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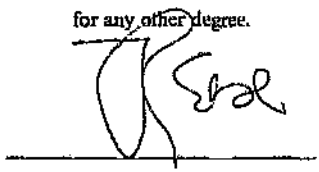
DISCRIMINANT VALIDATION OF THE THREE DIMENSIONS OF BURNOUT

James Rodney Else

Dissertation submitted to the Faculty of Arts, University of the Witwatersrand, in Partial Fulfilment of the Requirements of the Degree of Masters of Arts.

Johannesburg, 1990

I hereby declare that this dissertation
is my own unaided work, and has not been
submitted to any other University
for any other degree.



J.R. Else

ACKNOWLEDGMENTS

My appreciation is to the following people is gratefully acknowledged:-

* to my friends, particularly the following, for their affection, support and hospitality;

Vanessa B, Warren B, Paul F, Ian G, Mike H, Julie M, [illegible]ah N, Mary-ann S, Adrienne R, Monica R, Ken R, my sister-in-law Tania and my brother Clive,

* to the anonymous subjects who took the trouble to answer the questionnaires,

* to my supervisor, Professor S. Bluen, for his professional criticism of my work, and advice,

* and to my parents, Rodney and Jeffie, in recognition of whose consistent love, faith and support, this dissertation is dedicated.

Financial assistance received from the following organisation, institution and individuals is also acknowledged;

* The Human Sciences Research Council,
* The Rodney Else Trust,
* Mrs. Silma Keys,
* Mr. Ian Gandini.

Any opinions expressed in this dissertation do not necessarily reflect those of the sponsors.

ABSTRACT

The prevailing understanding of burnout is firmly entrenched in, and has been fundamentally influenced by, the three component definition of the burnout concept proposed by Maslach and Jackson (1981), as evidenced in its almost exclusive application in the burnout research and theoretical developments (Maslach & Jackson, 1986; Shirom, 1989). Although the construct validity of the three factor burnout structure is well established, no research could be found which has investigated the discriminant validity of this construct. Thus the aim of the present study was to determine how emotional exhaustion, depersonalisation, and low feelings of personal accomplishment may relate differentially to conceptually related variables.

The sample in this study comprised 223 white, English speaking Human Service Professionals; viz., attorneys, doctors in general practice, doctors in specialities, registered nurses, psychiatrists, clinical psychologists, social workers, and high school teachers. Most of the respondents were practicing in Johannesburg. The research was in the form of a cross-sectional correlational field design.

Although the present research replicated the three factor structure of burnout, as proposed by Maslach and Jackson (1981), the results indicate that their conceptualisation of burnout lacks discriminant validity. Significantly differential relations between the three components of burnout and the conceptually related variables were not evidenced by the data. The results show that although the three burnout factors may be related to variables conceptually related to burnout, there was a consistent trend evidenced by emotional exhaustion which suggests that this component may be the more powerful and appropriate measure of burnout. These results suggest that emotional exhaustion may be performing similarly with the other two burnout components, although in a more powerful capacity. The results do show however, that emotional exhaustion, both frequency and intensity, may not be an adequate measure of general ill-health in a singular capacity.

The findings of the present study are discussed with respect to the literature, and the implications and limitations of this study are detailed. Directions for future research are indicated.

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Burnout as a strain variable

The term stress refers to the individual's experience of those environmental demands (or stressors) which are perceived as exceeding that person's available resources (Chalmers, 1981, 1982; Lazarus, 1976). Stress may lead to the experience of strain (Cooper, 1986; Cox & Mackay, 1981; Fletcher & Payne, 1980; Handy, 1988; Harrison, 1978; Lazarus & Folkman, 1984). This relationship is moderated by certain intervening variables, which further affects the deleterious impact on the individual (Barling, 1986; Beehr & Newman, 1978; Cox, 1978; Cox & Mackay, 1986; French & Caplan, 1973; Kobasa, 1982; Lazarus, 1966, 1976; Maddi & Kobasa, 1984; Pearlin et al., 1981; Pearlin & Schooler, 1978).

One of the serious outcomes of stress is burnout, a syndrome which has been extensively researched by Maslach and Jackson (Maslach, 1978a, 1978b; 1982a, 1982b, 1982c; Maslach & Jackson, 1979, 1981, 1982, 1984a, 1984b), and others (see, Shirom, 1989). Burnout has been defined as "a syndrome of emotional exhaustion, depersonalisation, and reduced personal accomplishment that can occur among individuals who work with people in some capacity (Maslach & Jackson, 1984a, p134)". The psychometric measure developed by Maslach and Jackson (1981); i.e., the Maslach Burnout Inventory (MBI), is designed to measure burnout in these terms.

The various definitions of burnout in the literature implicate the use of a transactional stress model (Eisenstat & Felner, 1983). Within such a paradigm, burnout is a strain variable, experienced predominantly by human service professionals (HSPs), as a negative affective response-set to those specific stressors inherent to professional caring work (Cherniss, 1980a, 1980b; Cherniss & Krantz, 1983; Freudenberger, 1977, 1982, 1983; Handy, 1988; Meier, 1983; Payne & Firth-Cozens, 1987; Perlman & Hartman, 1982; Shinn, Rosario, March & Chestnut, 1984; Shirom, 1989). Burnout research focuses primarily on HSPs (Garden, 1987; Shirom, 1989) because burnout is regarded as a specific syndrome of strain which occurs as a function of the stressors peculiar to HSP work (Freudenberger, 1977, 1982, 1983; Payne & Firth-Cozens, 1987). Interest in the topic of HSP stress and burnout has been so avid that books focussing purely on HSPs within a stress and burnout paradigm have been written (e.g., Cherniss, 1980a, 1980b; Cooper & Robertson, 1989; Greenberg

& Valettutti, 1980; Jones, 1982; Payne & Firth-Cozens, 1987), and between 1980 and 1985, more than 300 articles were written (Roberts, 1986).

Research indicates that burnout is correlated with other strain variables, notably substance abuse, psychological distress (particularly depression and lowered self-esteem), psycho-somatic disorders, and other sequlae related to HSP work (Cherniss, 1980a, 1980b; Edelwich & Brodsky, 1980; Einseidel, 1982; Jackson & Maslach, 1980, 1982a, 1982b; Jones, 1982; Maslach, 1976, 1978a, 1978b, 1979, 1980, 1982a, 1982b, 1982c; Maslach & Jackson, 1978, 1981, 1982a, 1982b; Malsach & Pines, 1977; Muldary, 1983; Pines & Maslach, 1978, 1980; MacBride, 1983). A plethora of indicators and symptoms of burnout have been reported in the literature (Muldary, 1983), which may be broadly differentiated into physical, psychological and behavioural categories (see, Table 1).

Burnout may precipitate an increased propensity of HSPs to leave their jobs, and/or, accompany a deterioration of HSP productivity and quality of professional care (Einseidel, 1982; Jackson & Maslach, 1980, 1982b; Maslach, 1976, 1978a, 1978b, 1979, 1982, Maslach & Jackson, 1978, 1981, 1982; Malsach & Pines, 1977; Pines & Maslach, 1978, 1980). HSPs who experience burnout may often work longer hours while accomplishing less (MacBride, 1983), or tend to be neglectful of their job duties with concomitant job-related errors or mistakes (Jones, 1982). These may be the direct, indirect, hidden or potential costs of burnout (Minnehan & Paine, 1982), which may have serious implications for HSPs, recipients and the respective HSP organisations (Minnehan & Paine, 1982) (see Table 2). The seriousness of the costs of burnout is not only of consequence to recipients' well-being, but is also reflected by the deleterious effects which burnout may have on the attitudes and behaviours of HSPs (Farber, 1983).

The stressful nature of HSP work

Burnout manifests as an extremely variable amalgam of symptoms, behaviours and attitudes which develops as a response to heightened stress over time (Bailey, 1985; Cherniss, 1980a, 1980b; Edelwich & Brodsky, 1980; Golembiewski et al., 1983, 1984; Lavendero, 1981). Being based in psychological, interpersonal, organisational and social phenomena, the aetiology of burnout is complex (Farber, 1983; Farber & Miller, 1981). While there appears to be popular belief that burnout and job stress are intrinsically related, they are not synonymous. Job stress appears to be a necessary

Table 1 : Signs & symptoms of burnout identified in the literature (Maldary, 1983, p6)

PHYSICAL	PSYCHOLOGICAL	BEHAVIOURAL
Fatigue	Feelings:	Dehumanization of patients
Sleep disturbances	* anger	Victimization of patients
* difficulty sleeping	* boredom	Fault finding
* difficulty getting up	* frustration	Blaming others
	* depression	Defensiveness
Stomach ailments	* discouragement	Impersonal stereotyped communication with patients
Tension headaches	* disillusionment	Applying derogatory labels to recipients
Migraine headaches	* despair	Physical distancing from recipients
Gastrointestinal problems	* apathy	Withdrawal
Frequent colds	* guilt	Isolation
Lingering colds	* anxiety	Stereotying recipients
Frequent 'flu	* suspicion / paranoia	Postponing contact with recipients
Backaches	* helplessness	Going increasingly by the book
Nausea	* pessimism	Living for breaks
Muscle tension	* irritability	Absenteeism
Shortness of breath	* resentment	Making mistakes
Malaise	* hopelessness	Unecessary risk taking
Frequent injuries	Attitudes:	Abuse of drugs and alcohol
Weight gain	* cynicism	Marital & family conflict
Weight loss	* indifference	Conflict with co-workers
Stooped shoulders	* resignation	Workoholism & obsessiveness
Weakness	* self-doubt	Use of humour as buffer from emotions
Changed eating habits	Other:	Decreased job efficiency
	* loss of empathy	Suicide
	* difficulty concentrating	Overcommittment or undercommittment
	* low morale	
	* moodiness	
	* impoverished self-image	

Table 2 : Examples of the costs of burnout (Minnehan & Paine, 1982)

TYPE	EXAMPLES
Direct costs for employee	* Medical costs for illnesses, accidents * Loss of earnings, pension * Intervention costs; prevention, treatment * Reduced worker productivity
Indirects costs to employee but direct effects on employer	* Cost of replacement or substitute worker * Sick leave * Increased insurance premiums * Payments for early retirment * Recruitment and orientation costs * Identifiable 'lost' recipients * Employee theft, sabotage
Hidden costs to employee, employer	* Decreased flow of recipients * Impacts on families and support groups * Possible early retirement
Potential costs to employer	* Industrial and other accidents * Increased legal costs * Product liability suits

pre-condition for burnout to occur (Muldary, 1983). Indeed burnout may constitute the end-point of the occupational stress continuum (Golembiewski et al., 1983; MacBride, 1983). Burnout may be the consequence of stress that has not been moderated by variables such as social support (Farber, 1982, 1983). This assertion complements the excessive demands and needs deficiencies definition of stress proposed by Lazarus (1976), and highlights the association between the burnout research and the occupational stress literature (Eisenstat & Felner, 1983; McNeill, 1982).

Although HSPs experience similar difficulties and job-related stress as manifested in most occupations, this group of professionals seems to be confronted with stressors which are peculiar to professional caring work (Bjorksten, Sutherland & Millar, 1983; Firth & Morrison, 1986). These stressors appear to be of a more intense nature than the stress associated with other professions (Eisenstat & Felner, 1983). The stressful nature of the HSP work setting, the interpersonally stressful relationships between HSPs and their recipients, and the individual characteristics of the HSP are regarded as aetiological factors in the development of burnout (Burke, 1987a, 1987b; Burke & Greenglass, 1988, 1989a, 1989b; Golembiewski et al., 1986; Pines & Kafry, 1981; Maslach, 1982b). Burnout research has however shifted in focus from the culpability of the individual, to identification of negative situations (Burke, 1987a, 1987b; Burke & Greenglass, 1989a, 1989b). For the purposes of this study, the interactionist position of Meier (1983) is followed; i.e., attention is given to both the hypothesised extrinsic and intrinsic factors in the development of burnout, where the causality of this phenomenon is regarded as a function of both the environmental and individual factors (Meier, 1983) The sections that follow outline reported aetiological factors in burnout aetiology; i.e., the HSP-recipient relationship and the macro context stressful constraints impinging on HSPs.

It is because HSP work may become totally absorbing, and because HSP careers may attract highly committed individuals, that HSPs may experience burnout more than professionals in other types of careers (Cherniss & Krantz, 1983). But, the stress inherent to HSP work, which may predispose the HSP to developing burnout, is centred on the HSP's relationship with recipients, i.e., clients, patients, pupils and/or the public. HSP stress also includes the emotional content of HSP work, particularly in the context of the highly (often negative) affectual and invasive nature of the professional interaction with recipients (Payne & Firth-Cozens, 1987), and the usually non-reciprocal nature of that relationship (Patrick, 1984; Ryerson & Marks, 1982). HSPs may suffer from burnout

because of their client-centred orientation (Muldary, 1983; Pines & Aronson, 1981), where feedback is usually negative and any results are slow to manifest and difficult to measure (Eisenstat & Felner, 1983). The stressful nature of HSP work may also be attributable to various inhibiting constraints impinging on the HSP, including institutional regulations, the curtailing of funds, and the expectations of recipients. These issues are discussed in greater detail below.

The HSP-recipient relationship

The HSP-recipient relationship is fundamental to the stressfulness of HSP work (Maslach, 1982a). It is the inherent qualitative and quantitative content of HSP work which may precipitate the development of burnout. This is because HSP work entails extensive and usually non-reciprocal interactions with recipients (Patrick, 1984; Ryerson & Marks, 1982). In brief, HSPs are involved in labour-intensive, problem-resolving jobs (Maslach, 1982a) which incur a high degree of face-to-face contact with their recipients. This occurs within a context of providing professional care, treatment, understanding or service which is compounded by excessive physical, emotional, intellectual and responsibility demands (Farber, 1983; Maslach, 1982b; Maslach & Jackson, 1984). Contact with people is not peculiar to HSPs, but the HSP's work milieu and interaction with others is typically interpersonally stressful and invasive (Maslach & Jackson, 1984a; Payne & Firth-Cozens, 1987). HSP work may involve medical procedures, the procuring of information from recipients, and a high degree of responsibility for the recipient as demanded of the HSP within his/her professional ethic. Working with the legal, medical, psychological, social and or educational problems presented by recipients engenders a job context that is excessively stressful (Bailey, 1985; Cherniss, 1980a, 1980b; Freudenberger, 1974; Maslach, 1978, 1982a; Maslach & Jackson, 1981; Marshall, 1980).

The stressful nature of this HSP-recipient interaction may be further aggravated. Not all recipients are grateful for, nor may they desire, accept, implement or adhere to the professional help, advice or regimens (Harrison, 1983). Also, recipients' problems are not always resolvable or curable (Harrison, 1983). The HSP-recipient relationship may also be stressful because the HSP is presented with recipients' anxieties, intransigence, unwillingness to change, non-compliance with medical regimes (Maslach, 1978a, 1978b; Rushton, 1987; Sakharov & Faber, 1983). Furthermore, recipients may return with the identical, or similar problems (Maslach, 1978a, 1978b; Rushton, 1987; Sakharov & Faber, 1983). Recipients may present the HSP with hostility, illness, distress and neediness, often

with minimal positive feedback from the client (Maslach, 1982a; Patrick, 1984). HSP work may have results or improvements which, if forthcoming, are extremely slow to manifest, and which are difficult to measure (Eisenstat & Felner, 1983; Maslach, 1978a, 1978b). Crucial to the development of burnout is what happens when positive results are infrequent, or when expectations are not met. This is particularly pertinent when, as noted by Maslach (1982a), HSPs often lack adequate training and/or preparation for the extreme emotional demands which will be made on them once they are working in their professional fields. When faced with the emotional demands of their professional work, many newly initiated HSPs may be unable to maintain their initially high levels of enthusiasm, idealism, caring, and commitment, and may consequently suffer from burnout (Carroll & White, 1982; Edelwich & Brodsky, 1980). "Feeling that you've made a significant difference on the life of another human being is the sine qua non of human service work. Such moments can provide an emotional fix (Farber, 1983, p9)." This statement is of crucial importance since the question remains, what happens when this emotional need is not satisfied? Burnout may then develop, particularly in the context of feedback which is seldom positive and usually exclusively negative (Maslach, 1982b), and when the HSP's need to have a positive influence on their clients' lives is thwarted (Edelwich & Brodsky, 1980). If a HSP is idealistic, the propensity of the HSP to suffer from burnout may be heightened as a function of the potential dichotomy between their projected aims and values, and the harsh reality of their work (Cherniss, 1980a, 1980b; Hall et al., 1979).

Continuously interacting with their recipients within such a demanding context requires an inordinate level of input and emotional energy, particularly since the HSP is required to remain calm, patient, caring and understanding whilst confronted by their recipients' anguish, anger, and anxiety (Maslach, 1982b). Typically, the HSP's recipients are people in need (Maslach, 1978b), who require the HSP's skill, expertise and intervention in resolving their problems. Although being valued and needed may make the HSP feel important, this may increase the his/her sense of responsibility, particularly if the HSP is seen as a rescuer (Maslach, 1982b). The aspects of the recipient's life which the HSP encounters most often appear to be chronic, seemingly immutable and endless (Maslach, 1982b). Very often the only feedback which the HSP may receive from recipients will be negative (Eisenstat & Felner, 1983; Maslach & Jackson, 1982). The continual negative focus of the HSP-recipient interaction is consequently infused with the heightened negative emotions of both parties (Maslach, 1978b). It is this type of work environment which may lead to a number of

stress-related personal and organisational disorders (Cherniss, 1980a, 1980b; Edelwich & Brodsky, 1980; Maslach, 1980), including burnout (Maslach & Jackson, 1982).

Macro context stressful constraints impinging on HSPs

HSP stress may also occur as a result of the range of financial, political, and organisational constraints inherent in their work (Burke & Greenglass, 1988). HSP work may also entail extensive interaction with colleagues and bureaucratic organisations or structures. In the attempt to provide professional service, the HSP may have to overcome many obstacles; e.g., bureaucratic procedures and having to reschedule appointments to accommodate conflicting professional and organisational demands (Parry & Gowler, 1983). The various institutions within which many HSPs work have been sharply criticised and indicted as being inhumane, depersonalising and impersonal (Barton, 1976; Goffman, 1982; Vail, 1966). This stressful aspect is further exacerbated by the institutionalised rules governing the professional relationship. These structures may inhibit the HSP-recipient relationship (Maslach, 1978; Harrison, 1983), or exacerbate the non-reciprocal nature of the relationship where the HSP is seen to be giving to their recipients without any return (Cherniss, 1980a, 1980b, 1980b; Ryerson & Marks, 1982). Strict time-limits and other resource constraints may work against successful change and development in the client (Maslach, 1978a). Other stressors include responsibility without authority, lack of commensurate recognition in terms of determining organisational goals, and restricted requisition of available resources (MacBride, 1983).

HSPs are exceptional as workers in that they are reliant upon their own skills and training as their means of production (Farber, 1983); i.e., the effectiveness of their work with recipients may provide the only reflection of their ability and input. This may precipitate feelings of vulnerability with respect to the HSP's sense of competency, effectiveness and control (Cherniss, 1980a, 1980b; Farber, 1983).

The professional mystique surrounding HSPs

Another important contributing factor to the stressful nature of HSP work is the impact of the media in terms of raising the recipients' expectations of the HSP. HSPs are projected as being constantly kind, empathetic, understanding, giving, caring, calm, patient and infallible, ... st always

respectful to the client (Farber, 1983; Greenberg & Valletutti, 1980; Maslach, 1978a). HSPs are simultaneously the target of harsh popular and media hostility for failing to prevent or cope with the distress they are presented with (Rushton, 1977).

It is popularly believed that HSPs enjoy high levels of autonomy and job satisfaction characterised by notable compassion and caring (Cherniss, 1980a, 1980b). This misconception is augmented by various presumptions regarding the emotional immunity or, 'professional mystique' of HSPs (Cherniss, 1980a, 1980b). When the HSP expresses feelings of burnout she is often accused of hypochondriasis, malingering, and self-aggrandisement (Farber, 1983). Furthermore, it is presumed that HSPs should not be affected by human suffering because they are exposed to so much of it; i.e., HSPs are presumed to have high levels of ability, expertise and effectiveness (Cherniss, 1980a, 1980b), and are irrationally presumed to have immunity, through their training and understanding, from the kinds of problems which affect everyone else (Muldary, 1983). But, if HSPs remain unaffected by the content of their work, they are regarded as unfeeling and non-caring (Muldary, 1983). In fact, it may be because of their continual exposure their recipients' suffering, that HSPs may be more vulnerable to emotional damage than their recipients (Bailey, 1985).

The increasing demand for HSP interventions

The growth of the professional caring industry has become a formalised and institutionalised part of first world culture (Maslach, 1978a). Western society is rapidly becoming more professionalised, where human needs are being catered for by trained personnel within highly bureaucratised and technologically sophisticated organisations (Cherniss, 1980a, 1980b; Shirom, 1989). Reflected against these parameters is the high demand for HSP services (Macbride, 1983; Shirom, 1989). Meeting these needs is often curtailed by the prevailing stressful macro-context of HSP work, particularly the shortage of funds with concomitant staff cutbacks (Devine, 1984; Eisenstat & Felner, 1983; Firth & Morrison, 1986; Harrison, 1983; Shirom, 1989). The stress inherent in these professions is thus compounded (Greenberg & Valletutti, 1980; Payne & Firth-Cozens, 1987), and professional attention can therefore only be given to the more 'serious' problems and/or recipients (Maslach, 1982b; Minnehan & Paine, 1982).

The Various Burnout Definitions

Before discussing the definition of burnout applicable to this research, it is expeditious to review the various burnout definitions in the literature. As a result of academic dissention, and possibly through popular-media distortion, the term burnout might have lost impact by becoming part of the pop-psychology vernacular (Freudenberger, 1983; Maslach, 1982c; McDermott, 1981; Muldary, 1983; Roberts, 1986), and has been used to denote a seemingly limitless plethora of social and personal symptoms (Shirom, 1989). There are also various popular misconceptions about burnout. These include the belief that burnout has a sudden and dramatic onset, is inevitable within specific professions, and, is glamorous and virtuous in terms of being an indicator of overachievement (MacBride 1983).

The popularity of the burnout label may be because, unlike 'depression', this term is a minimally stigmatising description of a debilitating affectual state, and the social acceptability of the term and the condition of burnout facilitates the avoidance of ascription of culpability upon the incumbent (Shirom, 1989). MacBride (1983) cautions that to express feelings of burnout may have become fashionable, alluding to the popularity of the term in the media. Definitions of burnout have become so loaded with divergent and often ambiguous meanings that the phenomenon is more easily described than defined (Muldary, 1983). The precise conceptualisation of burnout remains unresolved in terms of definitional and methodological issues (Garden, 1987; Maslach, 1982c). The appeal of the term burnout, the ambiguity of its definitional parameters and applicability, together with its popularity as part of the everyday professional and popular vernacular, has hindered the broader acceptance of a single, standard and succinct definition (Maslach, 1982c).

Surveys of burnout research reflect the variance in the definitions of the burnout concept (Ackerly, 1988; Carroll & White, 1982; Edelwich & Brodsky, 1980, Farber, 1983; Jackson & Maslach, 1982a; Kahn, 1987; Maslach, 1982b; Matteson & Ivancevich, 1987; Perlman & Hartman, 1982; Pines, Aronsen & Kafry, 1981; Shirom, 1989). Definitions also differ in terms of focus, scope, exactitude, attention to detail, and rigour, as well as the inclusion or exclusion of psychological and behavioural components, aetiological factors, and sequlae. There is also debate concerning the status of burnout as a state, syndrome, process, cause or effect.

The term burnout has two broad usages in the literature. It is used as a convenient label for the entire range of strain variables, and is also used as a composite label for the three component parts of Maslach and Jackson's (1981) definition of burnout; viz., emotional exhaustion, depersonalisation and feelings of low personal accomplishment. This dichotomy of applicability of the term is of relevance to the purpose and aim of this study, and will be discussed later. A review of the various major descriptions and definitions of burnout is detailed below. Although definitions of burnout may differ, they are not necessarily mutually exclusive, but are seen to overlap with each other.

Definitions of burnout which express a general focus are many and varied. Some regard burnout as an occupational hazard and disease (Ianni & Reuss-Ianni, 1983), and as an expression of politico-social malaise (Karger,1981; Sakharov & Faber, 1983). The burnout construct has also been used as an explanatory term for decreased job performance by HSPs (Carroll & White, 1982), and to express ecological dysfunction where the environment is pinpointed as the primary influence in the determination of the individual's vulnerability to developing burnout (Carroll, 1980). Others define burnout as a state (Freudenberger & Richelson, 1980; Meier, 1982, 1983, 1984), a process (Cherniss, 1982; Fischer, 1983; Freudenberger, 1975; Gaines & Jermier, 1983; Muldary, 1983; Pines and Kafry, 1982), an unending cycle (Freudenberger, 1977), a continuum (Maslach, 1978a, 1979; Maslach & Jackson, 1981; Maslach & Pines, 1978; Rafferty et al., 1986), the response-set of stress (Pines, 1983; Shinn et al., 1984; Silverstein, 1982), and as a syndrome (Mattingley, 1977; Maslach & Jackson, 1981; Perlman & Hartman, 1982). The section below is not an all-inclusive compendium of the plethora of burnout definitions. Moreover, these definitions should not be regarded as mutually exclusive.

Meier's (1983, 1984) interactionist model posits that burnout is a synthesis of environmental and individual factors; i.e., burnout is a state which results from reoccurring negative work related experiences. When this occurs in a context where the HSP exercises little control, these individuals may become anxious and fearful (Bandura, 1977a; Bandura & Adams, 1977; Dawis & Lofquist, 1978; Meier, 1983, 1984; Seligman, 1975). Freudenberger and Richelson's (1980) description of burnout complements that of Meier (1983, 1984); ie, burnout is a a state of exhaustion and disappointment which occurs when the individual's dedication to his/her work has failed to bring about the expected results. HSPs who idealise their work may suffer from burnout as a concomitant of the loss of, or their attempt to maintain, that ideal (Fischer, 1983; Freudenberger, 1975). Edelwich

and Brodsky (1980) perceive burnout to be the progressive loss of idealism, energy, and purpose experienced by people in the helping professions as a result of the conditions of their work; ie, the response to chronic stress (Maslach & Jackson, 1984a). Burnout is also regarded as the function of the HSP's excessive striving to reach some unrealistic expectations imposed by the individual, or by societal demands, which result in the exhaustion of that person's physical and mental resources. (Pines & Kafry, 1982; Sassali, 1979), while in the same vein, Cherniss (1980b) and Harvey (1981) maintain that burnout is the response-set of goal and value conflicts.

Pines and Maslach (1978) define burnout as a state of physical, emotional and mental exhaustion marked by physical depletion and chronic fatigue, feelings of helplessness and hopelessness, and the developments of a negative self-concept and negative attitudes toward work, life and other people. This state of exhaustion, irritability, and fatigue may markedly decrease the worker's effectiveness and capability (Cherniss, 1980a, 1980b); ie, a debilitating psychological condition, resulting from work-related frustrations, as a function of depleted tolerance and resources (Carroll & White, 1982); i.e., from working too hard and for too long in a high-pressure work environment (Bailey, 1985; Turner, 1983). This is when the previously committed HSP disengages from his/her work, as a response-set to the stressors inherent to their jobs (Matteson & Ivancevich, 1987; Silverstein. 1982); i.e., burnout.

Muldary (1983), also contextualises his definition of burnout within a response-set process paradigm, regarding burnout as the process whereby the formerly committed HSP no longer manages the emotionally loaded and stressful interactions with his/her recipients. This results in exhaustion with consequential disengagement from recipients, colleagues and the organisation. Maslach (1982c) reports that burnout has been defined as a process in which the professional's attitudes, behaviours and performance are negatively affected, and which may be accompanied by depression and apathy (MacBride; 1983). Cherniss (1982), operating within a transactional stress-strain paradigm argues that burnout is a process involving psychological withdrawal as a stress coping behaviour. Other authors also conceptualise burnout as a continuum of distress (Gaines & Jermier, 1983; Maslach, 1978a, 1979; Maslach & Jackson, 1981; Maslach & Pines, 1977; Rafferty et al., 1986). This viewpoint was pre empted by Freudenberger (1977) who provided a noteworthy, if not dramatic, description of burnout as "an unending cycle of accelerating effort and decelerating reward Freudenberger (1977, p27)". Pines and Kafry (1982) note that individuals become increasingly ex-

hausted, and that burnout is the hopelessness and helplessness which is the result of a gradual process of this emotional and physical depletion.

Muldary (1983) regards job-stress and burnout as intrinsically related but not synonymous, arguing that while job-stress is a precondition for burnout to develop, not all stressed persons will experience burnout; i.e., burnout may occur if the stress-strain relationship has not been (positively) moderated by certain variables such as social support (Farber, 1982, 1983). Job-stress and burnout are interconnected in that burnout is regarded as the response-set of stress (Veninga & Spradley, 1981). This assertion is reflected by Pines and Aronson (1981) who choose to focus on the non-reciprocal nature of the HSP work-related inter-action with recipients and colleagues as the precursor to the development of burnout.

Pines (1983) defines burnout as the physical, emotional and mental exhaustion which typically occurs as a consequence of the long-term involvement with people in emotionally demanding situations which are typical of the HSP profession; i.e., burnout is an occupational hazard of HSP work (Ianni & Reuss-Ianni, 1983; Shinn et al., 1984).

Inadequate coping mechanisms, which may be regarded as a subset of this response-set grouping of definitions has been the focus of other researchers. Paine (1982) views burnout as the manifestation of inadequate coping strategies which the individual employs to reduce stress. Withdrawal, which may be regarded as a (maladaptive) coping mechanism, is implicit in other definitions of burnout. HSPs may accumulate such intense and debilitating negative feelings that there is withdrawal from the stress or anxiety provoking milieu (Cherniss, 1980a, 1980b; Jones, 1980; Silverstein, 1982). Cherniss (1980b), highlights the propensity of withdrawal behaviour to develop by defining burnout as a process of disengagement by the previously committed HSP from his/her work in response to job-stress, and as a function of other non-efficacious coping strategies (Paine, 1982).

Towards a synthesis of the burnout definitions

The definitive aspect of burnout is that the HSP-recipient relationship is disrupted (Cherniss, 1980a, 1980b; Leiter, 1988; Maslach & Jackson, 1984a). Muldary (1983, p12) provides a synopsis of the plethora of burnout definitions; i.e., burnout is

> "the process by which a once-committed (HSP) becomes ineffective in managing the stress of frequent emotional contact with others in the helping context, experiences exhaustion, and, as a result, disengages from patients, colleagues, and the organisation."

Mattingly (1977) gives attention to the idiosyncratic nature of the burnout experience by focusing on the syndrome, or individual synthesis, of symptoms. The syndrome conceptualisation of burnout will be discussed in greater detail below. Suffice it to mention here that burnout has been defined as a syndrome of inappropriate attitudes towards clients and oneself, which may often be accompanied by uncomfortable physical and emotional symptoms (Kahn, 1978; Maslach, 1976, 1978a, 1978b, 1979; Maslach & Pines, 1977; Pines & Maslach, 1978).

The three-component definition of burnout

Maslach (1982c), extrapolates three common themes from the plethora of burnout definitions; ie, burnout is a negative, affectual, psychological phenomenon which incurs distress and other negative consequences for the incumbent. This statement reflects the most popular definition in the burnout literature, which has been used in the majority of research and theoretical developments (Burke & Deszca, 1986; Handy, 1988; Shinn, 1982; Shirom, 1989); i.e., the definition of Maslach and Jackson (1981). Burnout is a three-component syndrome manifesting as

> "emotional exhaustion and cynicism that occurs frequently among individuals who do 'people work' of some kind ... a key aspect (of which) is increased feelings of emotional exhaustion, ... the development of negative and cynical attitudes and feelings about one's clients, ... and a tendency to evaluate oneself negatively, particularly with regard to one's work (Maslach & Jackson, 1981, p99)."

The greater majority of authors adhere to this concept of burnout; i.e., this has been the most influential definition, as evidenced in its almost exclusive application in the burnout research and pertinent theoretical developments (Leiter, 1988; Maslach & Jackson, 1986, Shirom, 1989). The MBI is the psychometric instrument developed to operationalise the three component concept of

burnout. Maslach and Jackson's (1981) definition of burnout is adopted for the purposes of the present study, and the three components of burnout, i.e., emotional exhaustion, depersonalisation and low feelings of personal accomplishment, are detailed below.

Components of the burnout syndrome

Emotional exhaustion

Emotional exhaustion is characteristically chronic and an intensely emotional phenomenon (Gaines & Jermier, 1983) which may frequently provide the first indication of burnout (Jackson, 1984). Emotional exhaustion may be expressed as feelings of emotional overextension and fatigue, particularly as a function of continual interaction with others (Leiter, 1988; Maslach & Jackson, 1981, 1986). Furthermore, Gaines and Jermier (1983) argue that should the professional caregiver manifest emotional exhaustion, those people may no longer be equipped with the emotional energy necessary to continue interacting with their recipients. Levels of emotional exhaustion may provide a measure of the quality of that person's working life as well as the cumulative effects of work stress (Gaines & Jermier, 1983). This debilitating state may be accompanied by lowered affectual response, concern, trust, interest and motivation, as a function of being emotionally over extended and exhausted by the context and content of HSP work (Maslach, 1982c). For emotional exhaustion to occur implies that (HSP) work is demanding in terms of eliciting high levels of affect (Jackson, Turner & Brief, 1987). The implications of this statement are that it is the invested and committed worker who is more likely to experience high states of arousal, who will therefore be more likely to develop feelings of emotional exhaustion and as such, be more vulnerable to burnout (Cherniss & Krantz, 1983).

Emotional exhaustion is the one dimension of burnout for which there is the greatest definitional consensus (Freudenberger, 1983; Garden, 1987; Pines et al., 1981; Shirom, 1989). Emotional exhaustion is considered to be the core dimension of the burnout syndrome (Freudenberger, 1980; Gaines & Jermier, 1983; Golembiewski et al., 1983; 1987; Jackson, Schwab & Schuler, 1986; Leiter, 1988; Maslach, 1982c; Pines et al., 1981). Some research focuses singularly on this component of burnout (e.g., Cunningham, 1983; Gaines & Jermier, 1983; Garden, 1987; Shirom, 1986, 1989). Adding to the argument that emotional exhaustion is the core dimension of burnout, Gaines and

Jermier (1983) posit that this negative affect response may be thought of as the primary or first stage of burnout in the Cherniss model (1980b, 1982).

Depersonalisation

Depersonalisation is broadly conceptualised as a coping response to job overload (Maslach & Jackson, 1984b), and also as a response to emotional exhaustion (Leiter, 1988). Depersonalisation incurs the psychological distancing of oneself (Gaines & Jermier, 1983; Matteson & Ivancevich, 1987), and is articulated by the HSP's unfeeling, callous and indifferent response towards his/her recipients (Garden, 1987; Leiter, 1988). Such attitudes of depersonalisation may be expressed by HSPs by their treatment of recipients as impersonal objects, or by nonchalant and/or hostile attitudes (Maslach & Jackson, 1981).

The depersonalisation of recipients has been indicated as a method of reducing the high levels of affect aroused through interaction with recipients (Jackson, et al., 1987; Maslach & Jackson, 1984b). This assertion expands on the arguments of Jackson and Maslach (1982a, 1982b), and Golembiewski et al. (1983) who argue that depersonalisation represents the failure to develop and maintain a professional attitude of detached concern. Usually this professional approach allows the HSP to be reasonably accessible and concerned about their recipients whilst maintaining a certain degree of distance and objectivity (Lief & Fox, 1963). Excessive detachment with too little concern is assumed to exist when an HSP reports feelings of callousness and cynicism (Jackson et al., 1986), and may include hostility, indifference and an uncaring attitude (Garden, 1987).

Feelings of low personal accomplishment

Feelings of low personal accomplishment is regarded as being largely independent of the other two burnout components (Brookings et al., 1985; Maslach & Jackson, 1981). Social theorists (Lasch, 1979; Packard, 1972; Sarason, 1977; Slater, 1976; Yankelowitz, 1981) refer to the increasing sense of alienation which workers may feel as a result of prevailing social changes, and the growing insistence by these workers upon deriving a positive sense of personal achievement, fulfilment and reward from their jobs. Whilst Farber (1983) regards these two issues as the broader context of burnout actiology, these arguments provide a point of departure for the description of the construct of low feelings of personal accomplishment. This burnout factor refers to feelings of personal inefficiency,

incompetence and/or feelings of lack of successful achievement in terms of professional work (Leiter, 1988; Maslach & Jackson, 1986). Such feelings of low personal accomplishment may be expressed as emotions of guilt, inadequacy, incompetence and failure (Pines, 1983).

Furthermore, HSPs who expresses these feelings may maintain that successful achievement in their professional work is minimal, deny any positive influence on their recipients' lives, and believe that their work is inadequate and not particularly worth doing. Feelings of low personal accomplishment may also have an immobilising and demotivating effect on the HSP, and may include depression, lowered morale, certain withdrawal behaviours, decrements of productivity, and reduction in ability to cope with the exigencies of HSP work (Golembiewski et al., 1987; Jackson & Maslach, 1982a, 1982b; Jackson et al., 1987; Miller & Norman, 1979).

The implications of being demotivated through feelings of low personal accomplishment and inefficacy are that these feelings may be symptoms of depression (Brookings, et al., 1985; Jackson et al., 1986). Believing their professional intervention to be of no positive impact, HSPs may discontinue their efforts (Abrahamson, Seligman & Teasdale, 1978; Miller & Norman, 1979), and this may indicate the HSP's propensity to leave his/her job (Jackson et al., 1986, 1987).

Models of the phasic development of burnout

Leiter's (1988) model of burnout is based on work environment characteristics, such as job overload, job dissatisfaction, and the lack of work environment support. He argues that these factors are stronger contributors to the development of burnout than personality and/or demographic variables, basing his position on available evidence (Burke, Schearer & Deszca, 1984; Gaines & Jermier, 1983; Golembiewski & Scicchitano, 1983; Maslach & Jackson, 1982b). Leiter's (1988) model proposes that the core aspect of the development of burnout is emotional exhaustion which occurs as a function of job stress experienced by HSPs, particularly in the context of the excessive demands predominating over availability of resources (Leiter, 1989). This is followed by subsequent feelings of lowered personal accomplishment if depersonalisation occurs as a mediating variable. Depersonalisation occurs as an attempt by the individual to insulate him/herself from feelings of exhaustion, which with concomitant decrements to commitment to their work and increases in levels of exhaustion, may result in a diminished personal evaluation of accomplishments (Leiter, 1988, 1989;

Leiter & Maslach, 1988). This model of the development of burnout posits that depersonalisation and personal accomplishment are consequences of emotional exhaustion.

Leiter's (1988) model is supported by other studies which investigate the development of burnout (Chemiss, 1980b; Gaines & Jermier, 1983). These authors argue that work stress is the precursor of emotional exhaustion, the fundamental feature of the burnout syndrome and the primary stage in terms of preceding depersonalisation, and the devaluation of one's achievements, which together form modalities of coping.

Criticism of the burnout research

The sections below report the development and operationalisation of Maslach and Jackson's (1981) three component definition of burnout. Criticism of Maslach and Jackson's (1981) study, and of the burnout literature will then follow.

Development of the three component definition of burnout and the MBI

The MBI constitutes the operationalisation of Maslach and Jackson's (1981) definition of burnout. The MBI was designed with the express purpose of measuring burnout experienced by HSPs, according to a definition of burnout which consists of three supposedly independent constructs. The intended distinction between the three factors is implicit in Maslach and Jackson's (1981) report by their use of orthogonal factor analytic procedures.

Maslach and Jackson (1981) were motivated, specifically, to develop a definition and measure of burnout which was relevant and valid for HSPs as a singular group of professionals. The sample used in Maslach and Jackson's (1981) study (n = 1025) included police, counsellors, teachers, nurses, social workers, psychiatrists, psychologists, attorneys, physicians and agency administrators; i.e. a wide range of occupations grouped together as HSPs, and analysed as such.

The point of departure in the development of this scale was based on earlier research (Maslach, 1976, 1978a, 1978b, 1979; Maslach & Jackson, 1978, 1979). The MBI was directed at systematically assembling what appeared to be the general trend expressed in these earlier findings, from which

Maslach and Jackson (1981) expressed concern regarding the potential for deterioration in the quality of work provided by the HSP, and the HSP's somatic, social, psychological and behavioural well-be . Using these findings to direct their thinking, as complemented by reviewing already established scales for "useful content material" (Maslach & Jackson, 1981, p.100), these authors formulated items in terms of HSPs' attitudes towards their recipients. The factor analysis of Maslach and Jackson's data was based on principal factoring with iteration and orthogonal (varimax) rotation. Three statistically sound factors emerged for the 22-item MBI with similarity for both the frequency and intensity components. Items were retained which had factor loadings greater than 0,40.

The 22 item MBI was extrapolated from a preliminary 47-item scale, differentiated into the two dimensions of frequency and intensity. The reason for the inclusion of this format is that it allows respondents a differentiated response. Maslach and Jackson (1981) report a mean correlation between the two dimensions of 0,56; i.e., a moderate relationship, because the variance accounted for in one dimension by the other is only 33%. The second edition of the MBI (Maslach & Jackson, 1986), includes only the frequency dimension. The reason for this is that the two dimensions are reported as highly correlated (Ackerly et al., 1988, Iwanicki & Schwab, 1981; Maslach & Jackson, 1986). Other authors also report using only one dimension of burnout, citing Maslach and Jackson's (1986) rationale.

To show that the MBI exhibits convergent validity, Maslach and Jackson (1981) give evidence of significant correlations of the MBI with behavioural ratings by spouses, and co-workers. Apart from the correspondence between co-workers observations and the subject's MBI scores for personal accomplishment subscale, all correlations were significant. Furthermore, Maslach and Jackson show that the MBI correlates with conceptually related organisational variables such as job overload.

Research indicates satisfactory indices of the reliability and replicability of the three factor conceptualisation of the burnout concept (Bartz & Maloney, 1986; Belcastro, Gold , & Hays, 1983; Dolan, 1987; Gold, 1984; Golembiewski et al., 1986, 1983; Iwanicki & Schwab, 1981; Maslach & Jackson, 1981; Nagi, 1985; Powers & Gose, 1986). The reliability of the MBI appears to be above reproach in the literature.

As evidence of the MBI's discriminant validity, Maslach and Jackson (1981) showed that this instruments was not significantly correlated with job dissatisfaction; i.e., less than 6% of the variance could be accounted for by correlation with the six MBI subscales. Furthermore the MBI and 'social desirability' were not significantly correlated (Maslach & Jackson, 1981). These exercises do not, however, constitute tests for discriminant validity, and the appropriate tests are detailed later in the present study.

Criticism of subject populations used in burnout research

The burnout construct has to date been primarily investigated with regard to HSPs (Shirom, 1989). Subject populations have included clinical psychologists (Ackerly et al., 1988; Wade Cooley & Savicki, 1986), police (Burke & Deszca, 1986; Gaines & Jermier, 1983; Maslach & Jackson, 1984b), the pastorate (Daniel & Rogers, 1981; Leiter, 1988), teachers (Anderson & Iwanicki, 1984; Cedoline, 1982; Firnian & Blanton, 1987, Jackson et al., 1986; Kyriacou, 1987; Schwab & Iwanicki, 1982), social workers (Brookings et al., 1985; Leiter & Meachen, 1986), nurses (Bartz & Maloney, 1986; Firth et al., 1985; Maslach & Jackson, 1982; McCarthy, 1985; McCranie, Lambert & Lambert, 1987), lawyers (Jackson et al., 1987), and physicians (Keiman & Melamud, 1987; Lemkau, Rafferty, Purdy & Rudisell, 1987; Maslach & Jackson, 1982; Rafferty et al., 1986).

There are few reports which include the wider range of HSPs within one study other than Maslach and Jackson (1981) and Leiter (1988). Considering that the fundamental premise, rationale, definition and operationalisation of Maslach and Jackson's conceptualising of burnout was developed in terms of HSPs' experiences, research is needed which assesses the burnout experience with regard to HSPs as a singular group of professionals. Such an approach to burnout research, as per the present study, would transcend other research which focus on only one profession. The findings emanating from such research may be therefore be generalisable with greater confidence. This is an important issue which other singularly focused studies may lack.

Need for specificity

Broad, diffuse, and divergent conceptualisations of burnout may have had a detrimental effect on the development of theory and research (Maslach, 1982c). The call for an empirically tested, specific

and universally accepted definition of burnout has a relatively long history (Einseidel & Tully, 1982; Maslach, 1982c; Perlman & Hartman, 1982), and is a criticism of burnout which constitutes part of the aim of this study.

Definitions of burnout are vague, contradictory, overinclusive and underinclusive (Freudenberger, 1983; Harrison, 1983; Muldary, 1983). An expanded notion of burnout is seen to detract from its usefulness since, if every strain variable is included in this term, it becomes meaningless (Brookings et al., 1985; Maslach, 1982a, 1982b, 1982c; Muldary, 1983). The broadening range of identified indicators of burnout may also result in inappropriate numbers of people who will be labelled as burnout sufferers (Maslach, 1982a).

The imagery which the term burnout evokes may confuse relevant issues, and render it problematic (Maslach, 1982c; Malsach & Jackson, 1984a). This prevailing ambiguity extends to the debate pertaining to the status of burnout as a stimulus, response-set, or transactional dynamic (Garden, 1987; Jackson & Maslach, 1982b). Furthermore, certain behaviours, psychological constructs and physical conditions are included or excluded in references to burnout (Jackson & Maslach, 1982b).

With regard to establishing clear definitional parameters of the burnout construct, Muldary (1983) argues that even if there were consensus regarding the definitional parameters of burnout, such agreement would be meaningless if the construct itself were to lack validity. The issue of definitional deficiency of the burnout construct reflects the lack of constitutive definition. A construct, such as burnout, must be capable of definition in terms of other constructs for it to be scientifically useful and applicable in the development of theory (Margenau, 1950; Torgerson, 1958). This issue refers directly to the issue of the discriminant validity of the burnout construct to be discussed later.

Criticism of the use of unitary definition of burnout in research

The implicit conceptualising of burnout by various researchers as an unitary phenomenon (as opposed to the three component concept), is expressed by their use of the MBI as a total score as opposed to the use of three discrete scores which reflect the three distinct components. This is also evidenced by Maslach and Jackson (1981), who report their attempts to show the MBI's discriminant validity by use of a MBI total score. And yet, Jackson and Maslach (1982b) categorically stat

that the distinction between emotional exhaustion, depersonalisation and personal accomplishment is necessary if the aetiology and sequlae for each modality of burnout is to be identified and understood.

Criticism of reported construct validity

Although the three factor structure may have been replicated, the critical issue is however, that no conceptual or empirical research has been directed at establishing the discriminant validity of the burnout factors i.e., in terms of how the three components may relate differentially to conceptually related variables. Maslach and Jackson's (1981) definition of burnout, the MBI may measure that which it measures quite well, but may fail to measure that which it was intended to measure.

The three-factor structure of burnout, as operationalised and purportedly validated by Maslach and Jackson (1981), appears to have been accepted by the research community (Handy, 1988). This presumption regarding the acceptance of the three-components, may have resulted in the reification of those factors. When naming an emergent factor it is imperative to remember that that factor is not immutable, and is subject to later confirmatory research (Kerlinger, 1981). While the three factor structure demonstrates replicability, and thereby, construct validity, (e.g.; Golembiewski, Munzenrider, & Carter, 1983), no burnout research to date has attempted to establish the discriminant validity ; i.e, by replicating Maslach and Jackson's three factor structure with the specific aim of empirically testing the assumption of differential relationships between the three burnout factors, and conceptually related variables. The aim of the present study is to address this criticism, which is detailed in the sections below.

Criticism of reported discriminant validity

While Maslach and Jackson tested their definition of burnout for content and construct validity, they failed to (appropriately) test for discriminant validity. Maslach and Jackson purport to demonstrate the discriminant validity of their definition of burnout by using a total burnout score to demonstrate the differences between that score and social desirability, and job dissatisfaction. Maslach and Jackson's use of a total burnout score is in direct contradiction with the aims of that exercise; i.e., Maslach and Jackson (1981) failed to test the three burnout components as separate constructs.

These authors appear to have forgotten that each factor extracted will maximally discriminate among subjects, bearing in mind that each component is uncorrelated with the previous (Briggs & Cheek, 1986). The independence of each factor is predetermined by the specification of factor orthogonality (Briggs & Cheek, 1986). No research was found which has adequately tested the discriminant validity properties of Maslach and Jackson's (1981) three component construct of burnout. This is a flaw which the present research aims to rectify.

In establishing the need for discriminant validity of the three burnout components, Maslach (1982c) points out that to simply note various similarities between variables, and then to presume that they are part of a global concept, is erroneous. By focusing on the similarities, this may conceal those differences which may be of greater importance than the similarities (Maslach, 1982c). Because the three burnout components may, hypothetically, share a common aetiology, they cannot be assumed to be empirically uncorrelated even though they may be theoretically distinct. Various authors maintain that burnout is empirically distinguishable from job satisfaction (Brookings et al., 1985; Maslach & Jackson, 1981; Meier, 1984; Pines et al., 1981). These authors' arguments are, however, not based on the multi-dimensional construct of burnout, but are founded on the concept of burnout as an unitary phenomenon. This is implicit in their reporting of a total burnout score which nullifies any argument proposed regarding their reporting of the discriminant validity of burnout. Various authors emphasise that the motivation for the distinguishing between the three factors is provided by the different trends of relationship between the three components, and conceptually related variables (Jackson & Maslach 1982b; Jackson et al., 1986; Savicki & Cooley, 1983; Schwab & Iwanicki, 1982). These authors fail to integrate the implications of their results with the relevant theory pertaining to factor analysis. It is necessary to investigate the differential patterns of correlations between the individual factors and other conceptually related variables; i.e., the establishing of the discriminant validity of the three-component conceptualisation of burnout, and the avoidance of conceptualising burnout as an unitary concept.

Validity and utility of the burnout constructs

The burnout literature relies upon the use of identical definitions and reports of antecedent and consequential factors of the burnout syndrome, with a deficit of critical discourse (Einsiedel & Tully, 1982; Farber, 1983). In the literature, the conceptualisation and operationalisation of burnout sel-

dom varies, and replication and extension of previous research is ran (Einseidel & Tully, 1982; Handy, 1988; Meier, 1983).

The majority of the empirical research reviewed in this research cite the work of Maslach and her cohorts as the theoretical paradigm and methodological point of departure, specifically with reference to Maslach and Jackson's (1981) three component definition and operationalisation of burnout. It is noteworthy that throughout the literature reviewed, writers seldom used definitions of the three burnout components that were different from Maslach and Jackson's (1981) definitions. This indicates the acceptance by the research community of those three factors identified by Maslach and Jackson (1981). This is a matter of academic concern, and is a deficit which this research aims to rectify The present study's primary goal is to attempt to replicate, and thereby verify Maslach and Jackson's (1981) three factor burnout construct.

Another important issue, in terms of the present research, is to assess whether HSPs conceptualise burnout differently from Maslach and Jackson (1981). HSPs may not regard burnout as a three-component construct, but rather, may view this phenomenon as unitary e.g., as just emotional exhaustion (Perlman & Hartman, 1982). This need for validity, particularly in terms of investigating the relationships between burnout and conceptually related variables, has also been expressed (Einseidel & Tully, 1982).

AIM OF STUDY

Research into the syndrome of burnout as a deleterious effect of stress is prolific (Jackson et al., 1986; Shirom, 1989), and the prevailing understanding of burnout is firmly entrenched in, and has been fundamentally influenced by, Maslach and Jackson's (1981) three component definition of burnout (Handy, 1988). The three factor definition of burnout (Maslach & Jackson, 1981), has been shown to exhibit sound construct validity, but there has been a marked lack of any research which has purported to investigate the properties of discriminant validity. By replicating Maslach and Jackson's (1981) three factor burnout structure, this study aims to test that there are in fact three factors which are distinct from one another in terms of their differential relationships with conceptually related variables.

The use of orthogonal factor analysis by Maslach and Jackson's (1981), implies conceptual and empirical distinction between the three burnout components. If a correlational matrix should exist among factors extracted, then seconday or tertiary factor analytic solutions may be generated by researchers from those correlations (Gorsuch, 1974). These higher order factor analyses are terminated once uncorrelated (i.e., independent) factors occur, or when a single factor is produced (Gorsuch, 1974). If the three measures of the burnout components are supposed to assess independent constructs then it may be expected that these three subscales are differentially related to other burnout related variables (see, Brooke, Russel & Price, 1988). It is critical that empirical evidence be provided to support this assumption that the three burnout factors assess distinct aspects of the burnout phenomenon. It is important to note that the focus of this study is that of establishing the discriminant validity of the burnout concept, and not to critically evaluate the MBI per se.

Any factors which emerge from factor analysis must be regarded simply as inferences which require validation (Howarth, 1971); A psychometric instrument should measure only one psychological construct (Briggs & Cheek, 1976), otherwise it becomes meaningless (McNemar, 1946). If a psychometric scale assesses a multiplicity of factors, those scores yielded will be difficult to interpret because of their ambiguity (Guilford, 1954). Although the burnout syndrome has been shown to exhibit three factors, most research, including Maslach and Jackson (1981), has treated burnout as a singular construct. Factor analytic theory excludes the use of a uni-component construct in that this is seen to be methodologically unsound and unacceptable (Briggs & Cheek, 1986); i.e., the use of a total burnout score which incorporates all three burnout components.

Maslach (1982c) makes an important comment on the expansive definitions of burnout, pertinent to the issue of discriminant validity. The greater the number of phenomena included within the definition of burnout, the more difficult it is to develop a clear understanding of what burnout is, or is not Maslach (1982c). This contention points directly to the relationships between the burnout components and conceptually related variables; e.g., anxiety, depression, job overload (Meier, 1983, 1984; Paine, 1982; Shirom, 1989). Some writers who have expressed concern as to the possible lack of distinction between the three burnout factors and related variables (Shirom, 1989). Burnout may be a social psychological construct which is synonymous with depression (Shirom, 1989). These issues of discriminant validity are of prime concern in this research. This deficit may have hindered the integration and the clarification of the plethora of the empirical burnout research (Brookings et

al., 1986; Perlman & Hartman, 1982), by virtue of the lack of an empirically tested, specific and universally accepted definition of burnout. This need for clarity vis-a-vis the differentiation between the three burnout factors is essential. If there should be no distinction between them, then the multi component construct is redundant and serves no functional purpose.

It has been argued that because the three components of burnout may share a common hypothetical aetiology, they may therefore be intercorrelated (Jackson et al., 1986), and therefore. this tripart differentiation of the MBI has importance (Jackson & Maslach, 1982b; Jackson et al., 1986; Savicki & Cooley, 1983; Schwab & Iwanicki, 1982). The importance of distinguishing between the three burnout factors is evidenced by differential patterns of correlations between these factors and other variables (Jackson et al., 1986). Whilst in agreement with these authors as to the importance of distinction between the burnout factors, the present study aims to demonstrate, by virtue of these 'differential relationships', the discriminant validity of the three component construct.

A serious methodological deficit in the burnout literature which the present study aims to rectify is that the discriminant validity of Maslach and Jackson's (1981) burnout construct remains unresearched. No conceptual or empirical research has been directed at establishing the discriminant validity of the burnout concept in terms of how the three components of burnout may relate differentially to conceptually related variables. Discriminant validation studies are receiving greater attention and prominence in the psychological research field (Brooke et al., 1988; Kryl, Bluen & Barling, 1989) as appropriate and crucial psychometric exercises. This type of exercise, which constitutes the aim of this research, may demonstrate whether or not the prevailing conceptualising of the burnout syndrome is appropriately defined, or if refinements need to be implemented in terms of the current multidimensional construct.

In line with the use of factor analysis, whereby each of the three burnout factors will include items which correlate more highly among themselves than with other items not included in that specific factor, it may by hypothesised that each of these subscales constitutes a distinct relationship with specific variables inherent to HSP work. In determining the discriminant validity of the burnout construct, this research may demonstrate whether the prevailing conceptualising of the burnout syndrome is appropriately defined, or if refinements need to be made. 'The question is whether there are three, or possibly only one factor/s which constitute the experience of burnout? This is crucial

not only for establishing a clear and succinct understanding of what burnout is, but also in terms of providing an empirically based definition for future research and and intervention strategies.

Without an empirically determined and universally accepted definition of burnout any discussion of the concept becomes vague and ambiguous. Research is needed which directs the understanding of burnout beyond the prevailing meta-psychological status quo, such that understanding transcends the current metaphorical exegesis. The present study's primary goal is to attempt to replicate the three factor burnout structure reported by Maslach and Jackson (1981) so that the properties of discriminant validity of their conceptualisation of burnout may be investigated.

HYPOTHESES

Hypothesis 1

The burnout construct will replicate the three factor structure reported by Maslach and Jackson (1981); viz., emotional exhaustion, depersonalisation, and low personal accomplishment.

Hypothesis 2

To demonstrate the discriminant validity of the three component construct of burnout, evidence must be provided that these three factors correlate differentially with conceptually related variables. The three components of burnout are hypothesised to relate differentially with other conceptually related variables; viz., job overload, job dissatisfaction, responsibility for people, work environment support, age, marital adjustment, psychological distress, and propensity to leave (see, Figure 1).

Development of hypotheses in this regard, based on specific data available in the burnout literature, was difficult for the following reasons. The general trend in the burnout literature is the use of a total burnout score or the use of an unitary burnout construct. This practice, while in strict contradiction of the distinction between the factors, denied the researcher the empirical evidence and theoretical basis upon which to develop verifiable hypotheses. In the section dealing with the development of hypotheses, the use of the term "burnout (T)" denotes reference to reported relationships between the variable discussed and a total burnout score by the respective author/s cited.

Figure 1 : Figure outlining variables of interest in this study, and their hypothesised correlations with the three burnout components

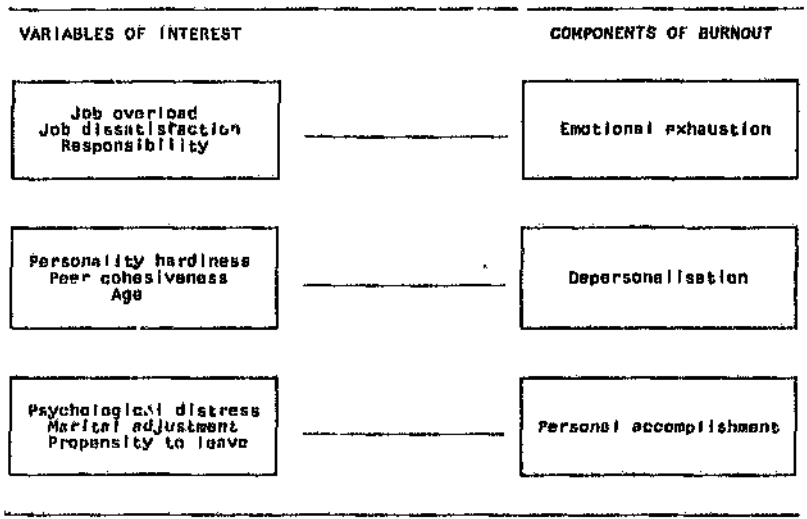
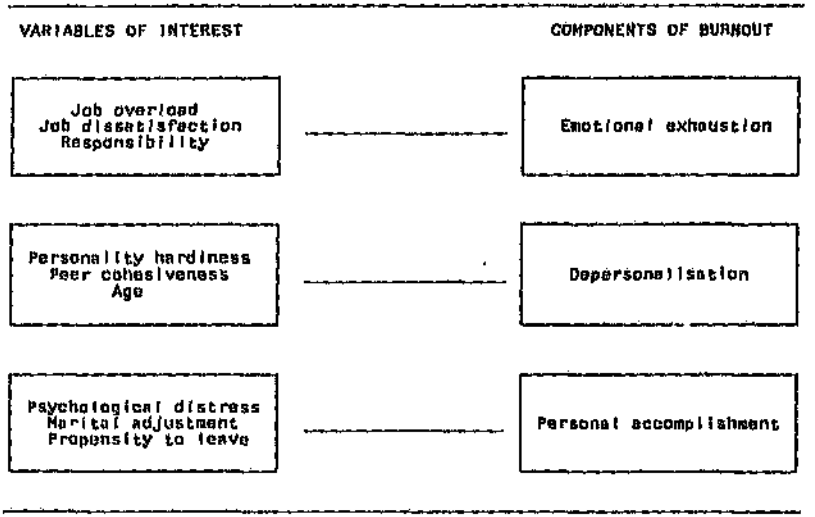


Figure 1 : Figure outlining variables of interest in this study, and their hypothesised correlations with the three burnout components



Relationships between burnout (T) and variables of interest may be in contradiction with the rationale for the development of the present study's hypotheses, but these reports are included to validate the use of these variables in the present research.

A further difficulty in terms of the development of hypotheses is that the literature reflects the use of identical definitions of the three burnout components, and similar reports of correlational factors of burnout (T) are given (Einseidel & Tully, 1982; Farber, 1983; Handy, 1988; Meier, 1983). The majority of the empirical research reviewed in this study are based on Maslach and Jackson's (1981) three factor definition and operationalisation of burnout with little evidence of definitions of these components that transcend the parameters of this definition. There is a paucity of research which indicat specific relationships between burnout components, specifically depersonalization and personal accomplishment, and conceptually related variables (Burke & Deszca, 1986; Gaines & Jermier, 1983; Einseidel & Tully, 1982), although some work has been done (see, Jackson et al., 1986; Landsbergis, 1988). Others have investigated the developmental process of burnout, with identification of antecedent factors and ultimate consequences of burnout (Edelwich & Brodsky, 1980; Cherniss, 1980a, 1980b; Golembiewski et al., 1983; Leiter, 1988).

It is because of the paucity of available literature pertaining to reported relationships between the three burnout components and respective specific conceptually related variables that the hypotheses proposed reflect only plausible suggestions in this regard. Furthermore, the design of this study does not facilitate the assertion of causal or consequential relationships between variables and/or burnout components, but rather, examines the possible relationships between variables of interest.

Speculation about the potential relationships between the respective burnout components and variables of interest is based largely on Leiter's (1988) model of the phasic development of burnout, as well as other reports of burnout as a developmental process (e.g., Cherniss, 1980a; Gaines & Jermier, 1983; MacBride, 1983; Matteson & Ivancevich, 1987). The proposed hypotheses are therefore only tentative suggestions for predicted relationships between variables. This is because of the paucity of relevant data, and as such, the hypotheses express plausible conjecture only. The hypotheses are therefore stated purely as predictions concerning associations between variables of interest and the components of burnout, and do not imply causal, moderating or consequential relationships.

In broad terms the arguments for the hypotheses are as follows. Emotional exhaustion may be a reflection and expression of the content and context of HSP work (Bjorksten, Sutherland & Miller, 1983; Brookings et al., 1985; Edelwich & Brodsky, 1980; Eisenstat & Felner, 1983; Firth & Morrison, 1986; Maslach & Jackson, 1981, 1982; Meier, 1982; Muldary, 1983; Pines, 1983; Sassali, 1979). There are strong correlations between emotional exhaustion and organisational environment variables (Jackson et al, 1986; Leiter, 1988, 1989). The variables hypothesised to be related to emotional exhaustion reflect this assertion; viz., job overload, job dissatisfaction, and responsibility for people.

Arguments for the other two burnout factors are primarily based on theory and research pertaining to the phasic development of burnout e.g., Leiter (1988). Depersonalisation is hypothesised to be related to coping variables (Jackson et al., 1986; Maslach & Jackson, 1984b; Savicki & Cooley, 1983). Depersonalisation has been indicated as a method of coping with the high levels of stress aroused as a function of HSP work (Gaines & Jermier, 1983; Garden, 1987; Jackson & Maslach, 1982b; Jackson & Schuler, 1983; Jackson et al., 1987; Maslach & Jackson, 1984b; Matteson & Ivancevich, 1987; Shirom, 1989). Depersonalisation occurs as a maladaptive attempt to cope with emotional exhaustion, by interpersonal distancing (Leiter, 1989). Depersonalisation may in fact be the response to ineffectiveness of more acceptable forms of coping (Leiter, 1989). The variables hypothesised to be related to depersonalisation reflect this assertion; viz., personality hardiness, peer cohesiveness, and increased age.

Definitions of feelings of low personal accomplishment include the following deleterious sequlae; depression, lowered morale, and the reduced ability to cope with the emotional exigencies of HSP work (Golembiewski et al., 1987; Jackson et al., 1987; Miller & Norman, 1979; Jackson & Maslach, 1982b). Feelings of low personal accomplishment may constitute the sequlae of burnout (Jackson & Schuler, 1983; Shirom, 1989). Feelings of low personal accomplishment are hypothesised to be related to variables which, arguably constitute the sequlae of stress. Matteson and Ivancevich's (1987) model of developing burnout posits that negative behavioural changes, psychosomatic complaints and organisational outcomes, are the final stage of burnout. This view is supported by Cherniss's (1980) model and other research (Burke & Greenglass, 1989a, 1989b). In Leiter's (1988) model, lowered feelings of personal accomplishment may be subsequential to depersonalisation.

The variables of interest in this study are described below (see, Figure 1.) These variables are regarded as pertinent to HSP work, and are reported as correlates of burnout (T). They are included in this study as variables of interest in terms of their hypothesised relationships with emotional exhaustion, depersonalisation, and feelings of low personal accomplishment.

Hypothesis 2.1 : Variables hypothesised to correlate with emotional exhaustion

Certain job characteristics may either alleviate or aggravate emotional stress, and are therefore critical to the HSP's vulnerability to the development of emotional exhaustion (Brookings et al., 1985). Emotional exhaustion will be associated with job conditions; viz., job overload, job dissatisfaction, and responsibility for people. These variables,discussed individually in the sections below, have been reported as being related to emotional exhaustion (Burke et al., 1984a; Deci, 1980; Gaines & Jermier, 1983; Golembiewski & Scicchitano, 1984; Jackson, 1983; Jackson & Schuler, 1983, Kramer, 1974; Leiter, 1988; Maslach, 1978; Maslach & Jackson, 1982, 1984b; Schwab & Iwanicki, 1982). These are variables which incur high levels of emotional investment, energy expenditure, and distress in the incumbent. Emotional exhaustion may be seen as a function of continued exposure to recipients' problems within a context of a professional interaction which is non-reciprocal, emotionally demanding, intellectually and/or physically taxing, incurring professional responsibility.

Job overload

Job overload is conceptually related to stress (Maslach & Pines, 1977; Maslach & Jackson, 1981; Penzer, 1984; Zastrow, 1984), and is differentiated by French and Caplan (1973) as a continuum ranging from job overload to job underload. Job overload is further delineated in terms of the qualitative or quantitative nature thereof, both of which are stressful (French & Caplan, 1973). Quantitative overload occurs when the individual is unable to complete assigned tasks because of time or personal and environmental resource limitations. Qualitative overload occurs when tasks are perceived to be beyond the role incumbent's skills, abilities, or available information (Armstrong, 1985; Cartwright, 1967; Cartwright & Anderson, 1981; Cox, 1980; French & Caplan, 1973; Linn, Yager, Cope & Leake, 1985). Emotional exhaustion is the burnout component most strongly related to job overload (Jackson et al., 1987).

Job overload is a major stressor experienced by HSPs (Firth & Shapiro, 1986; Keenan & Newton, 1984). Job overload presents HSPs with a fundamental conflict in that they are pressurised to provide quality care whilst constrained by temporal and financial limitations within an emotionally taxing milieu. These constraints exacerbate the already stressful profile of HSP work by incurring unusual and/or long working hours. Job overload may also have deleterious effects on the HSP's family life, personal relationships, health, and propensity to leave his/her job (Jackson, et al., 1986). When job overload is seen to exist, not only does the amount of work accomplished diminish because of the decreased amount of time available for each case presented, but the quality of the HSP's (reduced) intervention is negatively affected (Cherniss, 1980a, 1980b; MacBride, 1983; Maslach, 1978a, 1978b; Maslach, 1982b; Ryerson & Marks, 1982). Work-related frustrations may occur as a function of working too hard and for too long in a high-pressure work environment (Bailey, 1985; Turner, 1984), resulting in depleted tolerance and resources (Carroll & White, 1982). These sequlae of job overload may be expressed as irritability, fatigue, and debilitating physical and emotional exhaustion, which may consequently decrease the HSP's effectiveness and capability (Cherniss, 1980b). Ironically it may be the good or successful worker (who may also be the the more invested worker in his/her profession), whose resources are probably already taxed, but who is seen as eminently capable, and who is therefore allotted more cases (Maslach, 1982b).

Job satisfaction

It is when job stress becomes overdemanding in terms of the individual's perceived capabilities, particularly with regard to job overload, that job dissatisfaction may occur (French, Rogers, & Cobb, 1974; Kasl, 1973; Miles, 1976), with concomitant decrements in the professional helper's motivation and involvement in their work (Maslach & Jackson, 1986; Cherniss, 1980b).

The focus by the HSP on the negative aspects of their clients' lives, and the non-reciprocal nature of that relationship (Maslach, 1982a; Maslach & Jackson, 1984) is a bias which may have critical impact on the degree of job satisfaction experienced by the HSP. This is pertinent in terms of the aggravating effect which the often unpleasant and unrewarding content of HSP work may have on the HSP's emotional reserves (Maslach, 1982b). This is especially pertinent in the context of the heightened negative emotions incurred in the HSP-recipient interaction (Eisenstat & Felner, 1983;

Maslach, 1978a, 1978b; Maslach & Jackson, 1984b). The HSP's sense of job satisfaction may be related to the relationship, and perceived effectiveness, with his/her recipients (Farber, 1983). As such, satisfaction may be limited when it is remembered that successful change may be constrained, slow, or limited in expression (Maslach, 1978a, 1978b). The negative ramifications of job dissatisfaction include decrements to the quality of service provided by the HSP, (Maslach, 1982a; Maslach, 1984), disruption of family life and personal relationships, poor health, absence and turnover (Jackson et al., 1986; Maslach & Jackson, 1981). Job dissatisfaction has been shown to be more strongly related to emotional exhaustion than to the other two components of burnout (Landsbergis, 1988; Rafferty et al., 1986).

Responsibility for people

HSPs are invested with responsibility for things, e.g., budgets, projects, equipment or administration, and for people, e.g., their recipients' current or future well-being, safety, health or careers. The issue of responsibility is stressful (Cooper & Marshall, 1976; French & Caplan, 1973; Kroes, 1976), but responsibility for people is arguably more stressful than responsibility for things (Strumpfer, 1986). Responsibility for people, by the very nature of the interpersonal interaction of time spent dealing with people, may increase role overload (French & Caplan, 1973) This is emotionally stressful because such responsibility may entail implementing difficult and unpleasant decisions (Ivancevich & Matteson, 1980). Responsibility for the current and future well-being of their recipients, in terms of optimal decision making, is a fundamental issue of HSP work. Having to make the best decision for all recipients at all times is an ideal which may be difficult to attain. Responsible decision-making implies the solving of recipients' problems, where such decisions potentially serious ramifications for that person's future. Furthermore, HSPs may experience responsibility without authority (MacBride, 1983). Effective problem-solving, particularly problems of a complex and ambiguous nature, is inhibited by even minimal levels of job stress (Cherniss, 1980b; Firth & Shapiro, 1986; Lazarus & Launier, 1978). In the event of the 'wrong' decision being made, the initial presenting problem may indeed be worsened. This is stressful in the light of the professional responsibility which the HSP may have toward his/her recipient, but which is also heightened by the threat of superordinate and/or public penalties, censure and possible litigation (Devine, 1984).

Job overload should increase the level of emotional input which is required by the HSP to perform adequately or satisfactorily. The same argument may be applied to the issue of being invested with responsibility for people, which French and Caplan (1973) posit is a subset of job overload. Being dissatisfied with one's job, which may also be understood as a subset of job overload (Keenan & Newton, 1984), may be assumed to be emotionally draining, and may serve to deplete those emotional reserves which are already threatened by the nature and content of HSP work. The role incumbent who is dissatisfied with his/her job will be required to expend more emotional energy than is required of the job per se to remain motivated (French & Caplan, 1973). These variables are conceptually linked and related, and are factors which should indicate an emotionally depleted environment. In terms of the arguments proposed above, the following relationships may be expected;

Hypothesis 2.1.1. Job overload will be positively related to emotional exhaustion.

Hypothesis 2.1.2. Responsibility for people will be positively related to emotional exhaustion.

Hypothesis 2.1.3. Job satisfaction will be inversely related to emotional exhaustion.

Hypothesis 2.2 : Variables hypothesised to correlate with depersonalisation

If job-stress is regarded as the necessary precondition for the development of burnout, then the question remains that, if all HSPs are seen to be stressed at work, why is it that not all HSPs suffer from burnout (Muldary, 1980)? The answer may be in the characteristics of certain variables which have been identified in the literature as variables which assist the individual in coping positively with stress. These variables complement the individual's effective coping with the stress which may act as a precursor to the development of burnout, or which may reduce the HSP's vulnerability to burnout (Kessler et al., 1985; McDermott, 1984). These variables include the social support received from colleagues (House, 1981; Kessler et al., 1985; LaRocco & Jones, 1978), feelings of control, or personality hardiness (Deci, 1980; Jackson, 1983; Jackson & Schuler, 1983; Kessler et al., 1985; Kobasa, 1982; Kobasa, Maddi & Courington, 1981; Kobasa & Puccetti, 1983; Kramer 1974; Maslach, 1978a, 1978b; Maslach & Jackson, 1982; Schwab & Iwanicki, 1982; Rich & Rich, 1987), and increased age (Dohrenwend & Dohrenwend, 1978). These variables are included in this study as correlational variables of interest, and are hypothesised to be related to depersonalisation.

Depersonalisation is defined as the psychological distancing of oneself from recipients as expressed by the callous response of objectifying ones recipients (Cherniss, 1987; Leiter, 1988). HSPs may suffer from an overdose of people-helping, resulting in the development of cynical attitudes towards recipients as a form of coping (Meier, 1983). This burnout factor is broadly conceptualised as a maladaptive coping-response to job stress (Greenglass & Burke, 1988; Jackson et al., 1987; Maslach & Jackson, 1984a; Shirom, 1989), involving the psychological distancing of oneself (Gaines & Jermier, 1983; Matteson & Ivancevich, 1987). Mechanisms used by the individual to cope with emotionally based stress include distancing oneself, avoidance behaviours and the seeking of social support (Folkman et al., 1986). Various authors have outlined different functions of coping. Mechanic (1974) focuses on the development of motivation to meet and deal with demands until psychological equilibrium is restored and maintained. Pearlin and Schooler (1978) believe that coping involves control, i.e., control over the origin, context, meaning and outcomes of the stress. Depersonalisation is hypothesised to be associated with personality hardiness, peer cohesiveness, and increased age. These variables are also reported as having influence on coping processes (Cohen & Lazarus, 1979; Fleishman, 1984; Lazarus & Launier, 1978).

Social support

The pathogenic effects of stress (e.g., burnout) may be markedly reduced by the perception of positive social support (Antonovsky, 1979; Beemsterboer & Baum, 1984; Etzion, 1984; Gottlieb, 1985; House, 1981; Kobasa & Pucetti, 1983; LaRocco & Jones, 1978; Leavy, 1983; May & Revicki, 1985; Penzer, 1984; Zastrow, 1984). Emotional support and instrumental aid may be provided by social networks, assisting the individual to cope with job demands (Billings & Moos, 1982a, 1982b, 1982c). Social support may be regarded as the perceived set of responses expressed by significant others in that individual's environment, particularly in times of need (Antonovsky, 1974, 1979; Cobb, 1976; Finneman, 1985; Gottlieb, 1985; Kobasa & Pucetti, 1983). By providing the individual with substantial resources of resistance to stress, positive social support may thereby improve that individual's capacity to resolve stress (Antonowsky, 1974; House, 1981). This positive support can be derived from family (extra-organisational) and/or co-workers and supervisors (intra-organisational) (Cobb, 1976), and may be integral to the ultimate successful functioning of the individual (Cobb, 1976; House, 1980; Kobasa & Pucetti, 1983; Zastrow, 1984).

The perception of positive social support may help HSPs cope with the demands of the environment by providing role models and examples of successful coping, or by virtue of sharing responsibility (Maslach & Jackson, 1982a). Peer support within the work environment may be an important resource for the HSP who is suffering from burnout (T) (Maslach & Jackson, 1982a). Reduced levels of job related distress are evidenced by people who have cohesive relationships with their colleagues (Billings & Moos, 1982a, 1982b, 1982c). Support at work may help the individual to effectively manage job related demands (Cohen & Wills, 1985; Finney et al., 1985; Gannellen & Blaney, 1984; May & Revicki, 1985; Suls, 1982; Thoits, 1982), while the lack of social support may act as a precursor to burnout (T) (Cherniss, 1980a). If the HSP's work environment is socially non-supportive, this may increase the likelihood of burnout (T) occurring (Maslach & Jackson, 1984a; Pines, 1982; Russell et al., 1987), whereas a supportive work environment may assist the HSP to cope with the emotional stress experienced (Cohen & Wills, 1985; Maslach, 1976, 1979, 1982b; Pines, 1982; Pines & Maslach, 1978). The lack of positive feedback from peers, indicative of the lack of peer cohesiveness, may predispose the development of depersonalisation (Jackson, 1982; Maslach & Jackson, 1984a, 1984b). HSPs should be encouraged to provide each other with critical evaluation and mutual support (Jackson, 1982), to help avoid the development of depersonalisation (Jackson, 1982; Jackson & Maslach, 1982a). The correlation between depersonalisation and peer support is significant and more powerful than the relationships which the latter variable eveidenced with the other two burnout components (Jackson et al., 1987). It is worth noting that within HSP work settings it is often difficult to engender social support networks among peers (Cherniss, 1979; Grzsiak, 1981). This may be because of the lack of interpersonal trust and intergroup conflicts caused by professional status and differences in theoretical persuasions (Cherniss & Krantz 1983; Pines, 1982).

Personality hardiness

Individuals may regard stressful demands as a threat to stability or homeostasis. Alternatively they may perceive these demands as a challenge or as an expected norm of life which may provide an opportunity for growth and development. A fruitful approach to studying individual differences in the capacity to cope with trauma is to investigate psychological parameters such as personality hardiness (Friedman, 1988). Personality hardiness functions as a health-protecting variable in the stress-strain relationship (Kobasa, 1982, Kobasa et al., 1981, Kobasa et al., 1982, Kobasa et al., 1983). The concept of personality hardiness as a coping factor represents a shift from resources

available in the environment, viz., peer cohesiveness, to intra-psychic and personal resources, e.g., personality hardiness (Gannellen & Blaney, 1984). Constructs which constitute personality hardiness include control, commitment and challenge. Control refers to a system of beliefs that influence of life events is possible as opposed to passive hopelessness when faced by stressful dema ls Halpin et al. (1985) note that subjects who felt that they were in control reported less orga :. tress than did those who did not feel influential.

There is little research which assesses the relationships between the burnout components and personality variables (Brookings et al., 1985). The individual's positive sense of control over the work context and environment may prevent the development of burnout (T) because of the association which the individual develops with the ability to effectively cope with the stressful wor' demands (Pines et al., 1982). Where the HSP has low personality hardiness, and believes that no amount of personal intervention will influence events in his/her work, burnout (T) will dev' ss that person modifies his/her beliefs (Meier, 1983). The bureaucratised HSP work environment is lacking in opportunity for individual control, and may precipitate feelings of being trapped in this uncontrollable and unpredictable milieu (Jackson, 1982). HSPs are controlled in terms of regulations imposed by higher management, and the HSP may depersonalise recipients in order to relieve him/herself from personal responsibility and concern for the quality of professional service provided (Jackson, 1982). Alienation from involvement with regard to decision making and policy determination, which may engender the deficit of feelings of control, challenge and commitment, is regarded as being related to depersonalisation (Jackson, 1982).

The HSP work milieu may precipitate feelings of vulnerability with respect to the HSP's sense of competency, effectiveness and control, since these feelings may hinge on the HSP's relationship and effectiveness with her/his recipients (Cherniss, 1980b; Farber, 1983; Maslach & Jackson, 1982a). The HSP's success with recipients may be constrained or limited in expression and difficult to measure (Maslach, 1978a, 1978b). Within the constraints seen to impinging on the range, level, and impact of the HSP's intervention, it is not impossible that the HSP may feel helpless, ineffectual, unable to control the process of their professional intervention, since they may be unable to effect change or cure (Maslach, 1982b). The HSP's sense of a lack of control may also stem from rigid work environment regulations, limited resources, minimal opportunity for delegation, and/or restricted potential for the use of personal initiative (Jackson, 1982; Maslach, 1982b). These issues

may be compounded by the lack of autonomy, exclusion from decision-making processes, and an inability to remove oneself from the stress-provoking environment (Maslach, 1982b). Control is more strongly and significantly related to depersonalisation than to the two burnout components (Brookings et al., 1985). The lack of challenge is a significant predictor of depersonalisation, as opposed to emotional exhaustion, (McDermott, 1984). It is the HSP who is unassertive in relating to their recipients, who fails to set and remain within the parameters of the professional relationship, who is unable or unwilling to exert control over their work situation, and who passively yields to demands as opposed to implementing active control over them, who may be at great risk of experiencing burnout (T) (Gann, 1979; Hackmann, 1980).

Age

The individual's age, which may often be related to their social and organisational status, is regarded as having an impact on the types, frequency, and perceived intensity of demands experienced (Osipow, 1985). Coping styles may become more mature, efficacious and realistic with age, possibly as a function of exploiting available resources to a greater degree (Dohrenwend & Dohrenwend, 1978; Pfeiffer, 1977). Furthermore, the HSP's expectations at the content and personal rewards inherent to his/her work may become more realistic with increasing age which may in turn have positive influence on their coping abilitites (Meier, 1983). Such findings have to be understood in conjunction with career development (Ivancevich & Matteson, 1980). Increased age may be an effective positive coping mechanism in terms of the individual's perceptions and symptoms of stress (Dohrenwend & Dohrenwend, 1978). This is because having had to deal with similar past experiences may have a positive contribution towards more successful coping with current demands (Dohrenwend & Dohrenwend, 1978).

A clearly inverse relationship between age and burnout (T) is reported (Golembiewski et al., 1986; Maslach, 1982b). The first few years of employment as a HSP may be the most critical in terms of the individual's vulnerability to burnout (T) (Freudenberger, 1974, 1977; Muldary, 1983; Maslach & Jackson, 1981; Gaines & Jermier, 1983). Professionals who are new to their jobs appear to be suceptible to depersonalisation (Snibbe et al., 1989). A statistically significant negative relationship between increased age and depersonalisation is reported (Landsbergis, 1988), as compared with the former variable's non-significant relationships with the other two burnout components.

Research indicates that the following relationships with the component of depersonalisation may be expected ;

Hypothesis 2.2.1. Personality hardiness will be inversely related to depersonalisation.

Hypothesis 2.2.2. Peer cohesiveness will be inversely related to depersonalisation.

Hypothesis 2.2.3. Age will be inversely related to depersonalisation.

Hypothesis 2.3 : Variables hypothesised to correlate with personal accomplishment

The third burnout factor, feelings of low personal accomplishment, is hypothesised as being related to certain strain variables which are detailed below. These variables of interest in this study are reported as strain variables, and include a heightened propensity to leave the organisation and/or career (Schuler, 1982), decreased marital adjustment, (Jackson & Maslach, 1982a), and increased psychological distress (Jackson & Maslach, 1982a; Kagan & Levi, 1974).

Feelings of low personal accomplishment are hypothesised to be related to those variables which are regarded as sequlae of experienced burnout; viz., d crements to psychological distress, deterioration of marriage/partnership adjustment, and a propensity to leave their jobs. This argument follows the position of Leiter (1988) and Shirom (1989). Feelings of low personal accomplishment comprise the last stage of the burnout syndrome (Leiter, 1988), and may constitute the sequelae of burnout (Shirom, 1989). As such, feelings of low personal accomplishment may be related to those variables which are reported in the research literature as consequences of experienced burnout. Feelings of low personal accomplishment are arguably the final stage of burnout (Cherniss, 1980a, 1980b; Gaines & Jermier, 1983; Leiter, 1988). Cherniss (1980a) regards burnout as a process which evolves through three stages, viz., job stress, emotional response, and psychological accommodation, which may include the devaluation of one's achievements (Cherniss, 1980a; Gaines & Jermier, 1983). This conceptualisation of feelings of low personal accomplishment as the last stage of the burnout process is reiterated by Leiter (1988), who argues that emotional exhaustion will be followed by subsequent feelings of lowered personal accomplishment if depersonalisation occurs as a mediating variable.

Psychological distress

Psychological distress includes variables such as anxiety, depression and irritability (DeFrank et al., 1988), as opposed to psychological well-being which is defined as happiness, life satisfaction and positive affect (Diener, 1984). Well-being may be negatively affected by factors such as self-esteem and self-competence (Dean & Ensel, 1983; Kobasa et al , 1981), particularly if the individual feels that s/he has failed to realise her/his goals in terms of perceived achievements (Chekola, 1975).

Psychological well-being is closely linked to job variables (Repetti, 1987). A positive relationship between perceived psychological distress and deleterious outcomes have been shown by numerous author (see, Barling, 1986). There are many studies which investigate the relationsh') between stress and psychological well-being (e.g., Billings & Moos, 1982a, 1982b; Hammen et al., 1986; Monroe, 1982; Thoits, 1983), and job stress has been implicated in terms of having deleterious effects on the mental well-being of employees (Beehr & Newman, 1978; Cooper & Marshall, 1978; DeFrank et al., 1988; Dohrenwend, 1973; Kasl, 1984; Martin, 1989; Myers et al., 1974; Spector, 1987).

HSPs apparently evidence disproportionately high levels of psychosomatic complaints as compared with other professional (Maslach & Jackson, 1982a). Burnout (T) is a factor in personal distress and lowered morale (Maslach & Jackson 1981). Burnout (T) sufferers report feelings of depression, irritability and cynicism (Freudenberger, 1977), and impaired psychological health is reported to be a consequence of burnout (T) (Burke et al., 1984; Burke & Greenglass, 1989a, 1989b). Individuals who are dissatisfied with their jobs, and who report feelings of burnout (T) manifest significantly higher levels of depression, irritability and somatic disorders; i.e., as consequences of burnout (T) (McDermott, 1984). Burnout (T) is positively and significantly correlated with hopelessness and the loss of idealism (Pines, 1981). Various emotional adjustment indicators have been listed in the literature (see, Carroll & White, 1981; Paine, 1982), as the sequlae of burnout (T), including numerous variables which may be subsumed under the heading of psychological distress. Depression may be a symptom of burnout (T) (Freudenberger, 1974), or constitute the final stage of burnout (T) (Weiskopf, 1980), or even be synonymous with burnout (T) (Ficklin, 1983).

Feelings of low personal accomplishment may have profound effects (Golembiewski, 1983), including psycho-social isolation (Maslach & Jackson, 1979). The lack of significance attached to work is positively related to hopelessness and depression (Pines, 1982). Feelings of inefficacy, or lack of accomplishment, may develop into symptoms of depression (Jackson, 1986). A sense of personal efficacy may be a precursor of positive subjective well-being (Reich & Zautra, 1981), whereas the non-efficacy of coping may be related to depression (Billings & Moos, 1982a, 1982b). Vulnerability to negative psychological well-being may result from negative feelings of personal adequacy, competency and worth (Folkman & Lazarus, 1986; Wierzbicki, 1984; Zemore & Dell, 1983). When the individual experiences stress in terms of loss or damage to self-esteem, this may lead to depression (Hammen et al., 1986).

Within the definition of feelings of low personal accomplishment are descriptions of psychological distress; e.g., depression, lowered morale, withdrawal and the inability to cope (Malsach, 1982c). Feelings of low personal accomplishment may include negative self-evaluation (Maslach & Jackson, 1982a). Feelings of low personal accomplishment, which includes negative self-attitudes, may be described in terms of depression and the reduced ability to cope (Jackson & Maslach, 1982a). When the individual is hindered in attainment of goals, this is inversely related to subjective well-being (Rook, 1984; Ruehlman & Wolchick, 1988). In terms of personal goals, positive psychological well-being is related to the personal value attached to personal effort, the assessment of past fulfilment, personal satisfaction about achieving goals, and feelings of control within their jobs (Emmons, 1986; O'Connor, Peters, Rudolf & Pooyan, 1982).

Marital Adjustment

Marital adjustment is negatively affected by exposure to stress and burnout (T) (Burke & Greenglass, 1989a, 1989b; Greenglass & Burke, 1988; Maslach & Jackson, 1982a; Pavett, 1986), and disruption of partnership quality is regarded as a consequence of burnout (T) (Jackson & Schuler, 1983). Being married may provide the individual with protection from burnout (T) (Beehr & Newman, 1978; Kaufman & Beehr, 1982; Maslach & Jackson, 1982a; Pavett, 1986, Quick & Quick, 1984; Schuler, 1982; Tholts, 1982). This is evidenced by the indication of less burnout (T) by married HSPs than their single colleagues as a function of perceived social support Maslach (1982b). Some research has focused on the impact of job-related stress and burnout on family functioning

(Ivancevich & Matteson, 1980; Jackson & Maslach, 1982a; Maslach & Jackson, 1982; Parker & DeCotiis, 1983; Pavett, 1986; Payne, Jick & Burke, 1984). Deleterious effects on marital adjustment may occur because of the spill-over from job-stress (Burke, Weir & DuWors, 1979; Faunce & Dublin, 1975; Schmitt & Mellon, 1980), particularly because of role conflict (Jones & Butler, 1980).

Propensity to leave the job

Burnout (T) is a factor in the HSP's propensity to leave his/her job (Constable & Russell, 1986; Maslach, 1981, 1982b; Pines et al., 1981). Although the process through which ideation of leaving a job is expressed by actual quitting is complex, propensity to leave may be a consequence of burnout (T) (Jackson & Schuler, 1983; Jackson et al., 1986, 1987) With specific reference to this study, feelings of low personal accomplishment may be a factor in job turnover, possibly as a concommitant of lowered commitment to the organisation, reduced identification with organisational goals, and decreased motivation (Cherniss, 1980a; Jackson et al., 1987; Lazaro, Shinn & Robinson, 1985; Maslach, 1982c; Maslach & Jackson, 1981; Paine, 1982; Shirom, 1989). Ideation of quitting their jobs may be the result of feelings of low personal accomplishment and inefficacy (Brookings, et al., 1935; Jackson et al., 1986). Propensity to leave has been indicated as the final stage of burnout (Matteson & Ivancevich, 1987). The propensity to leave as a consequence of experienced burnout (T), often within the first few years of service, has been corroborated (Firnian & Blanton, 1987; Duke, 1984; Pines & Aronson, 1981). The correlation between feelings of low personal accomplishment and turnover is reported as the more powerful relationship as compared with the latter variable's correlation with the other two components of burnout (Firth & Britton, 1989).

It is often the the more invested and competent HSP who has a propensity to leave their present job or career (Devine, 1984; Schlechty & Vance, 1981). Stress, and burnout have been posited as a factor in propensity to leave (Maslach & Jackson, 1981) as a function particularly of job dissatisfaction (Einseidel & Tully, 1982). It has been argued that it is often the more invested HSP who is at greater risk of burnout, and therefore of leaving their job (Eisenstat & Felner, 1981, 1983; Matteson & Ivancevich, 1987). This may be because of their high level of commitment to their profession and recipients, which results in experiences of intensified frustration, dissatisfaction and stress (Eisenstat & Felner, 1981, 1983; Freudenberger & Richelson, 1980; Matteson & Ivancevich, 1987).

Research indicates that the following relationships with the component of feelings of low personal accomplishment may be expected ;

Hypothesis 2.3.1. Feelings of low personal accomplishment will be related to psychological distress.

Hypothesis 2.3.2. Feelings of low personal accomplishment will be related to decreased marital adjustment.

Hypothesis 2.3.3. Feelings of low personal accomplishment will be positively related to a propensity to leave their jobs.

METHOD

Subjects

The sample of 223 subjects was comprised of people actively involved in human service professions; namely, work which is people-oriented and which involves professional caring services. This group included attorneys, doctors in general practice, doctors in specialties, registered nurses, psychiatrists, clinical psychologists, social workers, and high school teachers. These professions comprise a subject population similar to Maslach and Jackson (1981).

All subjects were white and English speaking. The subject sample was restrained by these parameters to ensure some degree of sample homogeneity. Apart from the psychiatrists, all subjects were residents of the Johannesburg area. One hundred subjects per group were selected. Because of differing total target population sizes for the various groups, and means of accessing those groups, various methods of subject selection had to be used as detailed below. In all cases where the subjects were selected by the researcher from registers or directories, the language of the directory entry was used to ascertain the language used by the subject; i.e., English or Afrikaans.

The 100 attorneys (i.e., those people registered as having completed a bachelor degree and an LLB) were randomly selected form the Johannesburg section of the Hortor's Legal Diary (1988), which lists approximately 300 English-speaking such professionals according to registered practices. The 100 doctors in general practice were randomly selected from the medical section of the Johannesburg Telephone Directory (1988/9) which lists 495 such professionals. Similarly, 100 doctors who are specialists (other than psychiatrists), were randomly selected from a target of 655 such listed pro-

fessionals. Since there were not 100 English-speaking psychiatrists living in Johannesburg, this sample was randomly selected from the South African Medical and Dental Council's register from a total sample of approximately 130 registered psychiatrists living throughout South Africa. The 100 English-speaking clinical psychologists resident in Johannesburg were randomly selected form the appropriate register of the South African Medical and Dental Council, out of 118 such psychologists. One hundred English-speaking registered nurses resident in the Johannesburg area were randomly selected by the South African Nurses Association (SANA) out of 1 999 white English speaking registered nurses in the Johannesburg area. SANA was responsible for the selection of subjects and the mailing of the 100 questionnaires. A list of 365 registered English-speaking social workers resident in Johannesburg, was provided by the South African Association of Social Workers (SAASW), out of which 100 were randomly selected. The 100 secondary or high school teachers were randomly selected from the Transvaal Teachers' Association TTA, which estimated there to be approximately 3 000 English speaking teachers in the Transvaal. The schools from which the sample was extracted were all located in a narrow geographical belt stretching from east to west across central Johannesburg, and incorporated a wide range of socio-economic regions, and included co-educational as well as single-sex schools.

Nine hundred questionnaires were sent out to the selected sample as detailed above. Of these, 223 usable questionnaires were returned which represents a return rate of 25% of the total number of the target subject population. An additional 70 questionnaires were returned, of which 39 were returned to sender, and 31 were incomplete. The 223 usable questionnaires thus represents a return rate of 30,22%. The return rate per individual professional group was not less than 21% and not greater than 49%. Details of the sample are contained in Table 3.

Procedure

Permission for the sending of questionnaires had to be obtained from SANA, SAASW and the TTA. The SANA insisted that they be responsible for the addressing and mailing of the questionnaires, as well as the follow up reminder postcards, whereas the latter two organisations provided lists of their members. Data were collected by means of a test battery which was sent to each selected subject with a covering letter and a self-addressed, stamped envelope (see Appendix 1.).

Table 3 : Demographic statistics of the sample

	ATTORNEYS	NURSES	DOCTORS	SPECIALISTS	PSYCHIATRISTS	PSYCHOLOGISTS	SOCIAL WORKERS	TEACHERS	TOTAL SAMPLE
Number of subjects	25	30	22	21	21	25	30	49	223
Female	8	29	4	1	3	16	26	32	119
Male	17	1	18	20	18	9	4	17	46
Married/Couple	21	21	21	20	18	22	26	28	177
Single	4	9	1	1	3	3	4	21	46
Self-employed	20	2	19	16	7	10	3	1	78
Employed	5	28	3	5	14	15	27	48	145
Age M	39,8	36,2	42,7	54,7	47,6	37,0	43,2	37,4	42,3
SD	12,0	11,9	10,8	9,4	10,9	7,9	11,4	10,0	10,5
Tenure M	10,9	6,8	11,2	21,5	7,9	4,8	6,0	8,6	9,7
SD	11,0	7,3	9,9	11,7	5,9	4,7	6,4	8,0	8,1

Voluntary participation was requested, and confidentiality was ensured. A contact telephone number was provided so that respondents had access to the researcher. Six weeks after the mailing of the questionnaires, a follow up, reminder postcard was sent to all addressees. Each subject received the identical questionnaire which was comprised of psychometrically validated and reliable scales designed to measure each of the various aspects of the stress-strain relationship as outlined in Figure 1.

Design

This research was in the form of a cross-sectional correlational field design. The variables included in the study were job overload, job dissatisfaction, responsibility for people, personality hardiness, work environment support, age, decrements to general health, decreased marital satisfaction and a propensity to leave the job, and the three components of burnout viz., emotional exhaustion, low feelings of personal accomplishment, depersonalisation. The three burnout factors are differentiated into two dimensions; frequency and intensity.

Psychometric Instruments

To test the discriminant validity of the three component construct of burnout (Maslach & Jackson, 1981), scales measuring the conceptually related variables (see Figure 1) were distributed to the target sample, Each subject received all scales to complete. These scales are described below. The Cronbach reliability coefficients calculated for each scale in the present research, which were all statistically satisfactory, are detailed in the results section of this dissertation.

Job overload: Subjective Quantitative Work Load (SQWL) (Caplan, 1971).

The SQWL is designed to measure quantitative role overload; i.e., when environmental or organisational demands exceed the time available to the individual (Cook, Hepworth, Wall, & Warr, (1981). The SQWL taps an important aspect of the stress phenomenon in that stress has been shown to occur when the individual perceives there to be an imbalance between the demand from the environment, and his or her capabilities and/or resources (Chalmers, 1982).

The SQWL is a 9-item, 5-point Likert type scale, where respondents are asked to rate various aspects of their jobs in terms of their perception of task overload. The response set ranges from (1) very little, to (5) very great. The mean value of these scores is taken, and a high score indicates high role overload.

The Chronbach alpha coefficient reliability of the SQWL, as reported by Caplan, Cobb and French (1975), is 0,87.

The SQWL was considered appropriate for use in the present study for reasons of parsimony, its previous use with medical and other professional groups, and its adequate reliability figure as reported in Caplan et al., (1975). Furthermore, this scale has been used in a South African, white English speaking research sample (Strumpfer, 1989).

Job dissatisfaction : Job Diagnostic Survey (Hackman & Oldham, 1975).

Within the JDS there are several subscales. This subscale of the JDS is broad in content and focus, with 14 items which assess job satisfaction. Job dissatisfaction may occur when the employee no longer perceives his/her job as meaningful, valuable, and worthwhile (Hackman & Oldham, 1975).

This 14 item scale forms part of the JDS, and is designed to measure five specific areas of job satisfaction in terms of extrinsic and extrinsic job features (Clegg & Wall, 1981). Each item within the scale deals with the respondent's satisfaction; e.g., remuneration. Respondents' rate their level of job satisfaction on a seven point Likert scale, ranging from extremely dissatisfied, to extremely satisfied. In this study, scores have been reversed, such that a high total score reflects the subject's job dissatisfaction.

The developers of the JDS indicate satisfactory reliability coefficients for the different subscales (Hackman & Oldham, 1975). These values vary from 0,88 to 0,56. (Hackman & Oldham, 1975). There are 5 subcategories within the 14-item subscale of the JDS, viz., pay, security, social, supervisory, and growth. These subgroupings of items are reported as evidencing Spearman-Brown reliabilities of 0,86; 0,73; 0,64; 0,87; and 0,69 respectively (Clegg & Wall, 1981). Golembiewski et al., (1983) used the JDS, and report Cronbach alpha's for these subscales as ranging form 0,67 to 0,90,

with an average alpha for the subscales of 0,76. Gaines and Jermier (1983) report an alpha coefficient of 0,80 for this subscale of the JDS. Meglino, DeNisi, Youngblood & Williams, (1988) report internal consistency coefficient alpha's for pretest, post-test and follow-up testing ranging from 0,58 to 0,78). This subscale of the JDS is reported as a reliable and valid psychometric instrument (Kulik, Oldham & Langer, 1988).

Job satisfaction is an important variable in the dynamic and experience of burnout (Jackson & Maslach, 1980; MacBride, 1983; Maslach, 1976; Maslach & Jackson, 1979, 1981). Within the burnout research literature, the same subscale of the JDS has been used; e.g., Maslach and Jackson (1981) and Raelin (1984), but no indices of reliability are reported. The JDS has been used in burnout research (e.g., Gaines & Jermier, 1983; Golembiewski et al., 1983;

Responsibility for people : Responsibility for things and for Persons Scale (RFTPS) (Caplan, 1971).

The RFTPS is designed to measure the incumbent's perception of responsibility for things; e.g., budgets, and people; e.g., recipients. This scale is in the form of 6 statements arranged in a 7 point Likert type scale ranging from 'strongly disagree' to 'agree strongly'. A high score reflects the respondent's perception of high levels of responsibility. Items 1 to 4 refer to responsibility for 'things', while items 5 and 6 pertain to the responsibility which the respondent may feel towards other people.

In this study the 2-items which reflect responsibility for people, was administered. It was decided to use these two items on their own because it was argued that HSPs are primarily concerned with the responsibilities pertaining to people as a function of their work. A Cronbach alpha coefficient of reliability of 0,72 for the 6-item scale is reported (Cooke, Hepworth, Wall & Warr, 1981). Caplan, Cobb and French (1975) report a reliability coefficient of 0,66 for the 2-item scale.

The 2-item responsibility for people scale used in the present study is taken from the 4-item responsibility for people scale used by Caplan et al., (1975). This scale was used by Caplan et al., (1975) in research using a wide range of professionals including HSPs, thus rendering it appropriate

for use in the present study. Furthermore, this scale has been used in a South African study with a white English speaking sample (Strumpfer, 1989). Reliability figures from this latter research have yet to be reported.

Personality hardiness: Personality Hardiness Scale (PHS) (Kobasa (1981).

This scale was developed to asses the individual's 'personality hardiness', which Kobasa (1982) conceptualises as the interaction effect of three intra-psychic constructs; namely, commitment (versus alienation), control (versus powerlessness), and challenge (versus threat). These three constructs are assessed in the shortened twenty-item form of this scale. The short form of the *PHS* consists of twenty items, the first 14 items being arranged in a three point Likert-type scale with responses ranging from 1 - 'no'; 2 - 'neutral'; 3 - 'yes'. Items 15 through 20 are each divided into 2 sub-sections giving antipodal responses to each category; i.e., where the respondent has to give one answer only. A high score is indicative of high levels of personality hardiness.

The shortened form of the PHS (Kobasa & Maddi, 1982) is reported by those authors as exhibiting a reliability coefficient alpha of 0,81, whilst being capable of replicating the principle findings of their research using the full-length version. The same scale exhibits an internal consistency coefficient of 0,76, with a three-month test-retest reliability coefficient of 0,63 (MacEwan & Barling, 1986).

The shortened 20-item version was used successfully in research using a sample of South African commercial and industrial managers (Strumpfer, 1983). In a South African sample of people involved with industrial relations, an alpha coefficient of 0,87 (Time 1) and 0,85 (Time 2) with the six month test-retest reliability coefficient being 0,75 is reported (Bluen, 1986).

Peer cohesiveness: Work Environment Scale (WES) (Insel & Moos, 1974).

This WES measures the individual's perceptions of various aspects of his/her work environment (Billings & Moos, 1982c; Moos, 1981; Moos & Insel, 1974). There are 10 subscales of the WES, of which, peer cohesiveness was used in the present study. The WES subscale used in this study, viz., peer cohesion, is aimed at assessing how friendly and supportive other employees are perceived by the respondent.

The 9 item subscale of the WES used in this research, is aimed at assessing whether the respondent perceives that his/her social support, informational, and feedback needs are being met by that person's colleagues. The questions in the scale refer to the immediate group of people with whom the respondent works. The subscale used consists of 9 items which require the respondent to provide 'true' or 'false' answers. The items in the present study have been scored such that these scores represent perceptions of high peer cohesiveness.

The WES subscales are reported as having acceptable indeces of internal consistency (Billings & Moos, 1982c; Constable & Russell, 1986); i.e., Cronbach alpha's ranging from 0,69 to 0,86, with one month test-retest reliability of 0,69 to 0,83. Insel and Moos (1974) report a reliability coefficient range, for the WES subscales, of 0,73 to 0,86. Construct validity of the WES has been established by numerous studies (Billings & Moos, 1982c), and is applicable across a wide range of settings, including administrative and health care work environments (Billings & Moos, 1982c).

The peer cohesion subscale has been used in burnout research (Billings & Moos, 1982c; Golembiewski et al., 1987; Jackson et al. 1986. Unfortunately, neither Golebiewski nor Jackson's reports give indication of reliability indices for ther use of this subscale.

Psychological distress: General Health Questionnaire (GHQ) (Goldberg, 1972).

The GHQ measures psychological distress, and has been used in such a capacity by various researchers (Cohen, Karmack & Mermelstein, 1983; Frydman, 1981; Monroe, Imhoff, Wise & Harris, 1983; Tennant & Andrews, 1978). The GHQ was designed to be a self administered screening test focusing on the respondent's psychological components of ill-health; i.e., facilitating understanding about the respondent's current psychological status quo, in terms of non-psychotic disturbances and their severity, e.g., the individual's perceptions of self-confidence, depression, sleep loss, and ability to solve problems (Cooke, et al., 1981).

The version of the GHQ used in the present research is the 12-item scale, which has a variable 4-point Likert-type response scale. For each item respondents are required to indicate on a 4- point rating scale whether they have experienced a particular symptom or item of behaviour over a recent period of time. This four point response scale is specifically concerned with the disparity between psychological distress and psychological well-being (Goldberg, 1972). In the present study, high scores indicate high levels of psychological distress.

The source article (Goldberg, 1972), reports an internal split-half reliability coefficient of 0,83. Acceptable levels of split half reliability are reported (Goldberg & Hiller, 1979). Goldberg (1972) reports that the GHQ yields a test-retest (six month) reliability coefficient of 0,73. The test-retest reliability coefficient over a period of six months exhibited temporal consistency (Goldberg, 1972 p15). In addition, the GHQ has been shown to yield comparably satisfactory validity scores to those found for longer versions of the scale (Goldberg, 1972). The GHQ has been shown to differentiate between clinically and non-clinically disturbed patients (Goldberg, 1972).

Not only does the GHQ have clinical application, but, has been used extensively as a measure within organisational stress research (e.g. Banks, Clegg, Jackson, Kemp, Stafford & Wall, 1980; D'Arcy, Syrotricks & Siddique, 1984; Firth, 1986; Ivancevich, 1986; Jackson, 1983), as a measure of the severity of psychological distress in the study of employment-related and occupational problems (Banks et al., 1980; Newton, 1989). The GHQ has been used in a South African context (Barling, Bluen, & Fain, 1987; Bluen, 1986; Michalowsy, Wicht & Moller, 1989).

Marital adjustment: The Short Marital-Adjustment Test (SMAT) (Locke and Wallace 1959).

The SMAT is a self-report measure of marital adjustment, which reflects an overall index of happiness within marriage; i.e., by assessing various aspects of the partners' life together. In this study the SMAT was completed by respondents who were married, or who were living together with a partner.

The SMAT (Locke & Wallace, 1959) is presented as a 15-item scale. Item 1 is presented as a continuum ranging from very unhappy, through happy, to perfectly happy. Items 2 through 9 are presented in the form of a 6-point Likert-type scale, although scoring differs from the usual Likert scoring manner, to that as presented. Items 10 through 15 require the respondent to give a response to statements which have differential possible answers which are scored idiosyncratically. A cut-off score of 100 is given for the differentiation between a distressed and happy marriage. In the present study, high scores represent high levels of partnership satisfaction.

The SMAT is reported by as evidencing a Spearman-Brown reliability coefficient of 0,90 (Locke & Wallace, 1959), and is reported as an alpha coefficient of reliability of 0,75 (MacEwan & Barling, 1986)

The test-retest reliability is adequate (Kimmel & van der Veen, 1974), and has an internal consistency coefficient alpha of 0,83 (Time 1) and 0,82 (Time 2) (Snowden et al., 1988).

Cowan et al., (1985) report a series of studies which provide evidence of the validity of the SMAT. The SMAT is able to discriminate between distressed and non-distressed couples (Kimmel & Van Derveen, 1974). The SMAT also exhibits discriminant validity. This scale is able to differentiate between well-adjusted, and maladjusted marriages (Locke & Wallace, 1959). The SMAT has also been used in a South African context (Suchet & Barling, 1986), where it is reported to have adequate reliability.

Propensity to leave: Propensity to Leave Scale (PTLS) (Lyons, 1971).

The PTLS is designed to asses the respondents' (i) desire to remain in their current employment; (ii) whether or not they would choose to remain in their current job; and (iii) if they should leave their work for some time (for example, due to ill health or pregnancy) whether or not they would return to the same organisation.

The source article scored two of the items on a five-point scale which was altered to a three-point Likert-type scale ranging from 'no' - (1), through 'not sure' - (2), to 'yes' - (3) (Bluen, 1986; Morris & Van der Reis, 1980). For the third item the response range is in the form of a six-point continuum

ranging from 'one year' - (1), to 'more than 10 years' - (6). High scores represent the respondents' propensity to leave. Following the work of Rousseau (1978), item wording has been adapted to the general organisational work environment.

Spearman-Brown internal reliability coefficients of 0,81 are reported by Bedeian and Armenakis (1981) and Lyons (1971). The PTLS expresses internal consistency, with alpha coefficient's of 0,76 (Bedeian & Armenakis, 1981), and 0,79 · 'ossholder, Bedeian & Armenakis, 1982). In Rosseau's (1978) study of 271 employees, the coefficient alpha, for internal consistency, is reported as 0,71

The three month test-retest reliability coefficient was found to be 0,63 (Warr, Cook & Wall,1979). Rouss·au (1978b) reports a coefficient alpha of 0,71, with a test-retest reliability c·efficient (3 months) of 0,63, and Bluen (1986) calculated Cronbach alpha's of 0,72 (Time 1) and 0,79 (Time 2).

The PTLS is reported as a valid psychometric instrument. The PTLS expresses significant relationships, in the corrects predicted directions, with job-related tension and job dissatisfaction (Bedeian & Armenakis, 1981). Similar findings are reported (Brief & Aldag, 1976; Mossh·'ler, Bedeian & Armenakis, 1982; Rosseau, 1978; Sutton & Rosseau, 1979; Warr et al., 1979).

Although the PTLS was designed to measure nurses propensity to leave, the PTLS has been used, and its psychometric attributes assessed, in professions outside of the medical context, (Bluen, 1986; Rousseau, 1978). The PTLS has been used in a South African research context (Bluen, 1986; Bluen & van Zwam, 1987), and has been validated in South African industries (Bluen & van Zwam, 1987). The PTLS thus represents an appropriate measure for use in the present study.

Burnout Maslach Burnout Inventory (Maslach & Jackson, 1981).

The MBI was developed to measure burnout which is defined as a three factor syndrome comprised of emotional exhaustion, depersonalisation, and reduced personal accomplishment (Maslach & Jackson, 1981, 1984a). The MBI constitutes the operationalisation of Maslach and Jackson's (1981) definition of burnout. The MBI was designed with the express purpose of measuring burnout experienced by HSPs, according to a definition of burnout which consists of three factors. The MBI

measures the deterioration in the quality of work provided by the HSP, and HSPs' attitudes towards their deterioration in the quality of work provided by the HSP, and the HSP's somatic, social, psychological and behavioural well-being (Maslach & Jackson, 1981). The MBI consists of 22 items which are scored on a 7-point Lickert type scale. These items are replicated in two dimensions, viz., frequency and intensity. The frequency dimension scores range from never (1), to every day (7), while the intensity dimension is rated from very mild or barely noticeable (1), to very strong or major (7). If the respondent has never had the feelings questioned in a particular item, column (1) in the frequency dimension is checked. There are three components to the MBI, viz. emotional exhaustion, measured by items 1 to 9; feelings of low personal accomplishment, items 10 to 17; and depersonalisation, items 19 to 22. In this study, the scoring on the feelings of low personal accomplishment items has been reversed such that low scores reflect feelings of low personal accomplishment.

In determining the internal reliability of the MBI, Maslach and Jackson (1981) report that in a sample of 420 subjects, the internal reliability coefficient was 0,83 (frequency) and 0,84 (intensity) for the 25-item MBI. Internal reliability coefficients for the three frequency subscales are reported as 0,89 - emotional exhaustion, 0,77 - depersonalisation and 0,74 - personal accomplishment (Maslach & Jackson, 1981). Similar figures are reported for the intensity dimension subscales, i.e., 0,86 - emotional exhaustion, 0,72 - depersonalisation and 0,74 - personal accomplishment (Maslach & Jackson, 1981). The second edition of the MBI (Maslach & Jackson, 1986), reports Cronbach alpha's, for frequency only, of ,89; ,70; and ,78 for emotional exhaustion, depersonalisation and personal accomplishment respectively. Test-retest figures for these components are given as ,82; ,60 and ,80 respectively. Similar figures, of satisfactory indices of reliability, appear in the literature; e.g., Ackerly et al., (1988).

Adequate Cronbach alpha coefficients of reliability have been reported, with ranges given from 0,70 to 0,89 (Ackerly et al., 1988), 0,80 to 0,93 (Constable & Russell, 1986), 0,74 to 0,90 (Lahoz & Mason, 1989), 0,75 to 0,90 (Iwanicki & Schwab, 1981), and 0,87 to 0,90 for frequency and intensity total scores (Gaines & Jermier, 1983). Other authors also report adequate measures of reliability (Belcastro & Gold, 1983; Firth et al., 1985). Landsbergis (1988) reports reliability coefficients for the three subscales within both frequency and intensity dimensions, ranging between 0,74 and 0,90.

The retest reliability coefficients are given as 0,82 (emotional exhaustion frequency); 0,53 (emotional exhaustion intensity); 0,60 (depersonalisation frequency); 0,69 (depersonalisation intensity); 0,80 (personal Accomplishment frequency) and 0,68 (personal accomplishment intensity) (Maslach & Jackson, 1981). All figures are at the 0,001 significance level.

Evidence for the validity of the *MBI* is reported by Malsach (1981); i.e., burnout scores increase in stressful job environments and may predict job turnover. The MBI demonstrates internal and temporal consistency (Maslach & Jackson, 1981), and other authors attest to this measures convergent and divergent validity (e.g., Belcastro, Gold & Hays, 1983; Golembiewski et al., 1983, Iwanicki & Schwab, 1981; Maslach & Jackson, 1981; Meier, 1984; Rafferty et al., 1986).

Statistical Analysis

Factor analysis

Factor analysis is a powerful, elegant, and parsimonious analytic method of determining the number and nature of underlying constructs within a larger number of variables; i.e., a method for extracting common factor variances from sets of measures (Kerlinger, 1981). The fundamental purpose of factor analysis is to assist with the discovery and identification of dimensions or hypothetical factors which constitute a psychometric measure (Briggs & Cheek, 1986; Kelly, 1940; Kerlinger, 1981), and a method for determining the number and nature of the underlying variables among larger numbers of measures (Kerlinger, 1981). These factors are subsets of the set of items being investigated, with each factor being comprised of items which display greater similarity to each other than to those items outside of the factor (Kerlinger, 1981). Where there is perfect congruence between a set of items and one factor, those items are regarded as being loaded on that factor, or factorially pure, but when a psychometric measure is expressed by more than one factor, that measure is labelled as factorially complex (Kerlinger, 1981). These structures or patterns, which are produced as a function of the covariances of the measures, then serve to test hypotheses pertinent to the presumed relationships between variables (Kerlinger, 1981).

In terms of verifying factors presumed to underlie the variables, it is evident that factor analysis is a method of establishing construct validity. The second purpose of factor analysis refers to the

constitutive definition of constructs (Margenau, 1950; Torgerson, 1958); i.e., the clarification of the meaning which a construct may have as a function of the relationship between that construct and other conceptually related variables (Kerlinger, 1981). This is the essential function of factor analysis in the establishing of construct and discriminant validity by the verification of theoretical expectations. Factor analysis serves to determine which measures assess the identical construct, and the relations between these clusters of measures (Kerlinger, 1981). This is borne out by Briggs and Cheek (1986) who maintain that the usefulness and importance of factor analytic procedures is well established in discriminant validity studies; i.e., in terms of facilitating the development, refining and testing of hypotheses and intuitive guess-work. As such, factor analysis is an appropriate statistical and analytical technique to assess the construct validity of the multi-component burnout construct in the present study.

The fundamental assumption underlying factor analysis is that the variables of interest constitute linear combinations of those unobservable hypothesised factors which are presumed to be independent or orthogonal to each other (Kim & Mueller, 1986). However, the simple reliance upon factor analytic methods in the determination of the factor structure of a measure should be avoided. Only those factors and/or factor structures which are substantial and theoretically sound should be retained and then only after the rotated factor structure has been computed and analysed (Harman, 1976; Kim & Mueller, 1986).

The following factor analytic interventions were implemented in this study. The procedure used involved the generation of principal components, extraction of valid factors, and the rotation of these factors by means of orthogonal; viz., varimax rotation. Although this study was essentially an exercise in confirmatory factor analysis, the number of factors to be extracted from the data was not specified a priori; i.e., no parameters were set which would have influenced the number of factors generated, and which may be regarded as following the format of exploratory factor analysis. The critical issue in exploratory factor analysis is that it is not known beforehand how many factors will be expressed. This is an issue which is determined from the data. The purpose of initially pursuing an exploratory factor analysis approach was to ascertain if the factor structure expressed would be similar to that reported by Maslach and Jackson (1981). The exercise in exploratory factor analysis was then followed by confirmatory factor analysis, where the number of factors may be expected to conform to previous reports. Although it is possible to prescribe the number of factors to be ex-

tracted as a primary computational parameter (e.g., three), this research wanted to verify this three factor structure with optimal objectivity. The number of factors to be generated by the principal components extraction was therefore not included in the parameters of the original computational commands. When the number of factors, i.e., three, was specified in the data analysis programme, the identical factor structure and loadings were expressed. This latter exercise thus conforms to confirmatory factor analysis procedure.

The principal components, which are orthogonal and provide factors in descending order of importance, usually determine the minimum number of factors that can adequately account for observed correlations. (Kim & Mueller, 1986). This process determines the communalities (or common factor variance) of each variable. (Kim & Mueller, 1986). Communalities are discussed later. The expression of the solution of simultaneous linear equations provides the principal components or initial factor loadings, and the roots expressed by this solution are called eigenvalues (Kerlinger, 1981). Eigenvalues are discussed later.

When a set of variables is plotted as points on a grid of axes, these points will aggregate (in terms of uniform frequency density) as ellipsoids which are fundamentally similar and concentric, whose axes correspond to the principal components (Harman, 1976). The procedure of principal component extraction, initially developed by Hotelling (1933), provides a summarisation of the data, where the objective of principal components is to obtain economy of representation of factors and to account for as much variance as possible in the data (Kim & Mueller, 1986).

Because the computation of principal components extracts the maximum amount of variance as each successive factor is determined, this method is considered to be functionally highly satisfactory, particularly in terms of providing an unique mathematical solution for the determining of factors (Kerlinger, 1981). That is, the first factor is the construct which extracts or accounts for the maximum amount of communal variance; i.e., the representation of cases along the principal axis such that the most information is contained along that axis (Briggs & Cheek, 1986). The second factor identified is accountable for the extraction of the maximum amount of communal variance after the first factor has been removed (Briggs & Cheek, 1986; Kerlinger, 1981). The second factor is defined in a similar way to the first factor, but the precondition for definition is that its axis is at right angles (orthogonal) to the initial axis (Kim & Mueller, 1986). This ensures that the second factor is inde-

pendent from the first. A maximum amount of variance is extracted as each factor is calculated until the total variance has been explained by the extraction of n factors (Harman, 1976). Each component in turn contributes maximally to the sum of the variances of the variables of study (Harman, 1976).

Iteration (by refactoring) is one method for estimating communality which approximates objectivity through the calculation of the sum of squares of the principal factor coefficients (for the predetermined number of factors) as the new estimates of communality (Harman, 1976). Iteration was used by Maslach and Jackson (1981) in their development of the MBI. In the present research however, the use of squared multiple correlations (SMC's) as estimates of communality was implemented. SMC's measure the common variance which is predictable within the variables under study (Harman, 976), and provides the optimal estimate of communality (Guttman, 1956; Harman, 1976). Another important reason for using SMC's (as opposed to iteration) is that SMC's establish the minimum levels for communality (Dwyer, 1939; Roff, 1936).

The rotation of the original or principal factors is the process whereby simpler and more easily interpretable factors may be found, while keeping the number of factors and communalities of each variable fixed. Rotation of the principal factors is computed to establish the configurations of tests or variables within a factor space, the assumption being that there are unique, optimal or most parsimonious positions for these axes. Rotation of factors may be either orthogonal or oblique. Orthogonal rotation, as used in both the present study, and Maslach and Jackson's (1981) research, maintains the independence of factors by virtue of the 90 degree angle between the rotated factors. Oblique rotation means that the factors are correlated by virtue of the fact that the factor axes may describe acute or obtuse angles such that the axes penetrate the various clusters of rotated loadings.

Factor matrix rotation is necessary if appropriate interpretation of the factors is to be conducted. This is because there is a potentially infinite number of factor axes or matrices which could reproduce the original correlational matrix (Kerlinger, 1981; Thurstone, 1947). By the rotation of these arbitrary reference axes it is possible to locate the unique, simplest and most parsimonious positions for these axes so that these variables in the n-dimensional space may be regarded most optimally (Kerlinger, 1981).

The independence of orthogonally rotated factors as discussed above, implies no correlation between the factors (Kerlinger, 1981). When discussing the burnout factors identified, and their relationships with various conceptually related variables, this zero correlation between factors should be remembered. Maslach and Jackson (1981), report that their three factor structure was generated by use of orthogonal factor rotation. This means that the three burnout factors should be independent from each other, and should therefore relate to conceptually related variables in different manners.

Varimax rotation is a method of orthogonal rotation developed and modified by Kaiser (1956; 1958) whereby the columns (or factors) are simplified such that a clearer structure is provided (Harman, 1976). Kaiser normalisation (or the modification of the varimax approach) as used in both the present study, and Maslach and Jackson's (1981) research, is used to avoid the bias whereby the more prominent factors yield greater values in the larger and smaller factor loadings as compared with their counterparts in less prominent factors (Harman, 1976). To avoid this bias, variables are weighted equally for the rotation process by the extension of those vectors which represent the variables to a unit length. Once the factors have been rotated, the vectors are restored to their original length (Harman, 1976).

Varimax rotation is the optimal method of factor rotation because it appears to parsimoniously concretise, in mathematical terms, the intuitive and/or graphical methods of factor identification (Gorsuch, 1974; Harman, 1976). Factors which have a greater potential of reflecting the universe of factors (Harman, 1976), whilst minimising the tendency toward the expression of one general factor (Gorsuch, 1974), are produced by this method. Furthermore, varimax provides a resolution of factor structure which has been shown to be invariant across studies (Kaiser, 1958) which satisfies the fundamental criterion of factor invariance for a factor extraction procedure (Thurstone, 1947).

As discussed earlier, confirmatory factor analysis is an hypothesis testing intervention, as it is based on the a priori definition of a target matrix or configuration before rotation, and is the assessment of the degree to which the researcher can empirically confirm the plausibility of a previous factor model, or, the degree to which the discrepancy between the hypothesised model and the observed data can be attributed to sampling variability (Briggs & Cheek, 1986). Hypotheses may be posited regarding which variables or measures are likely to load on which particular factors. Confirmatory factor analysis may involve a study where one sample population is assessed, and/or where two or

more samples; i.e., comparison of factor structures from two independent studies are used (Kim & Meuller, 1982) In terms of the present study, the hypothesis regarding the number of factors, and the particular loadings on specific factors, is that Maslach and Jackson's (1981) three factor structure would be replicated. This research's aim then is to confirm this three factor structure.

Criteria adopted for factor extraction

Various criteria were used to corroborate the factor structure which emerged. These are briefly outlined below. Objective constraints in the extraction of factors in this research included statistical procedures and parameters which are detailed below. The results of these tests are given in the results section of the dissertation. These criteria are; the individual item 'Measures of Sampling Adequacy' (MSA's) (Kaiser, 1970), the Scree test (Cattell, 1966), the Kaiser Criterion i.e., eigenvalues greater than +1 (Kaiser, 1974), factor loadings greater that 0,4; Harman's specification, and the theta coefficient of reliability. In terms of the stated aim of this study to replicate the three factor structure reported by Maslach and Jackson (1981), it was important to assess the degree of similarity between their factor structure, and that generated in the present study. This was done by means of the root mean square formula (Wrigley & Neuhaus, 1955) and the coefficient of congruence (Tucker, 1951).

Measure of Sampling Adequacy (MSA)

The (MSA) (Kaiser, 1970) is the procedure used to assess the appropriateness of the factor model, where the MSA is the summary of how small the partial correlations are relative to the ordinary correlations. MSA values of 0,8 are regarded as good or excellent, while MSA's which fall below 0,5 are regarded as unacceptable (Kim & Meuller,1986).

Scree Test

The Scree Test (Cattell, 1966) gives a graphical indication of the appropriate number of factors to retain. When the eigenvalues are plotted against the number of variables, a hyperbolic curve is described. The magnitude of the eigenvalues initially falls quickly and then levels out, after a small slope or 'elbow', to the last remaining or residual root. The portion which approximates the level,

termed 'the scree' (Cattell, 1966), invariably begins at the k'th eigenvalue when k is the appropriate number of factors to be retained (Cattell, 1966). More simply, factor extraction is halted at the point where the eigenvalues begin to level off. The scree test method is regarded as a robust method of identifying only the major common factors where there are minor factors evidenced (Kim & Meuller, 1986).

Eigenvalues

Eigenvalues are the roots obtained from the solutions of the simultaneous linear equations computed during principal factor extraction. The sum of all eigenvalues is equal to the number of variables in the factor analysis. Thus, if the first eigenvalue is divided by the number of variables, the proportion of variance explained by a given axis or factor is obtained (Kim & Meuller, 1986). An eigenvalue of greater than + 1 implies that the correlation between variables is greater than, or equal to, zero; i.e, the correlation is less than, or equal to, perfect. The largest eigenvalue represents the amount of variance explained by the principal axis, or factor, and the second largest eigenvalue represents the amount of variance explained by the second axis, and so on (Kim & Meuller, 1986). Establishing a criterion of eigenvalues greater than + 1, or the Kaiser Criterion (Kaiser, 1974), sets the lower bound for the number of statistically viable common factors to be extracted; i.e., the number of common factors responsible for the correlation matrix will then be greater than or equal to the number specified by this criterion (Kim & Meuller, 1982).

Harman Criterion

As a further criterion in terms of the extraction of factors with respect to eigenvalues, Harman (1975) specifies that extraction of common factors should be halted before the cumulative sum of eigenvalues exceeds the sum of the estimated communalitites, where communality is defined as the sum of the squares of the common-factor coefficients.

Reliability coefficient of 'theta'

Carmines and Zeller (1979) refer to the reliability coefficient of 'theta' which is to be used within a principal components analysis when measuring a set of items with more than a singular underlying factor. The reliability of the set of factors resulting from the principal component extraction is estimated using the following formula:

$$\theta = \left(\frac{N}{N-1}\right)\left(1 - \frac{1}{EV1}\right)$$

(Carmines & Zeller, 1979),

where, N is the number of items, and EV1 is the largest or primary eigenvalue. Carmines and Zeller (1979) regard theta as a special form of the Cronbach alpha coefficient of reliability and the cut off points for this form of reliability are identical to Cronbach's alpha.

Root mean square and coefficient of congruence

The root mean square (RMS) formula, and the coefficient of congruence (CC), are used to assess the possible relationship between two factor solutions of the same variables from different samples or data sets; i.e., the degree of similarity or dissimilarity (Harman, 1976). Factor replicability across studies, or the measurement of factor congruence, is deemed necessary (Briggs & Cheek, 1986), such that the 'usefulness' of the previously reported factor structure may be empirically demonstrated (Lanyon & Goodstein, 1982). The RMS and CC were computed in the present study to ascertain the degree of similarity between the corresponding factor loadings in the present research, and Maslach and Jackson's (1981) study.

To measure the extent of similarity between corresponding factor loadings in two studies, the RMS deviation is used. The RMS is defined as the "square root of the average squared difference of the loadings of the variables (Levine, 1977, p45)." This is a strict measure of comparison in that any

deviation, in both magnitude and pattern, will be evidenced (Levine, 1977). The formula for RMS is:

$$RMS = \left[\frac{\sum_{i=1}^{k} (f_{1i} - f_{2i})^2}{k} \right]^{\frac{1}{2}}$$

(Levine, 1977).

Where there is perfect congruence or agreement between factor structures, the RMS deviation will be zero. The greater the pattern-magnitude match, the nearer the RMS will approach zero, whereas when all loadings are equal to unity (but of opposite signs) across the two studies, an RMS of a maximum of two will be evidenced (Levine, 1977).

The coefficient of congruence (CC) (Levine, 1977; Tucker, 1951; Wrigley & Neuhaus, 1955), is designed to assess the agreement between factors in two studies; i.e., the degree of factorial similarity (Harman, 1976). The CC, while also sensitive to pattern and magnitude differences between factor structures, is regarded as a more consistent measure than the RMS (Levine, 1977). The derived figure is not a correlation coefficient. The CC is defined as "the sum of the products of the paired loadings divided by the square root of the product of the two sums of squared loadings (Levine, 1977, p46)." The formula for CC is:

$$CC = \frac{\sum_{i=1}^{k} f_{1i} f_{2i}}{\left[\left\{ \sum_{i=1}^{k} f_{1i}^2 \right\} \left\{ \sum_{i=1}^{k} f_{2i}^2 \right\} \right]^{\frac{1}{2}}}$$

(Levine, 1977).

In the case of a perfect match between the two factors in the two studies the coefficient of congruence will be + 1, and -1 for a perfect inverse agreement, while when there is no agreement at all, the coefficient will be zero.

Pearson correlations

Pearson correlations are used to determine and quantitatively express the direction, strength and extent to which two variables are related (Huysamen, 1990; Runyon & Haber, 1980). Used with interval and/or ratio scales, Pearson r values vary from + 1,00, representing a perfect positive relationship, to -1,00, a perfect negative relationship (Hopkins & Glass, 1978; Runyon & Haber, 1980). A zero value indicates the absence of systematic relationship (Hopkins & Glass, 1978; Runyon & Haber, 1980). A negative correlation indicates that there is an inverse relationship between scores on the two variables. The Pearson correlation coefficient describes this relationship in explicit terms, summarising the magnitude and direction for the relationship between two variables (Hopkins & Glass, 1978). It is important to remember that the Pearson r is an index of the extent of the linear relationship between two variables; i.e., r = 1,00 or r = -1,00 (Hopkins & Glass, 1978). If the relationship between variables is curvilinear, the value of r will be an underestimation of the actual relationship; i.e., it is inappropriate to assume absence of relationship if r is zero. (Hopkins & Glass, 1978). It is important to remember that the Pearson's r gives an indication of correspondence between the relative position of respondents' scores on two variables, and does not measure the absolute magnitude of the scores per se (Huysamen, 1990). The formula for calculating Pearson's r is as follows:

$$\text{Pearsons } r = \frac{\sum xy}{\sqrt{\left(\sum x^2\right)\left(\sum y^2\right)}}$$

where,

$$x = (X - \bar{X}) \text{ and } y = (Y - \bar{Y})$$

(Hopkins & Glass, 1978).

Fisher-z test

In terms of the latter part of the study which investigates the relationship between the three components of burnout and the conceptually related variables, Fisher-z tests were conducted on the Pearson correlations between the three burnout components and the variables of interest. The Fisher-z test, and in particular the formula detailed below, is designed to assess the significance of difference between dependent correlations (Bruning & Kintz, 1987), and is used when the correlations of interest are obtained from the identical sample (Bruning & Kintz, 1987; Hopkins & Glass, 1978).

The sampling distribution of Fisher's Z-transformation of r, irrespective of sample size n and population correlation coefficient, describes an approximately normal distribution with the mean corresponding to the frequency distribution of the r values (Bruning & Kintz, 1987; Hopkins & Glass, 1978). The sampling distribution of r becomes progressively less skewed, or, more nearly normal, as n increases (Hopkins & Glass, 1978).

The mathematical transformation of r that has an approximately normal sampling distribution irrespective of the correlational value or size of sample, to z, or the Fisher's Z, is defined as follows:

$$\text{Fishers } z = \frac{(r_1 - r_2)[\sqrt{(n-3)(r_3+1)}]}{\sqrt{2[\{2(r_1 \cdot r_2 \cdot r_3)+1\} - (r_1^2 + r_2^2 + r_3^2)]}}$$

(Bruning & Kintz, 1987).

where,

r_1 = first correlation of interest; r_2 = second correlation of interest; r_3 = third correlation of interest.

Significant results for z, at the critical value of 2,32 (alpha = 0,01), and 3,10 (alpha = 0,001) are reported. The degrees of freedom in this exercise are defined as (N - 3), where N is the size of the sample.

RESULTS

Reliability of psychometric instruments

The reliabilities for each psychometric measure used in this study were computed and are reported in Table 4. Reliability of all scales used in the present study was satisfactory, with alpha values ranging from 0,63 to 0,90.

Measure of Sampling Adequacy

The MSA for each item of the MBI was relatively high for both the frequency and the intensity dimensions of burnout. The overall MSA for burnout frequency and intensity items w s 0,85 and 0,87 respectively. The range of MSA's for individual items was from 0,71 to 0,92 (burnout - frequency) and from 0,75 to 0,93 (burnout - intensity). The data from the MBI are thus adequate for factor analysis. (See Table 5.)

Scree Test

The Scree test in this study gave indication that the extraction of three factors was appropriate in both the frequency and intensity dimension of the MBI (see, Figure 2 and Figure 3).

Eigenvalues

The eigenvalues for each item, for both the the frequency and intensity dimensions of burnout, are presented in Table 5. From these results it may be seen that only Factors 1 through 3, in both dimensions of burnout are eligible for extraction on the basis of this criterion.

Harman Criterion

Harman's criterion (1975) was reflected against the relevant data. It was found, with regard to both the MBI (frequency) and the MBI (intensity) item communalities and eigenvalues, that the extraction of three factors was appropriate. That is, the sum of (frequency) item communalities was 10,7 and the sum of the (frequency) eigenvalues of Factor 1, Factor 2 and Factor 3 was also 10,7.

Table 4 : Descriptive statistics and internal consistency of measuring instruments

	N of ITEMS	ITEM RANGE Min-Max		MAXIMUM POSSIBLE RESPONSE	SUBJECT RESPONSE RANGE	MEAN	SD	alpha
Emotional exhaustion (f)	9	1	7	63	9 - 63	29,8	11,9	0,90
Emotional exhaustion (i)	9	1	7	63	0 - 63	33,4	14,2	0,90
Personal accomplishment (f)	8	1	7	56	8 - 56	20,8	9,2	0,85
Personal accomplishment (i)	8	1	7	56	8 - 52	26,4	8,2	0,86
Depersonalisation (f)	5	1	7	35	5 - 30	10,5	5,3	0,76
Depersonalisation (i)	5	1	7	35	0 - 35	12,8	8,4	0,81
Job overload	9	1	5	45	15 - 44	35,4	4,9	0,80
Job dissatisfaction	14	1	7	98	17 - 90	43,3	14,4	0,87
Responsibility	2	1	7	14	2 - 10	7,1	2,3	0,63
Personality hardiness (1)	20	1	2/3	54	28 - 53	42,2	5,5	0,75
Peer cohesiveness	9	1	2	18	9 - 17	14,4	2,3	0,72
Psychological distress	12	1	4	48	13 - 47	24,9	6,0	0,90
Marital adjustment (2)	15			168	23 - 166	112,0	27,0	0,76
Propensity to leave (3)	3	1	3/6	12	3 - 10	6,5	2,8	0,77

NOTE : (1) For the Personality Hardiness, items 1-14 are scored on a 3-point scale, and items 15-20 are scored on a 2-point scale.

(2) For the Marital Adjustment scale, item 1 is scored as a continuum ranging from 1 to 35, and items 2-15 have various scoring values.

(3) For the Propensity to leave scale, item 1 is scored on a 6-point scale, and items 2 & 3 are scored on a 3-point scale.

(f) denotes the frequency dimension of burnout.
(i) denotes the intensity dimension of burnout.

Table 5 : Factor loadings for MBI items (frequency and intensity), using principal components and varimax rotation.

MBI ITEM	(FREQUENCY DIMENSION) FACTOR 1	FACTOR 2	FACTOR 3	h^2	MSA	(INTENSITY DIMENSION) FACTOR 1	FACTOR 2	FACTOR 3	h^2	MSA
1. I feel emotionally drained after work	,76	-,11	,03	,59	,86	,72	-,17	,09	,56	,89
2. I feel used up at the end of the day	,75	-,05	,06	,57	,83	,74	-,12	,18	,60	,92
3. I feel fatigued when I get up in the morning	,74	,12	,12	,58	,92	,70	-,08	,28	,57	,91
4. Working with people all day is a strain for me	,69	,02	,25	,54	,88	,70	-,03	,14	,51	,86
5. I feel burned out from my job	,80	,17	,18	,71	,89	,73	-,15	,10	,56	,91
6. I feel frustrated by my job	,62	,22	,26	,51	,90	,65	-,09	,18	,46	,90
7. I feel I'm working too hard on my job	,59	,01	,27	,42	,92	,64	-,23	,20	,50	,93
8. Working with people directly is very stressful	,60	,01	,46	,58	,87	,59	-,06	,33	,46	,85
9. I feel like I'm at the end of my rope	,60	,17	,26	,45	,92	,59	-,21	,34	,51	,92
10. I can easily understand my recipients feel	-,06	,66	-,04	,45	,82	-,14	,64	-,11	,45	,86
11. I deal effectively with my recipients' problems	,12	,80	-,02	,65	,79	-,16	,74	-,03	,58	,87
12. My work positively influences recipients' lives	,06	,62	-,07	,39	,87	-,08	,76	-,04	,59	,85
13. I feel very energetic	,25	,43	,02	,24	,84	-,02	,68	-,11	,48	,90
14. I easily create relaxed atmosphere with recipients	,13	,75	-,08	,59	,85	-,08	,72	-,02	,53	,88
15. I feel exhilarated after working with recipients	,12	,71	,05	,52	,86	-,12	,65	-,14	,46	,84
16. I have accomplished many worthwhile things at work	-,07	,62	,06	,39	,71	-,08	,73	-,01	,54	,86
17. In my work I deal with emotional problems very well	-,08	,62	-,10	,40	,85	-,14	,53	,07	,30	,85
18. I feel I treat some recipients as if they were objects	,10	-,15	,66	,47	,77	,20	,06	,73	,58	,75
19. I've become more callous toward people since this job	,22	,13	,67	,51	,80	,17	,03	,71	,54	,76
20. I worry that this job is hardening me emotionally	,30	-,04	,59	,45	,83	,27	-,11	,61	,46	,81
21. I don't really care what to some recipients	,10	,02	,64	,42	,81	,22	-,09	,64	,47	,83
22. I feel recipients blame me for some of their problems	,24	,17	,45	,29	,78	,32	,04	,40	,26	,81
Eigenvalue	5,76	3,63	1,35			6,40	3,28	1,28		
% of variance	49,43	31,16	11,57			53,68	27,66	10,79		
cumulative % of variance	49,43	80,59	92,16			53,86	81,54	92,33		

NOTE : Some MBI items have been abbreviated in this table. For full wording see Appendix 1.
Underlined figure indicate significant loadings on the various factors.

Table 5 : Factor loadings for MBI items (frequency and intensity), using principal components and varimax rotation.

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6. I feel frustrated by my job	,62	,22	,26	,51	,90	,65	-,09	,18	,46	,90
7. I feel I'm working too hard on my job	,59	,01	,27	,42	,92	,64	-,23	,20	,50	,93
8. Working with people directly is very stressful	,60	,01	,45	,56	,87	,59	-,06	,33	,46	,85
9. I feel like I'm at the end of my rope	,60	,17	,26	,45	,92	,59	-,21	,34	,51	,92
10. I can easily understand my recipients feel	-,06	,66	-,04	,45	,82	-,14	,64	-,11	,45	,86
11. I deal effectively with my recipients' problems	,12	,80	-,02	,65	,79	-,16	,74	-,03	,58	,87
12. My work positively influences recipients' lives	,06	,62	-,07	,39	,87	-,08	,76	-,04	,59	,85
13. I feel very energetic	,25	,43	,02	,24	,84	-,02	,68	-,11	,48	,90
14. I easily create relaxed atmosphere with recipients	,13	,75	-,08	,59	,85	-,08	,72	-,02	,53	,88
15. I feel exhilarated after working with recipients	,12	,71	,05	,52	,86	-,12	,65	-,14	,46	,84
16. I have accomplished many worthwhile things at work	-,07	,62	,06	,39	,71	-,08	,73	-,01	,54	,86
17. In my work I deal with emotional problems very well	-,08	,62	-,10	,40	,85	-,14	,53	,07	,30	,85
18. I feel I treat some recipients as if they were objects	,10	-,15	,66	,47	,77	,20	,06	,73	,58	,76
19. I've become more callous toward people since this job	,22	,13	,67	,51	,80	,17	,03	,71	,54	,76
20. I worry that this job is hardening me emotionally	,30	-,04	,59	,45	,83	,27	-,11	,61	,46	,81
21. I don't really care what to some recipients	,10	,02	,64	,42	,81	,22	-,09	,64	,47	,83
22. I feel recipients blame me for some of their problems	,24	,17	,45	,29	,78	,32	,04	,40	,26	,81
Eigenvalue	5,76	3,63	1,35			6,40	3,28	1,28		
% of variance	49,43	31,16	11,57			53,88	27,66	10,79		
cumulative % of variance	49,43	80,59	92,16			53,88	81,54	92,33		

NOTE : Some MBI items have been abbreviated in this table. For full wording see Appendix 1.
Underlined figure indicate significant loadings on the various factors.

Figure 2 : Scree Plot (Frequency Dimension)

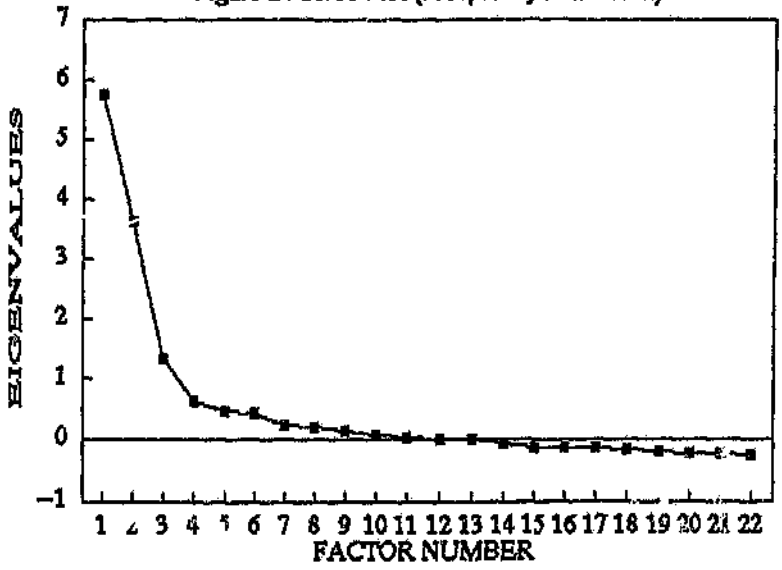
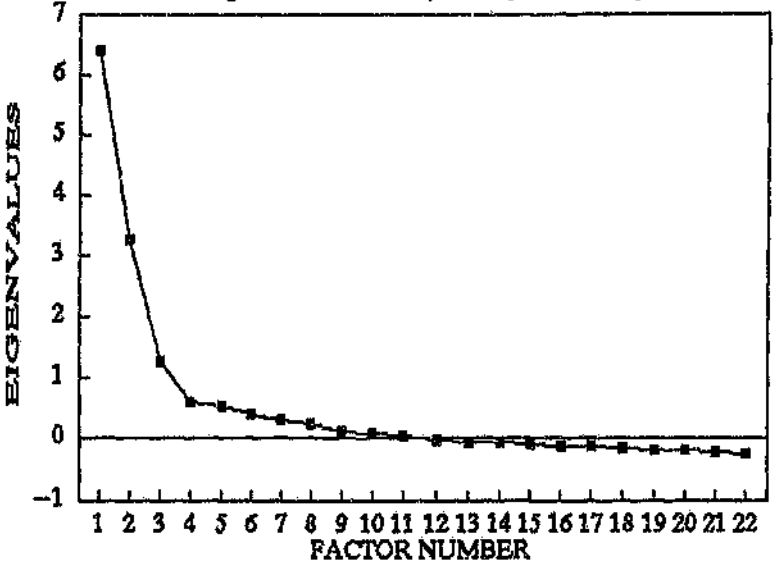


Figure 3 : Scree Plot (Intensity Dimension)



Similarly, the sum of (intensity) item communalities was 11,2 and the sum of the (intensity) eigenvalues of Factor 1, Factor 2 and Factor 3 was 11,0. These results corroborated the other initial findings, detailed above, that factor extraction should be halted after the third factor.

Reliability coefficient of 'theta'

Carmines and Zeller's (1979) reliability coefficient of 'theta', which reflects the reliability of the extracted factors, provided a coefficient of 0,87 for the three (frequency) factors, and a coefficient of 0,88 for the (intensity) factors, which are satisfactory indices of reliability.

Factor item loadings

Items included in the various factors had loadings greater than 0,40. This is consistent with the factor loading criterion employed by Maslach and Jackson (1981). The first factor extracted in the present study, which comprised the identical items to that first factor identified and labelled by Maslach and Jackson (1981) as 'emotional exhaustion', accounted for 49,4% of the common variance for the frequency dimension of burnout and 53,9% of the common variance for the intensity dimension of burnout. The second factor structure to emerge was identical, in item composition, to that identified by Maslach and Jackson (1981) as 'low feelings of personal accomplishment', and accounted for 31,2% and 27,7% of the common variance for the frequency and intensity dimensions of burnout respectively. The third factor identified by Maslach and Jackson (1981), labelled as 'depersonalisation' was identically comprised in the third factor to emerge in the present study, which accounted for 11,6% and 10,8% of the common variance in the frequency and intensity dimension respectively. In terms of the cumulative percentage of common variance accounted for by the three factors to be extracted, the 3 frequency factors accounted for 92,2% of the total common variance extracted, while the total cumulative percentage of the common variance extracted by the three intensity dimension factors amounted to 92,3%.

Root mean square and coefficient of congruence

The RMS and CC formulae were used to assess the degree of factor congruence and/or factor invariance between the factor structure reported by Maslach and Jackson (1981) and that of the present study. As can be seen in Table 6 the two factor structures are shown to be similar.

Table 6 : Comparison statistics for the and the present study (N = 223), and Maslach and Jackson's (1981) study (N ≈ 1025).

	Frequency Dimension Comparison Statistic		Intensity Dimension Comparison Statistic	
	Root Mean Square[1]	Coefficient of Congruence[2]	Root Mean Square[1]	Coefficient of Congruence[2]
FACTOR 1 (Emotional Exhaustion)	0,14	0,95	0,10	0,98
FACTOR 2 (Personal Accomplishment)	0,16	0,93	0,15	0,99
FACTOR 3 (Depersonalisation)	0,10	0,95	0,09	0,96

1. Where there is a perfect pattern-magnitude match between the two factor structures, the RMS will approach a minimum of zero, whereas when all loadings are equal to unity (but of opposite signs) across the two studies, an RMS of a maximum of +2 will be evidenced.

2. In the case of a perfect match between the two factor structures, the coefficient of congruence will be +1, and -1 for a perfect inverse agreement, whereas when there is no agreement at all, the coefficient will be ZERO.

Within the frequency dimension of burnout, the RMS's for factors 1, 2, and 3, were 0,14; 0,16; and 0,10 respectively. These figures are similar to the RMS's expressed for the intensity dimension; i.e., 0,10; 0,15; and 0,09 for factors 1, 2, and 3 respectively. The coefficients of congruence for the three frequency factors were 0,95; 0,93; and 0,95. The figures for the intensity dimension were marginally superior; i.e., 0,98; 0,95; and 0,96 respectively, (see also Table 7).

These findings support Hypothesis 1. Burnout, as measured by the MBI, consists of three discrete factors. The replication, by this study, of the factor structure reported in the source article of the MBI (Maslach & Jackson, 1981), therefore facilitates the investigation of the discriminant validity of the burnout construct. This is done by the investigation of the relationships between the three burnout factors and the various conceptually related variables, as detailed below.

Pearson correlations and Fisher-z tests

Hypothesis 2.1 refers to the differential relationships between the three burnout components and conceptually related variables of interest. This hypothesis was not supported by the data. The results of the Pearson correlations between the three burnout components and conceptually related variables, are presented in Table 8.

In terms of the relationships between the conceptually related variables and the three components of burnout, the most consistent statistically significant correlations occur between the variables of interest and emotional exhaustion (both frequency and intensity). The only exception is in the case of marital satisfaction, which was not significantly related to any component of burnout.

To assess the discriminant validity, it was hypothesised the the three components of burnout would relate differentially to conceptually related variables; i.e., emotional exhaustion with job overload, job dissatisfaction, and responsibility; personal accomplishment with personality hardiness, peer cohesiveness, and age; and depersonalisation with ill health, marital adjustment, and propensity to leave. The results of the Fisher-z tests are presented in Table 9.

Table 7 : Comparison of rotated factor loadings of the MBI items obtained in the present study, & Maslach and Jackson's (1981) stud

MBI Item	(FREQUENCY DIMENSION) Present Study F1	F2	F3	Maslach/Jackson F1	F2	F3	(INTENSITY DIMENSION) Present Study F1	F2	F3	Maslach/Jackso F1	F2	F
1. I feel emotionally drained after work	,76	-,11	,03	,74	,02	,06	,72	-,19	,09	,70	,08	,0
2. I feel used up at the end of the day	,75	-,05	,06	,73	,03	,04	,74	-,12	,18	,70	,05	,1
3. I feel fatigued when I get up in the morning	,74	,12	,12	,66	,15	,18	,70	-,08	,28	,60	-,11	,2
4. Working with people all day is a strain for me	,61	,02	,25	,69	-,10	,22	,70	-,03	,14	,60	-,06	,2
5. I feel burned out from my job	,80	,17	,18	,84	-,09	,19	,73	-,15	,10	,81	-,02	,2
6. I feel frustrated by my job	,62	,22	,26	,65	-,12	,23	,65	-,09	,18	,64	-,06	,2
7. I feel I'm working too hard on my job	,59	,01	,27	,56	,07	,08	,64	-,23	,20	,55	,07	,0
8. Working with people directly is very stressful	,60	,01	,46	,54	,06	,31	,59	-,06	,33	,47	-,05	,3
9. I feel like I'm at the end of my rope	,60	,17	,26	,65	,08	,21	,59	-,21	,34	,60	-,11	,2
10. I can easily understand my recipients feel	-,06	,66	-,04	,11	,50	-,06	-,14	,64	,11	,12	,50	-,1
11. I deal effectively with my recipients' problems	,12	,80	-,02	-,01	,54	-,07	-,16	,74	-,03	,03	,58	-,0
12. My work positively influences recipients' lives	,06	,62	-,07	-,02	,58	-,17	-,08	,76	-,04	,00	,63	-,1
13. I feel very energetic	,25	,43	,02	-,30	,43	-,04	-,02	,68	-,11	-,05	,44	,0
14. I easily create relaxed atmosphere with recipients	,13	,75	-,08	-,06	,51	-,08	-,08	,72	-,02	-,04	,55	-,1
15. I feel exhilarated after working with recipients	,12	,71	,05	,00	,55	-,23	-,12	,65	-,14	,10	,52	-,1
16. I have accomplished many worthwhile things at work	-,07	,62	,06	-,10	,57	-,17	-,08	,73	-,01	-,07	,56	-,1
17. In my work I deal with emotional problems very well	-,08	,62	-,10	-,07	,59	-,10	-,14	,53	,07	-,09	,52	,0
18. I feel I treat some recipients as if they were objects	,10	-,15	,66	,16	-,10	,62	,20	,06	,73	,16	-,10	,6
19. I've become more callous toward people since this job	,22	,13	,67	,16	-,12	,74	,17	,03	,71	,16	-,12	,7
20. I worry that this job is hardening me emotionally	,30	-,04	,59	,27	-,11	,61	,27	-,11	,61	,27	-,11	,6
21. I don't really care what to some patients	,10	,02	,64	,23	-,11	,52	,22	-,09	,64	,23	-,11	,5
22. I feel recipients blame me for some of their problems	,24	,17	,45	,21	-,01	,40	,32	,04	,40	,21	-,01	,4

NOTE : Some MBI items have been abbreviated in this table. For full wording see Appendix 1.

Table 8 : Pearson correlations between the 3 burnout components and conceptually related variables (N = 223)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(1) Emotional exhaustion (f)														
(2) Emotional exhaustion (i)	78**													
(3) Personal accomplishment (f)	15	17												
(4) Personal accomplishment (i)	-20	-31**	36**											
(5) Depersonalisation (f)	48**	43**	-07	02										
(6) Depersonalisation (i)	35**	47**	-09	08	59**									
(7) Job overload	36**	41**	00	-14	15	25*								
(8) Job dissatisfaction	43**	38**	35**	10	29**	16	18							
(9) Responsibility for people	21*	27**	-04	-20	08	20*	27*	-05						
(10) Personality hardiness	-42**	-33**	-24**	08	-18*	-12	-06	-41**	03					
(11) Peer cohesiveness	-33**	-26**	-12	13	-14	-12	-01	-49**	07	45**				
(12) Age	-35**	-41**	-05	07	-30**	-25**	-06	-20*	-15	23**	12			
(13) Psychological distress	53**	53**	29**	-24**	27**	21*	41**	48**	16	-37**	-11	-18*		
(14) Marital adjustment	00	05	-12	01	06	00	-32*	-04	-04	07	01	-03	-27**	
(15) Propensity to leave	41**	37**	28**	05	19	09	19	56**	-05	-34**	-31**	-24**	-31**	00

* p < 0,01
** p < 0,001
NOTE : (f) denotes the frequency dimension
(i) denotes the intensity dimension
For ease of representation, the decimal commas have been omitted.

Table 9 : Summary of test of discriminant validity of the three components of burnout

	FREQUENCY DIMENSION OF BURNOUT					INTENSITY DIMENSION OF BURNOUT				
	Correlation with EE	PA	DP	Comparison		Correlation with EE	PA	DP	Comparison	t
Hypothesised relationship between EE and :-										
Job overload (N = 116)	36**	00	15	EE vs PA EE vs DP	3,19** *,74	41**	-14	25*	EE vs PA EE vs DP	5,51** 1,33
Job dissatisfaction (N = 172)	43**	35**	29**	EE vs PA EE vs DP	1,01 1,81	38**	10	16	EE vs PA EE vs DP	3,07* 2,35*
Responsibility for people (N = 223)	21*	-04	08	EE vs PA EE vs DP	2,82* 1,38	27*	-20	-20*	EE vs PA EE vs DP	4,76** 4,76**
Hypothesised relationship between DP and :-										
Personality hardiness (N = 210)	-42**	-24**	-18*	DP vs EE DP vs PA	2,57* 0,56	-33**	08	-12	DP vs EE DP vs PA	2,39* 1,79
Peer cohesiveness (N = 170)	-33**	-12	-14	DP vs EE DP vs PA	1,79 0,16	-26**	13	-12	DP vs EE DP vs PA	1,44 2,08
Age (N = 223)	-35**	-05	-30**	DP vs EE DP vs PA	0,60 2,46*	-41**	07	-25**	DP vs EE DP vs PA	1,98 2,94*
Hypothesised relationship between PA and :-										
Psychological distress (N = 223)	53**	29**	27**	PA vs EE PA vs DP	3,58** 0,33	53**	-24*	21*	PA vs EE PA vs DP	11,99** 7,88**
Marital adjustment (N = 158)	00	-12	06	PA vs EE PA vs DP	(++) (++)	-05	01	00	PA vs EE PA vs DP	(++) (++)
Propensity to leave (N = 223)	41**	28**	19	PA vs EE PA vs DP	1,72 1,29	37**	05	09	PA vs EE PA vs DP	3,81** 0,53

* $p < 0,01$
** $p < 0,001$

NOTE : Decimal commas have been omitted in the correlational matrix.

KEY : EE = emotional exhaustion PA = personal accomplishment DP = depersonalisation
(++) = since no significant correlations were involved, z scores are omitted.

Hypothesis 2.1 refers to the hypothesised differential relationships between emotional exhaustion and job overload, job dissatisfaction, and responsibility for people. This hypothesis is not supported by the data. Although the three most powerful and statistically significant Pearson correlations, within both frequency and intensity, are with emotional exhaustion, the differences between these significant relationships and other significant correlations are not statistically significant. The only exception is the significant difference is between emotional exhaustion (intensity) - responsibility ($r = ,27$;; $p < ,01$) and depersonalisation - responsibility ($r = -,20$; $p < ,01$), ($t = 4,76$; $p < ,01$).

Within the frequency dimension, the Fisher-z t-scores show that the emotional exhaustion - job overload correlation, ($r = ,36$; $p < ,001$), is significantly greater than the personal accomplishment - job overload relationship ($r = ,00$), ($t = 3,19$; $p < ,001$), but the former correlation is not significantly different from the relationship between depersonalisation - job overload ($r = ,15$; $t = 1,74$). Although the emotional exhaustion - job dissatisfaction correlation ($r = ,43$; $p < ,001$) is larger than personal accomplishment - job dissatisfaction ($r = ,35$; $p < ,001$), the difference between the two is not significant ($t = 1,01$). The emotional exhaustion - job dissatisfaction correlation is also larger than depersonalisation - job dissatisfaction relationship ($r = ,08$), but the difference between the two is not significant ($t = 1,81$). The correlation of emotional exhaustion - responsibility ($r = ,21$; $p < ,01$) is significantly greater than the relationship between personal accomplishment - responsibility ($r = -,04$). ($t = 2,82$; $p < ,01$). The difference between the former relationship, and that between depersonalisation - responsibility ($r = ,08$), is not significant ($t = 1,38$).

Within the intensity dimension, the Fisher-z t-scores show that the emotional exhaustion - job overload correlation, ($r = ,41$; $p < ,001$), is significantly greater than the personal accomplishment - job overload relationship ($r = -,14$), ($t = 5,51$; $p < ,001$), but the former correlation is not significantly different from the relationship between depersonalisation - job overload ($r = ,25$; $p < ,01$), ($t = 1,33$). The emotional exhaustion - job dissatisfaction correlation ($r = ,38$; $p < ,001$) is significantly greater than personal accomplishment - job dissatisfaction ($r = ,10$), ($t = 3,07$; $p < ,01$). The correlation of emotional exhaustion - responsibility ($r = ,27$; $p < ,01$) is significantly greater than the relationship between personal accomplishment - responsibility ($r = -,20$), ($t = 4,76$; $p < ,001$). The difference between the former relationship, and that between depersonalisation - responsibility ($r = -,20$; $p < ,01$), is also significant ($t = 4,76$; $p < ,001$).

Hypothesis 2.2 refers to the hypothesised relationships between depersonalisation and personality hardiness, peer cohesiveness, and age. This hypothesis is not supported by the data. Where there are two or more significant correlations, these are not shown to be significantly different. The one exception is the significant difference ($t=2,57$; $p<,01$) is between the correlations which depersonalisation (frequency) - personality hardiness ($r=-,18$; $p<,01$) and emotional exhaustion (frequency) - personality hardiness ($r=-,42$; $p<,001$). Furthermore, these variables do not correlate most powerfully with depersonalisation. Instead, the variables of interest are shown to be most powerfully related to emotional exhaustion at statistically significant levels for both frequency and intensity.

Within the frequency dimension, the Fisher-z t-scores show that the depersonalisation - personality hardiness correlation, ($r=,-18$; $p<,01$), is significantly smaller than the emotional exhaustion - personality hardiness relationship ($r=-,42$; $p<,001$), ($t=2,57$; $p<,01$). The former correlation is not significantly different from the personal accomplishment - personality hardiness relationship ($r=-,24$; $p<,001$), ($t=0,56$). The depersonalisation - peer cohesiveness correlation ($r=-,14$) is not significantly smaller than emotional exhaustion - peer cohesiveness ($r=-,33$; $p<,001$), ($t=1,79$). The depersonalisation - peer cohesiveness correlation is not significantly greater than the personal accomplishment - peer cohesiveness relationship ($r=-,12$; $t=0,16$). The correlation of depersonalisation - age ($r=-,30$; $p<,001$) is not significantly smaller than the relationship between emotional exhaustion and age ($r=-,35$; $p<,001$), ($t=0,60$). The former relationship is significantly greater than that between personal accomplishment and age ($r=-,05$), ($=2,46$; $p<,01$).

Within the intensity dimension, the Fisher-z t-scores show that the depersonalisation - personality hardiness correlation, ($r=-,12$), is significantly smaller than the emotional exhaustion - personality hardiness relationship ($r=-,33$), ($t=2,39$; $p<,01$), but the former correlation is not significantly different from the relationship between personal accomplishment - personality hardiness ($r=,08$), ($t=1,79$). The depersonalisation - peer cohesiveness correlation ($r=-,12$) is not significantly smaller than emotional exhaustion - peer cohesiveness ($r=-,26$; $p<,001$) ($t=1,44$). Similarly, the former relationship is not significantly smaller than the correlation between personal accomplishment - peer cohesiveness ($r=,13$), ($t=2,08$). The correlation of depersonalisation - age ($r=-,25$; $p<,001$) is not significantly smaller than the relationship between emotional exhaustion - age ($r=-,41$; $p<,001$),

(t= 1,98). The relationship of depersonalisation - age is significantly greater than the relationship between personal accomplishment - age (r=,07), (t=2,94; p<,01).

Hypothesis 2.3 refers to the hypothesised relationships between feelings of low personal accomplishment and psychological distress, deterioration of marriage/partnership adjustment, and a propensity to leave the job. This hypothesis is partially supported by the data. All the relationships which personal accomplishment has with psychological distress are significantly different from the other burnout components relationships with this variable. The only exception is the non-significant difference is between the correlation of personal accomplishment - distress, and depersonalisation - distress. With respect to the correlations between the burnout components and propensity to leave, all significant relationships were not significant. No tests for significance of difference were conducted for the relationships between the burnout components (both frequency and intensity) and marital adjustment. This was because there were no statistically significant correlations. The variables of interest are not most powerfully related at significant levels to personal accomplishment. With the exception of marital adjustment, which was not significantly correlated with any component of burnout, these variables exhibit the most powerful and statistically significant relationships with emotional exhaustion (both frequency and intensity).

The Fisher-z tests show, in the case of personal accomplishment's relationships with psychological distress, that these correlations are significantly smaller than the relationships between distress and emotional exhaustion. The correlation between personal accomplishment (frequency) and propensity to leave is not significantly different from the relationship between the latter variable and emotional exhaustion (frequency).

Within the frequency dimension, the Fisher-z t-scores show that the personal accomplishment - ill health correlation, (r=,29; p<,001), is significantly smaller than the emotional exhaustion - ill health relationship (r=,[illegible] p<,001), (t=3,58; p<,001), but not significantly smaller than the relationship between depersonalisation - ill health (r=,27; p<,001), (t=0,33). The personal accomplishment - propensity to leave correlation (r=,28; p<,001) is not significantly smaller than the correlation of emotional exhaustion - propensity to leave (r=,41; p<,001), (t=1,72). The personal accomplishment - propensity to leave correlation is not significantly greater than depersonalisation - propensity to leave relationship (r=,12), (t=1,29).

Within the intensity dimension, the Fisher-z t-scores show that the personal accomplishment - ill health correlation, ($r = -,24$; $p < ,01$), is significantly smaller than the emotional exhaustion - ill health relationship ($r = ,53$; $p < ,001$), ($t = 11,99$; $p < ,001$). The correlation of personal accomplishment - ill health is also significantly different from the relationship between depersonalisation - ill health ($r = ,21$; $p < ,01$), ($t = 7,88$; $p < ,001$). The personal accomplishment - propensity to leave correlation ($r = ,05$) is significantly smaller than emotional exhaustion - propensity to leave ($r = ,37$; $p < ,001$), ($t = 3,81$; $p < 0,001$), but the former relationship is not significantly smaller than the correlation between depersonalisation - propensity to leave ($r = ,09$), ($t = 0,53$).

DISCUSSION

Discussion of results

This research was aimed at establishing the discriminant validity of the prevailing three-component construct of burnout. The replicability of Maslach and Jackson's (1981) multi-dimensional definition was tested by confirmatory factor analysis. Discriminant validity of this construct was assessed by clarifying the relationships between the three burnout components and conceptually related variables.

Confirmation of the 3-factor burnout structure

Confirmation of the three factor structure reported by Maslach and Jackson (1981) was critical in that the results of the factor analysis provided evidence that the MBI items do load onto the three burnout factors. This is in line with much burnout research (e.g., Golembiewski et al., 1983). The factor structure which was expressed by the data in this research is shown to be almost identical to that which Maslach and Jackson (1981) reported as the basis for the operationalisation of their three component definition of burnout; i.e., the MBI (Maslach & Jackson, 1981). Being successful in replicating these factor loadings facilitated research into the properties of discriminant validity with regard to the multi-component definition of burnout.

The most important trend to emerge from the correlational findings is that those variables which are conceptually related to the broader construct of burnout, correlate most powerfully and signif-

icantly with the burnout component of emotional exhaustion within both the frequency and intensity dimensions. This was irrespective of the hypothesised conceptual relationship.

Other than psychological distress, all those variables of interest which were significantly related to two or more burnout components failed to evidence significant differences between these correlations. This was assessed by computing Fisher-z test scores. The non-significance of difference between correlations revelas that emotional exhaustion provides an adequate measure for those variales' relationships with the other two burnout components. This contention is supported by other results from this study. Emotional exhaustion accounted for 49,4% of the common variance within the frequency dimension of burnout and 53,9% of the common variance within the intensity dimension of burnout. Personal accomplishment accounted for 31,2% and 27,7%, and depersonalisation accounted for 11,6% and 10,8%, of the common variance, within the frequency and intensity dimensions respectively.

The results show that there are not three distinct responses to the stress inherent in HSP work; i.e., emotional exhaustion, personal accomplishment, and depersonalisation. Instead there is a trend evidenced in this research which suggests that emotional exhaustion is generally the statistically most powerful indicator of the distress, popularly and traditionally termed burnout. This finding indicates that the three factor burnout definition lacks discriminant validity. This was shown by the inability to reject statistically the hypothesis of significantly differential relations between the three components of burnout and the conceptually related variables. The implications of this finding are discussed later.

These results suggest that emotional exhaustion may be performing similarly with the other two burnout components. Emotional exhaustion does appear to be the dimension of burnout with which conceptually related variables will relate, by virtue of the more powerful relationships which these variables evidence with emotional exhaustion. The results do show however, that emotional exhaustion, both frequency and intensity, may not be an adequate measure of general ill-health in a singular capacity.

Hypothesised relationships with emotional exhaustion

Hypothesis 2.1 posited that emotional exhaustion would relate to job overload, job dissatisfaction and responsibility for people, in a significantly different manner to those relationships which personal accomplishment and depersonalisation would evidence with those variables. The results do not provide support for this hypothesis. Emotional exhaustion shows the most powerful correlations with these variables. Testing for the significance of difference between correlations shows that the difference between the correlations which emotional exhaustion and personal accomplishment have with these variables are significantly different in two instances in the frequency dimension; i.e., with the exception of job dissatisfaction. These differences were significant in all three cases in the intensity dimension.

The only significant difference in relationship with these variables which emotional exhaustion and depersonalisation show, is that with job dissatisfaction and responsibility for people within the intensity dimension. This suggests that emotional exhaustion and depersonalisation may be performing similarly, although it should be noted that emotional exhaustion does appear to be the appropriate dimension of burnout with which these variables will relate to (as hypothesised) by virtue of the more powerful relationships which these variables evidence with emotional exhaustion.

Hypothesised relationships with depersonalisation

Hypothesis 2.2 identified depersonalisation as the focal component of burnout with which personality hardiness, peer cohesiveness and age would relate in the most powerful and statistically different way from the other components of burnout. Support was not found for this hypothesis; i.e., in no case does depersonalisation evidence the most powerful relationships with any of these variables.

The significant differences between the correlations which depersonalisation ; i.e., the hypothesised component of burnout, evidenced with these variables, and those correlations which the other components evidenced, were as follows. The relationship of depersonalisation/personality hardiness was significantly different from that which emotional exhaustion had with this variable. The correlation of depersonalisation/age was significantly different from that which personal accomplishment had with this variable.

These were the only significant differences, but in all cases, however, the relationship which emotional exhaustion has with these variables is the most powerful correlation. It would appear from this trend that emotional exhaustion is the component of burnout with which these variables relate.

Hypothesised relationships with feelings of low personal accomplishment

Hypothesis 2.3 predicted that decrements to psychological well-being and marital adjustment, as well as the propensity to leave, would be related to feelings of low personal accomplishment. Support was not found for this hypothesis. Marital adjustment failed to evidence any significant correlations whatsoever. Feelings of low personal accomplishment (frequency) related to general ill-health and propensity to leave in a positive fashion. Personal accomplishment (intensity) failed to relate significantly to propensity to leave, and very strangely expressed an inverse relationship with general ill-health.

The significant differences between the correlations which personal accomplishment ; i.e., the hypothesised component of burnout, evidenced with these variables, and those correlations which the other components evidenced, were as follows. These relationships, which psychological well-being and propensity to leave evidenced with emotional exhaustion, were shown to be significantly different from those correlations which personal accomplishment has with these variables. The exception was the relationship which personal accomplishment has with propensity to leave in the frequency dimension. But, emotional exhaustion was responsible for the most powerful relationships which these variables have with any component of burnout. The results do show, however, that emotional exhaustion (frequency) may not be an adequate measure ,in its singular capacity, of general ill-health.

Discussion of results pertaining to hypothesised relationships with emotional exhaustion

Job overload

Job overload was positively and significantly correlated with emotional exhaustion. This finding supports similar reports (Jackson et al., 1987). This relationship was not, however, significantly different from the other significant correlation. If stress is understood as the perceived imbalance between demands and resources (Armstrong, 1985; Cox, 1980; Linn et al., 1985), then it is not unexpected that job overload may be associated with feelings of emotional exhaustion, particularly when viewed in the emotional context of HSP work. The individual's inability to fulfil his/her role commitments and objectives, may be a concomitant of emotional exhaustion (Bailey, 1985; Turner, 1984). In terms of professional responsibility, and the emotional characteristics of the professional relationship, job overload could have deleterious emotional consequences for the HSP. The bi-directionality of relationship between job overload and emotional exhaustion is reported by Pratt and Barling (1988), which they regard as 'intuitively acceptable'; i.e., it would not be unexpected that an emotionally exhausted individual would regard job demands as overburdening (Pratt & Barling, 1988).

With respect to the non-significance of differences, in the intensity dimension , between the relationships which emotional exhaustion and depersonalisation have with job overload, this finding is supported by other reports.

When job overload is seen to exist, not only does the amount of work accomplished diminish because of the decreased amount of time available for each case presented, but the quality of the HSP's (reduced) intervention is negatively affected (Cherniss, 1980a, 1980b; MacBride, 1983; Maslach, 1978, Maslach, 1982b; Ryerson & Marks, 1982). HSP work is typically described as one in which the professional works too hard and for too long in a high-pressure work [illegible] Bailey, 1985; Turner, 1984), resulting in depleted tolerance and resources (Carroll & White, 19[illegible] the experience

of job overload may be expressed as irritability, fatigue, and debilitating physical and emotional exhaustion (Cherniss, 1980b).

Job dissatisfaction

Within the frequency dimension of burnout, job dissatisfaction expressed significant positive correlations with all three components of burnout. In the intensity dimension, there was only one significant correlation; i.e., between job dissatisfaction and emotional exhaustion. There were no significant differences between the relationships which job dissatisfaction had with emotional exhaustion, and any other significant correlations which this variable had with the other burnout factors. While the most powerful correlations were those between job dissatisfaction and emotional exhaustion, the results indicate that, within the frequency dimension of burnout, feelings of low personal accomplishment and depersonalisation may function in a similar, but less powerful, manner to that of emotional exhaustion. Thus, while low personal accomplishment and depersonalisation may occur in relationship with job dissatisfaction, it is emotional exhaustion which is the most powerful correlate of job dissatisfaction.

When job-stress becomes overdemanding in terms of the individual's perceived capabilities, job dissatisfaction may occur (French et al., 1974; Miles, 1976). Concomitant decrements in the HSP's motivation and involvement in their work may also be expected (Cherniss, 1980a, 1980b; Maslach & Jackson, 1986). This decrease in job satisfaction may be expressed in terms of the HSP's reduced desire to engage recipients as a function of reduced emotional energy (Maslach, 1982b). Positive relationships between high levels of burnout and job dissatisfaction have been reported (Landsbergis, 1988; Rafferty et al., 1986; Shirom, 1989). It is interesting that Shirom (1989) defines burnout as emotional exhaustion in the reporting of the abovementioned relationship. It is Shirom's (1989) contention that emotional exhaustion constitutes the essential element of what is experienced and labelled as burnout.

Responsibility for people

The significant difference between the statistically significant relationships of responsibility - emotional exhaustion and responsibility - depersonalisation, (intensity) is difficult to explain by virtue of the latter negative correlation. This would need to be investigated in future research.

The results indicate that emotional exhaustion is the most powerful and appropriate measure of responsibility for people. Integral to HSP work is the issue of responsible decision making in terms of resolving recipients' problems. These decisions are of great importance to the recipients, and may have serious ramifications for the recipients' future well-being (Devine, 1984). Responsibility for others' welfare is highly stressful (Cooper & Marshall, 1976), particularly when this may entail the implementation of difficult and unpleasant decisions and actions (Ivancevich & Matteson, 1987). The HSP work milieu is often emotionally charged (Pa[illegible] 1984; Payne & Firth-Cozens, 1987), which may leave the HSP feeling emotionally drained or exhausted (Maslach, 1982b). Albeit the decision making is stressful per se. (Firth & Shapiro, 1986), it is when the HSP is required to make these decisions in tandem with HSP work stress that the HSP's emotional energy levels must be exhausted.

Discussion of results pertaining to hypothesised relationships with depersonalisation

The results of the present study show that there is a relationship between depersonalisation and low levels of personality hardiness and peer cohesiveness, and depersonalisation and increased age. Further analysis reveals that when these relationships are statistically significant, they are not significantly different from the more powerful relationships which emotional exhaustion has with these variables. Emotional exhaustion emerges as the more appropriate measure of these variables' relationships with burnout components.

If coping is defined as control over the origin, meaning and outcomes of stress (Pearlin & Schooler, 1978), and burnout is shown to be adequately and appropriately by emotional exhaustion, then the relationships between the variables, hypothesised as similar to coping variables, and emotional exhaustion is not unwarranted.

Depersonalisation is a maladaptive coping response to job stress (Greenglass & Burke, 1988; Jackson et al, 1987; Shirom, 1989). Following the deficient capabilities and excess demands definition of stress, an individual's vulnerability to experiencing stress and burnout may be lessened as a

function of that person's implementation of adequate coping skills, behaviours and attitudes (Kessler et al., 1985; McDermott, 1984). Effective coping motivates and equips the individual to deal with demands until emotional equilibrium is restored and maintained until the perceived demands may be resolved (Lazarus & Launier, 1978). If emotional equilibrium is restored, in the context of HSP job stress, the individual may avoid burnout. If the job demands are chronically severe, the HSP's emotional energy will be severely diminished (Jackson et al., 1987). This may have a deleterious effect on the coping abilities of the individual.

Personality hardiness

Although high personality hardiness expressed a significant inverse relationship with depersonalisation (frequency), this correlation was weaker than the relationships which this variable had with the other two burnout components, especially emotional exhaustion. This relationships with depersonalisation was, however, significantly different from that which personality hardiness has with emotional exhaustion. These results indicate that, although the lack of personality hardiness may involve the expression of a depersonalising attitude by the HSP, this may not be as adequately measured by depersonalisation relative to emotional exhaustion.

This finding contradicts other results which have indicated that personality hardiness is related most powerfully to depersonalisation, as opposed to the other burnout components (Brookings et al., 1985; Jackson, 1982; McDermott, 1984). The finding of the present research is supported by Shirom's (1989) review of the burnout research, which shows that there is an inverse relationship between high personal control (or personality hardiness), and increased levels of reported burnout. It is important to remember that Shirom (1989) argues that burnout may be defined as emotional exhaustion.

Within the constraints seen to impinging on the range, level, and impact of the HSP's intervention, it is possible that the HSP may feel helpless, ineffectual, unable to control the process of intervention, and unable to effect positive change in the recipient (Eisenstat & Felner, 1983; Harrison, 1983; Rushton, 1987). The findings of the present study indicate that these feelings may be more adequately measured as emotional exhaustion.

Furthermore, the initial challenge of HSP work may rapidly disappear (Carroll & White, 1982; Edelwich & Brodsky, 1980). Personal control over HSP work constraints and context may also be minimal (Burke & Greenglass, 1988; Maslach, 1982b), which may precipitate burnout. Commitment may also suffer because of the HSP work demands (Maslach, 1982b). If burnout is most adequately measured by emotional exhaustion, then the results of the present study are understandable.

Peer cohesiveness

Peer cohesiveness did not evidence any significant relationships with depersonalisation, and this correlation was not significantly different from the statistically significant relationship between peer cohesiveness and emotional exhaustion. This finding contradicts other reports which indicate that the correlation between depersonalisation and positive social support received form colleagues is the significant and predominant relationship relative to the other two burnout components (Jackson et al., 1987). The lack of significant relationship with depersonalisation is also interesting when this is reflected against the contention that peer group support among HSPs is difficult to engender (Grzsiak, 1981; Pines, 1982). Contact with peers may also aggravate HSP work pressure because of the additional demands this may incur, thus contributing to burnout (Cherniss, 1980a, 1980b; Maslach & Jackson, 1984b, 1986).

Within the emotionally taxing HSP work milieu, lack of positive social support may deny the stressed HSP with the emotional support s/he requires to avoid burnout (Billings & Moos, 1982a, 1982b). Positive social support acts in a complex manner complementary to the ultimate successful functioning of the individual (Cobb, 1976; House, 1980; Kobasa & Puccetti, 1983; Zastrow, 1984). Of particular interest in this regard is that Cobb (1976), highlights the emotional aspect of social support, in terms of emotional support perceived, and the reinforcing of the focal individual's self esteem, sense of personal worth, and their sense of belonging. Without this type of input, it is plausible that the individual who perceives him/herself as socially isolated would be more vulnerable to becoming emotionally exhausted. The perception of positive social support is also positively related to motivation by assisting the individual to cope with the demands of the environment (House, 1981). The lack of peer cohesiveness in an emotionally demanding work milieu may therefore be

expected to relate positively with emotional exhaustion. This latter variable, as the more powerful and adequate measure of the lack of peer cohesiveness is therefor understandable.

Age

Increased age was significantly correlated with *depersonalisation*, but the difference between this relationship and that which exhaustion had with age is not significantly different. This result is contrary to Landsbergis (1988), who reports a significant relationship similar to this study's hypothesis. The present study's findings indicate that although the older HSP may experience less depersonalisation, the primary benefit of increased age is reduced levels of emotional exhaustion. The initial years of work are the HSP's most vulnerable in terms of burnout (Gaines & Germier, 1983; Maslach & Jackson, 1981; Muldary, 1983). HSPs who have experienced burnout may have left the profession, while the survivors of burnout may remain in their jobs, with greater refinement of skills and coping strategies. Coping styles become more mature and effective with age (Pfeiffer, 1977; Vaillent, 1977). Increased age may have equipped the HSP with improved skills in dealing with HSP work demands and procedures. It is also possible that the older HSP may have moved out of direct contact with recipients, and into more administrative positions. Increased age, if understood in the context of the positive apperception of prevailing stressors must contribute toward the HSP's more successful coping with emotional exhaustion.

Discussion of results pertaining to hypothesised relationships with personal accomplishment

Although psychological distress, marital adjustment and propensity to leave are reported as the consequences of burnout (Cherniss, 1980a, 1980b; Gaines & Jermier, 1983; Jackson & Maslach, 1982a; Schuler, 1982). these variables failed to evidence relationships with personal accomplishment which were statistically the most powerful of the components. The relationship which personal accomplishment evidenced with psychological distress were significantly different from the other burnout components' correlations with this variable, but, within the broader parameters of the findings of the present study, these results do not alter the general trend evidenced by emotional exhaustion as the more adequate and appropriate measure of the variables of interests' relationship with burnout.

Psychological distress

All correlations which psychological distress evidenced with the three components of burnout were statistically significant. Furthermore, the differences between the relationships personal accomplishment had with this variable were significantly different from the other two components' correlations with psychological distress. This finding indicates that personal accomplishment measures psychological distress in a significantly different manner to emotional exhaustion. As opposed to other variables of interest, in this instance, emotional exhaustion may not be an adequate measure, in a singular capacity, of of this variable's relationship with burnout.

This finding confirms previous reports which indicate that feelings of personal inefficacy may develop into symptoms of distress (Billings & Moos, 1982a; Folkman & Lazarus, 1980; Hammen et al., 1986; Jackson, 1986; Pines, 1982; Wierzbicki, 1984; Zemore & Dell, 1983).

Within the definition of feelings of low personal accomplishment are also descriptions of psychological distress which appear similar to definitions of depersonalisation; i.e., withdrawal and the inability to cope (Jackson & Maslach, 1982b; Maslach, 1982c). This conceptual overlap may account for the non-significance of difference between the relationship which personal accomplishment had with psychological distress, and that which depersonalisation evidenced with the same variable. With respect to the inverse correlation between feelings of low personal accomplishment and psychological distress, this finding is unexpected and requires future investigation. The only possible explanation is that psychologically distressed HSPs may have engaged some psychological defence mechanism, e.g., denial, to help reduce the intensity of their feelings of low personal accomplishment.

Marital adjustment

Marital adjustment was not significantly related to feelings of low personal accomplishment. Although no research could be found which indicated specific relationships between this variable and the three burnout factors, negative marital adjustment is consistently reported as being negatively affected by exposure to job stress and burnout (Jackson & Maslach, 1982a; Jackson & Schuler, 1983; Maslach & Jackson, 1982; Pavett, 1980). The findings of the present study contradict these reports.

The lack of significant relationships between marital adjustment and any of the three burnout factors is noteworthy. Arguments may be found which posit that burnout research should focus specifically, and only, on negative, organisationally related, experiences (Paine, 1982; Shirom, 1982; Shirom, 1989). Marital adjustment may constitute a psycho-social domain which is divorced from the influence of, or is too far removed from, burnout to be a correlational factor. Because an individual complains of burnout, does not necessarily imply that this will affect his/her level of marital adjustment. In terms of the impact of stressful work events on marital functioning, some research has reported that no relationship between work and non-work spheres exists (Larwood & Wood, 1977; London, Crandall & Seils, 1977), or at best, there is only weak support for a spill-over model (Pond & Green, 1983). The results of the present study, in which there are no significant relationships between the burnout components and marital adjustment, may corroborate these reports.

Propensity to leave

The results of the present study contradict previous reports (Firth & Britton, 1989), which indicate that feelings of low personal accomplishment is the statistically most powerful indicator of propensity to leave; i.e., relative to the other burnout factors . As hypothesised, propensity to leave correlated positively with feelings of low personal accomplishment, although in the frequency dimension only. Significant correlations were evidenced between propensity to leave and emotional exhaustion in both dimensions The difference between the correlations which personal accomplishment and emotional exhaustion evidence with propensity to leave was not significant.

This indicates that, although feelings of low personal accomplishment may be related to a propensity to leave, emotional exhaustion may in fact be a more powerful indicator of this variable's relationship with burnout. The relationship of propensity to leave and emotional exhaustion evidenced in this research is also reported by Shirom (1989), who reports positive relationships between high levels of burnout, which he defines as emotional exhaustion, and propensity to leave. Effort expended by an individual in order to maintain commitment and involvement, appear to increase the intensity of negative affect experienced by the individual (Diener, 1984). If that person has worked hard to achieve certain goals and feels that s/he has failed to attain these goals, considerable feelings of unhappiness may occur with concomitant propensity to leave (Diener, 1984). Emotional ex-

haustion may predict teachers' thoughts about leaving their jobs and subsequent turnover. (Jackson et al., 1986).

What is important to note is that it is often the more invested HSP who, because of a higher commitment to their profession and recipients, will be more likely to experience greater levels of (negative) emotional response to their jobs (Freudenberger & Richelson, 1980; Matteson & Ivancevich, 1987). It has been argued that it is often the more invested HSP who is at greater risk of burnout, and therefore of leaving their job (Eisenstat & Felner, 1981, 1983; Matteson & Ivancevich, 1987). This may be because of their high level of commitment to their profession and recipients, which results in experiences of intensified frustration, dissatisfaction and stress (Eisenstat & Felner, 1981, 1983; Freudenberger & Richelson, 1980; Matteson & Ivancevich, 1987). The implications of the results of this study is that it is the invested and committed worker who is more likely to experience high states of arousal, who will therefore be more likely to develop feelings of emotional exhaustion.

Propensity to leave may, however, be inhibited from translation into action by psychological, economic, vocational or career entrapment, and need not necessarily be expressed or manifested in actual termination of employment (Muldary, 1983).

Some definitions of burnout highlight the HSP's propensity to leave as a direct consequence of the job-stress and resultant emotional exhaustion (e.g., Cherniss, 1980a, 1980b; Jones, 1980; Silverstein, 1982). Matteson and Ivancevich's (1987) model of the phasic development of burnout, indicates propensity to leave as the final stage of this process.

Theoretical implications of the findings

Emotional exhaustion as the core measure of burnout

Although three distinct factors similar in structure to those reported by Maslach and Jackson (1981) were evidenced by the present study, further analysis , in terms of establishing the discriminant validity of these factors, show that depersonalisation and personal accomplishment may be redundant, or relatively unimportant components within the strict parameters of the burnout construct. This is because emotional exhaustion consistently emerges as the more appropriate measure, or key var-

iable, as shown by this component's accounting for the bulk of the variance in this study. The implications of this is that respondents may not provide the empirical evidence to support the traditional tripart differentiation of burnout. HSPs may experience burnout as predominantly emotional exhaustion.

The lack of discriminant validity of the tripartite distinction between the burnout factors, as evidenced by this study, provide evidence for the redefinition of burnout as emotional exhaustion. Emotional exhaustion was shown to consistently evidence the more powerful and statistically significant measure of burnout in terms of the conceptually related variables of interest. This trend was reinforced by the general non-significance of difference between these correlations, and those statistically significant relationships which the remaining burnout factors had with the same variables.

Emotional exhaustion is the one dimension of burnout for which there is the greatest definitional consensus (Garden, 1987), and validatory support (Shirom, 1989). Emotional exhaustion is also is considered to be the core dimension of the burnout syndrome (Cunningham, 1983; Freudenberger, 1980, 1983; Gaines & Jermier, 1983; Garden, 1987; Golembiewski et al., 1983, 1987; Jackson et al., 1986; Leiter, 1988; Maslach, 1982a, 1982c; Pines et al., 1981; Shirom, 1986, 1989). The finding that burnout may be appropriately and satisfactorily measured by emotional exhaustion is congruent with many, and/or parts of, the definitions of burnout in the literature. These definitions implicitly, or explicitly, refer to emotional exhaustion as the fundamental measure of burnout (e.g., Cherniss, 1980a, 1980b, 1982; Edelwich & Brodsky, 1980; Lazarus & Folkman, 1984; MacBride, 1983; Meier, 1982; Muldary, 1983; Pines, 1983; Maslach, 1982c; Muldary, 1983; Pines & Kafry, 1982; Pines & Maslach, 1978; Sassali, 1979; Shirom, 1989). It is also pertinent that levels of emotional exhaustion provide a measure of the quality of that person's working life, as well as an indicator of the cumulative effects of HSP work stress (Gaines & Jermier, 1983).

Implicit in some of the definitions of burnout and emotional exhaustion is that depersonalisation and feelings of low personal accomplishment may be sub-sets of emotional exhaustion (e.g., Carroll & White, 1982; Cherniss, 1980a, 1980b; Daniel & Rogers, 1981; Gaines & Jermier, 1983; Garden, 1987; Kahn, 1978; Leiter, 1988; Maslach, 1976, 1978, 1979; Maslach & Jackson, 1984a, 1984b; Maslach & Pines, 1977; Matteson & Ivancevich, 1987; Muldary, 1983; Paine, 1982; Pines, 1983 Pines & Maslach, 1978; Veninga & Spradley, 1981). For example, the depersonalisation of recipi-

ents has been indicated as a method of reducing or minimising the high levels of emotional affect aroused through inter-action with recipients (Jackson et al., 1987; Maslach & Jackson, 1984b). Depersonalisation may indicate, or be symptoms of, emotional exhaustion (Garden, 1987). Examples of feelings of low personal accomplishment as implicit in definitions of emotional exhaustion are varied, and include the following deleterious affectual responses; depression, lowered morale, psychological withdrawal, and the reduced ability to cope with the emotional exigencies of HSP work (Golembiewski et al., 1987; Jackson et al., 1987; Miller & Norman, 1979; Jackson & Maslach, 1982). Furthermore, such feelings of low personal accomplishment may be expressed by emotions of guilt, inadequacy, incompetence and failure (Pines, 1983).

Depersonalisation occurs as a defensive strategy to help the individual cope with, or reduce emotional exhaustion in HSP work (Gaines & Jermier, 1983; Jackson & Maslach, 1982a, 1982b; Jackson et al., 1987; Maslach & Jackson, 1984a; Matteson & Ivancevich, 1987; Shirom, 1989). If emotional exhaustion is defined as the core component of burnout, depersonalisation may in fact comprise an antecedent (maladaptive) coping behaviour, and feelings of low personal accomplishment may constitute the sequlae of burnout (Shirom, 1989). Furthermore, emotional exhaustion may frequently provide the first indication of burnout (Jackson, 1984).

Emotional exhaustion may be a reflection, and expression of, the emotional content and context of HSP work (Bjorksten, Sutherland & Miller, 1983; Edelwich & Prodsky, 1980; Eisenstat & Felner, 1983; Firth & Morrison, 1986; Maslach & Jackson, 1981, 1982; Meier, 1982; Muldary, 1983; Pines, 1983; Sassali, 1979). HSPs may also be vulnerable to emotional exhaustion as a function of the limited positive feedback, and non-reciprocal relationship, which HSPs experience with their recipients (Maslach & Jackson, 1982a; Patrick, 1984).

The emotional strain of HSP work may also include the '<u>mea culpa</u>' reaction reported by some HSPs, particularly in the light of repeated failures, and the chronic emotional stress of HSP work (Maslach & Jackson, 1982). Continuously interacting with their recipients within such a demanding context requires an inordinate level of emotional input and energy (Maslach, 1982b). The HSP's relationship with recipients is the fulcrum upon which the nature of burnout rests (Maslach, 1982a). Having to continually provide quality professional service, within a temporally, financially and resource limited framework (Burke & Greenglass, 1988), exacerbates the already emotionally ex-

hausting HSP work content and milieu. The 'emotional fix' which the HSP may gain by feeling that s/he has had a positive effect on a recipient (Farber, 1983), highlights the emotional ramifications of HSP work, particularly in the context of minimal positive feedback from clients (Maslach & Jones, 1982).

While some authors have argued that emotional exhaustion is the core dimension of burnout, (Gaines & Jermier, 1983), this study has shown there is a consistent trend with regard to the significant relationships which emotional exhaustion has with the conceptually related variables. This component of burnout consistently emerges as the more powerful and appropriate measure of burnout. Although feelings of low personal accomplishment and depersonalisation occur, they do not account for the bulk of the variance, nor do they adequately measure burnout is a manner that is consistently and significantly different from that of emotional exhaustion. That is, the discriminant validity results also add support to the argument that personal accomplishment and depersonalisation are unimportant components of burnout relative to emotional exhaustion. This is further support for the contention that emotional exhaustion is the key variable of burnout.

When the correlations between the three components of burnout and the various conceptually related organisational variables were analysed in five studies reviewed by Maslach and Jackson (1986), the following trends emerged. It was found that for emotional exhaustion, personal accomplishment and depersonalisation, there were 18%, 54% and 64% non-significant relationships evidenced respectively. These findings were replicated by Friesan (1986), Ezrahi (1987), and Wolpin (1988). In the present study, of the 5 strictly organisational variables which the three burnout factors might have had significant relationships, viz., job overload, job dissatisfaction, responsibility for people, peer cohesiveness and propensity to leave, emotional exhaustion evidenced no non-significant relationships with these variables. Feelings of low personal accomplishment (frequency) evidenced 60% non-significant relationships while feelings of low personal accomplishment (intensity) had 100% non-significant correlations with these variables. The figures for depersonalisation, frequency intensity, were 80% and 60% respectively. This trend may provide further evidence that only emotional exhaustion is significantly associated with the work context variables examined (see also, Shirom, 1989).

A specific and empirically validated definition of burnout

The most important effect of establishing the lack of discriminant validity of the three component conceptualisation of burnout is that the predominant constituent variable of burnout is emotional exhaustion. The implications of this finding are far-reaching, particularly with regard to the continuing debate as to the definitional characteristics of burnout. As noted previously, although there has been dissention about and variations of burnout definitions, there has been a need for a succinct and empirically based definition. Considering that the three-component construct has enjoyed wide popularity in the burnout research, the previous failure to assess the discriminant validity of that conceptualisation must be regarded as a grave error of omission which may have confused and confounded this critically important area of psychological research.

Future research of emotional exhaustion

If the most important measure of burnout is emotional exhaustion, then this construct needs to be investigated. The relationships, and possible conceptual overlap, which emotional exhaustion has with other conceptually similar variables such as physical fatigue and cognitive weariness (Shirom, 1989). warrant research. Such variables are inherent to HSP work (Ezrahi, 1987), and have important theoretical links with ergonomics (Gran Jean, 1981), as well as behavioural and industrial medicine (Appels, 1986). Of specific urgency is the need to establish the discriminant validity of the constructs of emotional exhaustion, physical fatigue, cognitive weariness, and psychosomatic complaints (Shirom, 1989).

Replication of present research

The findings need to be replicated by future research; i.e. to ensure that the evidence presented by this study is valid.

The findings of this study need to be replicated in terms of the broad base of HSP subjects which this research has used. Albeit that there may be advantages of specificity of subject groups (so that the specific dynamics of a singular group may be investigated), a principal strength of this research has been the wide range of HSPs who were included. Future research may also involve comparative studies, between the individual HSP groups, to investigate between group differences.

Development of models of phasic development of burnout

This study was not aimed at establishing the occurrence of causal relationships between variables and the burnout construct. Instead, this study's aim was to establish the discriminant validity of the burnout construct. Using this research as a new basis for, and implementing the consequent revised definition of burnout as emotional exhaustion, future research may profit from utilisation of this less ambiguous and more succinct unidimensional construct, within longitudinal research paradigms. Future research is needed which examines the moderating effects of certain variables; e.g., social support and personality hardiness, on the stress-emotional exhaustion relationship. Future research may permit assertion of temporal and causal sequences between emotional exhaustion and conceptually related variables. It may well be that feelings of low personal accomplishment and depersonalisation are subsets, indicators, or sequelae of burnout/emotional exhaustion.

Practical implications of the findings

Improved diagnosis and intervention

Before programmes may be developed to counter the development of burnout, it is essential that the target for such intervention be established (Meier, 1983). The value of this study has been to show that what has been known as burnout may in fact be predominantly emotional exhaustion. The findings emanating from the present study will facilitate greater and clearer conceptualisation of the burnout phenomenon, which will have positive impact on the identification, understanding and treatment of those HSPs who are vulnerable to, and/or suffering from, burnout.

If the reliability and validity of diagnoses of burnout are improved, in terms of a more appropriate definition definition and understanding of this condition, this will be positively reflected in the greater ability to generate predictions about this phenomenon, particularly with regard to prognosis and intervention (Muldary, 1983).

Inadequate training and preparation of HSPs for the challenges, problems, disappointments and job-related stress they are to encounter may be a cause of burnout (Carroll & White, 1982; Edelwich & Brodsky, 1980). If HSP trainees may be adequately prepared for the realities, and particularly the

emotional exhaustive nature, of HSP work, it may then be possible to preempt some of the suffering from burnout.

Greater understanding by burnout sufferers

By re-labelling what has been previously defined as burnout as emotional exhaustion may have positive effects on the afflicted individuals. Maslach and Jackson's (1981) traditional definition of burnout has a sense of finality; i.e., the end-point of the HSP job-stress continuum, with no-return. The term emotional exhaustion may provide burnout sufferers with a sense of focus in their attempts to overcome what has previously been a label for a vague compendium of symptoms. Furthermore, to be known as emotionally exhausted is not only more appropriately descriptive, but it also implies that recuperation is possible.

The continued use of two dimensions of burnout

Some authors suggest that because the mean correlations between the frequency and intensity dimension of burnout were significant, that only the frequency results need to be reported (e.g., Brookings et al., 1985; Iwanicki & Schwab, 1981). Maslach and Jackson (1981), substantiate their use of a bi-modal response format by noting that this allows respondents' to indicate their responses more adequately and precisely (Maslach & Jackson, 1981), and there may be differential relationships between the frequency and intensity dimensions with situational and personality variables (Gann, 1979; Jackson & Maslach, 1982b). The distinction between these components, however similar they may be in the theorising of certain researchers, remains, and without both dimension being made available to the respondents, valuable information would be lost (see, Diener, 1984.)

Although the bi-modal response format was defended in the source article (Maslach & Jackson, 1981), these authors later advocate the use of the frequency dimension only (Malach & Jackson, 1986). It was decided, in terms of attempting to follow Maslach and Jackson's (1981) procedure, to use both frequency and intensity in this study. The correlations between these dimensions within the three components of burnout indicate that the use of the two separate dimensions may be redundant, particularly if burnout is redefined as emotional exhaustion only. To verify this argument, RMS's and CC's were conducted on the three separate constructs; i.e., to establish if the factor

structures, obtained in the present study, for the three frequency factors were similar to those of the intensity dimension. (See, Table 10.)

These figures indicate that the factor structures were very nearly identical. This finding gives further credibility to the use of only one dimension of burnout.

Limitations of the present study

Sample selection deficiencies

The inclusion of eight different groups of HSPs in this research precipitated the negative aspect of the sampling procedure which was of necessity employed in this study. The divergent numbers, governing bodies and means of access to the differing groups, resulted in dissimilar selection procedures being used in obtaining subjects for the study. Selection of subjects was not strictly uniform in approach, nor were the methods strictly mathematically arbitrary. In defence of the differential sampling techniques employed, the sample selected for each group of HSPs may be regarded as being representative of that group's population universe, and were selected as randomly as possible. Future research may involve comparative studies between the individual HSP groups to investigate between group differences.

The positive aspect this research's sampling technique is that a wide range of HSPs were accessed concurrently within the same research. This is important as very few studies of burnout have included more than one professional group within a single study. The use of a heterogeneous sample with regard to the diversity of the professions subsumed under the heading of HSPs is a strong positive characteristic of this research which is a departure from the norm (with few exceptions) of burnout research. This will allow generalisations to be made from the data, as well as assumptions to be made concerning the robustness of the results. The use of occupationally heterogeneous subject populations in burnout research is recommended; i.e, so that the range of scores obtained are not restricted, thus avoiding attenuation of correlations (Jackson et al., 1987). When it is considered that the traditional three-factor construct proposed by Maslach and Jackson (1981) was developed from, and operationalised for, the use of HSPs as a group of professionals, the inclusion of the majority of these groups is essential in any study based on their definition of burnout.

TABLE 10 : Comparison statistics for the frequency and intensity factors of the individual components of burnout in the present study (N = 223)

	Comparison Statistic	
	Root Mean Square[1]	Coefficient of Congruence[2]
FACTOR 1 (Emotional Exhaustion)	0,04	1,00
FACTOR 2 (Personal Accomplishment)	0,12	0,99
FACTOR 3 (Depersonalisation)	0,01	1,00

[1] Where there is a perfect pattern-magnitude match between the two factor structures, the RMS will approach a minimum of zero, whereas when all loadings are equal to unity (but of opposite signs) across the two studies, an RMS of a maximum of +2 will be evidenced.

[2] In the case of a perfect match between the two factor structures, the coefficient of congruence will be +1, and -1 for a perfect inverse agreement, while when there is no agreement at all, the coefficient will be zero.

Development of hypotheses in the present study

Explanation of the results of this study were explained, predominantly, in terms of emotional exhaustion as the core component of burnout. The reason for this is that the hypotheses pertaining to depersonalisation and personal accomplishment were developed on the scant information available; i.e., there is a paucity of research which indicates specific relationships between burnout components and conceptually related variables (Burke & Deszca, 1986). The hypotheses were therefore developed as an attempt to validate Maslach and Jackson's (1981) multi-component definition of burnout. The limitations pertaining to the formulation of the hypotheses restricts the development of conjecture apropos the failure of these arguments to be supported by the data. Unfortunately, the research design adopted in this study did not permit the testing of the possible burnout dynamic with regard to causal links, aetiological factors and sequlae.

Possibility of response bias

There may certainly have been bias evidenced in the responses gained from subjects in this study i.e., were the subjects' responses influenced by social desirability bias, and did those candidates, who possibly suffer most from burnout, respond to the questionnaire, or were they too busy and emotionally exhausted? To answer the first question, Maslach and Jackson (1981) report that the MBI is free from social desirability bias by virtue of their assessment of the validity of the MBI using the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960, 1964). The lack of significant correlations between these two measures prompt Maslach and Jackson (1981) to report that responses to the MBI were not influenced by social desirability bias. But Ballad, Crino and Rutenfeld (1988) indicate that the Marlowe-Crowne scale may, in its own right, lack validity in terms of its inability to discriminate between high and low scorers. It is therefore difficult for the present research to assert with compunction that the responses gained were devoid of any social desirability response bias. Whether this research was able to access those subjects who were possibly experiencing greater levels of burnout is unfortunately impossible to answer.

Table 11 details the mean score and standard deviations of the MBI subscales for the sample in this study. Reflected against the ranges provided by Maslach and Jackson (1986), the data suggest that the frequency and intensity of emotional exhaustion, and the intensity dimension of depersonalisation are in the high range, whereas both dimensions of personal accomplishment and depersonalisation (frequency) are in the moderate range. This may be a limitation of the present study in that respondents only reported high levels of emotional exhaustion, with depersonalisation (intensity) scores falling just within this category. This may have had influence on the general trend evidence in this research: i.e., that emotional exhaustion is the predominant component of burnout. The patterns of results shown in Table 11 may indicate that feelings of depersonalisation and low personal accomplishment may be resistant to acknowledgement by the respondents.

Marcus Aurelius (AD 121-180) posited that no man is happy who does not think himself so. It may be that no person expresses feelings of burnout who does not think him or herself so. Respondents who did not consider themselves to be suffering from burnout may have responded in a manner which reflected their own perception of their emotional status quo. It would be interesting to have obtained objective performance and emotional status observations from other meaningful sources (such as colleagues, family members, and recipients against which the respondents' scores may have been reflected.

Limitations of measurement

Specific research designs have certain advantages, and each study's value is dependent on the specific question posed (Friedman & Booth-Kewley, 1987). In defence of the implementation and utilisation of a cross-sectional research paradigm in this study, it should be remembered that the specific aim or question posed was whether the prevailing three-factor construct of burnout could express satisfactory discriminant validity. A concurrent research design is an appropriate methodology when the testing assesses a current phenomenon (Sussman & Robertson, 1986); i.e., the aim of the present study was to measure and analyse the relationships between the identified conceptually related variables and specific burnout factors. Concurrent designs, such as cross-sectional research design, may be considered appropriate if it is remembered that the burnout construct was measured with regard to conceptually related variables to asses the discriminant validity properties of the burnout phenomenon.

Table 11 : Reported scores on the MBI items in the present study (n = 223).

	Maximum Possible Response	Maslach & Jackson's Range	PRESENT STUDY Frequency Dimension M	SD	Intensity Dimension M	SD
Emotional exhaustion	63	High = 25+	29,8	11,9	33,4	14,2
Personal accomplishment	56	High = 39+	20,8	9,2	26,4	8,2
Depersonalisation	35	High = 12+	10,5	5,3	12,8	8,4

A matter of concern, and limitation in the present study, is that not all respondents completed the intensity section of the MBI; i.e., N = 219 (frequency), and N = 136 (intensity). The few subjects who gave reasons for their failure to complete the second dimension, maintained that it was unnecessary to replicate their frequency responses in the intensity dimension. This limitation of the data reflects another contentious point concerning the MBI, and is discussed further in the later section dealing with the continued usage of the two dimensions of burnout.

Cross-sectional data collection

The use of cross-sectional data does, however exclude the possibility of examining the direction and impact of causal and/or consequential relationships. Any hypotheses concerning possible causal relationships between any of these variables was specifically avoided, since the testing of any such assumptions were beyond the scope of this research. Future studies may ascertain the possibility of relationships between these variables in terms of the development of an appropriate stress-strain model. If burnout research is to avoid the identical pitfalls which have hampered the organisational-stress literature, then these studies will have to transcend the use of cross-sectional, self-report designs (Jackson et al., 1987). This is important if inferences regarding the directionality of causality may be investigated.

Self report data

Meier (1983) criticises the reliance upon questionnaires to investigate burnout, and while acknowledging their usefulness as simple diagnostic tools, advocates that questionnaires should be complemented by other methodologies, particularly, observation and theoretical analysis. The use of questionnaires has been criticised for equating subjective and objective job conditions (Beehr & Newman, 1978), for measuring irrelevant variables (Glowinowski & Cooper, 1985), for operationalising abstract variables almost identically and, in consequence, identifying almost every aspect of the work environment as both a potential stressor and a source of satisfaction (Marshall & Cooper (1981). Although self-report data may result in shared method variance which may inflate relations among latent variables, this method artefact does not negatively affect any conclusions made regarding the discriminant validity of the psychometric instrument (Brooke et al., 1988). The use of

self-report data is intrinsically valid because this type of research is focused on the individual's response to his/her environment (Rushton, 1987).

Biases in the constitution of the 3 burnout factors and the MBI items

It has been argued that Maslach and Jackson (1981), in their development of the three component definition of burnout and the MBI, investigated the constitutive components of burnout by identifying and measuring those elements which they presumed to occur within predetermined categories (Handy, 1988). Such a methodology may have resulted in identification of only specific elements of HSP behaviour, which could have precluded the identification and measurement of other facets of organisational life crucially important for the understanding of that construct (Handy, 1988; Light, 1979).

Further biases in the constitution of the three component definition of burnout, and the items of the MBI, are evident. The composition of MBI items may have a bias which predicts the emotional exhaustion expressed by respondents. Analysis of Maslach and Jackson's (1981) definition of burnout reveals that these three factors are centred on affectual and attitudinal responses to the work environment. The items of the MBI refer to the feelings of the respondents; i.e., the MBI is a diagnostic tool designed to assess the negative affectual responses of the HSP to job stress by virtue of the preponderant use of the phrase 'I feel'. Any findings from any organisational, social or physiological domains are excluded, and subject responses are restricted to the emotional domain or response-set. Whilst various organisation and physiological factors are alluded to, it is primarily the respondents' feelings which are targeted for analysis. (This criticism is discussed more fully in the future research section.) As such, the MBI is a diagnostic tool designed to assess the affect responses of HSPs to stress experienced in their work milieu.

In an attempt to mitigate against this bias, Maslach and Jackson (1984a) maintain that quantifiable and/or objective negative sequelae are associated with the subjective or affective nature of burnout. This assertion is contradicted by Meier (1983), who reports substantial relationships between depression and burnout. This alludes to the possibility that measures of burnout would evidence relationships with any indicator of deleterious emotional conditions. Because the three components of burnout are psychological states, which are essentially experiences of affect, these which may be

difficult to articulate (Meier, 1983; Zajonc, 1980), or define (Meier, 1983). As such, any correlation between burnout and other negative emotional states may be a function of that individual's difficulty in expressing their feelings within the constraints of presented test items (Meier, 1983).

Directions for future research

Epidemiological research

There is a need for future research to establish base-line data pertaining to burnout. There is a dearth of normative data available, since the issue of investigating the epidemiology of this phenomenon appears to have been largely ignored (Farber, 1983; Golembiewski et al., 1983; Shirom, 1989), with few exceptions (e.g., Garden, 1987; Golembiewski et al., 1985; Pines & Kafry, 1981; Shirom, 1989).

Investigation of stress peculiar to HSPs

While burnout, as a consequence of experienced stress, is well researched (Freudenberger, 1974; Hammer et al., 1985; Jackson & Maslach, 1982b; Maslach, 1976, 1978a, 1878b, 1979; Maslach & Jackson, 1978, 1979, 1981, 1984a, 1985; Maslach & Pines, 1977; Pines & Maslach, 1978, 1980), there has been a paucity of academic enquiry directed at the specific experience of stress, as the input to the phenomenon of burnout, peculiar to HSPs as a composite group (Gold, 1984). That is, whilst various authors have debated the relative importance of certain issues as aetiological factors in the development of burnout (Deci, 1980; Gann, 1979; Golembiewski & Munzenrider, 1983; Jackson, 1983; Jackson & Schuler, 1983; Kramer, 1974; Maddi & Kobasa, 1984, Maslach, 1978; Maslach & Jackson, 1981, 1982, 1984a, 1984b; Schwab & Iwanicki, 1982), there has been no attempt made to isolate and examine those specific stressors hypothesised to be precursors of burnout amongst HSPs (as a group of professionals) in a systematic and thorough way. Similarly, a stressful life-events paradigm, which would include a critical job events approach, needs to be investigated (Justice, Gold, & Klein, 1981; Shirom, 1989).

Burnout may be experienced by occupations other than just the human services (Shirom, 1989). Furthermore, the understanding of burnout may have been deleteriously affected by specific vari-

ables which are relevant only to the HSP work milieu (Garden, 1987). Future research may investigate this assertion; i.e., to establish whether the burnout constructs are intrinsic and generic to HSPs only (Garden, 1987; Shirom, 1989).

Investigation of impact of daily hassles on the development of burnout

Future studies of burnout should also include investigation of the constitution,and impact, of daily hassles in the development of burnout. Hassles, which are defined as experiences and conditions of daily living that are perceived as harmful to the individual's well-being (Lazarus, 1984), are reported as having a significant impact on the individual's health (Ivancevich, 1986; Lazarus, 1980). Although hassles form part of the pervasive stress experienced by HSPs and may predispose the development of burnout, this facet of HSP work has yet to be included as potential predictors, or correlates of burnout (Etzion, 1987; Shirom, 1989).

From a burnout intervention and management perspective, it would appear necessary to continue further research in this regard. HSPs may be working in environments and situations whose stressful nature is difficult to modify (see, Mechanic, 1974). Daily hassles may be more readily prevented, managed and modified (Ivancevich, 1986). Furthermore, daily hassles may represent the individual's ineffectual management of his/her daily schedule (Ivancevich, 1986).

Development of a broader theoretical base for burnout research

The current theoretical approach to burnout should include a more sociological perspective (Handy, 1988). Burnout studies may be enriched by the use of divergent theoretical and methodological paradigms, such that future research may transcend the typically singular focus on only the psychological experiences burnout sufferers. The burnout research and theory, following the same direction as the stress literature, has been criticised for focusing greater attention on the individual, psychological experience of burnout, rather than paying equal attention to the assessment of the constraints, impact and structures of the organisation and society in the aetiology of burnout (Carroll & White, 1982; Handy, 1988; Meier, 1983; Pines, 1982). This deficit in the burnout literature may be overcome by augmenting current psychological models of burnout with salient concepts from other related social science research (Handy, 1988).

The nature and extent of the preponderance of power and control exercised by organisations and society in the inter-relationship with the individual (HSP) has not been incorporated nor analysed within the burnout literature (Handy, 1988; Muldary, 1983). This societal and/or organisational hegemony may facilitate the maintenance of structural imbalances in the existent power relationships, thereby restricting effective change in the status quo (Handy, 1988). One of the primary antecedent factors of burnout may well be the inaccessibility experienced by HSPs in terms of addressing, altering or avoiding the influence of, overt and covert functions and structures of the organisation (Handy, 1988). By extending burnout research beyond the investigation of the individual's experience; ie, to include analysis of group and organisational dynamics, may provide future research with added impetus (Shirom, 1989). This type of research, particularly if burnout is redefined as emotional exhaustion, could add to investigation of organisational decline (e.g., Jick, 1985).

Development of a comprehensive model of burnout

Future research is needed which investigates the status of burnout as stimulus, response, or transactional dynamic (Bailey, 1985); i.e., there is a need for a model of burnout which incorporates antecedent variables in terms of their impact on the individual's prevailing well-being, and their effect on that person's view of the future Freudenberger (1983). The model should also be contextualised within social and environmental parameters (Farber & Miller, 1981). Furthermore, all variables included in this idealised model should be seen to be significantly different from what is defined as burnout. This definition should explicitly express discriminant validity; i.e., to avoid those deficits which have constituted the focus of the present study.

Intrinsic to such a model is that the stress-burnout relationship is a dynamic process, i.e., that it occurs over time and is not simply an unidirectional or linear phenomenon, but involves feedback loops which account for modification or reappraisal of the various stages, as well as the intra-psychic phenomenon of cognitive integration. The study of burnout, like the study of stress, involves (at least) a tripartite analysis in terms of the individual, interpersonal and organisational inter-related facets of those phenomena. In establishing what burnout is, an attempt must be made at integrating these inter-relating spheres. Each of these stages outlined in the model should ideally reflect the

vertical differentiation within each of the various overlapping stages; i.e., the organisational, psychological, and behavioural dimensions.

Such a model would facilitate the development of a robust and universally acceptable definition of burnout may be based. Ideally, such a definition must be equipped to assert that burnout is a condition, syndrome, continuum or process characterised by certain constructs or features, with certain verifiable actiological factors, and seen to manifest with certain other strain variables.

Development of models of the phasic development of burnout

The focus of the present research does not include the analysis of the moderating effects of certain variables, but rather examines the relationship of these variables to the various components of the traditional definition of the burnout construct. Future research is needed which examines the moderating effects of certain variables (such as social support & personality hardiness) on the stress-emotional exhaustion relationship. Future research may permit assertion of temporal and causal sequences between variables within an empirically tested stress-strain model. It may well be that feelings of low personal accomplishment and depersonalisation are subsets, indicators, or sequelae of burnout/emotional exhaustion. This line of thinking is reported within the various models of the phasic development of burnout, which indicate emotional exhaustion as the core component of burnout (Cherniss, 1980a, 1980b; Gaines & Jermier, 1983; Golembiewski, Munzenrider & Carter, 1983; Leiter, 1988).

The need for longitudinal studies

Whilst the notion of burnout as a developmental process is implicit in the various definitions of the construct, few studies have assessed burnout appropriately (Burke & Deszca, 1986); i.e., longitudinal studies. The temporal and/or developmental aspects of burnout are also in need of investigation, which may establish the onset, critical landmarks, developmental p[illegible], antecedent factors and ultimate consequences of burnout.

CONCLUSION

Consistent with the cross-sectional and correlational research design and multivariate data set of this study, factor analytic procedures facilitated the testing of the prevailing conceptualisation of burnout as proposed by Maslach and Jackson (1981).

The operationalisation of this definition; i.e., the MBI, and the implementation thereof by the majority of research, has been unsound for the following reasons. Any factors which emerge from factor analysis must be regarded simply as inferences which require validation (Howarth, 1971); i.e., discriminant validation. Also, a psychometric instrument should measure only one psychological construct (Briggs & Cheek, 1976), because otherwise it becomes meaningless (McNemar 1946). If a psychometric scale assesses a multiplicity of factors, those scores yielded will be difficult to interpret because of their ambiguity (Guilford, 1954). Factor analytic theory excludes the use of a unicomponent construct in that this is seen to be methodologically unsound and unacceptable (Briggs & Cheek, 1986); i.e., the use of a total burnout score which incorporates all three burnout components. The implicit understanding, which is made by the drawing the distinction between the three factors of emotional exhaustion, feelings of low personal accomplishment and depersonalisation, is that these three components should be regarded as conceptually and empirically distinct. The use of a total burnout score (e.g., Maslach & Jackson, 1981) is in direct contradiction with those distinctions between the factors which Maslach and Jackson (1981) reported through factor analysis. To use a total score is a serious error, because the conceptually distinction between components is thereby ignored.

The necessity of demonstrating the replicability of the burnout factor structure, before determining the discriminant validity of that conceptualisation; i.e., to establish whether the consistently emergent three factor structure was a fortuitous function of statistical manipulation. This exercise was successfully conducted in this research, and bears testimony to the construct validity of the burnout definition proposed by Maslach and Jackson (1981). This study's aim was to go beyond the generation of factors identical to those presented in the literature; i.e., to develop the understanding of that definition of burnout to the requisite and logical end-point of validation.

The main thrust of this study was therefore to demonstrate the utility of the three factors extracted from the burnout data. It was therefore important to demonstrate that the three components of burnout were separate entities (by virtue of their reported status as distinct factors) within the parameters of what is traditionally known as burnout. While the conceptualisation of burnout has been shown to exhibit sound construct validity, there has been a marked lack of any research which has purported to to investigate the essence of the construct itself; i.e., the properties of discriminant validity.

The value of this study has been to show that what has been known as burnout may in fact be synonymous with emotional exhaustion. This finding will facilitate greater and clearer conceptualisation of the stress-strain dynamic which will have positive impact on the understanding and treatment of those HSPs who are vulnerable to, and/or suffering from, emotional exhaustion.

The findings of this research provide evidence that burnout may be adequately measured by emotional exhaustion. That is, the original and traditional three factor operationalisation of the burnout construct appears to be questionable. This research may have provided the answer to a question posed by Perlman and Hartman (1982). They asked the following pertinent question;

"Research supports burnout as a *multidimensional* concept, yet staff may view it as unidimensional, implying for example, emotional exhaustion. (The question is), what do staff mean when they use the term burnout? (Perlman & Hartman, 1982, p.299)".

In response to this question, and in conclusion, it may be asserted that although this research provided construct validity for a three factor burnout construct, further evidence revealed that HSPs do indeed experience burnout as predominantly emotional exhaustion.

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APPENDIX 1

Covering Letter, Reminder Postcard, Demographic Checklist, and Instruments used in the study

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

1 Jan Smuts Avenue, Johannesburg

P O WITS
2050 SOUTH AFRICA

Uniwits
4-27125 SA
(011) 716-1111

Reference:

Enquiries:

(011) 716

Date:

Dear Sir / Madam

Stress and the consequent potential development of burnout is a recognised outcome experienced by a wide range of Human Service Professionals. As part of a Master's degree in Psychology, I am currently busy researching the possible causes of stress experienced by Human Service Professionals, and the relationship between such stress and burnout.

I would be most grateful if you would assist me with this research by answering the attached questionnaire as openly and honestly as possible. Please return the completed questionnaire to me in the reply-paid, addressed envelope. You will notice that you are not required to give your name. This is to ensure that the questionnaires are completed anonymously, thereby guaranteeing strict confidentiality. Should you require any further information, please do not hesitate to contact me at either of these telephone numbers: (011) 646-1690, or (011) 783-1386.

Thank you for your time and cooperation .

Yours faithfully

James Else

Dr. S. Bluen (Supervisor)

The University of the Witwatersrand rejects racism and racial segregation. It is committed to non-discriminatory participation in the constitution of its student body, in the selection and promotion of its staff and in its administration.

DR S D BLUEN
SCHOOL OF PSYCHOLOGY
UNIVERSITY OF THE WITWATERSRAND,
JOHANNESBURG

Dear Sir/Madam

We would like to thank those people who have returned the survey on stress and burnout. Your input is of great importance to our research. If you have not yet managed to complete the questionnaire we sent you last month, please would you do so as soon as possible. If you have mislaid the original questionnaire, or if you have any other queries pertaining to the research, please contact us at (011) 646-1690 or (011) 783-1386, and we will be happy to assist.

Yours sincerely

James Else Stephen Bluen

BIOGRAPHICAL DATA

Sex (Please tick)

Male	
Female	

Age (Please state)

	years

Marital Status (Please tick)

single	
married	
separated	
divorced	
widowed	

Profession (Please tick)

Attorney	
Doctor (G.P.)	
Doctor (Specialtist)	
Psychiatrist	
Nurse	
Psychologist	
Social Worker	
Teacher	

How long have you been working in your present job ? (please state)

	years

The following items are formulated to assess various work load aspects of your job. Please tick the appropriate column for each item.

	very little (1)	little (2)	some (3)	great (4)	very great (5)
1. The number of projects &/or assignments you have is ...					
2. The amount of time you spend in meetings is ...					
3. The amount of time you have is ...					
4. The number of conflicting demands you have is ...					
5. The work load, the amount of things the need to be done is ...					
6. The time to think and contemplate is ...					
7. The quantity of work you are expected to do is ...					
8. The extent to which you feel you never have any time is ...					
9. The number of phone calls and office visits you have during the day is ...					

The following items are designed to asses the degree of responsibility you may feel about various aspects of your job. Please tick the appropriate column.

	very little (1)	little (2)	some (3)	great (4)	very great (5)
1. The responsibility you have for the work of others.					
2. The responsibility you have for others' futures.					

How satisfied are you with the following aspects of your job? Please place a tick in the appropriate box.

	extremely dissatisfied (1)	dissatisfied (2)	slightly dissatisfied (3)	neutral (4)	slightly satisfied (5)	satisfied (6)	extremely satisfied (7)
1. The amount of job security I have.							
2. The amount of pay and fringe benefits I receive.							
3. The amount of personal growth and development I get in doing my job.							
4. The people I talk to and work with on my job.							
5. The degree of respect and fair treatment I receive from my boss.							
6. The feeling of worthwhile accomplishment I get from doing my job.							
7. The chance to get to know other people while doing my job.							
8. The amount of support and guidance and support I receive from my superior.							
9. The degree to which I am fairly paid for what I contribute to this organisation.							
10. The amount of independent thought & action I can exercise in my job.							
11. How secure things look for me in the future in this organisation.							
12. The chance to help other people while at work.							
13. The amount of challenge in my job.							
14. The overall quality of the supervision I receive in my work.							

The items below consist of attitudes with which you may or may not agree. Please place a tick in the column that best describes your reaction for each item. As you will see, many of the items are worded very strongly. This is so that you can decide the degree to which you agree or disagree.

	agree	not sure	disagree
1. Most of life is wasted in meaningless activity.			
2. I find it difficult to imagine enthusiasm concerning work.			
3. It doesn't matter if people work hard at their jobs, only a few bosses profit.			
4. Ordinary work is too boring to be worth doing.			
5. The belief in individuality is only justifiable to impress others.			
6. Unfortunately, people don't seem to know that they are creatures after all.			
7. The young owe the old complete economic security.			
8. A retired person should be freed of all taxes.			
9. New laws should not be passed if they damage one's income.			
10. There are no conditions which justify endangering the health, food and shelter of one's family or of one's self.			
11. Pensions large enough to provide for dignified living are the right of all when age, or illness prevents one from working.			
12. Those who work for a living are manipulated by the bosses.			
13. Thinking of yourself as a free person leads to great frustration and difficulty.			
14. Often I do not really know my own mind.			

Please indicate which of the two statements provided in each item below better represents your attitude by ticking the appropriate box.

15a. Becoming a success is a matter of hard work; luck has little or nothing to do with it.	a	
b. Getting a good job depends mainly on being in the right place at the right time.	b	

16a. As far as world affairs are concerned, most of us are victims of forces we can neither understand nor control.	a	
b. By taking an active part in political and social affairs the people can control world events.	b	

17a. Most people don't realise the extent to which their lives are controlled by accidental happenings.	a	
b. There is really no such thing as 'luck'.	b	

18a. Sometimes I can't understand how supervisors arrive at work evaluations.	a	
b. There is a direct connection between how hard I work and the evaluations I get.	b	

19a. Many times I feel that I have little influence over the things that happen to me.	a	
b. It is impossible for me to believe that chance or luck plays an important role in my life.	b	

20a. What happens to me is my own doing.	a	
b. Sometimes I don't feel that I have enough control over the direction my life is taking.	b	

The following statements refer to your work environment.
Please indicate which items you feel to be 'TRUE', and which items you feel to be 'FALSE'.

	True	False
1. People go out of their way to help a new employee feel comfortable.		
2. The atmosphere is somewhat impersonal.		
3. People take a personal interest in each other.		
4. Employees rarely do things together after work.		
5. People are generally frank (honest) about how they feel.		
6. Employees often eat lunch together.		
7. Employees who differ greatly from the others in the organisation don't get on well.		
8. Employees often talk to each other about their personal problems.		
9. Often people make trouble by talking behind others' backs.		

Please put a tick in the appropriate box.

1. How long would you like to continue working in your present job ?	1 year	2 years	3 years	5 years	10 years	more than 10 years

	no	not sure	yes
2. If you were completely free to choose, would you prefer to continue working in your present job?			
3. If you had to quit work for a while (for example, because of pregnancy or illness) would you return to your present job ?			

1. Please put a cross over the dot on the scale (below) which best describes the degree of happiness, everything considered, of your present marriage. The middle point, "happy", represents the degree of happiness which most people get from marriage, and the scale gradually ranges from one side to those few who are very unhappy in marriage, and on the other, to those few who experience extreme joy or felicity in marriage.



State the approximate extent of agreement or disagreement between you and your mate on the following items. Please tick the appropriate column.

	always agree	almost always agree	occasionally disagree	frequently disagree	almost always disagree	always disagree
2. Handling family finances.						
3. Matters of recreation.						
4. Demonstration of affection.						
5. Friends.						
6. Sex relations.						
7. Conventionality (right, good, or proper conduct).						
8. Philosophy of life.						
9. Ways of dealing with in-laws.						

10. When disagreements arise, they usually result in	husband giving in	
	wife giving in	
	agreement by mutual give and take	

11. Do you and your mate engage in outside interests together?	All of them	
	some of them	
	very few of them	
	none of them	

12. In leisure time do you generally prefer :	to be "on the go"	
	to stay at home	
Does your mate generally prefer to be :	"on the go"	
	to stay at home	

13 Do you wish you had not married ?	frequently	
	occasionally	
	rarely	
	never	

14. If you had to live your life over, do you think you would :	marry the same person	
	marry a different person	
	not marry at all	

15. Do you confide in your mate ?	Almost never	
	rarely	
	in most things	
	in everything	

Please mark with a tick the response which best suits the way that have felt, thought and behaved in the past few weeks.

Have you recently....

	better than usual (1)	same as usual (2)	worse than usual (3)	much worse than usual (4)
1. been able to concentrate on whatever you're doing?				

	not at all (1)	no more than usual (2)	rather more than usual (3)	much worse than usual (4)
2. lost much sleep over worry?				

	more so than usual (1)	same as usual (2)	less useful than usual (3)	much less useful (4)
3. felt that you are playing a useful part in things?				

	more so than usual (1)	same as usual (2)	less so than usual (3)	much less capable (4)
4. felt capable of making decisions about things?				

	not at all (1)	no more than usual (2)	rather more than usual (3)	much more than usual (4)
5. felt constantly under strain?				

	not at all (1)	no more than usual (2)	less able than usual (3)	much less able than usual (4)
6. felt that you could not overcome your difficulties?				

	more so than usual (1)	same as usual (2)	less so than usual (3)	much less than usual (4)
7. been able to enjoy your normal day-to-day activities?				

	more so than usual (1)	same as usual (2)	less able than usual (3)	much less able (4)
8. been able to face up to your problems?				

	not at all (1)	no more than usual (2)	rather more than usual (3)	much worse than usual (4)
9. been feeling unhappy and depressed?				

	not at all (1)	no more than usual (2)	rather more than usual (3)	much worse than usual (4)
10. been losing confidence in yourself?				

	not at all (1)	no more than usual (2)	rather more than usual (3)	much worse than usual (4)
11. been thinking of yourself as a worthless person?				

	more so than usual (1)	about the same as usual (2)	less so than usual (3)	much less than usual (4)
12. been feeling reasonably happy, all things considered?				

The following items refer to feelings or attitudes. Please rate each item in terms of the frequency (how often), and the intensity (how strongly), with which you experience the feeling or attitude. If the feeling or attitude is never experienced, simply place a mark in the column labelled "never".

	FREQUENCY						
	never	few times a year	monthly	few times a month	every week	few times a week	every day
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. I feel emotionally drained after my work.							
2. I feel used up at the end of the workday.							
3. I feel fatigued when I get up in the morning & have to face another day on the job.							
4. Working with people all day is usually a strain for me.							
5. I feel burned out from my job.							
6. I feel frustrated by my job.							
7. I feel I'm working too hard on my job.							
8. Working with people directly puts too much stress on me.							
9. I feel like I'm at the end of my rope.							

INTENSITY						
very mild (or) barely noticeable		moderate			very strong (or) major	
(1)	(2)	(3)	(4)	(5)	(6)	(7)

	FREQUENCY						
	never	few times a year	monthly	few times a month	every week	few times a week	every day
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
10. I can easily understand how my recipients feel.							
11. I deal effectively with the problems of my recipients.							
12. I feel I'm positively influencing other people's lives through my work.							
13. I feel very energetic.							
14. I can easily create a relaxed atmosphere with my recipients.							
15. I feel exhilarated after working closely with my recipients.							
16. I have accomplished many worthwhile things in this job.							
17. In my work I deal with emotional problems very calmly.							

INTENSITY						
very mild (or) barely noticeable		moderate			very strong (or) major	
(1)	(2)	(3)	(4)	(5)	(6)	(7)

	FREQUENCY						
	never	few times a year	monthly	few times a month	every week	few times a week	every day
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
18. I feel I treat some recipients as if they were impersonal objects.							
19. I've become more callous toward people since I took this job.							
20. I worry that this job is hardening me emotionally.							
21. I don't really care what happens to some recipients.							
22. I feel recipients blame me for some of their problems.							

INTENSITY						
very mild (or) barely noticeable		moderate			very strong (or) major	
(1)	(2)	(3)	(4)	(5)	(6)	(7)

Author: Else James Rodney.
Name of thesis: Discriminant Validation Of The Three Dimensions Of Burnout.

PUBLISHER:
University of the Witwatersrand, Johannesburg
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