objective situation through his or her subjective interpretation of the situation (Beehr, 2000). The stress process involves an interaction between the individual and the environment where the discrepancy between an individual's perceived threats and the resources he or she sees as available for facing the threats lead to the experience of stress (Cooper, 2000). By means of weighing the demands/threats against the available resources, an individual makes an evaluation of the situation and forms an impression of its significance. This appraisal is then followed by immediate reactions. Both appraisals of and reactions to a given situation vary from individual to individual due to, for example individual characteristics. A work situation is stressful if the respondent has experienced it and perceived it to be stressful, whilst a situation is not stressful for the respondent if he or she has not experienced it or does not perceive the experience to be stressful (Lai et al., 2000).

Studies have shown that occupational stressors may result in psychological, physical and behavioural stress reactions, such as burnout, depression and psychosomatic diseases (Houkes, Janssen, De Jonge, & Nijhuis, 2001; Lai et al., 2000). According to the findings of Mills and Huebner (1998) and Schaufeli and Enzmann (1998), there is significant evidence that occupational stress could considerably influence the experience of burnout considerably. The link between unmanaged stress and its negative impact on health and well-being is well demonstrated in stress research and is linked to severe physical consequences, some of which may be fatal (Winefield, Gillispie, Stough, Dua, & Hapuararchchi, 2002).

The Job Demand-Control Model (Karasek & Theorell, 1990) could be used to explain occupational stress. The model focuses on the interactions between the pressures of the work environment and the decision scope of the employee in fulfilling the requirements of a job. In other words, jobs that combine high levels of demand with low levels of autonomy, control or decision latitude are the most stressful (Winefield et al., 2002).

In Organisational Psychology, work-related stress is considered to be the product of an imbalance between environmental demands and individual capabilities (Lazarus & Folkman, 1984). However, most researchers adopt the fairly common practice of using the term `stress` to describe either the external stimulus from the environment or the response of the individual, or sometimes both meanings simultaneously. To eradicate semantic difficulties as well as theoretical confusion, this research study will use the terms `stressors` or `sources of pressure` to refer to characteristics of the external environment (i.e. job characteristics and working conditions) and the term 'strain' to describe any response of the individual to these (i.e. physical and psychological ill health, job satisfaction and impaired job performance). The term `stress` will, however, be used to indicate participants responses to direct questions; for example, when enquiring whether they perceive a low, moderate or severe level of stress at work. Stressors do not inevitably lead to strain – a wide range of individual differences moderate this relationship.

Research has demonstrated that work-related stressors can have a wide range of negative effects on individuals (Armstrong & Griffin, 2004). Strain is observable at several different levels. Correctional officer's stress is seen mainly as a negative affect with diverse psychological (e.g., job dissatisfaction), physiological (e.g., high blood pressure) and behavioural (e.g., absenteeism) correlates. In the long run these negative stress effects could lead to physiological and biochemical changes accompanied by psychosomatic and even chronic symptoms like coronary heart disease (Van Dick & Wagner, 2001). Other levels of strain include cognitive (e.g. reduced levels of sensitivity, warmth, consideration, altruism and tolerance) changes. However, for the purposes of this study strain is divided into physical and physiological ill health.

Physical strain is a physiological reaction of the stress process, which can be divided into long-term and short-term strain (Frese & Zapf, 1999). A long-term strain is a physical illness such as heart disease, which has been suggested as an outcome of stress. Short-term strains are physiological reactions such as high blood pressure or suppression of the immune responses. Many of the short-term physical strains are associated with emotional reactions; they may in fact be mechanism by means of which long-term physical strain occurs. Psychological strain correlates strongly with work-related stressors (Jex & Beehr, 1991; Kahn & Byosiere, 1992). The reviews indicate that psychological ill health includes anxiety/panic

attacks, irritability, difficulty in decision-making, loss of sense of humour, becoming easily angered, constant tiredness, feeling unable to cope, avoiding contact with other people, mood swings and inability to listen to others. Cartwright and Cooper (2002) developed a model which includes occupational stressors, strain (ill health) and organisational commitment.

A major difference among the theories of job stress resides in how workplace stress is defined and measured. According to Spielberger, Vagg, and Wasala (2003), a comprehensive assessment of job stress requires an evaluation of the specific aspects of one's job which produce job strain. Such stressors include work overload (Corrigan, Holmes, Lunchins, & Buican, 1994; Landsbergis, 1988), poor collegial support (Golembiewski & Munzenrider, 1988), role conflict and role ambiguity (Miller, Ellis, Zook, & Lyles, 1990), and lack of feedback (participation in decision-making and autonomy).

Moderators of stressful experiences

There are factors that may either alleviate or aggravate the experiences and reactions of an individual towards a stressor. In behavioural sciences, these factors are referred to as moderators, which means they moderate or affect the relation between the stressor and its consequences (Rothmann et al., 2003). Lai et al. (2000) also indicated in their research that psychological hardiness as a personality construct taps three personality constructs, of which commitment (to work/profession) is one. They found in their study that some employees possess considerable personality-resistance recourses such as self-esteem and psychological hardiness (and therefore commitment), which allow them to withstand hardships arising from the job. Organisational commitment interacts with sources of stress at work to determine their outcomes. Siu (2002) also argues that the indirect or moderating effect of commitment protects individual from the negative effect of stress, due to the fact that it enables them to attach direction and meaning to their work. According to Siu (2002), organisational commitment can provide people with stability and a feeling of belonging; however, the opposite can also be true. This study will therefore attempt to explore this viewpoint within the South African context.

Two approaches are followed when defining organisational commitment (Blau & Boal, 1987). In the first approach, the author sees commitment as a behaviour during which the

individual is committed to an organisation because it is too costly for him or her to leave. In the second approach, the individual is committed to the organisation because of shared goals and the wish to maintain membership. However, organisational commitment has recently been expanded to a more comprehensive view consisting of three components, namely affective, continuance and normative commitment (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002; Siu, 2002). According to Meyer et al. (2002), affective commitment denotes an emotional attachment to, identification with and involvement in the organisation. Continuance commitment denotes the perceived cost associated with leaving the organisation, and normative commitment reflects a perceived obligation to remain in the organisation.

Research has demonstrated that work-related-stressor can have a wide-ranging negative impact on the individual and on the organisation. In terms of the current research, occupational stress among correctional officers in the Department of Correctional Services (South Africa) is under investigation.

Consequently, the following research hypotheses can be formulated:
H1: That the ASSET is an internally consistent measuring instrument of occupational stress of correctional officers.
H2: High levels of perceived occupational stressors predict physical and psychological ill health of correctional officers.
H3: Significant differences based on biographical characteristics (gender, age, years of experience in the current job, years of experience in the current prison and rank) exist regarding stress levels of correctional officers in South Africa.
H4: Individual commitment will have a moderating effect on occupational stress and ill health.

METHOD

Research design

A cross-sectional survey design was used to achieve the objectives of this research.

Participants

Random samples (N = 1500) were taken from various Correctional Centres (consisting of 40 prisons with a total population of 10 000 correctional officers) in all nine Provinces: Gauteng, KwaZulu-Natal, Eastern Cape, Western Cape, Free State, Northern Cape, Limpopo, North-West and Mpumalanga. A total of 1000 questionnaires were received back. However, only 897 questionnaires could be included in the final data analysis due to the fact that other questionnaires were not properly responded and therefore lacked the important information required for this research. Correctional Centres were divided into small (fewer than 50 members); medium (50-100 members) and large (more than 100 members). Table 3 presents detailed characteristics of the participants.

Table 3

Characteristics of the Participants

ITEM	CATEGORY	FREQUENCY	PERCENTAGE
Home language	Afrikaans	340	37,9
	English	50	5,6
	Sepedi	34	3,8
	Sesotho	81	9,0
	Setswana	48	5,4
	Isiswati	7	0,8
	Tshivenda	15	1,7
	Isizulu	102	11,4
	IsiNdebele	14	1,6
	IsiXhosa	191	21,3
	IsiTsonga	10	1,1
Rank	Correctional Officer I – III	755	84,2
	Senior Correctional Officer	96	10,7
	Assistant Director	23	2,6
	Deputy Director	5	0,6
	Director	1	0,1
Education	Grade 12 only	703	78,4
	Grade 12 + 3 years diploma/degree	97	10,8
	Grade 12 + 4 years diploma/honours degree	74	8,2
	Grade 12 + 5 to 7 years degree	1	0,1
	Grade 12 + Master's degree	9	1,0
	Grade 12 + Doctoral degree	1	0,1
Gender	Male	639	71,2
	Female	245	27,3

Measuring battery

A biographical questionnaire was developed to gather information about the demographic characteristics of the participants. Information gathered included rank, area, education, gender, marital status and language.

The ASSET (which refers to An Organisational Stress Screening Tool) was developed by Cartwright and Cooper (2002) as an initial screening tool, based on a large body of academic

and empirical research to help organisations assess the risk of occupational stress in their workforce. It measures potential exposure to stress with respect to a range of common workplace stressors. It also provides important information on current levels of physical health, psychological well-being and organisational commitment, and provides data to which the organisation can be compared. The first questionnaire (37 items) measures the individuals perception of his or her job. This sub-scale includes questions relating to eight potential sources of stress, namely work relationship; work/life balance; overload; job security; control; resources and communication; job overall; and pay and benefits. The second questionnaire (9 items) measures the individual's attitude toward his or her organisation, and includes questions relating to perceived levels of commitment both from and to the organisation. The third questionnaire (19 items) focuses on the individuals health, aimed at specific outcomes of stress, and includes questions relating to both physical and psychological health. The fourth questionnaire (24 items) focuses on supplementary information, i.e. background information, and includes questions relating to factors which may affect stress. The first three questionnaires of the ASSET are scored on a six-point scale with 1 (*strongly disagree*) to 6 (*strongly agree*). The fourth questionnaire is scored on a four-point scale with 1 (*never*) to 4 (*often*).

The ASSET has an established set of norms from a database of responses from 9188 workers in the public and private sector organisations in UK. Validity verification is still to be completed (Cartwright & Cooper, 2002). Reliability is based on the Guttman split-half coefficient. All but two factors returned coefficients in excess of 0,70, ranging from 0,60 to 0,91 (Cartwright & Cooper, 2002). Johnson and Cooper (2003) found that the psychological well-being subscale has good convergent validity with an existing measure of psychiatric disorders, the General Health Questionnaire (GHQ-12; Goldberg & Williams, 1988). Tytherleigh (2003) used the ASSET as an outcome measure of job satisfaction in a nationwide study of occupational stress levels in 14 English higher education institutions. A series of Cronbach alphas was carried out on each of the question for the five ASSET subscales to identify the reliability of the ASSET questionnaire with this data. The results ranged from 0,64 to 0,94 showing good reliability. It is therefore not only important to establish reliable and valid methods for measuring perceived stress, but based on findings, the aim will be to understand stress as an organisational phenomenon so that it can be addressed at the organisational level.

Statistical analysis

The statistical analysis was carried out with the aid of the SPSS program (SPSS, 2003). Descriptive statistics were computed to describe the data. Cronbach alpha coefficients were used to assess the internal consistency of the measuring instruments (Clark & Watson, 1995). Alpha coefficients contain important information regarding the proportion of variance of the items of a scale in terms of the total variance explained by that particular scale.

One-way analysis of variance (ANOVA) was used to determine the difference among the subgroups of the sample. Tukey's Standardised Range t-tests were used to determine the statistical significance of differences obtained during ANOVAs. Practical significance of the differences in means between two groups was computed (Cohen, 1988; Steyn, 1999).

A two-step multiple regression analysis was used to test whether the regression coefficient of one independent variable (e.g. stressful job resources) varies across the range of another dependent variable (e.g. psychological ill health). If so, the one independent variable (e.g. individual commitment) moderates the relationship between the other independent variable and the dependent variable. If interactions of independent variables are included in the prediction equation, they can cause problems of multicollinearity unless they have been centred, i.e. converted to deviation scores so that the variable has a mean of zero (Tabachnick & Fidell, 2001). Centring an independent variable does not affect its relationship with other variables, but it does affect regression coefficients for interactions included in the regression equation.

RESULTS

The descriptive statistics of the ASSET items are presented in Table 4.

Table 4

Descriptive Statistics and Alpha Coefficients of the ASSET

Item/ Factor	Sten	Mean	*SD*	α
Work/life Balance	4	11,53	4,43	0,62
Resources and Communication	7	13,65	4,89	0,70
Work Relationships	8	24,73	8,16	O,81
Overload	5	11,10	4,20	0,70
Job Security	7	12,10	3,87	0,49
Job Characteristics	4	25,40	6,67	0,67
Control	6	13,28	4,82	0,72
Commitment from Organisation	8	21,96	5,46	0,81
Commitment from Individual	8	18,15	3,86	0,64
Physical Ill Health	7	14,37	4,36	0,79
Psychological Ill Health	10	23,39	8,01	0,91

Table 4 shows that the scores of the dimensions of the ASSET are normally distributed in the sample. The Cronbach alpha coefficients (except for Job Security), varying from 0,62 to 0,91 compare reasonably well with the guideline of 0,70 (0,55 in basic research), demonstrating that a large portion of the variance is explained by the dimensions (internal consistency of the dimensions) (Nunnally & Bernstein, 1994).

Hypotheses 1 is therefore partially supported that the ASSET is an internally consistent measuring instrument of occupational stress, except for the job security dimension which was found to be below the basic research guideline for correctional officers in South Africa.

Inspection of Table 4 indicates that in the total sample the following stressor dimensions are perceived as highly stressful (Sten score between 7-10) by correctional officers: *Resources and Communication, Job Security, and Work Relationships.* Items under various stressor dimensions which indicated correctional officer's high stress levels are working unsocial hours, never being told that they are doing a good job, not having proper equipment and resources, bosses intimidating officers, not being sure of the expectations from the boss, colleagues not willing to pull their weight during various operations both inside and outside the prison but taking credit for the work not performed by them, unrealistic deadlines, the job likely to change in future, skills which are becoming redundant, unpleasant physical working

conditions, physical violence inside the prison, work performance closely monitored, organisation constantly changing for the sake of change, work is dull and repetitive, dealing with difficult prisoners, may be doing the same job for the next five to ten years, not involved in decisions affecting the job, and ideas and suggestions not taken into account in the organisation.

As a result of the above stressor's, correctional officers show high levels of the following strains: muscular tension, feeling sick/nauseous, panic, avoiding contact with other people and having difficulty concentrating at work.

Next, the product-moment correlation coefficients between the ASSET dimensions are reported in Table 5.

Table 5

Product-moment Correlation Coefficients of the ASSET Dimensions

DIMENSION	1	2	3	4	5	6	7	8	9
1. Control	-	-	-	-	-	-	-	-	-
2. Job characteristics	0,58*++	-	-	-	-	-	-	-	-
3. Overload	0,49*+	0,48*+	-	-	-	-	-	-	-
4. Work Relationships	0,68*++	0,63*++	0,61*++	-	-	-	-	-	-
5. Resources and Communication	0,69*++	0,51*++	0,49*+	0,67*++	-	-	-	-	-
6. Work/life Balance	0,37*+	0,46*+	0,44*+	0,49*+	0,32*+	-	-	-	-
7. Physical Ill Health	0,27*	0,30*+	0,20*	0,28*	0,27*	0,28*	-	-	-
8. Psychological Ill Health	0,38*+	0,41*+	0,34*+	0,41*+	0,31*+	0,30*+	0,66*++	-	-
9. Commitment from Organisation	-0,31*+	-0,35*+	-0,21*	-0,30*+	-0,25*	-0,20*	-0,15*	-0,30*+	-
10. Commitment from Individual	-0,17*	-0,18*	-0,13*	-0,19*	-0,13*	-0,11*	-0,08*	-0,22*	0,69*++

* $p < 0,01$ - Statistically significant
\+ $r = 0,30$ - Practically significant (medium effect)
++ $r = 0,50$ - Practically significant (large effect)

Inspection of Table 5 shows that Physical Ill Health is practically significantly related (medium effect) to Job Characteristics. Psychological Ill Health is practically significantly related to Control, Job Characteristics, Overload, Work Relationships, Resources and Communication and Work Life Balance (all medium effect). Commitment from Organisation is practically significantly related to Control, Job Characteristics, Work Relationships and

Psychological Ill Health (all medium effects). Commitment from Individual is practically significantly related to Commitment from Organisation (large effect).

Next, the differences in occupational stress, organisational commitment and ill health of correctional officers in different age categories, as measured by the ASSET, are reported in Table 6.

Table 6

ANOVAs – Difference in Occupational Stress, Organisational Commitment and Ill Health of Correctional Officers in terms of Different Age Groups

ITEM	AGE 1(18-20)	AGE 2(20-30)	AGE 3(30-40)	AGE 4(40-50)	AGE 5(50-60)	ROOT MSE	*p*
Control	14,15[a]	13,28	13,42	13,29	11,44b	4,87	0,10
Job Characteristics	25,70	25,44	25,75	24,95	23,80	6,72	0,31
Overload	10,15	10,06	11,40	11,66	10,80	4,16	0,00*
Work Relationships	24,55	23,94	25,12	25,41	22,95	8,20	0,14
Resources and Communication	13,52	13,66	13,89	13,50	12,71	4,91	0,78
Work/life Balance	11,75	11,13	11,60	11,57	12,14	4,41	0,65
Physical Health	15,69	14,13	14,32	14,66	13,92	4,37	0,30
Psychological Health	24,00	23,02	23,36	24,10	22,52	8,09	0,46
Commitment from Organisation	22,13	21,09	21,77	22,63	24,33	5,48	0,01*
Commitment from Individual	17,94	17,90	18,11	18,20	19,66	3,88	0,20

*$p < 0,01$ statistically significant

Inspection of Table 6 shows that a practically significant difference (medium effect) exists in stress experienced as a result of Job Control between the group of correctional officers aged 18-20 years and the group aged 51-60 years. The experience of Organisational Commitment to the employees showed a practically significant difference (small effect) among group of correctional officers aged 21-30 years and the group aged 51-60 years. A statistically significant difference exists with regard to the experience of stress by all correctional officers as a result of Job Overload. Correctional officer's aged 50 to 60 years, scored higher than the 20 to 30 years groups on Organisational Commitment, and a statistically significant difference also existed between these two age groups.

Next, the differences in occupational stress, organisational commitment and ill health of correctional officers in terms of years of experience in the current job are reported in Table 7.

Table 7

ANOVAs-Difference in Occupational Stress, Organisational Commitment and Ill Health of Correctional Officers in terms of Different Years of Experience in the Current Job

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ITEM	1(0-05yrs)	2(05-10yrs)	3(10-20yrs)	4(20-30yrs)	5(30-40yrs)	6(40-45yrs)	ROOT MSE	*p*
Control	13,64	12,68	13,07	13,06	13,88	6,00	4,87	0,10
Job Characteristics	25,07	25,04	24,77	25,66	25,99	33,00	6,72	0,36
Overload	9,95	10,59	11,07	11,48	11,80	12,00	4,17	0,01*
Work Relationships	23,48	23,57	24,27	24,89	26,40	20,00	8,15	0,01*
Resources and Communication	14,32	13,55	13,24	13,61	13,81	9,00	4,90	0,48
Work/life Balance	11,34	11,14	10,82	11,84	12,19	11,00	4,38	0,02
Physical Health	14,98	13,91	14,28	14,45	14,64	8,00	4,37	0,28
Psychological Health	23,11	22,18	23,00	23,76	24,55	25,00	8,06	0,05
Commitment from Organisation	21,71	22,35	21,92	21,49	22,07	22,00	5,52	0,73
Commitment from Individual	18,18	18,44	18,23	17,49	18,24	22,00	3,88	0,21

*$p < 0,01$ statistically significant

Inspection of Table 7 shows that a statistically significant difference exists in the experience of stress because of Job Overload and Work Relationship stressors, but no practically significant difference exists between the language groups of correctional officers with different years of experience in their current jobs.

Next, the differences in occupational stress, organisational commitment and ill health in terms of years of experience at the current prison are reported in Table 8.

Table 8

ANOVAs- Difference in Occupational Stress, Organisational Commitment and Ill Health of Correctional Officers in terms of Different Years of Experience at the Current Prison

ITEM	YEARS 1(0-5yrs)	YEARS 2(5-10yrs)	YEARS 3(10-20yrs)	YEARS 4(20-30yrs)	YEARS 5(30-40yrs)	ROOT MSE	*p*
Control	13,14	13,21	12,92	13,58	13,35	4,88	0,41
Job Characteristics	25,29	25,21	24,95	25,51	25,65	6,73	0,79
Overload	10,22	10,55	10,73	11,46	11,52	4,18	0,03
Work Relationships	22,49	23,18	24,20	25,34	25,86	8,14	0,00*
Resources and Communication	13,87	13,52	13,63	13,79	13,60	4,92	0,99
Work/life Balance	11,94	11,49	10,84	11,52	11,81	4,40	0,42
Physical Ill Health	14,28	13,80	14,53	14,24	14,64	4,37	0,33
Psychological Ill Health	22,37	21,91	23,13	23,76	24,14	8,06	0,06
Commitment from Organisation	22,81	21,15	22,40	21,40	22,21	5,51	0,20
Commitment from Individual	19,05	17,74	18,29	17,92	18,29	3,89	0,32

*$p < 0,01$ statistically significant

Inspection of Table 8 shows that a statistically significant difference exists in the experience of stress because of work relationships between all correctional officers with different years of experience at their current prison.

Next, the differences in occupational stress, organisational commitment and ill health of correctional officers in terms of ranks are reported in Table 9.

Table 9

ANOVAs- Difference in Occupational Stress, Organisational Commitment and Ill Health of Correctional Officers in terms of Different Ranks

ITEM	Correctional Officers Grade I-III	Senior Correctional Officers	Assistant Directors	Deputy Directors	Senior Directors	ROOT MSE	*p*
Control	13,31	12,75	12,65	17,40a	8,00b	4,88	0,20
Job Characteristics	25,29	25,54.	26,46	32,80a	14,00b	6,70	0,06
Overload	10,89	12,07	11,61	15,80	12,00	4,17	0,01*
Work Relationship	24,52	24,92	27,17	33,00	18,00	8,20	0,12
Resources and Communication	13,61	13,59	13,35	17,40a	8,00b	4,90	0,16
Work/life Balance	11,36b	12,22	11,91	18,20a	16,00	4,36	0,00*
Physical Ill Health	14,46	13,27	15,41	16,20	12,00	4,36	0,06
Psychological Ill Health	23,33	22,91	26,13	27,00	13,00	8,08	0,21
Commitment from Organisation	22,05	20,78	23,13	24,60	25,00	5,50	0,14
Commitment from Individual	18,16	17,70	19,43	18,40	20,00	3,89	0,36

* $p < 0,01$ statistically significant

Inspection of Table 9 shows that a statistically significant difference exists in the experience of stress among correctional officers with different ranks. Officers responded differently towards Job Overload and Work/life Balance stressors. A practically significant difference (large effect) exists between officers with the rank of Deputy-Director and that of a Director rank; they responded differently towards Control, Job Characteristics and Resources and Communication stressors. A practically significant difference (large effect) also exists between the rank of a Deputy-Director and that of correctional officers with grade 1-3 with regard to how they experienced a Work/life Balance stressor.

Next, t-tests conducted between the males and females correctional officers of different language groups, found that no statistically significant gender differences existed.

Hypotheses 3 is therefore partially supported in that the only significant differences based on the above biographical characteristics due to (overload, commitment from organisation, work relationships, and work-life balance) existed regarding stress levels of correctional officers in South Africa. No significant differences based on gender were found.

To assess whether occupational stress predict Physical and Psychological ill health among correctional officers, a series of standard multiple regression analyses were conducted. The results of standard multiple regression analyses, with occupational stressors (Work/life Balance, Job Resources, Job Overload, Job Characteristics, Job Control and Work Relationships) as independent variables and Physical and Psychological Ill Health respectively as dependent variables are reported in Table 10.

Table 10

Standard Multiple Regression Analysis

Variable		Unstandardised Coefficient		Standardised Coefficient	*t*	*p*	*F*	R^2	*R*
		B	SE	Beta					
Physical ill health							23,08*	0,14	0,37
	(Constant)	9,24	0,65		14,14	0,00			
	Work/life Balance	0,16	0,04	0,14	3,74	0,00*			
	Job Resources	0,13	0,05	0,13	2,79	0,00*			
	Job Overload	-0,02	0,05	-0,01	-0,31	0,76			
	Job Characteristics	0,10	0,03	0,03	3,05	0,01*			
	Job Control	0,02	0,05	0,02	0,35	0,73			
	Work Relationships	0,04	0,03	0,07	1,36	0,18			
Psychological ill health							41,92*	0,22	0,47
	(Constant)	7,81	0,92		8,49	0,00			
	Work/life Balance	0,14	0,06	0,08	2,36	0,01*			
	Job Resources	-0,03	0,07	-0,02	-0,47	0,64			
	Job Overload	0,13	0,07	0,08	1,92	0,06			
	Job Characteristics	0,21	0,05	0,19	4,49	0,00*			
	Job Control	0,18	0,07	0,12	2,49	0,01*			
	Work Relationships	0,13	0,04	0,14	3,00	0,00*			

* $p < 0,01$ statistically significant

The results in Table 10 show that Job Characteristics, Job Resources and Work/life Balance are statistically significant predictors of Physical Ill Health (explaining 14% of the variance). Furthermore, Job Control, Job Characteristics, Work Relationships and Work/life Balance are statistically significant predictors of Psychological Ill Health (explaining 22,2% of the variance). Work/life Balance, Job Characteristics and Control were the only statistically significant predictors of both Physical and Psychological Ill health.

Hypotheses 2 is therefore partially supported in that only the job characteristics, job resources, work-life balance, work relationships, and job control were significant predictors of physical and psychological unwell-being. High job demands (overload) did not contribute to physical and psychological ill health of correctional officers.

Next, to assess whether Individual Commitment moderates the relationship between Job Stressors and Physical/Psychological Ill health, a hierarchical regression was conducted.

Table 11

Hierarchical Regression Analyses to Test the Moderating Effects of Individual Commitment

Physical Ill health	*F*	R^2	Physical Ill health	F	R^2
Control, Individual commitment	34,69	0,07	Control, Individual Commitment and Interaction term	23,98	0,08
Job characteristics, Individual Commitment	44,60	0,09	Job characteristics, Individual Commitment and Interaction term	31,57	0,10
Overload, Individual Commitment	19,87	0,04	Overload, Individual Commitment and Interaction term	13,43	0,04
Work Relationships, Individual Commitment	37,68	0,08	Work Relationships, Industrial Commitment and Interaction term	25,39	0,08
Resources, Individual Commitment	36,68	0,08	Resources, Individual Commitment and Interaction term	24,43	0,08
Work Life Balance, Individual Commitment	35,60	0,07	Work Life Balance, Individual Commitment and Interaction term	24,06	0,08
Psychological Ill health			**Psychological Ill health**		
Control, Individual Commitment	88,34	0,17	Control, Individual Commitment and Interaction term	58,84	0,17
Job Characteristics, Individual Commitment	101,62	0,19	Job Characteristics, Individual Commitment and Interaction term	67,76	0,19
Overload, Individual Commitment	77,96	0,15	Overload, Individual Commitment and Interaction term	52,16	0,15
Work Relationships, Individual Commitment	102,76	0,19	Work Relationships, Individual Commitment and Interaction term	68,99	0,19
Resources, Individual Commitment	67,07	0,13	Resources, Individual Commitment and Interaction term	46,43	0,14
Work Life Balance, Individual Commitment	63,07	0,12	Work Life Balance, Individual Commitment and Interaction term	44,33	0,13

* $p < 0,05$ statistically significant

It is clear from Table 11 that the R^2 did not increase significantly when the interaction terms between various variables (Control, Job Characteristics, Overload, Work Relationships, Job Resources, Work Life Balance and Individual Commitment) were entered. However, the results indicated that Job Characteristics interacted with Individual Commitment to effect

Physical Ill health. In general, the interaction of Individual Commitment (main effect) with Job Characteristics affected Physical Ill health (see Figure 1).

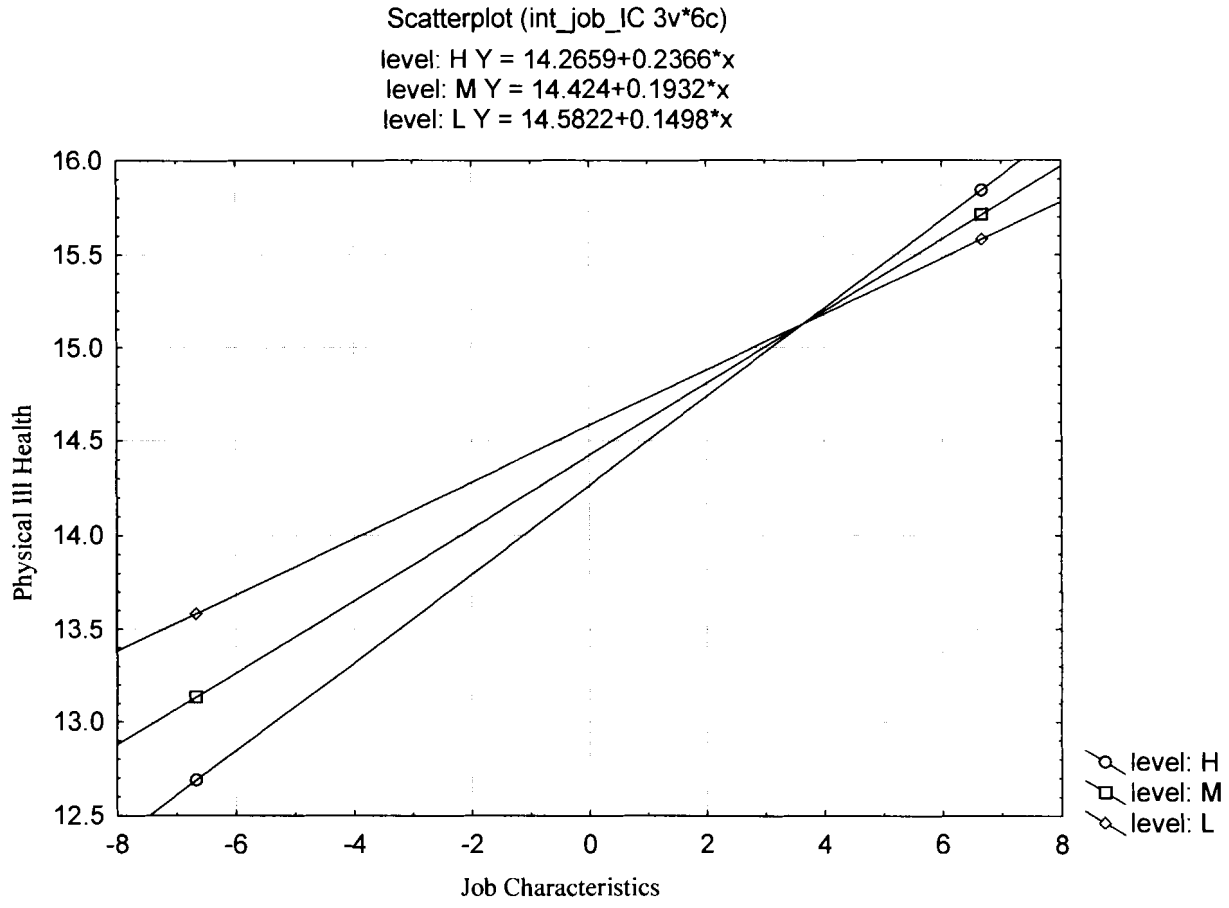

Figure 1. Moderating effect of individual commitment on stressful job characteristics

Figure 1 shows that physical ill health increases when stress about job characteristics increases. However, it seems that individual commitment impacted stronger on physical ill health under conditions of low (compared to high) stress about job characteristics. This effect was not in the expected direction.

Figure 2 shows the result of the interaction between individual commitment and stress about work/life balance, with psychological ill health as dependent variable.

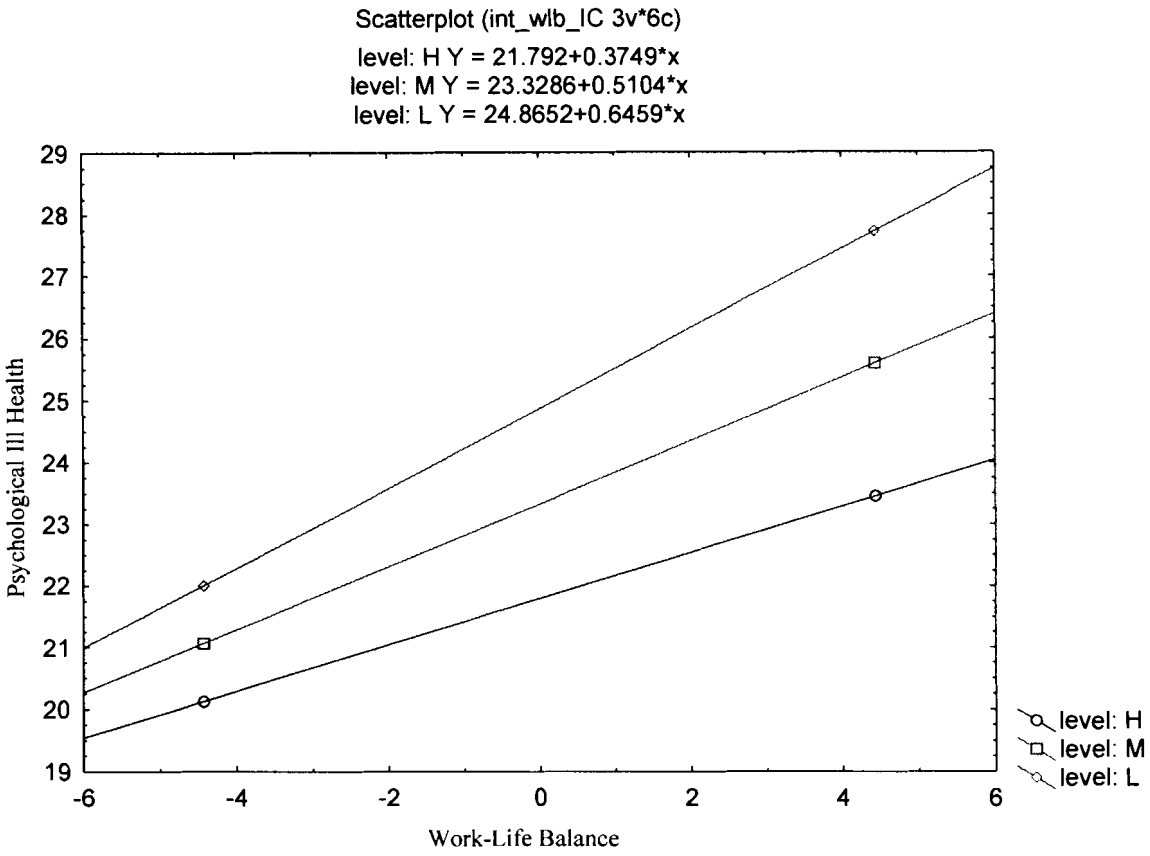

Figure 2. Moderating effect of individual commitment on stress about work/life balance

Figure 2 shows that psychological ill health increases when stress about work/life balance increases. It is clear that individual commitment moderates the effect of stress about work/life balance on psychological ill health. The interaction effect was also in the expected direction, i.e. individuals who show high commitment to the organisation, is less inclined to develop symptoms of psychological unwell-being when they experience stress about work/life balance.

Figure 3 shows the result of the interaction between individual commitment and stress about resources, with psychological ill health as dependent variable.

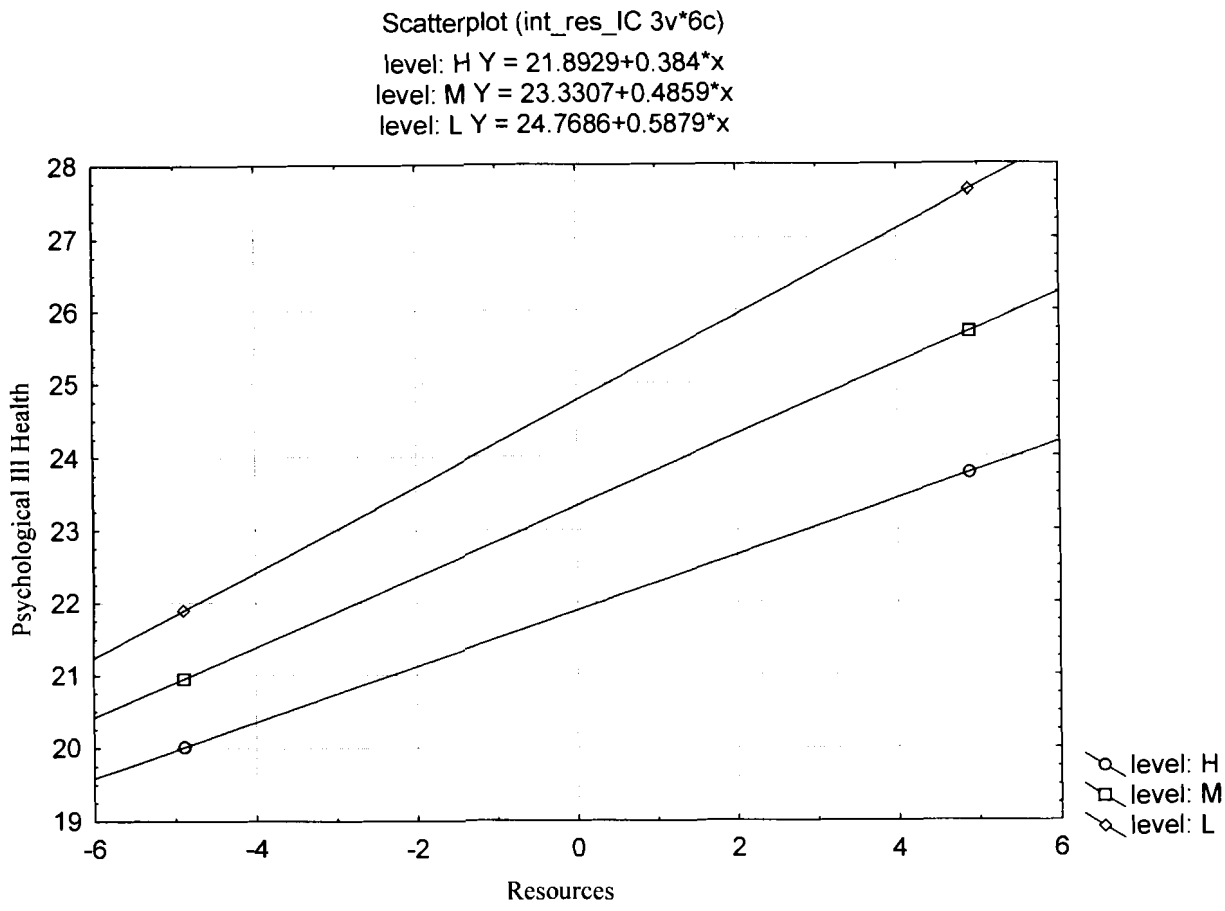

Figure 3. Moderating effect of individual commitment on stress about job resources

Figure 3 shows that psychological ill health increases when stress about resources increases. However, it is clear that individual commitment moderates the effect of stress about resources on psychological ill health. The interaction effect was also in the expected direction, i.e. individuals who show high commitment to the organisation, is less inclined to develop symptoms of psychological unwell-being when they experience stress about resources at work.

Hypotheses 4 is therefore partially accepted in that individual commitment moderated the effects of stress about resources, and work-life balance on psychological ill health. Only correctional officers who show high commitment to the organisation are less inclined to develop symptoms of psychological unwell-being when they experience stress about job resources and work-life balance. The hypotheses is not accepted on physical ill health, it

seems that individual commitment only impacted stronger under conditions of low (as compared high) stress about job characteristics.

DISCUSSION

The aims of this study were to investigate the construct validity and internal consistency of the ASSET for correctional officers in the Department of Correctional Services (South Africa), to analyse the occupational stress levels of correctional officers, to assess the relationship between occupational stress and ill health, and to determine whether organisational commitment moderates the effects of occupational stress on ill health.

Reliability analysis revealed that all the dimensions, except for Job Security, were sufficiently internally consistent. The analysis of the sten scores of the ASSET dimensions indicated very high scores on most dimensions of stress as measured by the instrument. However, closer inspection revealed that some aspects (as measured by specific items) of these dimensions obtained above average scores. On the other hand, the scores obtained for the effects of stress (outcomes), are very high for psychological ill health and high for physical ill health and very high for perceived commitment from both organisation and individual, as is predicted by the study of Winefield et al., (2002). Although above average scores were obtained for different perceived stressors in the workplace of correctional officers, work relationships obtained the highest score followed by job resources and communication, job security, job control, and job overload. Work/life balance and job characteristics were experienced as less stressful.

Despite the fact that the dimension work/life balance obtained a low sten score, the item "Work unsocial hours" received a high sten score and was perceived to be stressful. The main reason for working unsocial hours is the fact that in Correctional Services, correctional officers are expected to work a compulsory weekend-overtime since the Department is still a five day establishment, and uses a shift work system (06:OO-14:OO, 14:OO-22:OO, 22:OO-06:OO), which might be stressful for some correctional officers.

Job Resources and Communication received high sten scores. The items which contributed to the high score are "Never told I am doing a good job", "Not adequately trained for job", and "Do not have proper equipment/resources". All these items received high sten scores because

the Department has recently undergone a massive transformation, and has at the same time experienced severe staff shortages due to the fact that numerous key posts remain unfilled. The current transformation process was necessary to deal with the long-term effects of the demilitarisation era, but the process occurred in a vacuum and resulted in uncertainty about roles, as well as a loss of motivation and discipline. The Department has transformed itself towards an emphasis on human rights, rehabilitation and restorative justice. Not only are correctional officers central to advancing a human rights culture in prisons, but any success in facilitating prisoner rehabilitation is dependent on them, which makes them key players in any long-term national attempt to reduce recidivism/re-offending and crime rates. The real problem is that the current correctional officers do not possess the necessary knowledge and skills to effect the changes now expected of them to steer prisons towards a more humane correctional services regime. Clearly, as suggested by Huckabee, (1992), they need to be re-trained and empowered again to re-orient themselves to become effective change-agents in prisons under a democratic regime. The old basic training they all received was more suitable for an imprisonment system which was brutally punitive, impersonal and inhumane.

The Work Relationships dimension is also perceived as stressful. The two most important items which contributed to the high sten score are "Colleagues are not pulling their weight" and "Others take credit for what I have achieved". Both of these received the highest sten score of 10, meaning that they are perceived as very stressful by correctional officers. The chief reason why some take credit for the efforts of others is lodged in the performance management system tool which is in use in the Department, This system is not meant to reward (business) team- efforts, but individual outputs. The system selectively reward the same individuals year in and out; and consequently, these individuals have become the well known non-performers who could manipulate the system through writing and submitting good incident reports- thus discouraging hardworking officers who cannot be considered for possible incentives/rewards due to poor incident reports they submitted even when their actual good performance is known. As predicted by Slate, (1992), Ill-disciplined and corrupt correctional officers can silently resist or sabotage the progressive organisational changes currently taking place in the Department by not pulling their weight.

The other major causes of high stress levels among correctional officers is the ghastly working conditions inside the prisons, more particularly in prison cells housing yet-to-be

sentenced prisoners, and the prisoners insufficient medical treatment for the contagious diseases that are rife inside prison. Gangs have also dominated the South African prison scene for over years. Despite the full knowledge of the prison authorities, gangs continue to recruit new members (Grossi, Keil, & Vito, 1996), organise their violent activities and conduct a reign of terror in prisons. Gangs dominate every aspect of prison life; in some prisons they control the allocation of cells, distribution of food, a vibrant drug trade, and much of the sexual activity. Gangs also support corruption among correctional officers, and more recently, correctional officers have been forced to affiliate to prison gangs for their own personal security inside the prison.

When interpreting sten scores, the ideal is low scores for perception of one's job (stressors) and one's health, but high scores for one's attitude towards one's organisation (Tytherleigh, 2003). However, in the present study of correctional officers, average scores were observed in many items for perception of the job (stressors), except for the following few items which received very high sten scores "Colleagues not pulling their weight", "Others take credit for what I have achieved", "My skills may become redundant", "Job involves risk of physical violence", "Work performance closely monitored", "Organisation is constantly changing for the sake of change", "Work is dull and repetitive", "Deal with difficult customer/client", "Not involved in decisions affecting my job" and "My ideas/suggestions are not taken into account". High scores were observed for the attitude towards the organisation (commitment), but alarmingly high sten scores were observed for specific physical symptoms such as muscular tension/aches/pains and feeling nauseous/sick, and very alarming sten scores for specific psychological ill health symptom such as the experience of panic and anxiety attacks (Brodsky, 1982).

Sten scores for perceived commitment from the organisation and commitment from the individual to the organisation were very high. Correctional officers in the sample seem very proud to be associated with the Department of Correctional Services (sten score of 9), but they reported that they are not willing to put themselves up for the Department by, for example, working long and/or unsocial hours. Overall, respondents were very happy and committed to the Department of Correctional Services.

Occupational stressors were positively related to physical and psychological ill health. Occupational stressors were also negatively related to commitment from both the organisation and the individual. These findings confirm previous findings that work demands require sustained effort and are therefore associated with certain physical and/or psychological costs (Schaufeli & Bakker, 2004).

A statistically significant difference was found with regard to how correctional officers of different age groups experience stress as a result of Job Overload and Commitment from the Organisation towards its own employees. A practically significant difference between correctional officers aged 20-30 years and 50-60 years concerning the experience of stress as a result of Job Control was also found. Another statistically significant difference was found concerning how correctional officers with varying years of experience in the current job experienced stress as a result of Job Overload and Work Relationships. Work Relationships contributed to a statistically significant difference between correctional officers with different years of experience in the current prison. A statistically significant difference also exists in the experience of stress between correctional officers with different ranks as a result of job overload and work/life balance.

The most important contribution of this research study on correctional officers is that results showed that job characteristics, job resources and communication, and work/life balance were statistically significant predictors of the physical ill health. Job control, job characteristics, work relationships and work/life balance were also statistically significant predictors of psychological ill health. Furthermore, work/life balance and job characteristics were found to be statistically significant predictors of both the physical and psychological ill health.

An interesting observation is the fact that the highest cause of the organisational stress for correctional officers is that colleagues/co-workers are not pulling their weight when work is performed during various operations, but the very colleagues take credit for what has been achieved. This observation is very serious for the department which has set an atomic vision for itself, that of wanting to be one of the best in the world in rendering correctional service. The department should therefore seriously take note of the fact that correctional work is a team work, and its performance management systems which be aimed at rewarding

teams/business-units effort rather than individual efforts, these will encourage individuals to pull weight within various teams. Chaka (1998) described the demands and stressors of the South African correctional officials as having a high degree of responsibility for people, genuine threats to personal safety, rotating shifts, and unpleasant surroundings. According to Bergh (1997), if the high stress levels of correctional professionals are left unattended, the department will face a crisis where some professionals might leave their jobs due to possible ill health because of the increasing job demands and the continuous stress. The most important consequences of the employee turnover is the lowering of other employees morale, which might lead to further turnover (Stohr, Self, & Lovrich, 1992).

A moderated regression analysis on physical ill health indicated that a statistically significant interaction effect exists between stressful job characteristics and individual commitment. However, this effect was not in the expected direction, it seems that individual commitment impacted stronger on physical ill health under conditions of low stress about job characteristics. This is in line with literature that states that job characteristics are directly related to the level of commitment that is perceived from the organisation and not necessarily from the individual (Cooper et al., 2001), seeing that the employees perceive the employer as the party who is responsible for the characteristics of their jobs (job involving risk of physical violence, organisation changing for sake of change, and dealing with difficult prisoners). Not being satisfied with the these characteristics will lead to increased occupational stress levels that will inevitably impact on physical ill health.

Furthermore, the moderated regression analysis carried out for psychological ill health, indicated that a statistically significant interaction effect exists between the stressors (job resources and work/life balance) and individual commitment. These effects were in the expected direction; individuals who showed commitment to the organisation, were less inclined to report symptoms of psychological unwell-being. The results showed that the best predictor of commitment from the individual is the job resources, and the work-life balance. Thus a lack of job resources, and working unsocial hours which interferes with home/personal life, increased correctional officers levels of exhaustion and cynicism. In line with both the Conservation of Resources theory (Hobfoll & Freedy, 1993) and Job Demands-Resources model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001), it could be argued

that correctional officers are likely to become victims of stress when there is no resources and work-life balance.

Lastly, limitations of the present study include the sampling procedure, as this may have a bearing on the possibility of generalisation of the findings to the total population of correctional officers. Future studies should therefore focus on a longitudinal design, where inferences in terms of cause and effect could be drawn. A further limitation of this study is its reliance solely on self-report measures.

RECOMMENDATIONS

Given the pervasive nature of occupational stress, this study is the first step towards the validation of the ASSET as an organisational stress screening tool that can be used in the Department of Correctional Services in South Africa. The current study only considered correctional officers in certain correctional centres (prisons) in South Africa, and it is recommended that the study be expanded to all business units of the correctional centres in South Africa. Further refining and testing of the ASSET is needed; in stress research in general it is important to take a holistic approach in terms of stress and strain of the employee (Cooper, Dewe & O'Driscoll, 2001)

According to Kompier and Kristensen (2001), primary interventions may, in the first place, be directed at either the work situation or the coping capacity of the employee. Work-oriented interventions aim to improve the fit between an individual and the workplace. Worker-oriented interventions are aimed at teaching employees to deal more effectively with experienced stress, or to modify their appraisal of a stressful situation, so that the perceived stress threats are reduced. If the physical and psychological stressors in particular are allowed to continue unattended, the Department can expect to encounter negative costs associated with continued elevated levels of stress, such as burnout, absenteeism and employee turnover, and diminished levels of service. In the present study, an increase in physical and psychological ill health was found to be the major outcome of perceived stressors. Secondary-level interventions can be implemented to prevent employees who are already showing signs of stress from getting sick, and to increase their coping capacity. Typical examples would include cognitive structuring, conflict resolution techniques and coping

strategies. Tertiary-level interventions are concerned with the rehabilitation of individuals who have suffered ill health or reduced well-being as a result of strain in the workplace.

Finally, the increased involvement of Employee Assistant Practitioners (preferably psychologists and not only social workers) should be given an urgent attention at all correctional centres (the cold face of delivery), the place where the real rehabilitation of prisoners is taking place in the Department of Correctional Services in South Africa.

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CHAPTER 3

Article 2

BURNOUT OF CORRECTIONAL OFFICERS IN SOUTH AFRICA

ABSTRACT

The objectives of this study were to validate the Maslach Burnout Inventory - General Survey (MBI-GS) as applied to correctional officers in South Africa and to assess its construct equivalence for different language groups. A cross-sectional survey design with a stratified random sample (N=897) of correctional officers in South Africa was used. The MBI-GS and a biographical questionnaire were administered. Exploratory factor analysis with a direct oblimin rotation resulted in a three-factor structure of burnout, consisting of Exhaustion, Cynicism and Professional Efficacy. The scales showed acceptable internal consistencies. Exploratory factor analysis with target rotations confirmed the construct equivalence of the factors for different language groups.

OPSOMMING

Die doelstellings van hierdie studie was om die Maslach Uitbrandingsvraelys - Algemene Opname te valideer vir korrektiewe beamptes in Suid-Afrika en om die konstruk-ekwivalensie daarvan vir verskillende taalgroepe te bepaal. 'n Dwarsdeursnee-opname-ontwerp met 'n gestratifiseerde ewekansige steekproef (N=897) van korrektiewe beamptes in Suid-Afrika is gebruik. Die MBI-GS en 'n biografiese vraelys is afgeneem. 'n Verkennende factor analise met 'n direkte oblimin rotasie het 'n drie-faktormodel van uitbranding bestaande uit Uitputting, Sinisme en Professionele Doeltreffendheid bevestig. Die skale het aanvaarbare interne konsekwentheid getoon. Verkennende faktoranalise met teikenrotasies het die konstrukekwivalensie vir die drie faktore bevestig vir die verskillende taalgroepe.

Little attention has been paid to correctional officers in the quite extensive literature on prisons and imprisonment. According to Cornelius (1994), one of the most curious features of the entire history of modern imprisonment is the way in which the correctional officer, the key figure in the penal equation, the man on whom the whole edifice of the penitentiary system depends, has with astonishing consistency either been ignored or traduced or idealised but almost never considered seriously.

One way of filling the gap in our knowledge about correctional officers is to try to learn more about the experience of working in prisons, its meaning for the correctional officers, and its consequences for them as well as for the organisation that employ them. Correctional officers perform jobs which are basically client-centred in their orientation. Such jobs involve working intensely and intimately with other people, trying to help them or to perform services to them. Working under such circumstances for extended periods may lead to increased proneness to the particular types of stress resulting in the experience of "burnout" (Finn, 1998). Correctional work is a stressful occupation and occupational stress has been shown in many international studies to have adverse consequences both for the individual and for the organisation (Huckabee, 1992). It may adversely affect the physical and mental health of the individual and may interfere, both directly and indirectly with the smooth functioning of the organisation. Correctional services in many countries are known for high rates of turnover and absenteeism among employees, which can at least partially be attributed to occupational stress.

As the prison population continues to increase, the conditions within correctional facilities will remain stressful for inmates (Hassine, 1996; Toch, 1992) and staff (Anson & Bloom, 1988; Finn, 1998) alike. Although inmates have numerous programmes available to help them cope with the stress of their living environment (e.g., individual and group psychotherapy, stress management programmes, recreational therapy), correctional officers have limited resources available that are designed to help them cope with the stress of the prison environment. To further compound the problem, correctional environments are typically considered "tough" and "dangerous" places of employment, perceptions that may lead to the development of machismo attitudes (Maghan & McLeish-Blackwell, 1991). The prison environment contributes to aggressive, rigid, and power-motivated behaviours, as evidenced in the old Zimbardo Prison Experiment (Haney, Banks, & Zimbardo, 1973).

Unfortunately, correctional staff who develop machismo attitudes may be unlikely to ask for help during times of stress.

The inherent stress in correctional work has led to the following health-related problems: cardiac difficulties, substance abuse, cardio-vascular and hypertension problems (Harenstam, Palm, & Theorell, 1988). Another result of occupational stress among correctional officers is burnout (Lindquist & Whitehead, 1986; Ill-heath statistics in Department of Correctional Services (SA), 2001, 2002, 2003).

The evocative power of the term burnout term to capture the realities of people's experiences in the workplace is what has made it both important and controversial in the research field. As the "language of the people", burnout was more grounded in the complexities of people's relationship to work and gave new attention to some aspects of it. However, burnout was also derived at first as non-scholarly "pop psychology" (Schaufeli & Buunk, 2002). Unlike other research on the workplace, which used a top-down approach derived from a scholarly theory, burnout research initially utilised a bottom-up or "grass-roots" approach derived from people's workplace experiences. At first, the popular, non-academic origins of burnout were more of a liability than an advantage. However, given the subsequent development of theoretical models and numerous empirical studies, the issue of research scholarship has now been laid to rest.

Burnout

To be able to understand burnout and its impact on correctional officers, it is necessary to unpack the concept *burnout.* Several opinions on and definitions of burnout are found in the literature. Edwards, Burnard, Coyle, Fothergill and Hanniggan (2000) captured this by saying: "Throughout the research literature there is no standard definition of burnout". Initially burnout was described as a specific kind of occupational stress reaction among human service professionals, as a result of the demanding and emotionally charged relationship between caregivers and their recipients. With this definition, it is notable that the view on burnout has moved beyond the so-called human service professions. The possibility of burnout is now open to all professions.

What has emerged from research is a conceptualisation of burnout as a psychological syndrome in response to chronic interpersonal stressors on the job. The three key dimensions of this response are an overwhelming exhaustion, feelings of cynicism and detachment from the job, and a sense of ineffectiveness and lack of accomplishment (Maslach & Jackson, 1986). The exhaustion component represents the basic individual stress dimension of burnout. It refers to feelings of being overextended and depleted of one's emotional and physical resources. Cynicism refers to a negative, callous or excessively detached response to various aspects of the job. The component of reduced efficacy or accomplishment represents the self-evaluation dimension of burnout. It refers to feelings of incompetence and lack of achievement and productivity at work (Maslach & Jackson, 1986)

Research has shown that burnout is not only related to negative outcomes for the individual, including depression, a sense of failure, fatigue and loss of motivation- but also to negative outcomes for the organisation, including absenteeism, turnover rates and lowered productivity (Schaufeli & Enzmann, 1998). These negative outcomes are also applicable to correctional officers. The following disciplinary hearing statistics in the South African Correctional Services serve as an indication of the growing contention that many correctional officers also experience their working conditions as stressful and traumatic, as suggested by (Finn, 1998).

Table 1

Disciplinary Hearings : South African Department of Correctional Services

	Limpopo, Mpumalanga and Northern Province		Free State and Northern Cape		Kwazulu-Natal		Eastern Cape		Gauteng		Western Cape		TOTAL	
TRANSGRESSION	Dec 2003	Jan 2004	Dec 2003	Jan 2004	Dec 2003	Jan 2004	Dec 2003	Jan 2004	Dec 2003	Jan 2004	Dec 2003	Jan 2004	Dec 2003	Jan 2004
Unauthorized absence (e.g. Uncommunicated absence)		2		38		25		37		13		13		128
Unsatisfactory performance (e.g. Sleeping on duty not guarding prisoners)		6		8		47		36		17		6		120
Insubordination (Refusing to take lawful instructions)				5		15		13		6		3		42
Dishonesty (e.g. Assisting prisoner to escape)		5		20		27		19		7		3		81
Disorderly/irregular behaviour (e.g. Sexual Harassment)		12		14		30		84		18		1		159
Alcohol and drugs (e.g. Permitting prisoners to take alcohol/drugs)		4		3		7		8		7		3		32
Government transport (e.g. Driving under influence of alcohol)						4				3		1		8
Government property (e.g. Misuse of government property)		1		2		2		2		1				8
TOTAL														579

Based on the picture created by the above statistics, it is imperative that the differences with regard to the burnout levels of language groups of the South African correctional officers be investigated. The objective of this study will therefore be firstly, to determine the factorial validity and internal consistency of the Maslach Burnout Inventory - General Survey (MBI-GS) and then its acceptability for correctional officers in South Africa, and also to test its construct equivalence for different language groups.

The Maslach Burnout Inventory-General Survey (MBI - GS)

The initial development of the Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1986), included two versions of the MBI namely the MBI - ED (Educators) and MBI - HSS (Human Services Survey). These versions measure Emotional Exhaustion, Depersonalisation and Personal Accomplishment. When slightly adapted versions of the MBI - HSS/ED were used outside the targeted professions, psychometric results were rather disappointing (e.g. Boles, Dean, Ricks, Short, & Wang, 2000; Evans & Fisher, 1993). The fact that the MBI should obviously be used exclusively in those occupational contexts it has been designed for - human services and education, - has led to the development of a version that can be used universally: The MBI - General Survey (MBI-GS). The MBI-GS contains dimensions similar to the original version, except that the items do not explicitly refer to recipients or students (Schaufeli, Leiter, Maslach, & Jackson, 1996). Accordingly, the dimensions of the MBI-GS have been renamed slightly as exhaustion, cynicism and professional efficacy. In the current study, the MBI-GS is used.

Despite the fact that, from a psychometric point of view, the MBI is a good tool for assessing burnout, a basic problem exists. Because of the absolute predominance of the MBI, the concept is narrowed to the three dimensions namely exhaustion, cynicism and reduced professional efficacy. Although this common standard has the advantage that findings across studies can be compared in straightforward manner for instance by using meta-analysis, the narrow focus remains an issue. This is fairly serious since the MBI is neither grounded in firm clinical observation nor based on sound theorising. Instead it has been developed inductively by factor-analysing a rather arbitrary set of items (Schaufeli, 2003).

South Africa is a multicultural society and the Department of Correctional Services employs individuals of diverse cultural backgrounds. Within the South African context it cannot be taken for granted that scores obtained in one culture can be compared across cultural groups. Before comparing scores across cultural groups, equivalence and bias should be tested (Van de Vijver & Leung, 1997). Without a test of equivalence it is impossible to know to what extent scores or construct underlying an instrument can be compared across cultures.

Taris, Schreurs, and Schaufeli (1999) showed that psychometrically speaking, the MBI - GS performed equally well in a sample of software engineers as among university teaching staff, but that levels of exhaustion and cynicism were significantly higher in the former sample compared to the latter, whereas the reverse was true for professional efficacy. In other words, the study of Taris et al. (1999) shows that the MBI-GS can be used to measure burnout among educators and corporate employees and that - despite difference in levels-burnout is predicted by similar variables in both samples. This is another indication that burnout is not a typical helper syndrome. Other studies using the MBI-GS have also demonstrated the consistency of the burnout construct across human services and non-human services samples (e.g., Bakker, Demerouti, & Schaufeli, 2002; Leiter & Schaufeli, 1996).

In the literature regarding the MBI-GS, satisfactory internal consistencies ranging from 0,73 (Cynicism) to 0,91 (Exhaustion) were found (Leiter & Schaufeli, 1996). Reliability analysis conducted by Schutte, Toppinen, Kalimo, and Schaufeli, (2000) showed that the Exhaustion and Professional Efficiency sub-scales were sufficiently internally consistent, but that one cynicism item (item 13) should be removed in order to increase the internal consistency beyond the criterion of 0,70. According to them, this might be caused by the ambivalence of the particular item: "I just want to do my job and not be bothered". In their studies, Leiter and Schaufeli (1996) also found that this item had the lowest factor loadings of the three sub-scales.

Many studies that used the MBI-GS in South Africa were found. In a sample of senior managers in a manufacturing industry, Rothmann and Jansen van Vuuren (2002) found satisfactory alpha coefficients of 0,79 (Exhaustion), 0,84 (Cynicism) after item 13 had been omitted and 0,84 (Professional Efficacy). Rothmann and Malan (2003) found higher alphas of 0,98 (Exhaustion); 0,76 (Cynicism) and 0,85 (Professional Efficacy), while Rothmann,

Jackson, and Kruger, (2003) found lower alphas of 0,72 (Cynicism) after item 13 had been omitted and 0,69 (Professional Efficacy). Storm and Rothmann (2003) also found alpha coefficients of 0,88 (Exhaustion); 0,78 (Cynicism) and 0,79 (Professional Efficacy) in a sample of 2 396 police officers in South Africa. They also confirmed the three-factor structure of the MBI-GS.

Confirmatory factor analysis conducted by Schutte et al. (2000) showed that the three-factor model was clearly superior to alternative one-factor and two-factor models. Schaufeli, Martinez, Pinto, Salanova, and Bakker (2002) confirmed these findings. Leiter and Schaufeli (1996) employed confirmatory factor analysis using linear structural equation modelling (SEM) and also confirmed a three-factor structure. Similar results were obtained by Taris et al (1999). Confirmatory factor analysis by Rothmann et al., (2003), Rothmann and Jansen van Vuuren (2002) and Rothmann and Malan (2003) consistently showed low loadings on item 13 of the MBI-GS on Cynicism. Storm and Rothmann (2003) used structural equation modelling (SEM) methods to test the factorial model for the MBI-GS on a random, stratified sample in South African Police Services. Prior to testing the three-factor model of burnout, a one-factor model was tested. However, the one-factor model showed poor fit, while a three-factor model, using 15 of the original items, resulted in a good fit.

Burnout and biographical factors

It is clear from literature that the corrections profession is prone to burnout, of all the biographical factors that have been studied internationally in relation to correctional officers, age is the one that has been most consistently related to burnout. Among young employees the level of burnout is reported to be higher than it is among those over 30 or 40 years old. Age is related with work experience, so burnout appears to be more of a risk earlier in one's career. The reasons for such an interpretation have not been studied very thoroughly. However, these findings should be viewed with caution because of the problem of survival bias - i.e, those who burn out early in their careers are likely to quit their jobs, leaving behind the survivors who consequently exhibit lower levels of burnout (Perlman & Hartman, 1982).

Gender has not been a strong predictor of burnout (despite some argument that burnout is more of a female experience). Some studies show higher burnout for women, some show

higher scores for men, and others find no overall differences. The one small but consistent sex difference is that males often score higher on cynicism. There is also a tendency in some studies for women to score slightly higher on exhaustion. These results could be related to gender role stereotypes, but they may also reflect the confounding of sex with occupation (correctional officers are more likely to be male, and nurses are more likely to be female).

With regard to marital status, those who are unmarried (especially men) seem to be more prone to burnout compared to those who are married. Singles seem to experience even higher burnout levels than those who are divorced (Bersoff & Crosby, 1984).

With regard to differences between employees from different language groups, indications are that, no significant differences regarding burnout patterns and burnout levels could be found internationally between different cultures (Enzmann, Schaufeli, & Girault, 1995; Schutte et al., 2000).

The hypotheses of this study are as follows:

HI: Burnout, as measured by the MBI-GS, can be defined as a three-dimensional construct with acceptable levels of internal consistency for each of its subscales, namely Exhaustion, Cynicism and Professional Efficacy.

H2: In terms of burnout levels of correctional officers, significant differences based on biographical characteristics like language group, qualification, rank and job exist. The Afrikaans/English language group will reflect higher levels of burnout than the African language group, and that those officers with low qualifications will reflect higher levels of burnout than the highest qualified officers. No significant differences regarding ranks is expected. It can be expected that lowest ranking officers will reflect higher levels of burnout than their highest ranking counterparts.

METHOD

Research design

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

Participants

Random samples (N = 1500) were taken from Correctional Centres (consisting of 40 prisons with a total population of 10 000 correctional officers) in all nine Provinces: Gauteng, KwaZulu-Natal, Eastern Cape, Western Cape, Free State, Northern Cape, Limpopo, North West and Mpumalanga. A total 1000 questionnaires were received back. However, only 897 questionnaires could be included in the final data analysis due to the fact that other questionnaires were not properly responded and therefore lacked important information required for this research. Correctional Centres were divided into small (fewer than 50 members), medium (50-100 members) and large (more than 100 members). Table 2 presents detailed characteristics of the participants.

Table 2

Characteristics of the Participants

ITEM	CATEGORY	FREQUENCY	PERCENTAGE
Home Language	Afrikaans	340	37,9
	English	50	5,6
	Sepedi	34	3,8
	Sesotho	81	9,0
	Setswana	48	5,4
	Isiswati	7	0,8
	Tshivenda	15	1,7
	Isizulu	102	11,4
	IsiNdebele	14	1,6
	IsiXhosa	191	21,3
	IsiTsonga	10	1,1
Rank	Correctional Officer I – III	755	84,2
	Senior Correctional Officer	96	10,7
	Assistant Director	23	2,6
	Deputy Director	5	0,6
	Director	1	0,1
Education	Grade 12 only	703	78,4
	Grade 12 + 3 years diploma/degree	97	10,8
	Grade 12 + 4 years diploma/honours degree	74	8,2
	Grade 12 + 5 to 7 years degree	1	0,1
	Grade 12 + Master's degree	9	1,0
	Grade 12 + Doctoral degree	1	0,1

Measuring battery

The Maslach Burnout Inventory Survey (MBI-GS) (Schaufeli et al., 1996) was used to measure burnout. The following sub-scales of the MBI-GS were used: Exhaustion (five items; e.g. "I feel used up at the end of the workday"); Cynicism (five items; e.g. "I have become less enthusiastic about my work") and Professional Efficacy (Six items; e.g. "In my opinion, I am good at my job"). The items of the MBI-GS are phrased as statements about personal feelings and attitudes, which are self-scored on a seven - point frequency scale, ranging from 0 (*never*) to 6 (*everyday*). Internal consistencies found by Leiter and Schaufeli (1996) and Schaufeli, Van Diederendonck and Van Gorp (1996) range from 0,73 (Cynicism)

to 0,91 (Exhaustion). Test-retest reliabilities after one year were 0,65 (Exhaustion), 0,60 (Cynicism) and 0,67 (Professional Efficacy) (Schaufeli et al., 1996). In the four South African samples (Rothmann et al., 2003; Rothmann & Jansen van Vuuren, 2002; Rothmann & Malan, 2003; Storm & Rothmann, 2003) alpha coefficients ranging from 0,69 (Professional Efficacy) to 0,98 (Exhaustion) were found. Storm and Rothmann (2003) confirmed the three factor structure of the MBI - GS in the South African Police Service (SAPS), but also recommended that item 13 should be dropped from the questionnaire.

A biographical questionnaire was designed to gather gender, rank, education and marital status information.

Statistical analysis

The statistical analysis was conducted with the SPSS program (SPSS Inc., 2003). The construct equivalence of the MBI – GS was assessed. Factor analysis is the most frequently employed technique for studying construct equivalence. In the current study, exploratory model is used for a pragmatic reason. A principal components analysis was conducted to determine the number of factors of the MBI – GS in the total sample. Subsequently, a direct oblimin rotation was used to determine the solution for each language group. Factors obtained in each group were computed (after target rotation). The agreement was evaluated by a factor congruence coefficient, namely Tucker's phi (Van de Vijver & Leung, 1997). Values above 0,90 are taken to point to essential agreement between cultural groups, while values above 0,95 point to a very good agreement. A high agreement implies that the factor loadings of the lower and higher level are equal up to a multiplying constant. (The latter is needed to accommodate possible differences in eigenvalues of factors for the language groups.)

Because of the composition of the sample, it was decided to conduct the analyses in this study on three language groups (Afrikaans, English and African languages). Although the best strategy would have been to define cultural groups in terms of language, the sample sizes of the language groups were not large enough to satisfy the assumptions of the statistical techniques which were employed.

Multivariate analysis of variance (MANOVA) was used to analyse the differences between the burnout levels of different racial groups, namely language, qualification, rank and job. MANOVA tests whether mean differences among groups in a combination of dependent variables are likely to have occurred by chance (Tabachnick & Fidell, 2001). A new dependent variable that maximises group differences is created from a set of dependent variables. A one-way analysis on the variance was then performed. Wilks' Lambda was used to test the significance of the effects. Wilks' Lambda is a likelihood ratio statistic of the data under the assumption of the equal population mean vectors for all the groups against the likelihood under the assumption that the population mean vectors are identical to those of the sample mean vectors for the different groups.

RESULTS

A simple principal component analyses was conducted on the 15 items of MBI-GS on the total sample of correctional officers. Analysis of the eigenvalues (large than 1) and scree plot indicated that three factors could be extracted, which explained 53.37% of the total variance, but it was decided to specify a three-factors solution after thoroughly interpreting the scree plot.

Next, principal component analysis with a direct oblimin rotation was used for conducting factor analysis per language groups. The pattern matrices for Afrikaans/English and African are reported in Table 3.

Table 3

Pattern Matrix of the MBI-GS

Item	Afrikaans/English			Africans		
	Factor 1	Factor 2	Factor 3	Factor 1	Factor 2	Factor 3
MBI 1	**0,81**	-0,05	0,02	**0,78**	0,03	0,02
MBI 2	**0,83**	0,02	-0,07	**0,76**	0,18	-0,08
MBI 3	**0,82**	-0,05	0,02	**0,77**	0,02	-0,03
MBI 4	**0,57**	-0,01	0,21	**0,67**	-0,03	0,03
MBI 5.	0,30	**0,54**	-0,36	-0,00	**0,74**	0,00
MBI 6.	**0,83**	0,01	0,05	**0,67**	-0,06	0,13
MBI 7	-0,10	**0,70**	0,05	0,12	**0,72**	-0,06
MBI 8	0,19	-0,15	**0,50**	0,22	-0,25	**0,51**
MBI 18	0,46	-0,06	**0,42**	0,41	-0,23	**0,40**
MBI 9	0,27	-0,16	**0,49**	0,24	-0,14	**0,49**
MBI 10	-0,01	**0,77**	0,04	0,02	**0,75**	0,01
MBI 12	-0,05	**0,68**	-0,01	-0,04	**0,55**	0,14
MBI 14	-0,02	0,28	**0,76**	-0,13	0,26	**0,82**
MBI 15	0,17	-0,12	**0,68**	0,22	-0,25	**0,50**
MBI 16	-0,05	**0,76**	0,11	0,06	**0,73**	-0,07

The pattern matrices of the three-factor solutions for Afrikaans/English and Africans language groups were then used as input for an exploratory factor analysis with target rotation. The three-factor structure was compared across the total group by rotating one solution to the other. After a direct oblimin rotation, the following Tucker's phi coefficients were obtained:

Factor 1: (Exhaustion) = 0,97
Factor 2: (Professional Efficacy) = 0,98
Factor 3: (Cynicism) = 0,92

This coefficients can be regarded as highly acceptable because values above 0,90 are taken to point to essential agreement between language groups, while values above 0,95 point to very good agreement (Van de Vijver & Leung, 1997).

The following alpha coefficients of the three factors of the MBI-GS revealed that the scores of scales are highly acceptable as compared to the guideline of 0,70 (Nunnally & Bernstein, 1994); Exhaustion (0,82), Cynicism (0,72) and Professional Efficacy (0,74).

Hypotheses 1 is therefore supported correctional officers burnout, as measured by the MBI-GS, can be defined as a three-dimensional construct with acceptable levels of internal consistency for each of its subscales, namely Exhaustion, Cynicism and Professional Efficacy.

Next, multivariate analysis of variance (MANOVA) was used to analyse the differences between the burnout levels of different language groups in terms of their *languages, qualifications, ranks and jobs* (see Table 4). In MANOVA, several dependent variables (in this case Exhaustion, Cynicism and Professional Efficacy) are considered together in the same analysis.

Table 4

MANOVA of the Burnout Levels of Language Groups

Item	Value	*F*	*df*	*p*	η^2
Language	0,98	5,01	3,00	0,00*	0,02
Qualification	0,99	2,82	3,00	0,04	0,01
Rank	0,99	3,13	3,00	0,03	0,01
Job	0,95	1,77	24,00	0,01*	0,02

* $p < 0,01$

Table 4 shows that there was a significant effect of *language* on the combined dependent variable Burnout ($F_{(3,888)} = 5,01$, $p < 0,01$; Wilks' Lambda = 0,98; $\eta^2 = 0,01$). However, this effect was small (1,7% of the variance explained). Analysis of each individual dependent variable, using a Bonferroni adjusted alpha level of 0,017, showed that there were no significant differences between the levels of Exhaustion ($F_{(1,890)} = 5,19$, $p = 0,02$) and Cynicism ($F_{(1,890)} = 5,40$, $p = 0,02$) in the two language groups, (English/Afrikaans and

Africans) of the correctional officers in South Africa. The two groups differed in terms of the level of Professional Efficacy where the English/Afrikaans group showed higher levels of Professional Efficacy ($F_{(1,890)} = 11,79, p = 0,00$)

There was no significant effect of *qualification and rank* on the combined dependent variable Burnout. However, the analysis of each individual dependent variable, using a Bonferroni adjusted alpha level of 0,017, showed that the language groups (English/Afrikaans and Africans) differed in terms of the level of Exhaustion where the Africans showed higher levels of Exhaustion ($F_{(1,882)} = 6,04, p = 0,01$).

There was a significant effect of *job* on the combined dependent variable Burnout ($F_{(24, 2465)} = 1,77, p < 0,01$; Wilks' Lambda = 0,95; $\eta^2 = 0,02$). However, this effect was small (1,6% of the variance explained). Analysis of each individual variable, using a Bonferroni adjusted alpha level of 0,017, showed that there were no significant differences between the levels of Exhaustion ($F_{(8, 852)} = 1,87, p = 0,06$), Cynicism ($F_{(8, 852)} = 1,16, p = 0,31$) and Professional Efficacy ($F_{(8, 852)} = 1,53, p = 0,14$).

The above results provide partial supporting evidence for acceptance of hypotheses 2, which projected that significant differences based on the biographical characteristics of language, qualification, rank and job will exist. In contrast with the hypotheses, there was a significant effect of *language* on the combined dependent variable Burnout, with the Afrikaans/English group showing higher levels of professional efficacy as compared to the African group. No significant differences existed between levels of exhaustion and cynicism in the two language groups. Unexpectedly, in terms of *qualification* and *rank*, there was no significant effect of qualification and rank on the combined dependent variable Burnout, but the African group showed a higher level of exhaustion as compared to the Afrikaans/English group. There was a significant effect of *job* on the combined dependent variable Burnout, but no significant differences between the levels of Exhaustion, Cynicism and Professional Efficacy. It can thus be concluded that, in contrast to the hypotheses, some differences based on biographical characteristics of correctional officers were found.

Next, the frequencies and percentages of correctional officers in the sample who experience low, moderate and high levels of Exhaustion, Cynicism and Professional Efficacy relatively to a South African normative sample (N=8300) are shown in Table 5.

Table 5

Frequencies and Percentages of Exhaustion, Cynicism and Professional Efficacy

	Percentage	Percentage	Percentage
Exhaustion	37,1	29,3	32,4
Cynicism	17,8	43,7	38,6
Professional Efficacy	32,1	34,8	32,1

Table 5 shows that, compared to the normative sample, 32,4% of correctional officers experience high levels of exhaustion, while 38,6% experience high cynicism and 32,1% show low professional efficacy.

DISCUSSION

The aim of this study is to assess the psychometric properties of an adapted version of the Maslach Burnout Inventory-General Survey (MBI-GS) for correctional officer's in South Africa and to investigate differences between the levels of burnout of different language groups (Afrikaans/English and African).

Prior to testing for the factorial validity and internal consistency of the MBI-GS, construct equivalence analyses were conducted for the remaining 15-item MBI-GS questionnaire to determine possible sources of inappropriate comparison across the racial groups. A simple principal component analysis was carried out for correctional officers in the two language groups, namely Africans and Afrikaans/English. Item 11 was found not to be factorable. Based on both conceptual and empirical grounds, item 13 was also eliminated from the original MBI-GS, and replaced with item 18. The decision to eliminate the items is due to its ambivalent nature and is consistent with previous research findings (Schutte et al., 2000; Storm & Rothmann, 2003). After removal of the problematic items, simple factor analysis

yielded a three factor solution. The three factors were labelled as Exhaustion, Cynicism and Professional Efficacy. These results show that the burnout construct was equivalent for the two language groups. It also appears that scales have acceptable levels of internal consistency for correctional officers, with the three subscales exceeding the critical Cronbach alpha value of 0,70.

Previous research has demonstrated that internationally, several factors related to correctional officers job burnout include: role ambiguity (Dignam, Barrera, & West, 1986); role conflict (Lindquist & Whitehead, 1986); workload (Dignam et al., 1986); understaffing (Lindquist & Whitehead, 1986); overcrowding and lack of environmental control (Rutter & Fielding, 1988); lack of participation in decision making (Lindquist & Whitehead, 1986); inmate contact (Lindquist & Whitehead, 1986); confrontations with inmates, and job danger (Grossi & Berg, 1991).

In South Africa, no published empirical evidence exist that identified the severity and sources of burnout for correctional officers. For this study, to be able to understand burnout and its impact on correctional officers, it is necessary to unpack the concept *burnout*. Several opinions on and definitions of burnout are found in the literature (Edwards, Burnard, Coyle, Fothergill, & Hanniggan, 2000). Initially burnout was described as a specific kind of occupational stress reaction among human service professionals, as a result of the demanding and emotionally charged relationship between caregivers and their recipients. With this definition, it is notable that the view on burnout has moved beyond the so-called human service professions. The possibility of burnout is now open to all professions, including the South African Correctional Services which is viewed as overcrowded, corrupt, and with high level of absenteeism and major violence (Botha & Pienaar, 2006).

Regarding the differences in the burnout levels between language groups, the current study found that there was a significant effect of *language* on the combined dependent variable Burnout. However, this effect was small (1,7% of the variance explained). Analysis of each individual dependent variable, showed that there were no significant differences between the levels of Exhaustion and Cynicism in the two language groups of the correctional officers in South Africa. The two groups differed in terms of the level of Professional Efficacy where the English/Afrikaans group showed higher levels of Professional Efficacy.

There was also no significant effect of *qualification* and *rank* on the combined dependent variable Burnout. However, the analysis of each individual dependent variable showed that the language groups (English/Afrikaans) and (Africans) differed in terms of the level of Exhaustion where the Africans showed higher levels of Exhaustion.

Furthermore, there was a significant effect of *job* on the combined dependent variable Burnout. However, this effect was small (1,6% of the variance explained). Analysis of each individual variable, showed that no significant differences existed between language groups as a result of the levels of Exhaustion, Cynicism and Professional Efficacy.

The results shows that, compared to the normative sample, 32,4% of correctional officers experience high levels of exhaustion, while 38,6% experience high cynicism and 32,1% show low professional efficacy. The above findings, coupled with the resultant high cynicism (which refers to a negative, callous or excessively detached response to various aspects of the job among correctional officers in South Africa), might be informed by multiple factors prevailing in the current correctional system. The first reason is due to the negative impact that the past transformation and affirmative action processes had on majority of the Afrikaans/English speaking correctional officer's. They no longer enjoy their careers due to the fact that affirmative action only benefited the previously disadvantaged groups. The second reason is as a result of both the past affirmative action and the ongoing transformations (towards a new strategic direction) in the department which are also not immediately followed up with the required training programmes to develop and empower those language groups which are benefiting from such processes. The third obvious reason is due to the present unacceptable working conditions inside the overcrowded prisons and lastly, the poor public image about the entire Correctional Service. According to the above findings, the present situation is such that some correctional officers either feel exhausted, negative towards their work, doubt their own efficacy and that the Afrikaans/English language group is at risk more than the African group. A turn around plan involving the Employee Assistant Practitioner should be implemented to remedy the situation, with special focus on correcting the five points identified above as the cause of the problem.

In addition, part of the above findings could possibly be explained in terms of the possibility of semantic differences in terms of understanding of the content of the items by the different

language groups. The misunderstandings could have led to the inconsistent responses to certain questions.

In conclusion, this study could serve as a reference or standard for correctional officers regarding the burnout levels in the Department of Correctional Services in South Africa. The three-factor structure of burnout construct is largely confirmed, as well as the internal consistency of the Exhaustion, Cynicism and Professional Efficacy scales of the MBI-GS. Based on the results obtained in this study, it seems as if the MBI-GS is a suitable instrument for measuring burnout for correctional officers in South Africa. Therefore, the MBI-GS paves the way for further possibilities for burnout research in the Department of Correctional Services in South Africa.

A limitation of this study was that it relied exclusively on self-report measures. This causes a particular problem in validation studies because at least part of the common variance of the measures can be attributed to method variance (Schaufeli, Enzmann, & Girault, 1993).

RECOMMENDATIONS

Based on the results of this study, it is recommended that the MBI-GS be used to assess burnout in the Department of Correctional Services in South Africa. However, items 11 and 13 should be left out when administering the questionnaire. Item 13 should then be replaced with item 18. It appears justifiable to use the MBI-GS to measure burnout in all language groups (Afrikaans/English and African).

Suggestions for any future research are derived from the present findings. Although this study found the MBI-GS to be reliable and confirmed the three-factor structure for correctional officers, additional research is needed to further determine the reliability and validity in other occupations in South Africa. Future studies should use large samples and adequate statistical techniques (e.g. structural equation modelling). Large sample sizes might provide increased confidence that study findings would be consistent across other similar groups.

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CHAPTER 4

Article 3

WORK ENGAGEMENT OF CORRECTIONAL OFFICERS IN SOUTH AFRICA

ABSTRACT

The objectives of this study were to assess the psychometric properties of the Utrecht Work Engagement (UWES) for correctional officers in South Africa and to investigate the differences between the levels of work engagement among different language groups. A cross-sectional survey design was used, with stratified random samples (N = 897) taken of correctional officers in South Africa. The UWES and a biographical questionnaire were administered. Exploratory factor analysis with target rotations resulted in a one-factor model of work engagement, consisting of Vigour/Dedication. The scale showed acceptable internal consistency. Exploratory factor analysis with target rotations confirmed the construct equivalence of the work engagement construct for different language groups in the Department of Correctional Services. Statistically significant differences were found between the work engagement of Africans and Afrikaans/English language groups.

OPSOMMING

Die doelstellings van hierdie studie was om die psigometriese eienskappe van Utrechtse Werkbegeesteringskaal (UWES) vir korrektiewe beamptes in Suid-Afrika te meet en om ondersoek in te stel na die verskille ten opsigte van vlakke van werksbegeestering by verskillende taalgroepe. 'n Dwarsdeursnee-opname-ontwerp is gebruik met gestratifiseerde ewekansige steekproewe (N=897) geneem van korrektiewe beamptes in Suid-Afrika. Die UWES en 'n biografiese vraelys is afgeneem. Verkennende faktorontleding met teikenrotasies het geresulteer in 'n eenfaktormodel van werkbegeestering, bestaande uit Energie/Toewyding tot gevolg gehad. Die skaal het aanvaarbare interne konsekwentheid getoon. Eksploratiewe faktoranalise met teikenrotasies het konstrukekwivalensie van werkbegeestering vir verskillende taalgroepe in Korrektiewe Dienste getoon. Statisties betekenisvolle verskille is gevind tussen die werkbegeestering van Afrikane en Afrikaanse/Engelse taalgroepe.

Recently, the field of psychology has been subjected to a transformation, in essence questioning many strongly held beliefs and premises at an individual, group and meta-theoretical level (Snyder & Lopez, 2002). Psychology with its emphasis on human suffering has been found to focus too much on the negative states, instead of on positive outcomes in the work settings (Diener, Suh, Lucas, & Meyers, 2000). The traditional health and social sciences have been characterised by a pathogenic paradigm, i.e. an orientation towards the abnormal, with the fundamental question being "why do people fall ill?" (Strümpfer, 1990). Knowledge gained by answering this question was then used to find ways of treating and preventing diseases.

According to Strümpfer (1990), in contrast to the pathological interest in "what can go wrong", there seems to be a more general trend emerging to discover "what can go right" with the introduction of the so-called "positive psychology". The author further propounds that the field of positive psychology at the subjective level is about valued subjective experiences, well-being, contentment, and satisfaction (in the past) hope and optimism (for the future) and flow and happiness (in the present).

Empirical evidence detected in the burnout research literature has revealed that some employees, regardless of high job demands, do not develop burnout but find pleasure in hard work (Schaufeli & Bakker, 2001). Consequently, studies commenced on the concept of engagement, an antithesis of the burnout construct. Work engagement is defined as an energetic state of mind in which the employee is dedicated to excellent performance at work and is confident of his or her effectiveness (Schutte, Toppinen, Kalimo, & Schaufeli, 2000). Work engagement was also conceptualised by Kahn (1990), as the 'harnessing of organisational members selves to their work roles; in engagement , people employ and express themselves physically, cognitively and emotionally during role performances' (p. 694). According to Kahn; self and role 'exist in some dynamic, negotiable relation in which a person both drives personal energies into role behaviours (self employment) and displays the self within the role (self expression)' (p. 700). Such engagement serves to fulfil the human spirit at work. Alternatively, disengagement is viewed as the decoupling of the self from work role and involves people withdrawing and defending themselves during performances.

The concept of engagement is also applicable to Correctional Services. Two decades of research in the correctional officer's stress literature has left little information known about the extent to which correctional work is stressful, except for stressful conditions within correctional facilities (Anson & Bloom, 1988; Finn, 1998; Harris, 1983). This resulted in an overall focus on psychological stress in correctional work and thus an absence of studies regarding well-being. It is therefore also necessary to study correctional work in a positive way. This could be achieved by focusing on the concept of work engagement to positively assess what motivates some committed correctional officers to remain in the correctional system even if anecdotal and empirical evidence suggests that correctional work is stressful and that the system is presently transforming itself from a military into a more demilitarised era.

The importance of reliable and valid instrument for the measurement of work engagement is therefore evident not only for the purpose of empirical research, but also ultimately for individual assessment. In this regard, Schaufeli, Salanova, Gonzalez-Roma and Bakker (2002) developed the Utrecht Work Engagement Scale (UWES) and found acceptable reliability for it.

A number of studies (Schaufeli et al., 2002; Storm, 2002) were found that focussed on engagement and its relationship with burnout. The study of Storm (2002) was the only study found in the South African criminal justice cluster focussing on internal consistency, factorial validity, structural equivalence and bias of UWES. Storm (2002) tested the full hypothesised three-factor model consisting of all 17 items (Schaufeli et al., 2002), and used structural equation modelling (SEM). Consequently, Storm (2002) obtained poor statistical significance for the original hypothesised three-factor model. Exploratory factor analysis was conducted and by deleting items 4 and 14, Storm (2002) re-specified the model. A better fit between statistical results and the theoretical assumption of Schaufeli et al. (2002) was subsequently obtained (Storm, 2002). Other studies which also used the UWES include those by Naudé and Rothmann (2004) and Rothmann (2005).

Storm (2002) conducted the only study in South Africa which examined the psychometric properties of the UWES for police officers within the criminal justice cluster departments, but the need to also examine the construct validity and internal consistency of the UWES for

other occupations within the criminal justice cluster is of great importance. Furthermore, above-mentioned study among the police officers, is not yet standardised for not all other South African occupations, which makes it difficult to place the research result into context. A third research problem is that the UWES has not been validated and standardised for correctional officers in South Africa. This makes it difficult to assess the levels of engagement of correctional officers in South Africa, and also creates difficulties with regard to comparing such levels of engagement with various other demographic groups in correctional institutions. It is therefore necessary to validate the UWES for correctional officers in South Africa.

Work engagement

A very simplistic view has been assumed by some authors, who suggest that excessive pressure turns into burnout. Such authors ignore the fact that some individuals who are exposed to the similar conditions might not experience burnout. Instead, they find pleasure in working hard, and regard themselves as being able to deal completely with the demands of their jobs (Leiter & Harvie, 1998).

With the introduction of "positive psychology" (Seligman & Csikszentmihalyi, 2000) the aim of organisational psychology shifted to finding the "happy/productive" worker (Staw, 1986) and focussed more on positive concepts such as job satisfaction, organisational commitment, organisational citizenship behaviour and intrinsic motivation (Schaufeli & Bakker, 2001), i.e. employee or work wellness. For the purposes of this research study in the Department of Correctional Services, the focus will be on the total spectrum of wellness - from unwell-being (e.g. burnout, stress) to well-being (e.g. engagement). This will ensure an objective and balanced approach to wellness and will add value to a comprehensive wellness programme within the Employee Assistance Programme of the Department of Correctional Services. For many organisations such as the Department of Correctional Services, wellness programmes offer "the greatest opportunity to both control and reduce costs and enhance the quality of life enjoyed by members of the workforce" (Wang, 1997, p.13). Wellness programmes are observed to be beneficial not only to employee well-being (e.g. a more positive attitude towards their department, higher job satisfaction and satisfaction with fringe benefits

provided), but also for departmental well-being (e.g. lower stress, lower absenteeism, higher motivation and productivity) (Ho, 1997).

Schaufeli and Bakker (2001) define engagement as a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication, and absorption. Rather than a momentary and specific state, engagement refers to a more persistent and pervasive affective-cognitive state that is not focused on any particular object, event, individual or behaviour. Engagement consists of three dimensions, namely vigour, dedication and absorption (Schaufeli & Bakker, 2001). *Vigour* is characterised by high levels of energy and mental resilience while working, the willingness to invest effort in one's work, not being easily fatigued, and persistence even in the face of difficulties. *Dedication* is characterised by deriving a sense of significance from one's work, feeling enthusiastic and proud about one's job, and by feeling inspired and challenged by it. *Absorption* is characterised by being totally and happily immersed in one's work and having difficulties detaching oneself from it. Time passes quickly and one forgets everything else that is around.

Work engagement is also distinct from other established constructs in organisational psychology, such as organisational commitment, job satisfaction or job involvement (Maslach, Schaufeli, & Leiter, 2001). *Organisational commitment* refers to an employee's allegiance to the organisation that provides employment. The focus is on the organisation, whereas engagement focuses on the work itself. *Job satisfaction* is the extent to which work is a source of need fulfilment and contentment, or a means of freeing employees from hassles or things causing dissatisfaction; it does not encompass the person's relationship with the work itself. *Job involvement* is similar to the involvement aspect of engagement with work, but does not include the energy and effectiveness dimensions (Maslach et al., 2001). Lastly, engagement (especially absorption) comes close to what has been called "flow", a term used by Csikszentmihalyi (1990) to represent a state of optimal experience that is characterised by focussed attention, a clear mind and body unison, effortless concentration, complete control, loss of self-consciousness, distortion of time and intrinsic enjoyment. Flow is a more complex concept that includes many aspects and refers to rather particular, short-term "peak" experiences instead of a more pervasive and persistent state of mind, as is the case with management.

The measurement of work engagement

Schaufeli et al. (2002) disagree with Maslach and Leiter (1997), who argues that engagement is measured by the opposite profile of Maslach Burnout Inventory (MBI) scores. Schaufeli et al. (2002) argue that, by using the MBI for measuring work engagement, it is practically impossible to study its relationship with burnout empirically since both concepts are considered to be opposite poles of a continuum that is covered by one single instrument (MBI). They agree that work engagement is the direct opposite antithesis of burnout, and further acknowledge that the measurement and the structures of these concepts differ.

Schaufeli and his colleagues (2002) developed the Utrecht Work Engagement Scale (UWES) and found acceptable reliability for it. Two recent studies using confirmatory factor analysis demonstrated the factorial validity of the UWES (Schaufeli, Bakker, Hoogduin, Schaap, & Kladler, 2001; Schaufeli et al., 2002). The three scales are moderately to strongly related (mean $r = 0,63$ in Sample 1 and mean $r = 0,70$ in Sample 2). Also, the fit of the hypothesised three-factor model to the data was superior to a one-factor solution (Maslach et al., 2001; Schaufeli et al., 2002).

Rothmann and Storm (2003) and Naudé (2003) studied the internal consistency, factorial validity, structural equivalence and bias of the UWES in South Africa. Although structural equation modelling supported a three-factor model of work engagement in both studies, the correlation between the three dimensions (i.e. vigour, dedication and absorption) were high, suggesting the possibility that work engagement (as measured by the UWES) is a one-dimensional construct. Cronbach alpha coefficients of the scales were acceptable compared to the guideline of $\alpha > 0,70$ (Nunnally & Bernstein, 1994). While Rothmann and Storm (2003) confirmed the structural equivalence of the UWES for four race groups, Naudé (2003) found that the UWES did not show structural equivalence for the Nguni language group. Based on these results it was recommended that the items of the MBI and UWES are mixed to prevent response patterns, that the wording of the items of the UWES should be simplified and that the UWES must be translated into the languages that are used in South Africa.

Van de Vijver and Leung (1997) made a hierarchical distinction of three types of equivalence. The first type, namely construct equivalence, indicates the extent to which the

same construct is measured across all cultural groups studied. When an instrument measures different constructs in different cultures i.e. when cultural equivalence exists, no comparison can be made. The same construct is measured in the case of construct equivalence (also labelled structural equivalence). The second type of equivalence is called measurement unit equivalence and can be obtained when two metric measures have the same measurement unit but have different origins. The third type of equivalence is called scalar equivalence and can be obtained when two metric measures have the same measurement unit and the same origin. Equivalence cannot be assumed but should be established and reported in each study (Van de Vijver & Leung, 1997). Construct equivalence is the most frequently studied type of equivalence.

Recent studies undertaken have shown that the cross-cultural utility of the UWES is promising. Storm and Rothmann (2003) confirmed the equivalence of the UWES for racial groups. Internal consistencies of the three subscales were determined at 0,78 (Vigour); 0,89 (Dedication) and 0,78 (Absorption). No evidence of structural inequivalence or item bias was found for the UWES. Internationally, in a cross-cultural study regarding the UWES for students in Spain, Portugal and Netherlands, the factorial validity of the UWES was confirmed and the internal consistency of the scales was found to be satisfactory. Internally consistent Cronbach alphas ranged from 0,65 to 0,79 for Vigour; 0,77 to 0,85 for Dedication; 0,65 to 0,73 for Absorption.

Researchers have also explored the impact of biographical characteristics such as age, language and gender on work engagement (Schaufeli & Bakker, 2003; Rothbard, 2001; Sonnentag, 2003). The conclusions were that older workers engaged more than the young generation of workers. Furthermore, previous research studies in correctional settings indicated a curvilinear relationship between age and the opposite pole of work engagement, namely burnout of correctional officer's (Launay & Fielding, 1989; Patterson, 1992). The youngest and the eldest officer's experienced the most stress, and the older and/or male, and those with longer tenure reported significantly lower levels of health concerns. Studies that included the age of the correctional official as a predictor found that younger officials reported higher levels of burnout, while older officials reported lower levels of stress (Whitehead & Lindquist, 1986). A recent study, Botha and Piennar (2005) within the South African correctional settings on the role of psychological strengths, found no significant

contribution of the following biographical variables (age, gender, tenure and language) to the explanation of correctional stress. On the gender issue, Schaufeli and Bakker (2003), found that men engaged more than women in their work. According to the authors, men scored high on Vigour, Dedication and Absorption as compared to the women group. However, these differences were also relatively small and therefore lacked practical significance.

According to Schaufeli and Bakker (2001), research on burnout has also shown that some individuals, regardless of high job demands and long working hours, were not burned out. Instead, they seemed to find pleasure in working hard and dealing with job demands. From a positive psychology perspective, such individuals could be described as engaged workers.

The above-discussion leads to the following hypotheses:

H1: Work engagement, as measured by the UWES, is a three dimensional construct and shows internal consistency and construct validity for the African and Afrikaans/English language groups of correctional officers in the Department of Correctional Services.

H2: Significant differences based on biographical characteristics (ranks, qualification and language) exist regarding engagement levels of African and Afrikaans/English language groups of correctional officers in South Africa.

METHOD

Research design

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

Participants

Random samples (N = 1500) were taken from Correctional Centres (consisting of 40 prisons with a total population of 10 000 correctional officers) in all nine Provinces: Gauteng, KwaZulu-Natal, Eastern Cape, Western Cape, Free-State, Northern Cape, Limpopo, North West and Mpumalanga.

A total of 1000 questionnaires were received back. However, only 897 questionnaires could be included in the final data analysis due to the fact that other questionnaires were not properly responded and therefore lacked important information required for this research. Correctional centres were divided into small (fewer than 50 members), medium (50 - 100 members) and large (more than 100 members). Table 1 presents detailed characteristics of the participants.

Table 1

Characteristics of the Participants

ITEM	CATEGORY	FREQUENCY	PERCENTAGE
Home language	Afrikaans	340	37,9
	English	50	5,6
	Sepedi	34	3,8
	Sesotho	81	9,0
	Setswana	48	5,4
	Isiswati	7	0,8
	Tshivenda	15	1,7
	Isizulu	102	11,4
	IsiNdebele	14	1,6
	IsiXhosa	191	21,3
	IsiTsonga	10	1,1
Rank	Correctional Officer I – III	755	84,2
	Senior Correctional Officer	96	10,7
	Assistant Director	23	2,6
	Deputy Director	5	0,6
	Director	1	0,1
Education	Grade 12 only	703	78,4
	Grade 12 + 3 years diploma/degree	97	10,8
	Grade 12 + 4 years diploma/honours degree	74	8,2
	Grade 12 + 5 to 7 years degree/e.g. medicine	1	0,1
	Grade 12 + Master's degree	9	1,0
	Grade 12 + Doctoral degree	1	0,1
Gender	Male	639	71,2
	Female	245	27,3

Measuring battery

The Utrecht Work Engagement Scale (UWES) (Schaufeli et al., 2002) was used in this study. The UWES includes three dimensions, namely vigour, dedication and absorption. Engagement is conceptually seen as the opposite of burnout and is scored on a seven-point scale, varying from 0 (*never*) to 6 (*everyday*). The questionnaire consists of 21 questions (Four items in which the language was simplified were added to the 17-item UWES) and includes questions such as: "I am bursting with energy everyday in my work", "Time flies when I am at work" and "My job inspires me". The alpha coefficients for the sub-scales

varied between 0,68 and 0,91 (Schaufeli et al., 2002). The alpha coefficient could be improved (to vary between 0,78 and 0,89 for the three sub-scales) by eliminating a few items without substantially decreasing the scales internal consistency. Storm (2003b) obtained the following alpha coefficients for the UWES in a sample of 2396 members of the South African Police Services: Vigour 0,78; Dedication 0,89 and Absorption 0,78. Two recent studies using confirmatory factor analysis demonstrated the factorial validity of the UWES (Schaufeli et al.,2001; Schaufeli et al., 2002). Naudé (2003) obtained the following alpha coefficients in a sample of emergency workers in South Africa: Vigour 0,70 and Dedication 0,83..

Statistical analysis

The statistical analysis was conducted with the SPSS program (SPSS Inc.,2003). The reliability and validity of the UWES were determined by means of exploratory factor analyses.

Exploratory factor analysis was used to examine construct equivalence. A principal components analysis was conducted to determine the number of factors of the UWES in the total sample. Subsequently, a direct oblimin rotation in each group was computed (After target rotation).The agreement was evaluated by factor congruence coefficients, Tucker's phi (Van de Vijver & Leung, 1997). Values above 0.90 were taken to point to essential agreement between cultural groups, while values above 0.95 pointed to very good agreement. A high agreement implies that the factor loadings of the lower and higher level are equal to a multiplying constant. (The latter is needed to accommodate possible differences in eigenvalues of factors for the language groups.)

A simple principal components analysis was also conducted on the 21 items of the UWES on the total sample of correctional officers. Analysis of the eigenvalues (larger that 1) and scree plot was used to indicate factors which could be extracted.

Principal component analysis with a direct oblimin rotation was used to conduct factor analyses per language group. The pattern matrices for English/Afrikaans and African language groups were then reported.

One-way analysis of variance (ANOVA), was used to analyse the differences between the engagement levels of language groups in terms of their different *education* and *rank*. The significance of differences between different language groups of correctional officers was reported. Lastly, a T-test was used to analyse the differences between the engagement levels of the different language groups.

RESULTS

Because of the composition of the sample, it was decided to conduct the analyses in this study on language groups. Although the best strategy would have been to define cultural groups in terms of language, the sample size of the language groups was not large enough to satisfy the assumptions of the statistical technique which were employed.

A simple principal components analysis was conducted on the 21 items of the UWES on the total sample of correctional officers. Analysis of the eigenvalues (larger that 1) and scree plot indicated that two factors could be extracted. Next, principal component analysis with a direct oblimin rotation was used in carrying out factor analyses per language group. The pattern matrices for English/Afrikaans and African language groups are reported in Table 2

Table 2
Pattern Matrix of the UWES

	Afrikaans/English		Africans	
	Factor 1	Factor 2	Factor 1	Factor 2
UWES1	0,23	**0,44**	0,16	**0,39**
UWES2	**0,58**	0,13	**0,57**	0,08
UWES3	**0,51**	0,12	**0,53**	0,10
UWES4	**0,67**	0,04	**0,63**	-0,03
UWES5	**0,83**	-0,07	**0,74**	0,03
UWES6	0,01	**0,45**	0,08	**0,44**
UWES7	**0,90**	-0,17	**0,71**	-0,01
UWES8	**0,82**	-0,13	**0,72**	-0,15
UWES9	**0,61**	0,08	**0,39**	0,11
UWES10	**0,72**	-0,02	**0,74**	-0,17
UWES11	**0,39**	0,34	0,15	**0,50**
UWES12	**0,68**	0,04	**0,42**	0,13
UWES13	**0,80**	-0,10	**0,67**	0,02
UWES14	0,08	**0,60**	-0,16	**0,69**
UWES15	-0,04	**0,65**	-0,17	**0,65**
UWES16	-0,11	**0,68**	0,12	**0,53**
UWES17	0,16	**0,52**	**0,32**	0,31
UWES18	**0,52**	0,23	**0,63**	-0,02
UWES19	**0,77**	-0,01	**0,74**	-0,12
UWES20	**0,34**	0,17	**0,43**	0,07
UWES21	**0,75**	0,08	**0,71**	0,03

The pattern matrices of the two-factor solutions for Afrikaans/English and Africans were then used as input for an exploratory factor analysis with target rotations. The two-factor structure was compared across groups by rotating one solution to the other. After target rotation, the following Tucker's phi coefficient was obtained: Factor 1: Engagement (Vigour/Dedication) = 0,97.

Although the Tucker's phi coefficient indicated that the factor compared favourably with the guideline of 0,90, six items were complex and problematic, and wrongly loaded on the second factor. These items were: a) Item 1 - "I am bursting with energy in my work." This item loaded on a wrong factor - Absorption for both groups. b) Item 3 - "Time flies when I

am working." This item loaded on a wrong factor - Vigour/Dedication for both groups. c) Item 9 - "I feel happy when I am engrossed in my work." This item loaded on a wrong factor- Vigour/Dedication for both groups. d) Item 11 - "I am immersed in my work." This item loaded on both factors for the Afrikaans/English group, while it loaded strongly (0,50) on factor 2 for the African group. e) Item 15 - "I am very resilient, mentally, in my work" This item loaded on a wrong factor for both groups. f) Item 17 - "I always persevere at work, even when things do not go well" This item strongly loaded on a wrong factor for Afrikaans/English group, while it loaded on both factors for the African group.

The above-mentioned coefficient can be regarded as acceptable, because a value above 0.90 is taken to point to essential agreement between language groups, while a value above 0.95 points to very good agreement (Van de Vijver & Leung, 1997).

The descriptive statistics and alpha coefficient of the one factor of the UWES are given in Table 3.

Table 3

Descriptive Statistics and Alpha Coefficient of the UWES

Item	Mean	*SD*	Skewness	Kurtosis	α
Engagement	35,44	10,79	-1,03	0,60	0,88

The information in Table 3 indicates that the one factor is normally distributed. With regard to the internal consistency of the scale, Vigour/Dedication (Engagement) seems to demonstrate an acceptable Cronbach alpha above the 0,70 guideline provided by Nunnally and Bernstein (1994).

Based on the above-mentioned findings, the results provided a partial support for hypotheses 1, in that only one valid and reliable factor (Vigour/Dedication), named engagement was found instead of the hypothesised three factors construct. Furthermore, the item contents of the UWES were improved (added four more items than it originally had) and did not isolate an Absorption factor.

Consequently, a t-test was used to analyse the differences between the engagement levels of language groups in terms of their different languages. The significance of differences between different language groups of correctional officers is reported in Table 4.

Table 4

T-test of the Engagement Levels of Groups

Variable	Mean	*SD*	Mean	*SD*	*t*	*p*	*d*
Language	33,22	11,46	37,16	9,91	-5,41	0,00*	0,34

* $p < 0,01$

Although no practically significant differences between language groups of correctional officers in South Africa as listed in Table 3 were revealed, statistically significant higher levels of work engagement for Africans as compared to the Afrikaans/English language group were found.

Next, ANOVAs of differences in engagement levels based on qualifications and rank are indicated in Table 5.

Table 5

Differences in Engagement Levels based on Qualifications and Ranks

Item	Mean	*F*	*df*	*p*	η^2
Qualification	316,65	2,74	5,00	0,01*	0,02
Rank	38,93	0,33	1,00	0,57	0,00

*$p < 0,01$

According to Table 5, a statistically significant difference exists between engagement levels of correctional officer's, based on qualifications. The results shows that the Afrikaans/English group is more committed to their qualifications and therefore possesses superior knowledge relevant to their work in correctional settings, but that does not necessarily translate into

vigorous engagement with their work, as compared to the African group. There might be other possible factors contributing to their negative attitudes to their work, such as the impact of affirmative action and the ongoing transformation in the department. The application of affirmative actions in the Department of Correctional Services, condoned very low qualifications as a requirement for gaining promotions, thus leaving those qualified correctional officers who were not benefit from the process, as very bitter and negative towards their work. Furthermore, no statistically significant differences between engagement levels of correctional officer's based on ranks were found.

The above-mentioned results partially support Hypotheses 2, namely that a statistically significant differences exists between the engagement levels of correctional officer's, based on qualification, ranks and language. The results showed that no statistically significant differences existed on the engagement levels based on ranks.

DISCUSSION

The objectives of this study were to determine the psychometric properties of the Utrecht Work Engagement Scale (UWES) for correctional officers of different language groups in South Africa, and to investigate differences between levels of work engagement of different language groups. The results showed acceptable construct equivalence for the two language groups and acceptable internal consistency for the subscales. A statistically significant difference was found between the levels of work engagement of correctional officers in terms of their different languages and qualification, but no significant differences based on ranks were found.

The construct equivalence of the UWES was assessed for the following two language groups, namely Afrikaans/English and Africans. One factor was extracted using exploratory factor analysis, namely Vigour/Dedication (Engagement), which is in contrast with previous findings suggesting a three - factor structure for work engagement (e.g., Schaufeli & Bakker, 2004; Naudé & Rothmann, 2004b). Although the Tucker's phi coefficient indicated that the factor compared favourably with the guideline of 0,90, six items were complex, problematic, and wrongly loaded on other factors. Based on both empirical and conceptual grounds, the following items were deleted: a) Item 1 - "I am bursting with energy in my work." b) Item 3-

"Time flies when I am working." c) Item 9 - "I feel happy when I am engrossed in my work." d) Item 11- "I am immersed in my work." e) Item 15 - "I am very resilient, mentally, in my work". f) Item 17 - "I always persevere at work, even when things do not go well". The elimination of these items can be validated on both conceptual and theoretical grounds. Even though the decision to eliminate this items was also partly based on previous research (Storm & Rothmann, 2003b; Naudé & Rothmann, 2004b), validation of these items is therefore needed in future studies. The words "resilient, engrossed, persevere, immersed, bursting with energy, and time flies", might have been difficult and misunderstood by correctional officers, possibility of semantic differences in meaning attributed to these items cannot be excluded, especially in view of the comparison between groups on the basis of their languages. Four items in which the language was simplified were then added without isolating the absorption factor, but to improve the item content of the original 17 - item UWES. Recent research has questioned the central role of the Absorption subscale in the conceptualisation of work engagement, and supports the notion that work engagement is primarily characterised by vigour and dedication (Naudé & Rothmann, 2004b; Schaufeli & Bakker, 2004).

Furthermore, the prominent correlated errors in this study present an important problem. In general, the specification of correlated error items for the purpose of achieving a better-fitting model is not an acceptable practice. Correlated error terms in measurement models represent systematic, rather than random, measurement error in item responses. They may derive from characteristics specific to either the items or the respondents (Aish & Joreskog, 1990). For example, if these parameters reflect item characteristics, they may represent a small omitted factor. However, as may be the case in this instance, correlated errors may represent respondent characteristics that reflect bias such as yea-/nay-saying, social desirability (Aish & Joreskog, 1990), as well as a high degree of overlap in item content (when an item, although worded differently, essentially asks the same question) (Byrne, 2001). However, previous research with psychological constructs in general (e.g. Joreskog, 1982; Newcomb & Bentler, 1988; Tanaka & Huba, 1984), and with measuring instruments in particular (Byrne, 1991, 2001), has demonstrated that the specification of correlated errors can often lead to substantially better fitting models. Bentler and Chou (1987) also argue that the specification of correlated errors can often lead to substantially better fitting models. Bentler and Chou (1987) argue that the specification of a model that forces these error parameters to be

uncorrelated is rarely appropriate with real data. Therefore, it was considered more realistic to incorporate the correlated errors in this study, rather than to ignore their presence.

The T-test was then used to analyse the differences between the engagement levels of language groups in terms of their different languages. Although no practical significant differences between language groups of correctional officers in South Africa were revealed, it did reveal statistically significant higher levels of work engagement for Africans as compared to the Afrikaans/English language group. Furthermore, ANOVAs of differences in engagement levels based on qualifications and ranks were also conducted for the language groups. The findings revealed that, a statistically significant difference exists between engagement levels of correctional officer's based on qualifications. No statistically significant differences between engagement levels of correctional officer's based on ranks were found.

The above-mentioned results partially support hypotheses 2, that a statistically significant differences exist between the engagement levels of correctional officer's, based on qualification and language. Furthermore, the T-tests carried out showed no statistically significant differences between the engagement levels of correctional officer's based on ranks. Against the background of the recent history of the Department of Correctional Services in South Africa, these findings might be better interpreted.

Since 1992 to date, especially after the famous speech of the former State President of the Republic of South Africa, Mr De Klerk, the Department of Correctional Services has been transformed from predominantly white to predominantly black workforce. During the same time (in adherence to the equity legislation by the post-apartheid government of South Africa), a decision was made to appoint only designated groups in vacant positions to ensure that the staff component reflects the demographics of the area (Affirmative action policy of the Department of Correctional Services). Consequently, the staff component was changed from predominantly white to be representative, and the management of the department was also transformed. As a result of these fast-paced and radical interventions and the demographics of the area, most of the African language-speaking correctional officers and managers at most correctional institutions are black males and females.

Keeping in mind the impact of the apartheid legacy, especially concerning job reservation

and promotion for selective groups (predominantly white, Afrikaans/English-speaking males), those previously disadvantaged groups might be more vigorously committed and engaged due to the joy of finding a job and the better possibility of promotion (even with very low qualifications). The official language at the prison institutions was also changed from Afrikaans to English. The Afrikaans/English-speaking, correctional officers, in contrast to their African colleagues who were predominantly educated in english in the black schools of the apartheid government, had to adjust to communicate also in a second language (english). These factors might have contributed to lower levels of engagement of the Afrikaans/English group.

In conclusion, the use of the UWES has been confirmed in a sample of correctional officers with specific reference to its construct equivalence for Afrikaans/English and African groups. However, this study is not without limitations, and one of these limitations is in the sample size. The distribution of language groups and the sampling procedure had an effect in terms of the findings applied to the total population of correctional officers in South Africa. Future studies could benefit from a stratified random-sample design with a sufficient representation of the different groups in the total population of correctional officers. Furthermore, future studies should focus on longitudinal designs where inference in terms of cause and effect could be made

RECOMMENDATIONS

Based on the results of this study, it is recommended that some items of the UWES be re-phrased and translated into Afrikaans, Sesotho and Setswana (in addition to English). English is a second language for most correctional officers and consequently uncommon words such as "resilience", "immersed" and "engrossed" in the items could have contributed to misunderstandings, a point which was also supported by Van de Vijver and Leung (1997).

It is also strongly recommended that a longitudinal research regarding the effects of specific job demands and resources on the psychological meaningfulness, safety and availability is undertaken. Secondly, such a research should also investigate the relationships between work engagement and demographic variables. Focus should also be on bias and equivalence for the different languages characterising correctional work.

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CHAPTER 5

Article 4

A STRUCTURAL MODEL OF WORK-RELATED WELL-BEING FOR CORRECTIONAL OFFICERS IN SOUTH AFRICA

ABSTRACT

The objective of this study was to test a model of work-related well-being for South African correctional officers. A cross-sectional survey design was used, with stratified random samples (N=897) taken of correctional officers in South Africa. The Maslach Burnout Inventory-General Survey, Utrecht Work Engagement Scale, a Job Demands-Resources Questionnaire, a Health Scale and the Organisational Commitment scale were administered. The results showed that exhaustion and cynicism, mediated the relationship between job demands (overload) and ill health, work-related well-being mediated the relationship between job resources, burnout and organisational commitment. Job resources contributed strongly to low burnout and high work engagement levels.

OPSOMMING

Die doelstelling van hierdie studie was om 'n model ten opsigte van werkverwante welstand vir Suid-Afrikaanse korrektiewe beamptes te toets. 'n Dwarsdeursnee-opname-ontwerp is gebruik met gestratifiseerde ewekansige steekproewe (N=897) geneem van korrektiewe beamptes In Suid-Afrika. Die Maslach Uitbrandingskaal-Algemene Opname, die Utrechtse Werksbegeestering-skaal, 'n Werkseise-hulpbronne-vraelys, 'n Gesondheidskaal en Organisasie-verbondenheidskaal is afgeneem. Die resultate het daarop gedui dat uitputting en sinisme, het die verband tussen werkeise en swak gesondheid gemedieer het. Werksbegeestering het die verband tussen werkshulpbronne, psigiese uitbranding en organisasieverbondenheid gemedieer. Werkshulpbronne het tot lae vlakke van uitbranding en hoë werksbegeestering bygedra.

The present-day Department of Correctional Services has a new task of clustering with sister departments within the criminal justice system, all charged with a constitutional mandate to ensure that low crime rates in the country pave the way towards positive economic developments (South African White Paper on Corrections, 2005). Global investor patterns have revealed that good investments are only possible in places where there are peace, stability and an opportunity for further economic growth. In an effort to fulfil this legal mandate as enshrined in the Constitution of the country, the Department of Correctional Services has deemed it necessary to reengineer its business operations the towards rehabilitation of offenders with the recent introduction and acceptance of a well-crafted new White Paper on Corrections approved by Cabinet in 2005. This White Paper serves as a roadmap to making the Department achieve its intended destination (vision) of becoming the best Department in the world in rendering a correctional service with integrity by producing rehabilitated citizens who cannot re-offend again (White Paper on Corrections, 2005). This new business niche, which is mainly aimed at correcting some wrong avenues followed in the previous era of the Department, has resulted in the entire departmental operations having to be adjusted to meet the dictates of the new legal mandate, thus negatively impacting on the current personnel in that they were expected to gear themselves for the new responsibility (ideal correctional officers); something for which they did not initially receive training. Some correctional officers become stressed and some opted to resign from the service (Departmental Statistics on sick and disability leave, 2003/04). Many officers who remained in the system required massive retraining in order to cope with and adjust to their new job requirements.

A series of studies (Cullen, Link, Wolfe, & Frank, 1985; Huckabee, 1992), uncovered a number of important factors related to stress among correctional officers. Firstly, they identified role problems at work as important sources of stress. Secondly, they implicated institutional policies and practices as important causes of stress. Specifically, they identified shifting correctional philosophies and institutional policies concerning the handling of prisoners as organisationally produced sources of stress. Finally, they found support for the importance of positive interpersonal relationships at work by examining how alienation in prison was encouraged and enhanced by isolation from inmates, peers and superiors. A result of such constant pressure and decreased psychological well-being can be burnout. Burnout is associated with the unsuccessful progression of continued attempts to buffer the impact of environmental stressors, resulting in a general breakdown of resources and ultimately in the

beginning of burnout (Schaufeli & Enzmann, 1998). It is concerned with the depletion of emotional resources, loss of motivation, belief in efficacy, absenteeism or lateness, reduced productivity, problems in work-related relationships and a poor attitude towards work (Huckabee, 1992).

The body of literature on the above topic has been growing steadly over recent years, particularly in the area of correctional officers' stress and stress-related problems. Researchers have further explored alienation, tedium and job burnout (Dignam, Barrera, & West, 1986; Dignam & West, 1988; Gerstein, Topp, & Correll, 1987; Whitehead & Lindquist, 1986), as well as stress (Cullen et al., 1985). According to anecdotal evidence and newspaper reports, stress is widespread among correctional officers. The threat of inmate violence against correctional officers, actual violence committed by inmates, inmate demands and manipulation and problems with co-workers, are conditions that correctional officers have reported as stressful during recent years. These factors, combined with organisational changes, under-staffing, extensive overtime, rotating shift work, low pay, poor public image, role conflict and role ambiguity, can impair correctional officers health, cause them to burnout or lead them to retire prematurely, and may impair their family life (Huckabee, 1992).

To date, relatively little attention has been paid to concepts that might be considered antipodes of burnout within correctional settings. An exception is 'psychological presence' or 'to be fully there' a concept that is defined as an experiential state that accompanies 'personally engaging behaviours' that involve the channelling of personal energies into physical, cognitive and emotional labours (Kahn, 1990). More recently, Maslach and Leiter (1997), assumed that engagement is characterised by energy, involvement and efficacy, which are considered the direct opposites of the following three burnout dimensions, namely exhaustion, cynicism and lack of professional efficacy respectively. Engaged employees, have a sense of energetic and effective connection with their work activities and they see themselves as able to deal completely with the demands of their job. The next section provides broad overview of possible factors that are relevant in the work-related well-being of correctional officers.

Burnout and work engagement

Two trends recently emerged in the burnout research which both boil down to a broadening of the traditional concept and scope (Maslach, Schaufeli, & Leiter, 2001). Firstly, the concept of burnout that was initially closely linked to the human services such as health care, education and social work, where employees do people-work of some kind, has been expanded towards other professions. Secondly, burnout research seems to shift towards its opposite pole called work engagement, burnout is rephrased as an erosion of engagement with the job. This development reflects an emerging trend towards a 'positive psychology' that focuses on human strengths and optimal functioning rather than on weaknesses and malfunctioning (Seligman & Csikszentmihalyi, 2000).

According to Bakker, Schaufeli, Sixma, and Bosveld (2001) burnout refers to the condition of physical and emotional exhaustion, as well as the associated negative attitudes resulting from the intense interaction in working with people. The Maslach Burnout Inventory-General Survey (MBI-GS) (Schaufeli, Leiter, Maslach, & Jackson, 1996) makes it possible to study burnout and to make comparisons among different occupational groups. Maslach and Jackson (1986) had conceptualised burnout as encompassing the components of emotional exhaustion, depersonalisation, and reduced personal accomplishment, but recently, the concept of burnout has been expanded towards all types of professions and occupational groups.

Schaufeli (2003) found that exhaustion and mental distancing (cynicism and/or depersonalisation) constitutes the two key aspects of burnout. Exhaustion refers to an employee's incapability of performing because all energy has been drained, whereas mental distancing involves employee's unwillingness to perform because of an increased intolerance of any effort. Mental distancing is an adaptive mechanism to cope with excessive job demands and resulting feelings of exhaustion (Maslach, Schaufeli, & Leiter, 2001). The authors found that when this coping strategy becomes a habitual pattern, as is the case in cynicism and depersonalisation, it disrupts adequate task performance and becomes dysfunctional.

Work engagement is assumed to be the positive antipode of burnout, or as Maslach and Leiter (1997, p. 34), put it: 'Energy, involvement and efficacy are the direct opposites of the three

dimensions of burnout'. In their view, Maslach and Leiter (1997, p. 24), burnout is an erosion of engagement whereby 'Energy turns into exhaustion, involvement turns into cynicism and efficacy turns into ineffectiveness'. According to Schaufeli, Salanova, Gonzalez-Roma, and Bakker (2002), engagement is defined as a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication and absorption. It is a persistent and pervasive affective-cognitive state that is not focussed on any particular object, event, individual or behaviour. Vigour is characterised by high levels of energy and mental resilience while working, the willingness to invest effort in work, and persistence in the face of difficulties. Dedication is characterised by a sense of significance, enthusiasm, inspiration, pride and challenge. Absorption is characterised by being fully concentrated and happily engrossed in work, whereby time passes quickly and one has difficulties with detaching oneself from work. Being fully absorbed in work comes close to what has been called 'flow', a state of optimal experience that is characterised by focussed attention, clear mind, mind and body union, effortless concentration, complete control, loss of self-consciousness, distortion of time, and intrinsic enjoyment (Csikszentmihalyi, 1990).

In summary, burnout and engagement are considered to be opposites of each other, particularly insofar as exhaustion and vigour, and cynicism and dedication are concerned. The former two scales span a dimension that might be labelled *activation*, whereas both the latter scales constitute the opposite poles of a dimension that might be labelled *identification*. In addition, burnout and engagement both include a third constituting characteristic, reduced professional efficacy and absorption respectively.

Organisational causes of well-being

There are two theoretical models used to clarify work engagement, namely the Job Demands-Resources model and the Conservation of Resources (COR) theory. The Job Demand-Resources (JD-R) model assumes that two underlying psychological processes play a role in burnout: an effort–driven process in which excessive *job demands* lead to exhaustion and a motivation-driven process in which lacking *job resources* lead to disengagement (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001b). Job demands are things that have to be done, including physical, social and organisational aspects of the job that require sustained physical and mental effort

Job resources, on the other hand, are those physical, psychological, social or organisational aspects of the job that may be functional in achieving work goals, reducing job demands, with the associated physiological and psychological costs, and stimulating personal growth and development (Demerouti et al., 2001). Job characteristics such as variety, independence, opportunities for learning and participation, opportunities to participate, role clarity, effective communication, advancement, remuneration and good relationships with supervisors and colleagues create psychological meaningfulness and safety for employees, are needed to be engaged in ones job (Frey, Jonas, & Greitemeyer 2003; May, Gilson, & Harter, 2004).

Schaufeli and Bakker (2002) extended the JD-R model by including engagement and by adding indicators for health impairment and organisational withdrawal in their proposed Comprehensive Burnout and Engagement (COBE) model. The COBE model assumes two psychological processes, namely an energetic and a motivational process. The energetic process links job demands with health problems via burnout. The motivational process links job resources via engagement with organizational outcomes. Job resources may play either an intrinsic motivational role (by fostering the employee's growth, learning and development), or it may play an extrinsic motivational role (by being instrumental in achieving work goals). In either case, be it through the satisfaction of basic needs or through the achievement of work goals, the outcome is positive and engagement - a fulfilling positive work-related state of mind - is likely to occur. Moreover, it is plausible to assume that engaged workers have a low tendency to leave the organisation because the organisation provides them with job resources that not only enable them to achieve their work goals, but that also provide opportunities for learning, growth, and development (Schaufeli & Bakker, 2002). Maslach and Leiter (1997, p. 21) state that: "Contrary to popular opinion, it's not the individual, but the organisation that needs to change, especially in the present work environment". However, one of the most sustained organisational factors contributing to burnout and eroding engagement seems to be occupational stress, which is normally caused by job stressors.

According to the Conservation of Resources Theory (COR) (Hobfoll, 1989, 2001), people strive to retain, protect and build resources, and any threat towards the person is the potential or actual loss of their valued resources. Negative outcomes (i.e. stress, burnout and low work engagement) are likely to occur when there is (a) a threat of a net loss of resources, (b) a net loss of resources, or (c) a lack of resource gain following the investment of resources (Hobfoll, 1989). The COR theory, is relevant for understanding the effects of job resources

(or lack thereof) on employees. The COR theory's central tenet is that people strive to obtain, retain and protect what they value. The things that people value are called resources, of which there are several types, including material, social and energetic resources. In general, resources are those personal energies and characteristics, objects and conditions that are valued by individuals or that serve as means for the attainment of other objects, personal characteristics, conditions or energies. Examples of resources include social support, job enhancement opportunities, autonomy, degree of participation in decision-making, and being psychologically well (Hobfoll, 1989; Lee & Ashforth, 1996). Workload, role ambiguity, role conflict, and stressful events in general are examples of work demands (Wright & Hobfoll, 2004). According to the COR theory, personal resources affect each other and exist as a resource pool, and an expansion of one is often associated with the other being augmented (Hobfoll, 1998). Huckabee (1992) reported that the threat of inmate violence against correctional officers, actual violence committed by inmates, inmate demands and manipulation, problems with co-workers, are conditions that correctional officers have reported as problematic in recent years. The author further contend that these factors combined with under staffing, extensive overtime, rotating shift work, low pay, poor public image, role conflict and role ambiguity, can impair correctional officers health, cause them to burnout or retire prematurely, and impair their family life.

Excessive stress can result in at least four serious problems for correctional officers. Stress may result in physical illnesses, ranging from heart diseases to eating disorders. It may also precipitate substance abuse among susceptible individuals. Stress can lead to burnout among correctional officers. Stress can also result in excessive disability retirements. Even when physical ailments are the reason for the disability, the illnesses may have been brought on by stress (Slate, 1993). Correctional officers experiencing excessive stress may damage their family relationships by displacing their frustration onto their spouses and children, ordering family members around just as they issue commands to inmates (Stephan, 1997), and becoming distant by withholding information about their work that they feel family members will not understand. Shift work and overtime can create stress by preventing correctional officers from attending important family responsibilities.

When the external environment lacks resources, individuals cannot reduce the potentially negative influence of high job demands and they cannot achieve their work goals, and neither can they develop themselves further in their job and organisations. The COR theory predicts

that in such a situation, employees will experience a loss of resources or failure to gain an investment (Hobfoll, 1989). Moreover, in order to reduce this discomfort or job stress, employees will attempt to minimise losses. With the intention of achieving equity without suffering further negative, personal consequences, they will most probably reduce their discretionary inputs.

Ill health

There is research evidence that links occupational stress with physical and psychological ill health. Heart disease, ulcers, some forms of cancer, allergies, migraine, back problems, depression and increased frequency of minor ailments such as colds and flu have been associated with stress and burnout (Ho, 1997; Ryff & Singer, 1998; Sethi & Schuler, 1990). Research has further demonstrated that work-related stressors can have a wide range of negative effects on individuals, and that evidence thereof, is observable at several different levels. Stress is seen mainly as a negative affect with diverse psychological (e.g., job dissatisfaction), physiological (e.g., high blood pressure) and behavioural (e.g., absenteeism) correlates. In the long run these negative stress effects could lead to physiological and biochemical changes accompanied by psychosomatic and even chronic symptoms such as coronary heart disease (Van Dick & Wagner, 2001). Other levels of strain include cognitive (e.g. reduced levels of sensitivity, warmth, consideration, altruism and tolerance) changes. However, for the purposes of this study strain is divided into physical and physiological ill health.

Physical strain is a physiological reaction of the stress process, which can be divided into long-term and short-term strain (Frese & Zapf, 1999). A long-term strain is a physical illness such as heart disease, which has been described as an outcome of stress. Short-term strains are physiological reactions such as high blood pressure or suppression of the immune responses. Many of the short-term physical strains are associated with emotional reactions, they may in fact be mechanism by means of which long-term physical strain occurs. Psychological strain correlates strongly with work-related stressors (Jex & Beehr, 1991; Kahn & Byosiere, 1992). The reviews indicate that psychological ill health includes anxiety/panic attacks, irritability, difficulty in decision-making, loss of sense of humour, becoming easily angered, constant tiredness, feeling unable to cope, avoiding contact with other people, mood swings and inability to listen to others.

In their so-called structural model, Maslach, Jackson, and Leiter (1996), hypothesise that the presence of specific demands (work overload and personal conflicts) and the absence of specific resources (social support, autonomy and decision involvement) predicts burnout, which in its turn is expected to lead to various negative outcomes such as physical illness. Recently, Demerouti, Bakker, Nachreiner, and Schaufeli (2001), went one step beyond by successfully testing the Job Demands-Resources (JD-R) model that posits that job demands (physical demands and shift work) are associated with exhaustion, whereas lacking job resources (performance feedback, social support and job control) are associated with disengagement. Schaufeli and Bakker (2002), extended the JD-R model as proposed by Demerouti et al. 2001) by including engagement, as measured independently from burnout, and by adding indicators for health impairment and organisational support as possible consequences of burnout and engagement respectively.

Organisational commitment

Organisational commitment, defined as the psychological attachment of workers to their organisations, has been one of the most popular organisational research subjects during the past three decades (Benkhoff, 1997; Eby, Freeman, Rush, & Lance, 1999). Commitment to the organisation has been found to relate positively to a variety of desirable work outcomes including organisational citizenship, job satisfaction, job involvement, job performance and found to be negatively correlated to absenteeism and turnover (Finegan, 2000; Organ & Ryan, 1995; Mathieu & Zajac, 1990). Furthermore, organisational commitment is a well established indicator of motivation at work (Mayer & Schoorman, 1992; Brown, 1996) and moderator of stress (Chui & Kosinski, 1995; Siu, 2002) particularly during periods of organisational change.

Organisational commitment is a state in which an employee identifies with an organisation and its goals, is willing to exert effort on behalf of the organisation and wishes to maintain his or her membership of the organisation (Robbins, 1998). According to Cartwright and Cooper (2002) two aspects of organisational commitment, namely commitment of the individual towards the organisation and commitment of the organisation towards the individual could be identified. Work engagement can therefore be regarded as an antecedent to organisational commitment, in that people who experience deep engagement to their jobs identify with their

organisations. Disengagement, on the other hand, leads to a lack of organisational commitment (Aktouf, 1992).

In many organisations, work engagement and organisational commitment are closely related, often to such an extent that it makes sense to talk about a more general outcome; organisational engagement, that combines key elements of work engagement and organisational commitment (Roberts & Davenport, 2002). Although the two concepts are related, they are not identical: organisational commitment focuses on the organisation, whereas engagement is more concerned with the work itself (Maslach, Schaufeli, & Leiter, 2001). People can be engaged in their jobs, but not committed to their organisations, or committed to their organisations, but not engaged in their jobs. Lai et al., (2000), found their study that some employees possess considerable personality-resistance resources, such as self-esteem and psychological hardiness (and therefore commitment), which allow them to withstand hardships arising out of the job. Organisational commitment interacts with sources of stress at work to determine their outcomes. Siu (2002) argued that this indirect or moderating effect of commitment protects individuals from the negative effect of stress, due to the fact that it enables them to attach direction and meaning to their work.

Research aims and hypotheses

The aims of this research study were as follows: a) to assess the validity and internal consistency of the constructs in the measurement model, including Work-related well-being (burnout and work engagement), job characteristics, ill health and organisational commitment; b) to test a structural model of Work-related well-being for correctional officers in South Africa; c) to investigate whether organisational commitment moderates the relationship between burnout (which leads to ill health) and work engagement.

Hypotheses

Hypotheses 1: Job demands and (a lack of) job resources lead to burnout, which in turn results into ill health.

Hypotheses 2: Job resources predict work engagement, which will predict organisational commitment.

Hypothesis 3: Work-related well-being of correctional officers is depicted by positive indicators like work engagement, job resources and organisational commitment on the one side, and burnout, job demands (overload) and ill health as negative indicators of Work-related well-being.

METHOD

Research design

A survey design was used to reach the research objectives.

Participants

Random samples (N = 1500) were taken from Correctional Centres (consisting of 40 prisons with a total population of 10 000 correctional officers) in all nine Provinces: Gauteng, KwaZulu-Natal, Eastern Cape, Western Cape, Free State, Northern Cape, Limpopo, North West and Mpumalanga. A total 1000 questionnaires were received back. However, only 897 questionnaires could be included in the final data analysis due to the fact that other questionnaires were not properly responded and therefore lacked important information required for this research. Correctional Centres were divided into small (fewer than 50 members), medium (50-100 members) and large (more than 100 members). Table 1 presents detailed characteristics of the participants.

Table 1

Characteristics of the Participants

Item	Category	Frequency	Percentage
Home Language	Afrikaans	340	37,.9
	English	50	5.6
	Sepedi	34	3.8
	Sesotho	81	9,0
	Setswana	48	5,4
	Isiswati	7	0,8
	Tshivenda	15	1,7
	Isizulu	102	11,4
	IsiNdebele	14	1,6
	IsiXhosa	191	21,.3
	IsiTsonga	10	1,1
Rank	Correctional Officer I – III	755	84,.2
	Senior Correctional Officer	96	10,7
	Assistant Director	23	2,6
	Deputy Director	5	0,6
	Director	1	0,1
Education	Grade 12 only	703	78.4
	Grade 12 + 3 years diploma/degree	97	10,8
	Grade 12 + 4 years diploma/honours degree	74	8,2
	Grade 12 + 5 to 7 years degree	1	0,1
	Grade 12 + Master's degree	9	1,0
	Grade 12 + Doctoral degree	1	0,1
Gender	Male	639	71,.2
	Female	245	27,.3
Marital Status	Single/Widow/Widower	166	18,.5
	Engaged	69	7,7
	Married	582	64,.9
	Divorced	48	5,4
	Remarried	25	2,8

Measuring instruments

The Maslach Burnout Inventory – General Survey (MBI–GS) (Maslach, Jackson, & Leiter, 1996) was used to measure burnout. The MBI-GS has three subscales: Exhaustion (e.g. "I feel used up at the end of the workday"), Cynicism (e.g. "I have become less enthusiastic about my work") and Professional Efficacy (e.g. "In my opinion, I am good at my job").

Together the sub-scales of the MBI-GS provide a three-dimensional perspective on burnout. The internal consistency (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 for (Professional Efficacy) (Schaufeli et al., 1996). All items are scored on a 7-point frequency-rating scale ranging from 0 (*never*) to 6 (*daily*). Storm (2002) confirmed the three-factor structure of the MBI-GS in a sample of 2396 members of the South African Police Service (SAPS), but recommended that item 13 be dropped from the questionnaire. She 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 and Professional Efficacy: 0,78 (Storm, 2002).

The Utrecht Work Engagement Scale (UWES) was developed by Schaufeli, Salanova, Gonzalez-Roma, and Bakker, (2002) as a measure of engagement. Only two of the three subscales of UWES were used for the purpose of this study, namely *Vigour* (e.g. "I am bursting with energy in my work"), and *Absorption* (e.g. "I feel happy when I'm engrossed in my work"). The items are scored on a frequency rating scale, varying from 0 (*never*) to 6 (*everyday*). The alpha coefficients for the subscales varied between 0,68 and 0,73 (Schaufeli et al., 2002). In the South African sample of police officers Storm and Rothmann (2003 b) obtained adequate alpha coefficients for the two subscales (0,78 for the Vigour and 0,78 for Absorption)

The *Job Demands-Resources Questionnaire* was developed to measure job demands and job resources for correctional officers. The questionnaire consists of 48 items. The questions are rated on a scale ranging from 1 (*never*) to 4 (*always*). The dimensions of the questionnaire include organisational support, growth opportunities, advancement, job overload, colleagues and job security. The research study by Jackson, Rothmann, and Van de Vijver (2006) also made use of the JD-R questionnaire.

The Health subscales of the ASSET (which refers to *An Organisational Stress Screening Tool*) (Cartwright & Cooper, 2002) were used to measure physical and psychological ill health. The Health subscales consist of 19 items arranged on two subscales: *Physical Health and Psychological Well-being*. The questionnaire is scored on a scale varying from 1(never) to 4 (often). All items on the Physical Health subscale relate to physical symptoms of stress.

The role of this subscale is to give insight into physical health. The items listed on the Psychological Well-being subscale are symptoms of stress-induced mental ill health. Johnson & Cooper (2003) found a Guttman split-half reliability coefficient of 0,74 and 0,91 for the Physical and Psychological Health subscales, respectively. They also found that the Psychological Well-being subscale has good convergent validity with an existing measure of psychiatric disorders, the General Health Questionnaire (Goldberg and Williams, 1988).

The Organisational Commitment Subscale of the ASSET (Cartwright & Cooper, 2002) was used to measure the individual's attitude towards his or her organisation, and includes questions relating to perceived levels of commitment to the organisation. The subscale consists of seven items, which are scored on a scale varying from 1 (strongly disagree) to 6 (strongly agree). Examples of items are: "I feel valued and trusted by the organisation", "I enjoy working for this organisation to the extent that I am not seeking a job elsewhere" and "I am proud of this organisation" Johnson and Cooper (2003) found a split – half reliability coefficient of 0,74 for the scale.

Statistical analysis

First, descriptive statistics (e.g. means, standard deviations, skewness and kurtosis) were used to explore the data. Exploratory factor analyses and Cronbach alpha coefficients were then computed to assess the validity and reliability of the constructs which were measured in this study. The theoretical model was tested in a path analysis, following a two–step procedure. Firstly, a simple principal components analysis was conducted on the constructs which form part of the measurement model, including burnout and work engagement; job characteristics; ill health and organisational commitment. The eigenvalues and scree plot were studied to determine the number of factors. In the second step either a principal components analysis with a direct Oblimin rotation was conducted or a principal component analysis with varimax rotation if the obtained factors were not related (Tabachnick & Fidell, 2001)

Structural equation modelling as implemented in AMOS (Arbuckle, 1997) was used to test the causal model of work-related well-being using the maximum likelihood method. Hypothesised relationships were tested empirically for goodness of fit with the sample data. Among the fit indices produced by the AMOS program is the CHI-square (χ^2) statistic, which

is the test of absolute fit of the model. The CHI-square (χ^2) value is sensitive to sample size. Therefore, additional goodness-of-fit indices such as the Goodness of Fit Index (GFI), the Adjusted Goodness of Fit Index (AGFI), the Normed Fit Index (NFI), the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI) and the Root Means Square Error of Approximation (RMSEA) were used in this study.

RESULTS

The present research study administered the selected instruments to assess the psychometric properties of the various instruments a large sample of correctional officers, before testing the structural model of work-wellness.

Construct validity of the measuring instruments

Burnout and work engagement: a simple component analysis was conducted on three dimensions of burnout (i.e., Exhaustion, Cynicism and Professional Efficacy), and work engagement. Two related factors (r = -0.32), which explained 84,27% of the total variance were extracted. Next, a principal component analysis with a direct oblimin rotation was conducted on these dimensions of burnout and engagement. The results showed that Professional Efficacy (0,96) and Engagement (0,89) formed the first factor (labelled Extended Work Engagement), and Exhaustion (0,94) and Cynicism (0,84) formed the second factor (labelled Burnout).

Job demands and job resources: a principal components analysis that was conducted on the 48 items of JDRS showed 10 factors, which explained 60,02% of the total variance. Due to low communalities, only six factors were considered for this study. Next, a principal factor analysis with a varimax rotation was conducted on the 46 items. The first factor (labelled *Organisational Support*), included the following item: receiving feedback from the supervisor about your performance (0,79), getting information about how you have performed your work (0,77), knowing exactly what your supervisor thinks about your performance (0,75), receiving information about the purpose of your work (0,73), feeling appreciated by your boss (0,72), being able to discuss work-related problems with the supervisor (0,71),getting on well with the supervisor (0,63),counting on your supervisor

during difficult times in your work" (0,62), being informed about important issues within your department (0,60), having a say about the nature of your work (0,54), knowing the decision-making process of your department (0,46), knowing exactly to whom you should refer your problems in your department (0,45), knowing exactly what other people expect of you in your work (0,45), and knowing exactly your area and main responsibility at work (0,38).

The second factor (labelled *Growth Opportunities*) included the following items: job performed offering the possibility of independent thought and action (0,68), having a feeling of achieving something in your work (0,68), having opportunities for personal growth and development in your work (0,61), influencing the planning of your work activities (0,61), participating in decisions about when your work should be completed. (0,56), having enough variety in your work (0,52), having freedom to carry out your work activities (0,52), performing work which is demanding on all your skills and capacities (0,47), counting on your colleagues when you come across difficulties in your work (0,47), seeking help from your colleagues (0,42).

The third factor (labelled *Advancement*) included the following items: thinking that you are paid enough for the work you do (0,81), ability to live comfortably on your salary pay (0,81), having a job that offers the possibility to progress financially (0,79), thinking that the Department pays good salaries (0,78), thinking that the job gives an opportunity to be promoted (0,63), and thinking that the organisation provides the opportunity to follow training courses (0,55).

The fourth factor (labelled *Job Overload*) included the following items: working under time pressure (0,70), having to attend to many things at the same time (0,68), being put in emotionally upsetting conditions by work (0,66), being confronted in work with things that affect you personally (0,58), having too much work to do (0,57), having to remember many things at work (0,54), having contact with difficult prisoners at work (0,53), having to repeatedly do the same things in work (0,49), and having to give continuous attention to work (0,48).

The fifth factor (labelled *Support of Colleagues*) included the following items: having a chat with colleagues during working hours (0,73), having enough contact with colleagues during

working hours (0,71), having contact with colleagues as part of work (0,55), and getting on well with colleagues (0,50).

The sixth factor (labelled *Job Security*) included the following items: needing to be more secure to keep the current job during the next year (0,86), needing to be more secure to be still working in one years time (0,83), and needing to be more secure to keep the same functional level as currently during the next year (0,72).

Subsequently, the six factors of the JDRS were subjected to a second-order principal component analysis. Two factors, which explained 58,10% of the variance, were extracted. Because the factors were not strongly related (r = -0,04), it was decided to use principal factor analysis with varimax rotation to extract the factors. Organisational Support (0,88), Growth Opportunities (0,85), Support of Colleagues (0,71) and Advancement (0,58) formed the first factor (labelled Job Resources), while Job Overload (0,98) formed the second factor (labelled Job Demands). Job Insecurity loaded negatively (with low communality) on both factors and was therefore not included in the subsequent analyses.

Ill health: a simple principal component analysis that was conducted on the 17 items of the health subscales of the ASSET resulted into two factors, which explained 55,77% of the variance. Next, a principal component analysis with direct oblimin rotation was conducted on the 17 items. The two related factors (r =0,59) which were extracted, were labelled as Psychological Ill health (ten items) and Physical Ill health (seven items).

Organisational commitment: a simple principal component analysis that was conducted on the nine items of the Organisational Commitment sub-scales of the ASSET resulted in a one-factor solution, which explained 61,53% of the variance. The item loadings on the factor varied from 0,54 to 0,90.

Descriptive statistics and correlations

Descriptive statistics, alpha coefficients and correlations of the scales of the measuring constructs, namely the MBI - GS, UWES, JCS, the Health Subscale and Organisational Commitment Subscale are given in Table 2.

Table 2

Descriptive Statistics and Alpha Coefficients of the Measuring Instruments

Items	Mean	*SD*	α	1	2	3	4	5	6	7	8	9	10	11	12
1. Organisational Support	38,43	9,44	0,91	-	-	-	-	-	-	-	-	-	-	-	-
2. Growth Opportunities	26,78	6,54	0,86	0,70**	-	-	-	-	-	-	-	-	-	-	-
3. Advancement	12,12	4,67	0,86	0,37**	0,35**	-	-	-	-	-	-	-	-	-	-
4. Job Overload	24,68	4,88	0,76	-0,05	0,10**	-0,05	-	-	-	-	-	-	-	-	-
5. Colleagues	12,49	2,57	0,72	0,50**	0,45**	0,20**	-0,03	-	-	-	-	-	-	-	-
6. Job Security	8,85	2,60	0,77	0,19**	0,22**	0,07*	0,06	0,23**	-	-	-	-	-	-	-
7. Physical Ill Health	16,44	5,01	0,81	-0,22**	-0,19**	-0,17**	0,18**	-0,20**	-0,01	-	-	-	-	-	-
8. Psychological Ill Health	21,33	7,43	0,90	-0,33**	-0,30**	-0,15**	0,26**	-0,27**	-0,11**	0,66**	-	-	-	-	-
9. Organisational Commitment	31,31	7,44	0,87	0,39**	0,39**	0,27**	-0,15**	0,29**	0,18**	-0,17**	-0,32**	-	-	-	-
10. Exhaustion	12,17	7,99	0,82	-0,31**	-0,30**	-0,14**	0,38**	-0,25**	-0,10**	0,39**	0,57**	-0,33**	-	-	-
11. Cynicism	10,88	7,02	0,72	-0,33**	-0,32**	-0,06	0,29**	-0,26**	-0,10**	0,27**	0,46**	-0,35**	0,60**	-	-
12. Professional Efficacy	24,30	5,59	0,74	0,35**	0,35**	0,06	0,02	0,35**	0,17**	-0,17**	-0,32**	0,39**	-0,16**	-0,31**	-
13. Engagement	35,44	10,79	0,88	0,42**	0,51**	0,15**	-0,03	0,35**	0,22**	-0,21**	-0,37**	0,54**	-0,29**	-0,41**	0,74**

**Statistically significant: $p < 0,01$

Inspection of Table 2 reveals that acceptable Cronbach alpha coefficients varying from 0,72 to 0,91 were obtained for all the scales in this study. All alpha coefficients were higher than the recommended limit of 0,70 (Nunnally & Bernstein, 1994). Therefore the scales show that acceptable levels of internal consistencies were obtained in this study. Table 2 shows a practically significant correlation coefficient of large effect between Exhaustion and Cynicism. Exhaustion and Cynicism are negatively related to Engagement, Professional Efficacy, Organisational Support, Growth Opportunities, Advancement, Support of Colleagues, Job Security and Organisational Commitment. Exhaustion and Cynicism are also practically related to Overload, Physical and Psychological Ill health (large and medium effect).

Engagement and Professional Efficacy, are practically significantly related to Organisational Support, Growth Opportunities, Colleagues and Organisational Commitment (all large effects).

Structural model of work-related well-being

For job demands (overload), engagement, organisational commitment and health there was only one indicator, meaning that in these cases there was a one-to-one correspondence between the manifested variables (scales) and the underlying dimensions. Usually no distinction is made in these cases between random error variance and true score variance, so that the correlations among these one-indicator latent variables and other latent variables may be biased (Little, Cunningham, Shahar, & Widaman, 2002). This problem was overcome by means of a procedure proposed by Bagozzi and Heatherton (1994). First, a one-factor model was fitted for all items belonging to the four scales. Second, separate indicators for each scale were formed by selecting items on the basis of their loadings, alternating items with high and low loadings. Thus two parcels of items were created after an exploratory factor analysis for organisational commitment and engagement, while three parcels of items were also created for health and job demands (overload).

A model based upon the results of the correlations of measuring constructs including the hypothesised relationships was constructed, and then tested in a path model (correlations in Table 3). The latent variables included Burnout (consisting of two observed variables, namely Exhaustion and Cynicism), Job Resources (consisting of four observed variables, namely

Growth, Organisational Support, Advancement and Support of Colleagues), Job Demands (consisting of three observed variables), Health (consisting of three observed variables), Organisational Commitment (consisting of two observed variables) and Engagement (consisting of two observed variables). It was hypothesised that Job demands (Overload) and (lack of) job resources (Growth, Organisational Support, Advancement and Support of Colleagues) lead to Burnout (Exhaustion and Cynicism), which in turn results into ill health. It was further hypothesised that Job resources (Growth, Organisational Support, Advancement and Support of Colleagues) influence work engagement, which will affect organisational commitment. However, a relatively strong correlation (r = -0,32) was found between Burnout and Work Engagement. Therefore, in line with the procedure followed Jackson et al. (2006), the covariance between Burnout and Work Engagement is modelled by adding a latent variable (called Work-related Well-being). The proposed model was tested with the SEM analysis.

The results indicated that the model fitted adequately to the data (χ^2=640,89; χ^2/df=6,54; GFI=0,92;AGFI=0,89;CFI=0,92;IFI=0,92;TLI=0,91;RFI=0,89;NFI=0,91;RMSEA=0,08.)

The final structural model is given in Figure 1.

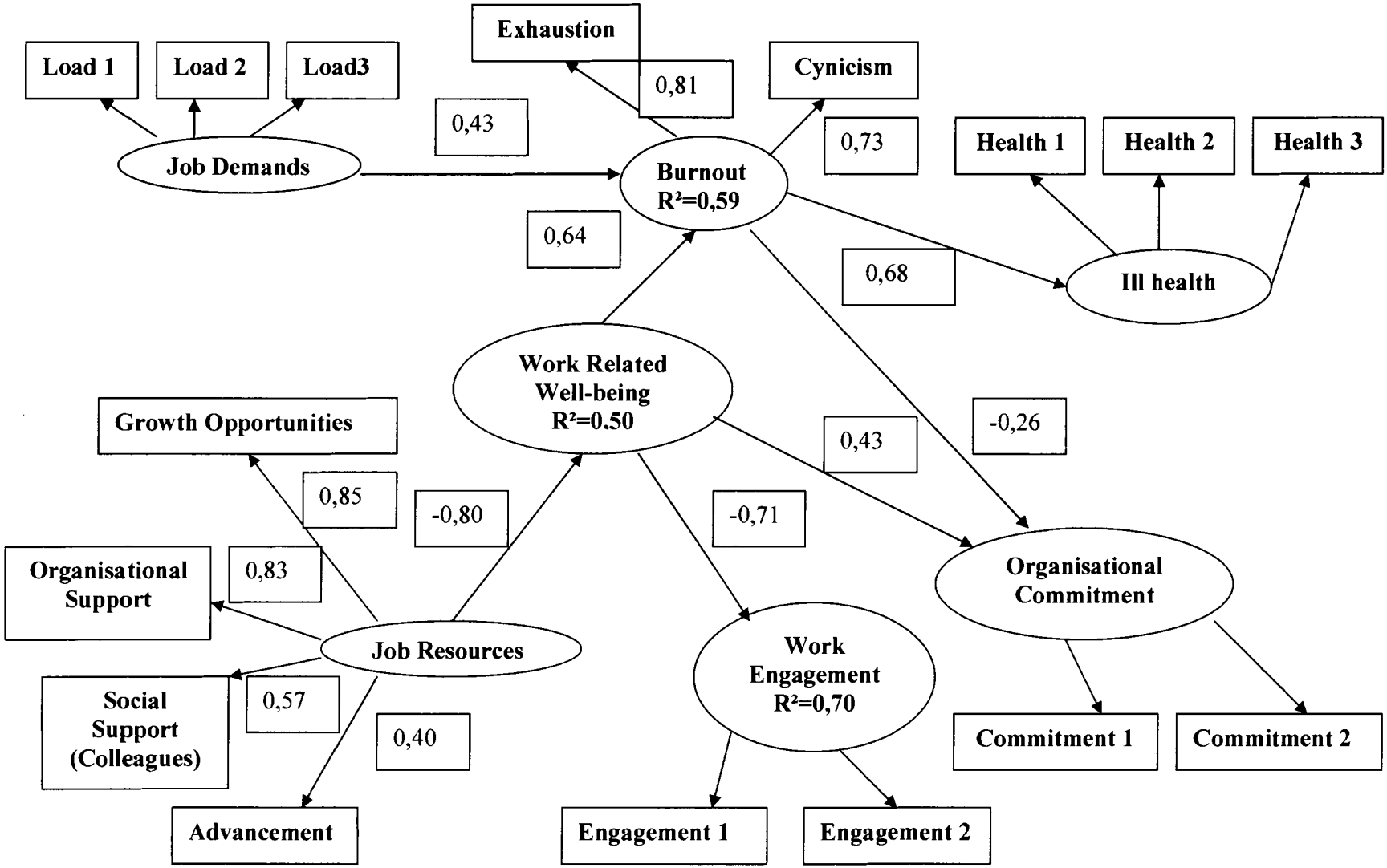

Figure 1. A structural model of work-related well-being

As can be seen in Figure 1, the path from Job Demands to Burnout (Exhaustion and Cynicism) was statistically significant and positive. Therefore, perceived job demands contribute to burnout. Burnout also mediated the relationship between Job demands and the output variable Ill health. This finding clearly means that correctional officers who experience high workloads are likely to develop high levels of burnout and not commit themselves to their departmental objectives.

Job resources (Organisational Support, Growth Opportunities, Advancement and Colleagues) had a significant impact on Work-related Well-being, comprising of Burnout, Organisational Commitment and Work Engagement. This specific finding means that correctional officers work wellness will increase once the relevant resources are availed to them. Work-related well-being, mediated the relationship between job resources, burnout, engagement and organisational commitment.

The above figure also shows that the Ill health of correctional officers, is mainly predicted by Job demands and Burnout (Exhaustion and Cynicism), whereas the Organisational Commitment is mainly predicted by Job Resources (Organisational Support, Growth Opportunities, Colleagues and Advancement) and work-related well-being. The above results partially confirms hypotheses 1, 2 and 3.

DISCUSSION

The main objective of this study was to develop and test a structural model of work-related well-being for correctional officers in South Africa, using a cross-sectional survey design. The results showed that a good fit was found for a model in which burnout mediated the relationship between job demands and ill health. Work-related well-being mediated the relationship between job resources and organisational commitment of correctional officers. Work-related well-being (low burnout and high work engagement) had an impact on organisational commitment, whereas burnout had a negative impact on both the organisational commitment and psychological ill health of correctional officers in South Africa.

A principal component analysis with a direct oblimin rotation conducted in this study, resulted into a two-factor structure of work wellness. The first factor represented burnout,

consisting of incapability (exhaustion) and unwillingness (cynicism) to perform work activities. The second factor represented what was labelled Work Engagement.

This model makes sense because exhaustion and cynicism constitutes the two key elements of burnout (Schaufeli, 2003). Exhaustion refers to the employee's incapability to perform work because energy has been drained, whereas cynicism involves a disruption of task performance (dysfunctional). Accordingly, Maslach and Leiter (1997), argued that burnout is an erosion of engagement with the job, what started out as important, meaningful and challenging work becomes unpleasant, unfulfilling and meaningless. Energy turns into exhaustion, involvement turns into cynicism and efficacy turns into ineffectiveness. The conclusion drawn from the above scenario is that correctional officer's who experience stressful job demands, are still willing and capable to engage (vigour/dedication).

With regard to the organisational causes of burnout and work engagement, two main factors, namely job demands (overload) and job resources were extracted by using the principal factor analysis with varimax rotation on the six factors of the Job Characteristics Subscales (JCS). Organisational support, growth opportunities, colleagues and advancement formed the first factor (labelled **Job Resources**), while Job Overload formed the second factor (labelled **Job Demands**). Job insecurity loaded negatively (with low communality) on both factors and was therefore not included in the subsequent analyses.

Job demands included the overload items such as, working under time pressure, having to be attentive to many things at the same time, being put in emotionally upsetting conditions by work, being confronted in work with things that affect you personally, having too much work to do, having to remember many things in work, having contact with difficult prisoners at work, having to repeatedly do the same things in work, having to give continuous attention to work.

Job Resources included the following factors, first factor (labelled organisational support) included, receiving feedback from the supervisor about your performance, getting information about how you have performed your work, knowing exactly what your supervisor thinks about your performance, receiving information about the purpose of your work, feeling appreciated by your boss, able to discuss work-related problems with the supervisor, getting well with the supervisor, counting on the supervisor during difficult times

in your work, kept informed about important issues within your department, having a say about the nature of your work, knowing the decision-making process of your department, knowing exactly to whom you should refer your problems in your department, knowing exactly what other people expect of you in your work, knowing exactly your area and main responsibility at work.

The second job resources factor (labelled growth opportunities) included the following items such as, the job performed offers the possibility of independent thought and action, having a feeling of achieving something in your work, having opportunities for personal growth and development in your work, influencing the planning of your work activities, participating in decisions about when your work should be completed, having enough variety in your work, having freedom to carry out your work activities, performing work which is demanding on all your skills and capacities, counting on your colleagues when you come across difficulties in your work, seeking help from your colleagues.

The third job resources factor (labelled advancement) included the following items such as, thinking that you are paid enough for the work you do, ability to live comfortably on your salary pay, having a job that offers the possibility to progress financially, thinking that the department pays good salaries, thinking that the job provides the opportunity to be promoted, thinking that the organisation gives one the opportunity follow training courses. The fourth job resources factor (labelled colleagues) included the following items, having a chat with colleagues during working hours, having enough contact with colleagues during working hours, having contact with colleagues as part of the work and getting on well with colleagues.

In keeping with the COBE model (Schaufeli & Bakker, 2004), the correlations analysis in this research study revealed that burnout (exhaustion and cynicism) was negatively related to work engagement. Both exhaustion and cynicism were also negatively related to job resources (organisational support, growth opportunities, advancement and colleagues), but positively to job demands (overload). Furthermore, exhaustion and cynicism were negatively related to organisational commitment and positively related to ill health. Engagement was significantly positively related to job resources (organisational support, growth opportunities, advancement and colleagues) and organisational commitment, but negatively related to ill health.

The model designed for the purposes of this study in Correctional Services (South Africa) showed that job demands (overload) and lack of job resources, had an impact on the levels of burnout experienced by correctional officers, a notion which was also confirmed by Maslach et al., (2001). Burnout, further mediated the relationship between job demands and ill health among correctional officers. The structural model went further to reveal that work-related well-being (low burnout and high work engagement) mediated the relationship between job resources and organisational commitment among correctional officers. It could therefore be concluded that correctional officers are likely to be victims of burnout (ill health) when an increase in job demands is not matched with an increase in job resources. In line with the COBE model principles (Schaufeli & Bakker, 2004), the other side of the coin can also be argued, namely that the availability of job resources will lead to work-related well-being, which will increase organisational commitment among correctional officers and thus reduce possible psychological ill health.

In conclusion, this study confirms the hypotheses in both the COBE (Schaufeli & Bakker, 2004) and JD-R (Bakker, Demerouti, & Schaufeli, 2003) models, namely, that the job resources may play either an intrinsic (by fostering growth, learning and development) or extrinsic motivational role (by being instrumental in achieving work goals) for correctional officers in South Africa. The results also assume two psychological processes, namely an energetic and motivational process. The energetic process links job demands with health problems (psychological) via burnout. The motivational process links job resources via work engagement with organisational commitment. Furthermore, it was also found that job demands lead to exhaustion (incapability to perform) and cynicism (unwillingness to perform), and that job resources had a significant effect on work engagement and also lead to organisational commitment. The results shows that correctional officers are likely to be victims of burnout whenever job demands, increases without any corresponding increases in the job resources, which will also lead to an increased work engagement from them.

This study had certain limitations because the research was a cross-sectional survey design and as a result, no causal inferences could be drawn. Furthermore, the results were obtained by self-report measures thus leading to a problem of "method variance" (Schaufeli, Enzmann, & Girault, 1993) which could give rise to an overestimation of the correlations studied.

RECOMMENDATIONS

Given the wealth of evidence provided in this research study on job demands (overload) and its impact on correctional officers, it will therefore be appropriate for the Department of Correctional Services to urgently attend to the work-related well-being of its employees. The interventions should be aimed at reducing job demands and increasing job resources in order to address both the ill health and commitment of correctional officers towards the organisation of their choice. In this context, first interventions should be directed at providing organisational support, increasing growth opportunities, creating upward mobility or advancement and organising team-building sessions for co-workers.

Second interventions should be aimed at preventing or reducing any signs of ill health from stressed officers who are unable to cope with their work or outside life. More involvement of Employee Assistance Practitioners (Social Workers and Psychologists) and Wellness Teams (Chaplains, nurses, financial expects etc.) should be employed at this stage to intervene before correctional officers show signs of ill health. The third intervention should be to reconstruct, redevelop and rehabilitate those officers who are ill or have a reduced well-being due to the strains of correctional work.

Lastly, a more advanced longitudinal approach to work-related well-being research is needed among South African correctional officers. Such research should focus on causal relationships between burnout, work engagement, health and job characteristics at correctional centres in South Africa.

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CHAPTER 6

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

In this chapter, conclusions from the four articles are drawn regarding the specific objectives of this study. The limitations of the research are discussed, followed by recommendations for the Department of Correctional Services in South Africa, and suggestions for the future research are presented.

6.1 CONCLUSIONS

Occupational stress of correctional officers

The first objective was to assess the psychometric properties of the Organisational Stress Screening Tool (ASSET) for correctional officers in South Africa. Firstly, this research study used a biographical questionnaire to gather information about the demographic characteristics of the participants. Information gathered included rank, area, education, gender, marital status and language. Secondly, the ASSET (which refers to An Organisational Stress Screening Tool) developed by Cartwright and Cooper (2002) as an initial screening tool, was used. It measured potential exposure to stress in respect of a range of common workplace stressors. It also provided important information on current levels of physical health, psychological well-being and organisational commitment, and provided data to which the Correctional Services can be compared.

The results revealed that the scores of the dimensions of the ASSET were normally distributed in the sample of correctional officers in South Africa. The Cronbach alpha coefficients (except for the 0,49 of Job Security), varied from 0,62 to 0,91 and compared reasonably well with the guideline of 0,70 (0,55 in basic research), demonstrating that a large portion of the variance was explained by the dimensions (internal consistency of the dimensions) (Nunnally & Bernstein, 1994). The results showed that the ASSET, was an internally consistent and valid measuring instrument of occupational stress for correctional

officers in South Africa, except for the job security dimension which was found to be below the basic research guideline in this study.

The second objective was to analyse differences between the occupational stress levels for correctional officer's of the different language groups in South Africa, based on the biographical characteristics (gender, age, years of experience in the current job, years of experience in the current prison and rank) and to investigate whether organisational commitment moderates the effects of occupational stress on ill health.

Significant differences in stress levels of the population of correctional officers based on biographical characteristics, revealed that a statistically significant difference was found with how correctional officers of different age groups experience stress as a result of Job Overload and Commitment from the Organisation towards its own employees. A practically significant difference between correctional officers aged 20-30 and 50-60 years of age, concerning the experience of stress as a result of Job Control was also found. Another statistically significant difference was also found concerning how correctional officers with different years of experience in the current job experienced stress as a result of Job Overload and Work Relationships. Work Relationships contributed to a statistically significant difference between correctional officers with different years of experience in the current prison. Statistically significant differences also existed in the experience of stress between correctional officers with different ranks as a result of job overload and work/life balance. Lastly, no statistically significant gender differences were found among male and female correctional officers in South Africa. This finding on gender, contradicts with most of the empirical research on gender differences, which suggests that women appear to experience higher levels of stress in comparison to males (Kinman, 1996; McInnis, 1999).

The research study on correctional officers revealed that job characteristics, job resources and communication, and work/life balance were statistically significant predictors of the physical ill health. Job control, job characteristics, work relationships and work/life balance were statistically significant predictors of psychological ill health. Furthermore, work/life balance and job characteristics were found to be statistically significant predictors of both the physical and psychological ill health.

An interesting observation is the fact that the highest causes of the organisational stress for correctional officers are that colleagues/co-workers are not pulling their weight when work is performed during various operations, but the very colleagues take credit for what has been achieved. This observation is very serious for the department which has set an atomic vision for itself, that of wanting to be one of the best in the world in rendering correctional service. The department should therefore seriously take note of the fact that correctional work is a team work, and its performance management systems which be aimed at rewarding teams/business-units effort rather than individual efforts, these will encourage individuals to pull weight within various teams. Chaka (1998) described the demands and stressors of the South African correctional officials as having a high degree of responsibility for people, genuine threats to personal safety, rotating shifts, and unpleasant surroundings. According to Bergh (1997), if the high stress levels of correctional professionals are left unattended, the department will face a crisis where some professionals might leave their jobs due to possible ill health because of the increasing job demands and the continuous stress. The most important consequence of the employee turnover is the lowering of other employees morale, which might lead to further turnover (Stohr, Self, & Lovrich, 1992).

Concerning occupational stress and its impact on work-related well-being, a moderated regression analysis on physical ill health indicated that a statistically significant interaction effect exist between stressful job characteristics and individual commitment. However, this effect was not in the expected direction, it seems that individual commitment impacted stronger on physical ill health under conditions of low stress about job characteristics. These observation supports literature that states that job characteristics are directly related to the level of commitment that is perceived from the organisation and not necessarily from the individual (Cooper et al., 2001), seeing that the employees perceive the employer as the party who is responsible for the characteristics of their jobs (job involving risk of physical violence, organisation changing for sake of change, and dealing with difficult prisoners). The finding is also in conflict with literature which suggests that not being satisfied with these characteristics will lead to elevated occupational stress levels that will inevitably impact on physical ill health (Taris, Scheurs, & Van Iersel-van Silfhout, 2001).

Furthermore, the moderated regression analysis carried out on psychological ill health, indicated that a statistically significant interaction effect between the stressors (job resources and work/life balance) and individual commitment. These effects were in the expected

direction, individuals who showed commitment to the organisation, were less inclined to report symptoms of psychological unwell-being. The results showed that the best predictor of commitment from the individual is the job resources, and the work-life balance. Thus a lack of job resources, and working unsocial hours which interferes with home/personal life, increased correctional officers levels of exhaustion and cynicism. In line with both the Conservation of Resources theory (Hobfoll & Freddy, 1993) and Job Demands-Resources model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001), it could be argued that correctional officers are likely to become victims of stress when there is no resources and work-life balance.

Burnout of correctional officers

The third objective of this research study was to assess the psychometric properties of an adapted version of the Maslach Burnout Inventory-General Survey (MBI-GS) for correctional officers in South Africa and to investigate differences between the levels of burnout of different language groups (Afrikaans/English and African).

Consistent with previous studies, prior to testing for the factorial validity and internal consistency of the MBI-GS, construct equivalence analyses were conducted for the remaining 15-item MBI-GS questionnaire to determine possible sources of inappropriate comparison across the racial groups. A simple principal component analysis was carried out for correctional officers in the two language groups, namely Africans and Afrikaans/English. Item 11 was found not to be factorable. Based on both conceptual and empirical grounds, item 13 was also eliminated from the original MBI-GS, and replaced with item 18. The omission of these items in post-hoc analysis might be explained by ambivalent and relevance of these particular items and is consistent with previous research findings (Rothmann & Jansen van Vuuren, 2002; Rothmann & Malan, 2002; Schutte et al., 2000; Storm & Rothmann, 2003). After removal of the problematic items, simple factor analysis yielded a three factor solutions. The three factors were labelled as Exhaustion, Cynicism and Professional Efficacy. These results confirm that the burnout construct was equivalent for the two language groups in Correctional Services. Furthermore, reliability analysis confirmed the internal consistency for correctional officers, with the three subscales of the MBI-GS (Exhaustion, Cynicism and Professional Efficacy), exceeding the critical Cronbach alpha value of 0,70. Based on these results, the conclusion can be made that in total the adapted

version of the MBI-GS seems to satisfy the requirement of homogeneity and unidimensionality.

Regarding the differences in the burnout levels between language groups, a significant effect of *language* on the combined dependent variable Burnout was revealed. Analysis of each individual dependent variable, showed that there were no significant differences between the levels of Exhaustion and Cynicism in the two language groups of the correctional officers in South Africa. The two groups differed in terms of the level of Professional Efficacy where the English/Afrikaans group showed higher levels of Professional Efficacy. No significant effect of *qualification* and *rank* on the combined dependent variable Burnout was found. However, the language groups (English/Afrikaans) and (Africans) differed in terms of the level of Exhaustion where the Africans showed higher levels of Exhaustion. Furthermore, there was a significant effect of *job* on the combined dependent variable Burnout. Analysis of each individual variable, showed that no significant differences existed between language groups as a result of the levels of Exhaustion, Cynicism and Professional Efficacy.

Finally, the results showed that compared to the normative sample, 32,4% of correctional officers experience high levels of exhaustion, while 38,6% experience high cynicism and 32,1% show low professional efficacy.

Work engagement of correctional officers

The fourth objective of this study was to assess the psychometric properties of the Utrecht Work Engagement Scale (UWES) for correctional officers of different language groups in South Africa and to investigate whether differences exist between the work engagement of different language groups.

The construct equivalence of the UWES was assessed for the two language groups, Afrikaans/English and Africans. One factor was extracted using exploratory factor analysis, namely Vigour/Dedication (Engagement), which is in contrast with previous findings suggesting a three-factor structure for work engagement (e.g., Schaufeli & Bakker, 2004; Naudé & Rothmann, 2004b). Although the Tuckers phi coefficient indicated that the factor compared favourably with the guideline of 0,90, six items were complex, problematic, and wrongly loaded on other factors. Based on both empirical and conceptual grounds, the

following items were deleted: a) Item 1- "I am bursting with energy in my work." b) Item 3- "Time flies when I am working." c) Item 9- "I feel happy when I am engrossed in my work." d) Item 11- "I am immersed in my work." e) Item 15- "I am very resilient, mentally, in my work". f) Item 17- "I always persevere at work, even when things do not go well". The elimination of these items can be validated on both conceptual and theoretical grounds. Even though the decision to eliminate this items was also partly based on previous research (Schaufeli et al., 2002b; Storm & Rothmann, 2003b; Naudé & Rothmann, 2004b), validation of these items is therefore needed in future studies. The words "resilient, engrossed, persevere, immersed, bursting with energy, and time flies", might have been difficult and misunderstood by correctional officers, possibility of semantic differences in meaning attributed to these items cannot be excluded, especially in view of the comparison between groups on the basis of their languages. Four items in which the language was simplified were then added without isolating the absorption factor, but to improve the item content of the original 17-item UWES. Recent research has questioned the central role of the Absorption subscale in the conceptualisation of work engagement, and supports the notion that work engagement is primarily characterised by vigour and dedication (Naudé & Rothmann, 2004b; Schaufeli & Bakker, 2004).

The confusing state of the UWES is as a result of the fact that the instrument is recently constructed, and that relatively few studies have critically reviewed its psychometric properties. It was originally constructed from the data based on samples of individuals in Netherlands, but most recently, few studies in South Africa have used it (Coetzer & Rothmann, 2004; Naudé & Rothmann, 2004; Storm & Rothmann, 2003). More research regarding work engagement is therefore required.

Regarding the significant differences in the engagement levels of correctional officers based on biographical characteristics, T-tests were used to analyse the differences between groups in terms of their different languages. Although no practical significant differences between language groups of correctional officers in South Africa were found, it did reveal statistically significant higher levels of work engagement for Africans as compared to the Afrikaans/English language group. Furthermore, differences in engagement levels based on qualifications and ranks were also conducted for the language groups. The findings revealed that, a statistically significant difference exists between engagement levels of correctional officer's based on qualifications. No statistically significant differences between engagement

levels of correctional officer's based on ranks were found. This study did not also find any significant gender differences among correctional officers, a finding which contradicts findings mentioned in the Test Manual of the UWES (Schaufeli & Bakker, 2003), indicating that men tend to score slightly higher on dedication than females.

Work-related well-being of correctional officers

The final objective of this study was to develop and test a causal model which could be used to predict, and serve as a guideline for work-related well-being programmes of correctional officers in South Africa.

The results showed that a good fit was found for a model in which burnout mediated the relationship between job demands and ill health. Work-related well-being mediated the relationship between job resources and organisational commitment, engagement and burnout of correctional officers. Work-related well-being had an impact on organisational commitment, whereas Burnout had a negative impact on both the organisational commitment and psychological ill health of correctional officers in South Africa.

A principal component analysis with a direct oblimin rotation conducted in this study, resulted into a two-factor structure of Work-related well-being. The first factor represented burnout, consisting of incapability (exhaustion) and unwillingness (cynicism) to perform work activities. The second factor represented what was labelled Work Engagement.

Regarding the organisational causes of burnout and work engagement, two main factors, namely job demands (overload) and job resources were extracted by using the principal factor analysis with varimax rotation on the six factors of the Job Characteristics Subscales (JCS). Organisational support, growth opportunities, colleagues and advancement formed the first factor (labelled **Job Resources**), while Job Overload formed the second factor (labelled **Job Demands**). Job insecurity loaded negatively (with low communality) on both factors and was therefore not included in the subsequent analyses.

In keeping with the COBE model (Schaufeli & Bakker, 2004), the correlations analysis in this research study revealed that burnout (exhaustion and cynicism) was negatively related to work engagement. Both exhaustion and cynicism were also negatively related to job

resources (organisational support, growth opportunities, advancement and colleagues), but positive to job demands (overload). Furthermore, exhaustion and cynicism are negatively related to organisational commitment and positively related to ill health. Engagement were significantly related to job resources (organisational support, growth opportunities, advancement and colleagues) and organisational commitment, but negatively related to ill health.

With regard to aspects that enervated work-related well-being, the model designed for Correctional Services (South Africa) showed that job demands (overload) and lack of job resources, had an impact on burnout of correctional officers, a position which was also confirmed by Maslach et al. (2001). Burnout, further mediated the relationship between job demands and ill health of correctional officers. The structural model went further to reveal that work-related well-being mediated the relationship between job resources and organisational commitment of correctional officers. It could therefore be concluded that correctional officers are likely to be victims of burnout (ill health) when an increase in job demands is not matched with an increase in job resources. In line with the COBE model principles (Schaufeli & Bakker, 2004), it can also be argued differently, that the availability of job resources will lead to work-related well-being, which will turn into organisational commitment of correctional officers and reduce possible psychological ill health.

6.2 LIMITATIONS

The first limitation of this study is in the use of a cross-sectional design were relationships between variables could be identified at one point only. Despite the use of statistical techniques such as structural equation modelling, no causal inferences could be made. Relationships could only be analysed and described, but not established. The establishment of relationships in this research study serves to set patterns consistent with previous theoretical research regarding the chronological relationships of the different variables being studied. Moreover, reference to causal relationships as suggested in this research study, would be incorrect. It is therefore possible that the independent variables in this research study could be classified as symptoms of burnout, work engagement and occupational stress, rather than antecedents or precursors. However, longitudinal research seems to point to the fact that certain job characteristics demonstrate a causal relationship in health outcomes, with the associated outcomes appearing only after the process of appraisal of the situation (Schaufeli

& Buunck, 2002). Longitudinal research is therefore appropriate design for the validation of MBI-GS and the UWES.

The second limitation of this research study is its reliance solely on self-report. In line with (Schaufeli, Enzmann, & Girault, 1993; Schaufeli & Enzmann, 1998), the use of self-report in validation studies increases the likelihood that part of the shared variances may be attributed to method variance. In general, a high consistency exist between the objective and subjective ratings of variables such as the ones used in the present study (Spector, 1987). Similarly, other researchers have demonstrated that even if interactions between the constructs are found, they pose no real threat with regard to the findings obtained (Dollard & Winefield, 1998; Wall, Jackson, Mullarkey, & Parker, 1996).

Lastly, on the issue of generalisation of the findings of this research study to the total population of correctional officers in South Africa, the sample size cannot be a limitation factor. Out of a total of 1500 questionnaires distributed to 48 prisons in South Africa, 1000 were received back, and only 897 questionnaires (59% response) could finally be included in the data analysis of this research study. The 59% provides a comprehensive wellness profile of work in the Department of Correctional Services in South Africa.

6.3 RECOMMENDATIONS

Consequently, recommendations for the department as well as suggestions for future research are made.

6.3.1 Recommendations for the organisation

Given the wealth of evidence provided in this research study on job demands (overload) and its impact on correctional officers, it will therefore be prudent that the Department of Correctional Services urgently attend to the work-related well-being of its employees. The interventions should be aimed at reducing job demands and increasing job resources in order to enhance both the ill health and commitment of correctional officers towards the organisation of its choice. According to Kompier and Kristensen (2001), first primary interventions should be directed at providing organisational support, increasing growth

opportunities, creating upward mobility or advancement and organising team building sessions for co-workers.

Second interventions should be aimed at preventing or reducing any signs of ill health from stressed officers unable to cope with their work or outside life. More involvement of Employee Assistance Practitioners (Social Workers and Psychologists) and Wellness Teams (Chaplains, nurses, financial expects etc.) be employed at this stage to intervene before correctional officers show signs of ill health. The third intervention should be to reconstruct, redevelop and rehabilitate those officers who are ill or have a reduced well-being due to strains of correctional work.

In order to promote the overall wellness of correctional officers, it is important for burnout (the negative pole of wellness) and strain to be managed, and emphasis be on enhancing the positive aspects of wellness, like engagement (Robberts & Davenport, 2002). This point is important for Correctional Services seeing that it is not really high levels of burnout that results in disengagement from the correctional officers, but the tendency might be attributed to affirmative action, and ongoing transformations in the department.

In order to increase work engagement of correctional officers in South Africa, there critical areas that needs urgent attention, namely finalisation of the ongoing reengineering process in the department, career development/training of correctional officers in line with the new strategic direction of the department, establishing better relationships with labour unions operating in the department, dealing firmly with discipline and corruption among correctional officers, establishing and marketing a new organisational culture, branding the department in order to deal with its poor public image, accommodating disengaged Afrikaans/English groups in promotional appointments, creating a rewarding performance management tool for advancement of correctional officers and lastly, appointing (or adopting an auxiliary support model) more social workers and psychologists to deal with the social and psychological problems of correctional officers, and not of prisoners only as it is currently practiced.

Lastly, it is also recommended that the department should provide adequate resources (physical as well as managerial support) for correctional officers to elevate their engagement levels. As identified by Wilson (1996, p.1), 'an unmet need can frustrate an employee and will continue to influence their behaviour until it is satisfied; managers can therefore

effectively work with an employee by identifying the level of need which s/he is trying to satisfy and by attempting to build opportunities in the work environment that will allow them to satisfy their own needs'.

If the department can meet these urgent needs, it will provide a fortigenic atmosphere that will be conducive to correctional officers wellness (Seligman and Csikszentmihalyi, 2000), thus ensuring that a well-balanced, promissory, and reciprocal psychological contract exist in the department.

6.3.2 Recommendations for future research

Taking into account the pervasive nature of occupational stress among correctional officers, future research in the area of occupational stress is likely to be relevant if it is more intervention-focussed. Stress is about to become an identified hazard, and it will become an inescapable responsibility of employers to eradicate stressors in the working environment and provide correctional officers with training in protective mechanisms against inherent stressors. No longer will it be enough to give treatment and rehabilitation for officers already showing strain and displaying the absence of a comprehensive approach to prevention and protection. Any stress-reduction approaches should use a theoretical model. The ASSET model has been used in many occupations internationally, including in health care, teaching, academia, and police. However, further refining and testing of ASSET is needed within the South African context. Cooper, Dewe, and O'Driscoll (2001), suggested that in order to minimise the negative spin-offs of occupational stress, it is important to take a holistic approach to resolve the stress and strain suffered by the employee.

The findings of the present research study might have important implications for future research and practice despite the limitations as mentioned. In the first instance, burnout is now a well established phenomenon, not only outside the human professions, but in this study specifically among correctional officers in South Africa. According to the results of this study which used the MBI-GS. Item 11 was found not to be factorable and based on both conceptual and empirical ground, item 13 was also eliminated from the original MBI-GS, and replaced with item 18. The omission of these items in post-hoc analysis might be explained by ambivalent and relevance of these particular items and is consistent with previous research findings (Schutte et al., 2000; Storm & Rothmann, 2003). After removal of the problematic

items, simple factor analysis yielded a three factor solutions. The three factors were labelled as Exhaustion, Cynicism and Professional Efficacy. These results confirm that the burnout construct was equivalent for the two language groups in Correctional Services. Furthermore, reliability analysis confirmed the internal consistency for correctional officers, with the three subscales of the MBI-GS (Exhaustion, Cynicism and Professional Efficacy), exceeding the critical Cronbach alpha value of 0,70. Based on these results, the conclusion can be made that the adapted version of the MBI-GS seems to satisfy the requirements of homogeneity and unidimensionality, and is recommended to assess burnout in Department of Correctional Services. This could stimulate further research in a wide range of occupations (Schutte, Toppinen, Kalimo, & Schaufeli, 2000), and could also form part of future comprehensive wellness audits at organisations.

Future South African research needs to investigate the prevalence of burnout in Correctional Services, as well as other occupational groups, in order to make comparisons between standardised groups possible. Research into the aggravating effect of many radical and rapid transformations in the department, and its impact on the affected correctional officers, could provide valuable information. The study of burnout seems imperative, given the negative impacts it has in terms of absenteeism, job turnover, ill-discipline, and corruption in many organisations. Furthermore, norms regarding different occupations and organisations could be generated to enable meaningful comparisons within the South African context.

Informed by the results of this research study, it is recommended that the MBI-GS be translated into the eleven South African languages, and that attention should be on using both positively and negatively phrased items to measure burnout in Correctional Services in order to further enhance the psychometric value of the MBI-GS.

According to the results of this research study, the use of UWES is recommended to assess engagement of correctional officers in South Africa. With regard to work engagement, more research is needed to verify the current findings, further similar construct validity research is needed to establish the factorial validity of the UWES more fully. According to the results in this research study, specific problems with the UWES included, positive response sets, that metaphors had been used and that some English words might have been difficult to understand. In particular, Van de Vijver and Leung (1997), suggests that metaphors should be avoided in questionnaires. Given the eleven official languages in South Africa, English is a

second language for majority of people and consequently the use of metaphors and unusual words such as 'immersed', 'resilience' and 'engrossed' in the items could have contributed to misunderstanding. In the quest to make the UWES more user friendly with regard to comprehensibility by different language groups, some items can be adjusted. The possibility of translating the UWES into other South African languages is strongly recommended.

In studying work engagement, researchers should focus on using positively phrased rather than negatively phrased items to measure job resources. Furthermore, research is needed to determine whether work engagement contributes to reduced taking of sick leave, productivity, improving discipline and eradicating acts of corruption.

In keeping with the recent research findings which has strongly questioned the central role of the Absorption subscale in the conceptualisation of work engagement, the findings of this current research study also found that work engagement is primarily characterised by vigour and dedication (Naudé & Rothmann, 2004b; Schaufeli & Bakker, 2004). The results of this current study recommends that four items in which the language was simplified be added without isolating the absorption factor, but to improve the item content of the original 17-item UWES.

More integrated models of work-related well-being, are needed in South African professions. The current research study attempted to incorporate the two antitheses, namely, burnout and engagement, into a comprehensive wellness audit. There is presently little information on the prevalence of work engagement, in contrast to the wealth of information on burnout and stress. Future research studies should therefore focus at examining these constructs and their relationships to the total wellness of employees. In the future research, causal models of wellness for correctional officers in South Africa, should contribute not only to positive psychology, but to refine and increase broader understanding of work-related well-being.

Lastly as far as correctional officers wellness is concerned, future studies should use either experiments of longitudinal studies if possible. This position is informed by the criticism of Schaufeli and Enzmann (1998) relating to the use of cross-sectional designs. Future research should focus on possible causes, outcomes and underlying processes of work-related well-being. Models that could assist in this process is the Job Demand- Control model (Karasek &

Theorell, 1990), the Job Demand- Resources Model (Demerouti et al., 2001), and the Comprehensive Burnout and Engagement Model (COBE) (Schaufeli & Bakker, 2004).

Future studies should also focus on the study of appropriate interventions and their impact. Appropriate research designs such as probability sampling methods with acceptable sample sizes, use of intervention mapping in the planning, implementation and research of the effects of interventions, incorporating different types of change (alpha, beta and gamma) in terms of the effectiveness of interventions (Vandenberg & Self, 1993), conducting etiological and prevention effectiveness studies (Skov & Kristensen, 1996), and using methods toward defining and determining the clinical significance of treatment effects (Jacobson, Roberts, Berns, & McGlinchey, 1999), will be acceptable.

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