

**WORK WELLNESS IN A FINANCIAL SERVICES INSTITUTION: A
LONGITUDINAL STUDY**

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REMARKS

The reader is reminded of the following:

- The referencing, as well as the editorial style as prescribed by the *Publication Manual* (5th edition) of the American Psychological Association (APA) was followed in this thesis. This practice is in line with the policy of the Programme in Industrial Psychology of the North-West University (Potchefstroom Campus) to use APA style in all scientific documents.
- The thesis is submitted in the form of three research articles.

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SUMMARY

Topic: Work wellness in a financial services institution: A longitudinal study.

Key terms: Burnout, engagement, work wellness, job demands, job resources, dispositional optimism, ill health, proactive coping, interventions, resilience and wellness.

Most employers agree that the effectiveness and success of their organisations depend on the effective utilisation of their human resources. Ill health in the workplace is a threat to optimal productivity, reduced absenteeism, provision of sustainable employee benefits, a motivated workforce, staff retention and maximisation of profits. Burnout and engagement are therefore important fields of investigation in the industrial psychology field.

The aim of this study was to: test a model of work-related well-being; develop and evaluate a resilience intervention programme for a large financial services institution in South Africa. Article 1 used a cross-sectional survey design. The participants were predominantly in the administrative, call centre and IT divisions ($N = 192$). Article 2 was the development of a resilience model, which was based on the integration of thinking from an extensive literature review by the researcher. Article 3 used an experimental design, with a control group ($n=51$) and an experimental group ($n=55$). Information was collected in a longitudinal research.

The research method for each of the three articles of this study consisted of a brief literature review and an empirical study. The measuring instruments used in this study were the Maslach Burnout Inventory – General Survey (MBI-GS), Utrecht Work Engagement Scale (UWES), Job Demands-Resources Scale (JD-RS), Health subscales, Organisational Commitment subscales, the ASSET questionnaire, the Life Orientation Test – Revised (LOT-R) and a biographical questionnaire.

In both article 1 and article 3, descriptive statistics were computed to describe the data; as were Pearson product-moment correlation coefficients to specify the relationship between the variables. In article 1, multiple regression analyses were conducted to determine the proportion of variance in the dependent variable that is predicted by the independent variables. In article 3, paired-samples t -tests were used to determine the difference in results for year 1 and year 2.

Article 1 showed the central role that low optimism plays in contributing to burnout, and high optimism plays in work engagement. Interestingly, high social support was linked to increased cynicism, whilst low social support contributed to dedication. Burnout contributed to both physical and psychological ill health. Dedication and low cynicism contributed to affective commitment, whilst engagement and low cynicism contributed to behavioural commitment.

Article 2 was the development of a multidimensional, proactive coping approach which consistently strives to develop and enhance the individual's resilience coping reservoir pools (mental, spiritual, socio-emotional and physical) leading to improved resilience, wellness and quality of life. Each reservoir pool has activities that enhance the fitness of the individual, namely physical (rest and relaxation, exercise and nutrition), mental (stimuli, reflection and empowering thinking), spiritual (coat of arms, pay it forward and gratitude), socio-emotional (breaking destructive relationships and nurturing relationships, responsibility).

Article 3's results showed that the resilience intervention resulted in a statistically significant difference decrease in psychological ill health.

Recommendations for future research were made.

OPSOMMING

Onderwerp: Werkwelstand in 'n finansiële dienste-instelling: 'n Longitudinale studie.

Sleutel terme: Uitbranding, begeestering, werkwelstand, werkeise, werkhulpbronne, disposisionele optimisme, swak gesondheid, proaktiewe coping, intervensies, veerkragtigheid en welstand.

Die meeste werkgewers stem saam dat die doeltreffendheid en sukses van hul organisasies afhang van die doeltreffende benutting van hul mensehulpbronne. Swak gesondheid in die werkplek hou 'n bedreiging in vir optimale produktiwiteit, verminderde afwesigheid, voorsiening van volhoubare werknemervoordele, 'n gemotiveerde werkerskorps, personeelretensie en maksimalisering van winste. Uitbranding en begeestering is dus belangrike ondersoekvelde op die vakgebied van bedryfsielkunde.

Die doel van hierdie studie was: om 'n model van werkverwante welstand te toets; om 'n veerkragtigheidsintervensieprogram vir 'n groot finansiële dienste-instelling in Suid-Afrika te ontwikkel en te evalueer. Artikel 1 het gebruik gemaak van 'n dwarsdeursnee-opnameontwerp. Die meeste van die deelnemers was werksaam in die administratiewe, inbelsentrum- en IT-afdelings ($N = 192$). Artikel 2 het die ontwikkeling van 'n veerkragtigheidsmodel behels, gebaseer op die integrasie van denke van 'n omvattende literatuurstudie deur die navorser. Artikel 3 het gebruik gemaak van 'n eksperimentele ontwerp, met 'n kontrolegroep ($n=51$) en 'n eksperimentele groep ($n=55$). Inligting is ingesamel deur middel van longitudinale navorsing.

Die navorsingsmetode vir elk van die drie artikels van hierdie studie het bestaan uit 'n kort literatuuroorsig en 'n empiriese studie. Die volgende meetinstrumente is hierdie studie gebruik: die Maslach-uitbrandingsvraelys – Algemene Opname (MBI-GS), die Utrecht-werkbegeesteringskaal (UWES), Werkeise-Hulpbronne-skaal (JD-RS), Gesondheid- en Organisasieverbondenheidssubskale, die ASSET-vraelys, die Lewensoriënteringstoets – Hersien (LOT-R) en 'n biografiese vraelys.

In artikel 1 en 3 is deskriptiewe statistiek rekenaarmatig verwerk om die data te beskryf; so ook Pearson-produktmomentkorrelasie-koëffisiënte ten einde die verhouding tussen die

veranderlikes te spesifiseer. In artikel 1 is meervoudige regressieanalises gedoen om die proporsie van afwyking in die afhanklike veranderlike te bepaal wat deur die onafhanklike veranderlikes voorspel word. In artikel 3 is gepaarde steekproewe *t*-toetse gebruik om die verskil in resultate vir jaar 1 en jaar 2 te bepaal.

Artikel 1 het gedui op die sentrale rol van lae optimisme as bydraende faktor tot uitbranding, en van hoë optimisme as bydraende faktor tot werkbegeestering. Interessant genoeg is 'n hoë mate van sosiale ondersteuning gekoppel aan verhoogde sinisme, terwyl min sosiale ondersteuning bygedra het tot toewyding. Uitbranding het bygedra tot swak gesondheid – fisiek sowel as geestelik. Toewyding en lae sinisme het bygedra tot affektiewe verbondenheid, terwyl begeestering en lae sinisme bygedra het tot gedragsverbondenheid.

Artikel 2 het die ontwikkeling van 'n multidimensionele, proaktiewe coping-benadering behels wat konsekwent daarna streef om die individu se veerkragtigheid-coping-reservoir (geestelik, spiritueel, sosio-emosioneel en fisiek) te ontwikkel en te verbeter, wat lei tot verbeterde veerkragtigheid, welstand en lewenskwaliteit. Elke reservoir-poel beskik oor aktiwiteite wat die fisiesheid van die individu verbeter, te wete fisiek (rus en ontspanning, oefening en voeding), geestelik (stimuli, besinning en bemagtigende denke), spiritueel (wapenskild, “pay-it-forward” en dankbaarheid), sosio-emosioneel (beëindiging van destruktiewe verhoudings en koestering van verhoudings, verantwoordelikheid).

Artikel 3 se resultate het getoon dat die veerkragtigheidsintervensie uitloop het op 'n statisties-beduidende-verskil-afname in psigologiese swak gesondheid.

Aanbevelings is gemaak vir verdere navorsing.

CHAPTER 1

INTRODUCTION

This thesis focuses on work wellness in a financial services institution. In addition, this thesis conceptualises, develops, operationalises and evaluates a resilience intervention aimed at the individual in a financial services institution.

Chapter 1 contains the problem statement and research objectives. It also covers resilience, thriving and the evaluation thereof. A discussion of the research methodology follows, with details regarding the empirical study, research design, participants, measuring instruments and statistical analyses. It concludes with a chapter summary, giving an overview of the chapters that comprise this thesis.

1.1 PROBLEM STATEMENT

The insurance industry expanded considerably in the late nineteenth century due to rapid economic growth, urbanisation and popular education (Chan, 2002), inducing acute competitiveness and rivalry between companies and between employees (Lai, Chan, Ko, & Boey, 2000). Organisations, management and employees are under constant pressure to achieve higher targets. Solutions are expected to be quicker, smarter and cheaper – regardless of the implications (Brunt, 2000). These changes along with the increased pressure to perform (Chan, 2002; Lai et al., 2000) may result in feelings of distrust, tension, strain in interpersonal relations (Lai et al., 2000), psychological strain, fatigue and tension (Lindström, Leino, Seitsamo, & Tordtila, 1997), all affecting the well-being of employees. The Health and Safety Executive (2000) reported that, from a random sample of UK employees, approximately 20% experienced high or extremely high levels of stress at work. Paoli (1997) conducted a survey of European organisations and found that 31% of employees at finance organisations experienced stress. Coetzer and Rothmann (2006), in a study in the insurance industry, found that employees experienced very high levels of stress and burnout (53,9% emotional exhaustion and 58,2% cynicism, which placed the 256 administrative employees in the upper third of the burnout norm tables), and low levels of engagement relative to other industries within South Africa and other countries.

The cost of burnt-out employees is high, for both employees and organisations, because these employees do the bare minimum instead of their best (Maslach, Schaufeli, & Leiter, 2001). According to Boshoff and Arnolds (1995), most employers agree that the effectiveness and success of their organisations depend on the utilisation of their human resources. What happens if this key resource is actually an organisation's biggest liability? In a South African environment with its lack of skilled resources this becomes an even bigger problem. In terms of intention to leave or turnover intention, Lingard (2003) found that both exhaustion and cynicism (components of burnout) were strong predictors. Labour turnover involves redundant monetary and non-monetary costs, which can have a detrimental impact upon organisational effectiveness (Lingard, 2003). Shirom (1986) also found that burnout predicts job dissatisfaction and intention to leave. However, as Hughes (2001) notes, intention to leave can be constrained by the availability of acceptable alternatives. It can therefore be that burnt-out and dissatisfied employees are remaining in their jobs because of a perceived lack of more satisfactory alternatives. This has given rise to the term presenteeism. Employees' levels of wellness (and specifically the absence of burnout) therefore can be seen as an indicator of the effectiveness of an organisation (Kreitner & Kinicki, 1998). Thus, burnout and engagement are important fields of investigation in the organisational development.

Traditionally psychology has focused on the pathology, weaknesses and treatment thereof; burnout is a case in point. However, there is a new paradigm relating to wellness which makes a radically different, appreciative set of assumptions and attributions about health, motivation, capacities, potential, and social functioning. Compared to a psychology of "victimology", it is turning into a "science of strength" (Seligman & Csikszentmihalyi, 2000, p. 6, 8) – a "psychology of survivorship, resiliency, encouragement, and strength" (Abi-Hashem, 2001, p. 86) – "a fascination with strengths" (Saleebey, 1997, p. 4). It should be acknowledged that the fundamental idea has been around since time immemorial; but developing it into theories about health and positive psychological and social functioning is a relatively new endeavour (Strümpfer, in press).

Comprehensive model of burnout and engagement

Burnout and work engagement are indicators of the wellness of employees within organisations. Therefore, they could be combined in a model of well-being at work (Schaufeli, 2003; Schaufeli & Bakker, 2004) that distinguishes between two dimensions,

namely identification with work (varying from cynicism to dedication) and mobilisation of energy (varying from exhaustion to vigour). It is necessary to consider as well the impact this may have on organisational commitment and the health (physical and psychological) of the individual.

Job demands and job resources

One central assumption of the Job Demands and Resources (JDR) model is that, although every occupation (or organisation) may have its own specific work characteristics associated with well-being, it is still possible to model these characteristics into two broad categories, namely job demands and job resources. Job demands are those physical, psychological, social or organisational aspects of the job which require sustained physical and/or psychological (i.e. cognitive or emotional) effort and as a consequence are associated with physiological costs, e.g. work overload, personal conflicts, and emotional demands such as demanding clients. Although these demands are not necessarily negative, they can turn into stressors when trying to meet them. Consequently, they become associated with negative responses in the long run, such as depression, anxiety, or burnout. Job resources, on the other hand, refer to those physical, psychological, social or organisational aspects of the job that: reduce the job demands and therefore the associated physiological and psychological costs; or are functional in the achievement of work goals; or stimulate personal growth, learning and development through, for example social support, autonomy, feedback and job security (Schaufeli & Bakker, 2004).

An assumption of the JDR model is that work characteristics may elicit two psychologically different processes, namely an *energetic* process of wearing out in which high job demands exhaust the employee's energy, as well as a *motivational* process in which lacking resources preclude dealing effectively with job demands and foster cynicism (Demerouti, Nachreiner, Bakker, & Schaufeli, 2001). When the external environment lacks resources, individuals find themselves unable to reduce the potentially negative influence of high job demands, and cannot achieve their work goals.

Recently, Schaufeli and Bakker (2004) found, by using a Comprehensive Burnout and Engagement (COBE) Model, that burnout is mainly predicted by job demands and a lack of job resources, whereas engagement is exclusively predicted by available job resources.

Furthermore, burnout is related to health problems as well as to turnover intention, while engagement is related only to the latter. Results indicated that burnout mediates the relationship between job demands and health problems, whereas engagement mediates the relationship between job resources and turnover intention.

In a study done between 1987 and 1993 among insurance company employees, Lindström et al. (1997) indicated that a lot of job insecurity was experienced. They found that a lack of content variety and control was related to high demands in attention and high physical workload ($r = 0,49-0,53$), poor interpersonal relationships ($r = 0,35-0,48$) and job insecurity ($r = 0,21-0,25$). It seems that continuous organisational restructuring not only affect perceived job characteristics but also the health and well-being of employees. Within the South African context, Coetzer and Rothmann (2006) found that employees in the insurance industry experience high levels of job insecurity. Negative feelings, as indicated above, ultimately have an impact on the overall work wellness within the organisation (Coetzer & Rothmann, 2006). Levels of burnout increase as the intensity of job experience and the demands on the employee increase (Elloy, Terpening, & Kohls, 2001). Work overload, role conflict and role ambiguity appear to increase the frequency of burnout (Maslach & Jackson, 1986). Lower levels of burnout are reported by employees who experience autonomy in their jobs, positive feedback, an opportunity to use their professional skills, and a work environment free of ambiguity (Savicki & Cooley, 1987).

In light of the above, it seems vital (given the large impacts that job demands and job resources have on well-being as represented by engagement and burnout) that a holistic and integrated model of work wellness be determined within the South African environment, and specifically within the insurance industry. The following aspects can form part of a holistic model of work-related well-being: job demands, job resources, optimism, burnout, work engagement, health and organisational commitment at a specific point in time.

Burnout

Maslach (1982, 1993), Maslach, Jackson, and Leiter (1996) and Maslach, Schaufeli, and Leiter (2001) describe burnout as a syndrome consisting of three dimensions, namely feelings of emotional exhaustion, depersonalisation (cynicism), and reduced personal accomplishment. Emotional exhaustion, the individual stress dimension of burnout, refers to

feelings of depleted physical and emotional resources and prompts actions in the worker to distance himself/herself emotionally and cognitively from his/her work, presumably as a way of coping with work overload. The interpersonal context dimension is represented by depersonalisation, which entails negative, callous and cynical attitudes or excessively detached responses towards the recipients of service and care, reducing the recipient to an impersonal object. These two dimensions are generally considered to be the core symptoms of burnout (Demerouti et al., 2000). The third dimension, lack of personal accomplishment, represents the self-evaluation dimension of burnout and refers to feelings of insufficiency (Schaufeli & Buunk, 1996), incompetence, lack of achievement, and unproductiveness (Maslach et al., 2001). This last dimension will not be included in this study, given that it is seen as a personality characteristic, rather than a burnout dimension (Schaufeli, 2003).

Burnout should be seen as a process, occurring progressively over time, rather than as a state (Carson & Fagin, 1996; Maslach & Schaufeli, 1993; Prosses et al., 1999; Williams, Mitchie, & Pattani, 1998), which could, according to Schaufeli and Enzmann (1998) be determined by personality traits such as hardiness or neuroticism, or by high job demands. Maslach and Leiter (1997) also point out that burnout is more a crisis in a person's relationship with work than a crisis in the relationship with people at work .

According to Schaufeli and Enzmann (1998), possible antecedents of burnout can be classified into biographical characteristics, personality characteristics, work-related attitudes, and work and organisational characteristics. This research will focus on personality characteristics (dispositional optimism), and work and organisational characteristics (job demands and resources) in the insurance industry.

The picture of work-related contributors of burnout is complicated by the fact that the components of burnout seem to be related to different kinds of factors (for reviews, see Schaufeli & Buunk, 1996; Schaufeli & Enzmann, 1998). Efforts have been made to classify the scattered findings by typifying the factors that are associated with each of the dimensions (see Cordes, Dougherty, & Blum, 1997; Hobfoll & Freedy, 1993; Lee & Ashforth, 1996; Shirom, 1989). Although some consistency has been noted, the ambiguity regarding many of the findings on the causation of burnout has not been fully eliminated.

Work engagement

Engagement is a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication and absorption. Furthermore, it is not a momentary and specific state, but a more persistent and pervasive affective-cognitive state which is not focused on a particular object, event, individual or behaviour (Schaufeli, Salanova, Gonzáles-Romá, & Bakker, 2002). To expand on the three key components of engagement: Vigour is characterised by high levels of energy and mental resilience while working, as well as a willingness to exert effort and to persist even through difficult times. Dedication is characterised by a sense of significance in one's work, feeling enthusiastic, inspired, and proud and by viewing work as a challenge. Absorption comes close to the concept of "flow", an optimal state of experience where focused attention, a clear mind, unison of body and mind, effortless concentration, complete control, loss of self-consciousness, distortion of time, and intrinsic enjoyment are experienced (Csikszentmihalyi, 1990).

The individual outcomes described above frequently impact positively on organisations. Organisational benefits gained from employee engagement include greater achievement of individual work goals, i.e. productivity (Schaufeli & Bakker, 2004), customer satisfaction and profitability (Harter, Schmidt, & Hayes, 2002). Obviously, these organisational benefits can only occur through the efforts of individual employees.

Work engagement, unlike burnout, does not have a long research history. Engagement however, does focus on the work itself and provides a more complex and thorough perspective on an individual's relationship with work than burnout (Maslach, 2003). The concept was borne out of the recent and growing emphasis on the field of Positive Psychology. Historically, psychological health research had almost exclusively focused on psychological dysfunction, ill health and unwell-being, thereby neglecting the psychological health and well-being of individuals (Seligman & Csikszentmihalyi, 2000).

Coetzer and Rothmann (2004) concluded that future studies on the work-related attitudes of employees within the insurance industry should focus on positive, work-related attitudes and behaviours at work in longitudinal and experimental designs. It is apparent that there is a limited amount of research conducted on engagement, relative to burnout. Taken together, and in the light of the above-mentioned discussion, it is clear that a research problem exists,

and it seems imperative that a holistic and integrated model of work wellness should be developed for staff within a large financial services institution.

Organisational commitment

Organisational commitment has been one of the most popular organisational research subjects during the past three decades (Benkhoff, 1997; Eby, Freeman, Rush, & Lance, 1999). Organisational commitment can be defined in two ways (Blau & Boal, 1987). In the first approach, the individual is viewed as committed to an organisation because it is too costly for the individual to leave. In the second approach, the individual is committed to the organisation because of shared goals and the wish to maintain membership (Blau & Boal, 1987).

Commitment to the organisation has been found to relate positively to a variety of desirable work outcomes, including organisational citizenship, job satisfaction, job involvement and job performance, and has been found to be negatively correlated to absenteeism and turnover (Finegan, 2000; Mathieu & Zajac, 1990; Organ & Ryan, 1995). Siu's (2002) results showed that organisational commitment was related to most of the physical and psychological outcomes among workers. Organisational commitment can also provide people with stability and a feeling of belonging. However, the opposite can also be true. Furthermore, organisational commitment is a well-established indicator of motivation at work (Brown, 1996; Mayer & Schoorman, 1992).

Regarding work wellness, linkages with burnout research suggest that while organisational commitment seems to diminish in the presence of burnout (Leiter & Maslach, 1988), engagement is a useful indicator of commitment, in that engaged employees are loyal and psychologically committed to the organisation (Blizzard, 2002). People who are engaged in their jobs tend to be committed to their organisations, and vice versa.

Health

Research in the Netherlands showed that between 4% and 10% of the working population reported serious burnout complaints (Bakker, Schaufeli, & Van Dierendonck, 2000). Studies in South Africa confirm the negative effects of work. For example, Pienaar (2002) found that

8,64% of a sample of 2 396 police officers showed serious levels of suicide ideation, while 15% reported stress-related problems. Levert, Lucas, and Ortlepp (2000) reported that 54,9% of psychiatric nurses in their study in government hospitals experienced a high level of emotional exhaustion, while Van der Linde, Van der Westhuizen, and Wissing (1999) found that 29% of female teachers in their study showed high levels of emotional exhaustion.

Research over the past two decades has shown that burnout is not only related to negative outcomes for the individual, including depression, fatigue, and loss of motivation, but also to negative outcomes for the organisation, including absenteeism, turnover rates and lowered productivity. According to Levert et al. (2000), burned-out workers show a lack of commitment and are less capable of providing adequate services, especially along dimensions of decision-making and initiating involvement with clients (Fryer, Poland, Bross, & Krugman, 1988; Maslach, 1982). Burnt-out workers are also too depleted to give of themselves in a creative, co-operative fashion (Sammut, 1997). Employees suffering from severe burnout are characterised by cognitive impairment, and report symptoms such as inability to concentrate, forgetfulness, and difficulties with solving complex tasks (Hoogduin, Schaap, Methorst, Peters van Neyenhof, & Van de Griendt, 2001), which will all ultimately impact on performance and the effectiveness of the organisation.

Maslach and Leiter (1997) portray engagement as a polar opposite of burnout, with components consisting of energy, involvement and efficacy. In all of these constructions, one can conclude that engagement leads to human benefits for the individual experiencing it. Examples of these benefits include an infusion of energy, self-significance, and mental resilience (Schaufeli & Bakker, 2004), a fulfilment of the human spirit through the work role (May, Gilson, & Harter, 2004) and the preservation of one's self in the face of demands (Leiter & Harvie, 1998).

Dispositional optimism

Dispositional optimism can be defined as a person's positive outlook towards life events (Ebert, Tucker, & Roth, 2002; Scheier, Carver, & Bridges, 1994). Harju and Bolen (1998) argue that there is significant support that an optimistic viewpoint helps to construe outcomes as feasible while persistence is maintained despite the fact that the task is perceived as difficult.

According to Seligman and Csikszentmihayi (2000), optimism has been discovered as a human strength that acts as a buffer against mental illness. It appears that optimism improves immune functioning and lowers neuroticism scores (Ebert et al., 2002; Scheier et al., 1994; Segerstrom, Taylor, Kemeny, & Fahey, 1998; Shea, Burton, & Girgis, 1993), thus improving a person's health. A number of researchers have described this personality trait as a psychological resistance factor which could be used to conceptualise individual differences and is related to more positive outcomes (Ebert et al., 2002).

Although burnout is generally regarded primarily as a work-related disorder, individual susceptibility and the contributors to burnout have often been considered to be central in the characterisations of burnout (see for example Schaufeli & Enzmann, 1998). However, there has been little empirical research on individual resources in burnout. Given the importance of optimism as an individual resource that may impact on well-being, due to the fact that it could influence a person's motivation, coping behaviour and physical health, it is necessary to ascertain what impact it has on well-being (burnout and engagement).

The research problem that exists due to a lack of empirical research is whether dispositional optimism is indeed – as claimed by prominent writers – an effective individual difference for staff in a financial services environment in terms of buffering them from burnout and/or increasing their levels of engagement.

Proactive coping

One of the basic issues in the burnout domain concerns coping, or ways in which an individual can attempt to deal with job stressors to ward off aversive strains (Beehr, Johnson, & Nieva, 1995). Inadequate coping resources and ineffective coping strategies strongly predispose a worker to burnout (Brill, 1984). When poor coping strategies are adopted (e.g. avoidance, and mental/behavioural disengagement), burnout can develop (Brill, 1984; Schaufeli & Enzmann, 1998). However, when a successful coping strategy is followed (e.g. active problem solving), goals are achieved, professional efficacy is enhanced and a sense of existential significance is fostered (Schaufeli & Enzmann, 1998). More recent research by Alsoofi, Al-Heeti, and Alwashli (2000) also seems to bear out the assertion that burnout and coping strategies seem to be significantly related.

A recent theoretical framework that could impact on the incubation of burnout is Aspinwall and Taylor's (1997) concept of proactive coping. Anticipatory coping was described as involving "preparation for the stressful consequences of an upcoming event whose occurrence is likely or certain" (p. 417). Proactive coping, by contrast, would take place before coping or anticipatory coping. "It involves the accumulation of resources and the acquisition of skills that are not designed to address any particular stressor but to prepare in general, given the recognition that stressors do occur and that to be forearmed is to be well prepared" (p. 417). Compared to general and anticipatory coping, different skills and activities are also likely to be successful for coping proactively. This research study intervention has adopted the proactive coping philosophy as one of its cornerstones.

Because proactive coping is temporally prior, addresses non-existent or nebulous stressors, requires different skills, and is successfully accomplished through different activities, it merits a conceptual and empirical focus that is distinct from existing work on stress and coping (Aspinwall & Taylor, 1997). As a result of these aforementioned characteristics, proactive coping is largely unstudied in the stress and coping literature. The typical point of departure for researchers is studying efforts to solve problems and to regulate the emotional responses to them where there is a looming or fully developed stressful event. Activities undertaken in advance of the stressful event may go unstudied because the event itself defines the point of departure.

Proactive coping is not an easily studied phenomenon, as explained earlier. The research problem then is to conceptualise what a proactive coping resilience model would look like, and how one would effectively transfer this learning. In addition, another research problem presents itself in that the researcher needs to test the effectiveness of this proactive coping resilience intervention.

Resilience and thriving

Despite the growing popularity of the construct resilience and the considerable scientific work, there is no full-blown theory of resilience. The concept remains broadly defined (Fraser, Richman, & Galinsky, 1999; Gordon & Song, 1994), and the term is often used interchangeably with positive coping, adaptation and persistence (Winfield, 1994). Even with

these ambiguities, though, over the past three decades, theorists from several fields have contributed to an expanding knowledge base for comprehending resilience.

Resilience has frequently been defined as strength or good outcomes in the face of life adversity (Anthony, 1987; Cohler, 1987; Kaufman, Cook, Arny, Jones, & Pittinsky, 1994; Masten, 2001; Ryff & Singer, 2000). It is not the absence of negative experience or negative emotion that defines the good, well-lived, richly experienced life, but how challenges and difficulties are managed, responded to, dealt with and transformed.

Dugan and Coles (1989) consider resilience to be a multidimensional construct or capacity that is made up of a pattern of related abilities which permit people to be active, persistent and flexible in applying a variety of skills and strategies across a range of situations and problems. This definition thus sees resilience as more than merely the capacity to recover from adversity. It also suggests that resilience is something that develops, rather than something which is merely present in certain (or even all) people.

The literature on adult populations is less prolific than that dealing with children; indeed, according to Watt, David, Ladd, and Shamos (1995), studies dealing with resilient adults are notably lacking. Many of those that do exist (e.g. Engdahl, Harkness, Eberly, Page, & Bielinski, 1993; Fogelman, 1998; Himelein & McElrath, 1996; Hogman, 1998; Jenkins, 1997; Kalayjian & Shabinian, 1998; Valentine & Feinauer, 1993) focus on war veterans, refugees and survivors of genocides and childhood trauma.

With the aforementioned in mind, it would appear that resilience is an important construct that, whilst widely reported on, lacks a clear theoretical model that integrates the various components of resilience. A research problem exists inasmuch as model building is necessary for the future development of this resilience field.

Resilience interventions and the evaluation thereof

Burnout as a psychological phenomenon will be taken seriously by the management of organisations only to the extent to which it demonstrably contributes to poor business performance. Following this line of reasoning, organisations will be inclined to invest in preventive, anti-burnout programmes when they believe positive results can be obtained in

terms of lower sickness and turnover rates, and better performance. The burden of proof rests on the shoulders of applied researchers (Schaufeli, 2003).

Researchers who evaluate interventions designed to reduce occupational stress face many challenges. Surprisingly few studies to date have reported positive results (Burke, 1993; Karasek, 1992; Landsbergis & Vivona-Vaughan, 1995; Parkes & Sparkes, 1998; Reynolds & Briner, 1994). Unfortunately, the research that has been published has frequently suffered from methodological limitations. These have included weakness in research design (particularly the scarcity of longitudinal studies), unclear links to theoretical models, inappropriate data analysis strategies and insufficient recognition of contextual differences (Briner & Reynolds, 1999; Burke, 1993; Handy, 1988, Reynolds & Shapiro, 1991).

Recently, Van der Klink, Blonk, Schene, and Van Dijk (2001) performed a meta-analysis of almost fifty (quasi-) experimental studies on the effectiveness of interventions for work-related stress (including burnout, overstrain, and distress) and they found – in terms of effect-size – ‘medium’ effects for cognitive-behavioural programmes and ‘small’ effects for relaxation programmes.

Does this mean in the absence of promising results no further research should be conducted? Not according to Strümpfer (in press), as well-being is perhaps *the* primary concern of positive psychology. Wissing and Van Eeden (1997) suggest a new sub-discipline of *psychofortology*, anticipating what Seligman and Csikszentmihalyi wrote about creating “a science of human strength” and about “a perspective focused on systematically building competency” (2000, p. 7). Wissing and Van Eeden also contend “that in this domain not only the origins of psychological well-being should/will be studied, but also the nature, manifestations, and consequently ways to enhance psychological well-being and develop human capacities” (p. 5).

Fonagy, Steele, Steele, Moran, and Target (1994) point out that the large body of research on resilience, whilst revealing many predictors of and characteristics associated with resilience, fails to provide us with information which is practical and which can be organised into useful intervention strategies. Reinforcing this view is Murphy and Sauter (2003), who believe that authoritative guidelines on how to design, implement and evaluate stress interventions are

desperately needed. These guidelines should be based on a composite of research evidence, and be applicable to most organisations.

The research problem therefore relates to the need for the development of a practical, effective resilience intervention with clear evaluation criteria aimed at improving staff's ability to cope and thrive under stressful conditions.

Based on the above research problems, the following research questions can be posed:

- ❑ What are the relationships between job demands, job resources, dispositional optimism, burnout, work engagement, health and organisational commitment at a specific point in time?
- ❑ What components would be included in the development of a proactive coping, individually-focused resilience approach?
- ❑ Would a resilience model that focuses on proactively developing physical, mental, spiritual and socio-emotional reservoir pools be effective as an intervention in a work context in moving staff from burnout to engagement?
- ❑ What recommendations could be made to prevent and/or manage burnout, which would promote work engagement and resilience of employees?

This research focuses on a longitudinal study of engagement, burnout and occupational stress, and the development of a causal model. In addition, there is the development and evaluation of a training programme aimed at improving resilience of workers via an integrated, proactive, individually-focused resilience model of coping. It is aimed at employees in a financial institution that are currently experiencing high levels of burnout and stress. This research will contribute to industrial psychology as a science by:

- ❑ Applying a systematic approach to study the relationships between job demands, job resources, dispositional optimism, burnout, work engagement, health and organisational commitment.
- ❑ Developing the content and methodology of a proactive coping, individually-focused resilience workshop based on scientific models and theories. The practical application thereof will lead to new insights.

- ❑ Quantitative and qualitative evaluation of the short- and medium-term effects of a training programme focusing on resilience which will provide scientific support for the future development of resilience in the financial services industry.
- ❑ Providing an intervention methodology which has been proven to be reliable and valid.

1.2 RESEARCH OBJECTIVES

1.2.1 General objective

The general objective of this study is to test a model of work-related well-being, and to develop and evaluate a resilience intervention programme for financial services employees in a large corporation in South Africa.

1.2.2 Specific objectives

The specific objectives are as follows:

- ❑ To study the relationships between job demands, job resources, dispositional optimism, burnout, work engagement, health and organisational commitment at a specific point in time.
- ❑ To determine what content and methodology would be applied in a proactive coping, individually-focused resilience approach that could be used in a short duration intervention.
- ❑ To investigate whether a resilience model that focuses on proactively developing physical, mental, spiritual and socio-emotional reservoir pools would be effective as an intervention in a work context in moving staff from burnout to engagement.
- ❑ To make recommendations to prevent and/or manage burnout, that would promote work engagement and resilience of employees.

1.3 RESEARCH METHOD

The research consists of two phases, namely the literature review and the empirical study.

1.3.1 Phase 1: Literature review

The literature review focuses on previous research on burnout, work engagement, occupational stress, resilience, coping, moderators, interventions and their effectiveness, and the measurement of these constructs. An overview is given of the conceptualisation of these constructs in literature, and on the findings in terms of measurement.

1.3.2 Phase 2: Empirical study

Phase 2 is the empirical study and contains the research design, the training programme, the sample, the measuring battery, the research procedure and the statistical analysis.

1.3.3 Research design

A longitudinal survey design will be used to meet the research objectives. The specific design is the cross-sectional design, where a sample is drawn from a population at a particular point in time (Shaughnessy & Zechmeister, 1997). Information collected is used to describe the population at that time. This design can also be used to assess interrelationships among variables within a population. According to Shaughnessy and Zechmeister (1997), this design is ideally suited to the descriptive and predictive functions associated with correctional research. Structural equation modelling was used to address the problems associated with this design (Byrne, 2001). Structural equation modelling was used to test the structural model of work-related well-being.

The resilience intervention programme and measuring instruments will be identified and/or developed. The training programme will be presented to the experimental group after the pre-testing had been done on the experimental and control group. The control groups will not be exposed to the resilience programme. A pre-test and post-test utilising six questionnaires were used in the study, namely the Maslach Burnout Inventory Survey (MBI-GS), the Utrecht Work Engagement Scale (UWES), the Health Subscales of the ASSET, the Job Demands-Resources Scale (JD-RS), the Organisational Commitment Subscales of the ASSET and a biographical questionnaire, which were conducted on both the experimental and the control group. All of the aforementioned tests' data were used to evaluate the effectiveness of the training programme.

1.3.4 Participants

The study population will consist of a sample of employees in a financial services company in South Africa ($N = 192$). The sample consists of employees working in the Client Services (back-office administration), Call Centre (dealing telephonically with client queries), IT department (maintenance of IT infrastructure and development of IT solutions).

1.3.5 Measuring instruments

Five questionnaires will be used in the empirical longitudinal study on engagement and burnout, namely the Maslach Burnout Inventory – General Survey (MBI-GS) (Schaufeli et al., 1996), the Utrecht Work Engagement Scale (UWES) (Schaufeli, Salanova, González-Romá, & Bakker, 2002), the *ASSET* (An Organisational Stress Screening Tool) (Cartwright & Cooper, 2002), the Job Demands-Resources Scale (JD-RS) (Jackson & Rothmann, 2005), and the Life Orientation Test (LOT-R) (Scheier et al., 1994). In addition, a biographical questionnaire will be developed.

The *Maslach Burnout Inventory – General Survey* (MBI-GS) is used to measure the Exhaustion (5 items) and Cynicism (4 items) dimensions of burnout. Responses, to 9 items, are made on a six-point scale varying from 0 (*never occurs*) to 6 (*occurs everyday*). High scores on Exhaustion and Cynicism are indicative of burnout. Internal consistencies (Cronbach coefficient alphas) for the MBI-GS reported by Maslach et al. (1996) varied from 0,87 to 0,89 for exhaustion, 0,73 to 0,84 for Cynicism. Applied within the South African context, recent studies using the MBI-GS obtained Cronbach alphas of 0,88 to 0,89 (Exhaustion), and 0,78 to 0,76 (Cynicism) in a sample of police workers (Storm & Rothmann, 2003a) and social workers (Rothmann & Malan, 2003).

The *Utrecht Work Engagement Scale* (UWES) (Schaufeli et al., 2002) is used to measure the levels of engagement. Two dimensions of engagement can be distinguished, namely Vigour (6 items; e.g. “I am bursting with energy in my work”), and Dedication (5 items; e.g. “I find my work full of meaning and purpose”). Engaged individuals are characterised by high levels of Vigour and Dedication. In terms of internal consistency, reliability coefficients for the two subscales have been determined between 0,68 and 0,91. In a South African sample of police officers, Storm and Rothmann (2003b) obtained the following alpha coefficients for the two

subscales: Vigour: 0,78; Dedication: 0,89. Other South African studies obtained Cronbach alpha coefficients varying from 0,70 for Vigour and 0,81 for Dedication (Jackson & Rothmann, 2005; Naudé & Rothmann, 2004). In light of the fact that most items on the UWES are framed in a positive manner, it was decided to include and mix the items of an adapted version of the MBI-GS in one questionnaire. The latter is predominantly phrased in a negative manner and should guard against the possibility of response sets.

The *Health Subscale of the ASSET* is used to assess respondents' level of health developed by Cartwright and Cooper (2002) The Health Scales consists of 19 items arranged on two subscales, namely Physical Ill Health and Psychological Ill Health. All items on the Physical Ill Health subscale were related to physical symptoms of stress and were scored on a scale varying from 1 (*never*) to 4 (*often*). The items listed on the Psychological Ill Health subscale were symptoms of stress-induced mental ill health.

The *Organisational Commitment Subscale of the ASSET* (Cartwright & Cooper, 2002) is used to measure the individual's attitude to the organisation. The first subscale, namely Individual Commitment consists of five items (e.g. "I am proud of this organisation"). The second subscale, namely Organisational Commitment consists of four items (e.g. "I feel valued and trusted by the organisation"). The items were scored on a six-point scale varying from 1 (*strongly disagree*) to 6 (*strongly agree*).

The *Job Demands-Resources Scale* (JD-RS) is used to measure job demands and job resources of employees. The JD-RS which was developed by Jackson and Rothmann (2005) consists of 48 items. The questions are rated on a four-point scale ranging from 1 (*never*) to 4 (*always*). The dimensions of the JD-RS included pace and amount of work, mental load, emotional load, work variety, opportunities to learn, work independence, relationships with colleagues, relationship with immediate supervisor, ambiguities of work, information, communication, participation, contact possibilities, uncertainty about the future, remuneration and career possibilities. Examples of the dimensions are amount of work ("Do you have too much work to do?"), mental load ("Do you have to give continuous attention to your work?"), and remuneration ("Can you live comfortably on your pay?").

The Life Orientation Test – Revised (LOT-R), a 10-item measure, was developed by Scheier et al. (1994) to measure dispositional optimism. Six items contribute to the optimism score and four items are fillers. The original Life Orientation Test, which hypothesised a two-factor structure of optimism (i.e. optimism and pessimism), was questioned (Harju & Bolen, 1998). Follow-up analysis has demonstrated a one-factor structure, indicating that the LOT-R is measuring a continuum of high, average and low optimism/pessimism (Scheier et al., 1994). The LOT-R measures optimism/pessimism on a five-point Likert Scale, ranging from 1 (*I strongly disagree*) to 5 (*I strongly agree*). The LOT-R was found to have adequate internal consistency ($\alpha = 0,78$), and excellent convergent and discriminant validity (Scheier et al., 1994). Based on a sample of 204 college students, Harju and Bolen (1998) obtained a Cronbach alpha coefficient of 0,75. Within the South African context, Coetzer and Rothmann (2007) found adequate internal consistency for the LOT-R ($\alpha = 0,70$).

A *biographical questionnaire* is developed to gather information about the demographic characteristics of the participants. Information that was gathered included the following: gender, race, age, marital status, language, educational qualifications, job category, division, length of service in current institution.

1.3.6 Statistical analysis

The statistical analysis is carried out using SPSS (SPSS Inc., 2005). Descriptive statistics (e.g. means and standard deviations) were used to analyse the data. Pearson product-moment correlation coefficient are used to specify the relationship between the variables. In terms of statistical significance, a value at a 95% confidence interval level ($p \leq 0,05$) will be set. Effect sizes (Steyn, 1999) are used to decide on the practical significance of the findings. A cut-off point of 0,30 (medium effect, Cohen, 1988) is set for the practical significance of correlation coefficients.

Multiple regression analyses are used to investigate whether the independent variables (i.e. job demands and job resources) predict the dependent variables (i.e. burnout and work engagement). Independent variables are entered in two steps (e.g. to predict Exhaustion, Job Demands is entered in the first step as independent variable, followed by Job Resources) (Tabachnick & Fidell, 2001).

T-tests are used to determine differences between the groups in the sample. Effect sizes (Cohen, 1988; Steyn, 1999) are used in addition to statistical significance to determine the significance of relationships. Effect sizes indicate whether obtained results are important (while statistical significance may often show results which are of little practical relevance). A cut-off point of 0,50 (medium effect, Cohen, 1988) is set for the practical significance of differences between means.

1.4 DIVISION OF CHAPTERS

Chapter 1: Introduction

Chapter 2: Burnout and engagement of staff at a financial services institution

Chapter 3: The development of a resilience model.

Chapter 4: The evaluation of a resilience intervention in a financial services institution.

Chapter 5: Conclusions, limitations and recommendations.

1.5 CHAPTER SUMMARY

In this chapter the research problem was formulated. This was followed by a description of the general and specific research objectives. The research method was discussed. Finally the division of chapters was given.

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CHAPTER 2

RESEARCH ARTICLE 1

BURNOUT AND ENGAGEMENT OF STAFF AT A FINANCIAL SERVICES INSTITUTION

ABSTRACT

The objective of this study was to test a model of work-related well-being, comprising burnout, engagement, job demands, job resources, dispositional optimism, ill health and organisational commitment. A cross-sectional survey design was used. The following measuring instruments were administered: Maslach Burnout Inventory – General Survey, Utrecht Work Engagement Scale, Health and Organisational Commitment Scales of the ASSET, Job Demands-Resources Scale, Life Orientation Test and a biographical questionnaire. The study showed the central role that low optimism plays in contributing to burnout, and high optimism plays in work engagement. High social support was linked to increased cynicism, and low social support contributed to dedication. Burnout contributed to both physical and psychological ill health. Dedication and low cynicism contributed to affective commitment, whilst engagement and low cynicism contributed to behavioural commitment.

OPSOMMING

Die doel van hierdie studie was om 'n model van werkwelstand – bestaande uit uitbranding, begeestering, werkeise, werkhulpbronne, disposisionele optimisme, swak gesondheid en organisasieverbondenheid te toets. Daar is gebruik gemaak van 'n dwarsdeursnee-opnameontwerp. Die volgende meetinstrumente is gebruik: Maslach-uitbrandingsvraelys–Algemene Opname, Utrecht-werksbegeestering-skaal, Gesondheids- en Organisasieverbondenheidskale van die ASSET, Werkeise-Hulpbronne-skaal, Lewensoriënteringstoets en 'n biografiese vraelys. Die studie het gedui op die sentrale rol van lae optimisme as bydraende faktor tot uitbranding en van hoë optimisme as bydraende faktor tot werkbegeestering. 'n Hoë mate van sosiale ondersteuning is gekoppel aan verhoogde sinisme, en min sosiale ondersteuning het bygedra tot toewyding. Uitbranding het bygedra tot swak gesondheid – fisiek sowel as geestelik. Toewyding en lae sinisme het bygedra tot affektiewe verbondenheid, terwyl begeestering en lae sinisme bygedra het tot gedragsverbondenheid.

Keywords: Burnout, work engagement, job demands, job resources, optimism, ill health, organisational commitment

In order to prosper and to survive in a continuously changing environment, organisations need healthy and motivated employees (Rothmann & Cooper, 2008; Weinberg & Cooper, 2007). Both researchers and managers have recognised that unwell-being can impact both individuals and their organisations in negative ways (see Rothmann & Cooper, 2008). It is also important to acknowledge that individuals' experiences at work affect them not only in the workplace, but also in their non-work contexts, e.g. their home-life and the quality of their physical and mental health. This may in turn perpetuate a negative reciprocal loop back into the work environment.

Burnout and work engagement, which are both indicators of the well-being of employees within organisations, can be combined in a dual-process model of well-being at work (Schaufeli, 2003; Schaufeli & Bakker, 2004). The dual-process model of well-being (Schaufeli & Bakker, 2004) distinguishes between two dimensions of well-being, namely identification with work (varying from cynicism to dedication) and mobilisation of energy (varying from exhaustion to vigour). It is necessary to consider as well the impact burnout and engagement may have on organisational commitment and the health (both physical and psychological) of the individual, as it threatens both the sustainability of the organisation and the quality of the employee-employer relationship.

Research over the past two decades has shown that burnout is not only related to negative outcomes for the individual, including depression, a sense of failure, fatigue, and loss of motivation, but also to negative outcomes for the organisation, including increased absenteeism, higher turnover rates and lowered productivity (Schaufeli, 2003). According to Levert, Lucas and Ortlepp (2000), burned-out workers show a lack of commitment and are less capable of providing adequate services, especially along dimensions of decision-making and initiating involvement with clients (Fryer, Poland, Bross, & Krugman, 1988; Maslach, 1982). Burnt-out workers are also too depleted to give of themselves in a creative, co-operative fashion (Sammut, 1997). Employees suffering from severe burnout are characterised by cognitive impairment, and report symptoms such as inability to concentrate, forgetfulness, and difficulties with solving complex tasks (Hoogduin, Schaap, Methorst, Peters van Neyenhof, & Van de Griendt, 2001), which can all ultimately impact on the performance and effectiveness of the organisation.

Compared to the number of cross-sectional studies on burnout, the number of longitudinal investigations on burnout is relatively small. The corollary of this is that a lot is known about variables that are related to burnout, but relatively little is known about its causes or consequences. It is commonplace for authors of cross-sectional investigations to write in their concluding section that longitudinal research is needed in order to disentangle cause and effect. From cross-sectional research we know that burnout is particularly related to experienced qualitative and quantitative work overload, role problems (role ambiguity and role conflict), lack of social support (from colleagues and supervisors), and lacking self-regulatory job characteristics (feedback, autonomy, participation in decision making) (for reviews, see: Lee & Ashforth, 1996; Maslach, Schaufeli, & Leiter, 2001; Schaufeli & Enzmann, 1998; Schaufeli & Buunk, 2002). But do they also cause burnout?

Schaufeli and Enzmann (1998) identified only eight sound longitudinal studies – that is, studies that measured the causal variables as well as burnout at every point in time, and controlled for prior levels of burnout. Methodologically speaking, such studies may uncover what factors predict changes in burnout across time. After reviewing these eight studies in detail, they concluded that these studies: “...could not reproduce the results found in cross-sectional studies. Either longitudinal effects were very small or not significant, or, contrary to expectations and despite positive cross-sectional correlations, demands seem to be associated negatively with burnout” (Schaufeli & Enzmann, 1998, p. 95). It should be noted that this conclusion is based on a rather rigorous selection of the most sophisticated longitudinal studies. Less sophisticated studies that do not control for previous levels of burnout reveal positive longitudinal relationships of burnout with previous levels of work overload, role problems and lack of social support (e.g. Burke, Greenglass, & Schwarzer, 1996; Low, Cravens, Grant, & Moncrief, 2001; Prosses et al., 1999).

Although burnout in general is primarily regarded as a work-related disorder, individual susceptibility and the contributors to burnout have often been considered to be central in the characterisations of burnout (see Schaufeli & Enzmann, 1998). However, there has been little empirical research on individual differences in burnout. Seligman et al. (2000) states that we need to measure reliably and validly these human strengths identified by positive psychology. Therefore, dispositional optimism has been included as an individual difference to be researched in this study.

The aim of this study was to test a model of work-related well-being comprising burnout, engagement, job demands, job resources, dispositional optimism, ill health and organisational commitment. No research data could be identified from a literature review regarding all of the above-mentioned variables in study for employees in a financial services company in South Africa.

The dual-process model of burnout and work engagement

Job demands and job resources have frequently been studied in relation to burnout (Schaufeli & Enzmann, 1998). The dual-process model was developed by Schaufeli and Bakker (2004) and is appropriate to use in studying work-related well-being (burnout and work engagement) of staff in a financial services organisation because of the supporting research and the conceptual comprehensiveness of the model. It builds on the job demands-resources model of Demerouti, Bakker, Nachreiner, and Schaufeli (2001). Schaufeli and Bakker (2004) confirmed the validity of the dual-process model in an empirical study in the Netherlands, while Jackson, Rothmann and Van de Vijver (2006) confirmed the model's validity in a sample of primary and secondary educators in South African schools. It is more comprehensive than the original job demands-resources model because it includes not only an energy component known as burnout, but also a motivational component, known as engagement.

According to Schaufeli and Bakker (2004), job demands are those physical, psychological, social, and organisational aspects of the job that require sustained physical and/or psychological (i.e. cognitive or emotional) effort and are therefore associated with certain physiological and psychological costs, such as burnout. Job resources refer to those physical, psychological, social, and organisational aspects of the job that either reduce job demands and the associated physiological and psychological costs, or are functional in achieving work goals and stimulate personal growth, learning and development. The determinants of well-being may well differ within various working environments, depending on the unique demands and resources that exist in that specific work context.

As mentioned earlier, the dual-process model assumes two psychological processes, namely an energetic and a motivational process. The energetic process links job demands with health

problems and intention to quit via burnout. The motivational process links job resources via engagement with intention to quit. Schaufeli and Bakker (2004) also found that burnout was mainly predicted by job demands and a lack of job resources, whereas engagement was exclusively predicted by available job resources. This was supported by Barkhuizen, Rothmann, and Tytherleigh (2008) in a study of 279 academic staff members. They found that high job demands and low availability of job resources predicted burnout. Jackson et al. (2006) also reported that job demands and a lack of job resources contributed to burnout, whereas job resources predicted work engagement. Furthermore, burnout mediated the relationship between job demands and ill health, whilst work engagement mediated the relationship between job resources and organisational commitment. Coetzer and Rothmann (2004), in a South African financial services study found that job demands and a lack of resources increased the levels of burnout, whilst the availability of resources increased the levels of engagement.

Burnout and work engagement

Maslach (1982, 1993), Maslach, Jackson, and Leiter (1996) and Maslach et al. (2001) describe burnout as a syndrome consisting of three dimensions, namely feelings of emotional exhaustion, depersonalisation (cynicism), and reduced personal accomplishment (professional efficacy). Emotional exhaustion, the individual stress dimension of burnout, refers to feelings of depleted physical and emotional resources and prompts actions in the worker to distance himself/herself emotionally and cognitively from his/her work, presumably as a way of coping with work overload. The interpersonal context dimension is represented by depersonalisation, which entails negative, callous and cynical attitudes or excessively detached responses towards the recipients of service and care, reducing the recipient to an impersonal object. These two dimensions are generally considered to be the core symptoms of burnout (Demerouti et al., 2001). The third dimension, professional efficacy (Demerouti et al., 2001), represents the self-evaluation dimension of burnout and refers to feelings of insufficiency (Schaufeli & Buunk, 1996), incompetence, lack of achievement and feelings of unproductiveness (Maslach et al., 2001). Schaufeli (2003), however, convincingly argues that professional efficacy is a personality dimension rather than a core component of burnout, and therefore it will not form part of this study.

Engagement is a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication and absorption. Furthermore, it is not a momentary or specific state, but a more persistent and pervasive affective-cognitive state which is not focused on a particular object, event, individual or behaviour (Schaufeli, Salanova, González-Romá, & Bakker, 2002). To expand on the three key components of engagement, vigour is characterised by high levels of energy and mental resilience while working, as well as a willingness to exert effort and to persist even through difficult times. Dedication is characterised by a sense of significance in one's work, feeling enthusiastic, inspired, and proud and by viewing work as a challenge. Absorption comes close to the concept of "flow", an optimal state of experience where focused attention, a clear mind, unison of body and mind, effortless concentration, complete control, loss of self-consciousness, distortion of time, and intrinsic enjoyment are experienced (Csikszentmihalyi, 1990). Absorption will not be researched as a component of work engagement, because in a previous study it was shown that both the construct validity and reliability of the scale that measures it was questionable (Rothmann, 2005).

Work engagement, unlike burnout, does not have a long research history. However, because engagement focuses on the work itself, it provides a more complex and thorough perspective of an individual's relationship with work than burnout (Maslach, 2003). The concept was borne from the growing interest in the last decade regarding positive psychology. Historically, psychological health research had almost exclusively focused on psychological dysfunction, ill health and unwell-being, thereby neglecting the important fields of psychological health and well-being of individuals (Seligman & Csikszentmihalyi, 2000). Even today, the use of basic terms is negatively biased and the focus is on absence of illness rather than the presence of wellness. Maslach and Leiter (1997) portray engagement as a polar opposite of burnout, with components consisting of energy, involvement and efficacy. In all of these constructions, one can conclude that engagement leads to human benefits for the individual experiencing it. Examples of these benefits include an infusion of energy, self-significance, and mental resilience (Schaufeli & Bakker, 2004), a fulfilment of the human spirit through the work role (May, Gilson, & Harter, 2004) and the preservation of one's self in the face of demands (Leiter & Harvie, 1998).

Ill health

Soanes (2001) defines ill health as a poor physical or mental condition. Ill health is viewed as an outcome of stress, which can be used to determine the effects of the work environment. Ill health is, however, not always indicative of workplace stress and could be the result of an unhealthy lifestyle (Cartwright & Cooper, 2002).

Work can have an impact on the well-being of employees. Two theoretical models may be used to understand the effects of work on the well-being of employees. First, according to the holistic model of well-being (Nelson & Simmons, 2003), demands and resources in an organisation might lead to distress (e.g. burnout) or eustress (e.g. engagement). Second, according to the dual-process model (Schaufeli & Bakker, 2004), job demands and resources might affect physical health, psychological well-being and organisational commitment through certain mediating factors (i.e. burnout and work engagement). Therefore, job demands and resources could be regarded as important causes of well-being at work (Demerouti et al., 2001; Schaufeli & Bakker, 2004). Studies by Jackson et al. (2006) and Jackson and Rothmann (2005) indicate that burnout mediates the relationship between job demands (and job resources) and ill health. It is important to note that these were cross-sectional studies, so causal relationships could only be hypothesised, as their design limits the actual causal interpretation.

There is research evidence that consistently links burnout with physical and psychological ill health. Heart disease, some forms of cancer, allergies, migraine, back problems, depression, and an increased frequency of minor ailments such as colds and flu have been associated with stress and burnout (Ho, 1997; Ryff & Singer, 1998). According to Maslach and Leiter (1997), physical problems, such as headaches, gastro-intestinal illness, high blood pressure, muscle tension and chronic fatigue are caused by burnout.

Organisational commitment

Organisational commitment has been one of the most popular organisational research subjects during the past three decades (Benkhoff, 1997; Eby, Freeman, Rush, & Lance, 1999). Organisational commitment has traditionally been defined in one of two ways (Blau & Boal, 1987). In the first approach, the individual is viewed as committed to an organisation

because the implications are too costly to consider leaving. In the second approach, the individual is committed to the organisation due to shared goals and the desire to maintain membership (Blau & Boal, 1987). Recently, organisational commitment has been conceptualised more broadly, in three components, namely affective, continuance and normative commitment (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002; Siu, 2002). “Affective commitment denotes an emotional attachment to, identification with and involvement in the organisation. Continuance commitment denotes the perceived cost associated with leaving the organisation, and normative commitment, reflects a perceived obligation to remain in the organisation” (Meyer et al., 2002, p. 21).

Suliman and Iles (2000) indicate in their study that affectively committed employees are more likely to maintain organisational membership and contribute to the success of the organisation than continuance committed employees. Furthermore, the affectively committed employee may remain in the organisation because he/she wishes to maintain membership in order to facilitate organisational goals (Mowday, Porter, & Steers, 1979). As long as a favourable exchange relationship (efforts–rewards) between the individual and the organisation exist, he/she may not think of leaving the organisation to which he or she is emotionally attached. Siu (2002) suggests that top management should pay attention to workers’ affective organisational commitment, as this attitudinal characteristic could have both direct and indirect effects on the well-being of employees. Sui’s suggestion is supported by research showing a negative correlation between commitment to the organisation and absenteeism and turnover, and a positive correlation to a variety of desirable work outcomes including organisational citizenship, job satisfaction, job involvement and job performance (Finegan, 2000; Mathieu & Zajac, 1990; Organ & Ryan, 1995). Furthermore, organisational commitment is a well-established indicator of motivation at work (Brown, 1996; Mayer & Schoorman, 1992) and moderator of occupational stress on employee health (Sui, 2002), particularly during periods of organisational change. Siu (2002) argues that the indirect or moderating effect of commitment protects individuals from the negative effect of stress, due to the fact that it enables them to attach direction and meaning to their work. Organisational commitment may also provide people with stability and a feeling of belonging. However, the opposite may also be true in that an individual that does not have strong organisational commitment may feel alienated, and harbour an intention to leave the organisation

Burnout research suggests that while organisational commitment seems to diminish in the presence of burnout (Leiter & Maslach, 1988), engagement is a useful indicator of commitment, to such an extent that engaged employees are loyal and psychologically committed to the organisation (Blizzard, 2002). People who are engaged in their jobs tend to be committed to their organisations, and vice versa. So much so, that in many organisations, work engagement and organisational commitment are so closely related, that it makes sense to talk about a more general outcome. The term organisational engagement might be appropriate because it combines key elements of work engagement and organisational commitment (Roberts & Davenport, 2002). However, it must be noted that whilst the two concepts are related, they are not identical. Organisational commitment focuses on the organisation, whereas engagement is more concerned with the work itself (Maslach et al., 2001). People can be engaged in their work, but not be committed to their organisations, or committed to their organisations, but not engaged in their work.

Dispositional optimism

Dispositional optimism can be defined as a person's positive outlook towards life events (Ebert, Tucker, & Roth, 2002; Scheier, Carver, & Bridges, 1994). Harju and Bolen (1998) argue that there is significant support that an optimistic viewpoint helps to construe even difficult outcomes as feasible, by applying persistence.

According to Seligman and Csikszentmihalyi (2000), optimism has been identified as a human strength that acts as a buffer against mental illness. It appears that optimism improves immune functioning and lowers neuroticism scores (Ebert et al., 2002; Scheier et al., 1994; Segerstrom, Taylor, Kemeny, & Fahey, 1998; Shea, Burton, & Girgis, 1993), thereby improving a person's health.

A number of researchers see optimism as a construct that could be used to identify individual differences (Ebert et al., 2002). Individual differences have been hypothesised as influencing the stressor-strain relationship in one of three ways: directly (impact on the level of strain); operating as a moderator (alter the strength or direction of the stress-strain relationship) or mediating (becoming responsible for the transmission of an effect) of the stress-strain relationship. For the purposes of this study, the variable dispositional optimism will be hypothesised as an individual difference within the well-being model.

As Kreitner and Kinicki (1998) concluded, employees' levels of wellness (and specifically the absence of burnout) can be seen as an indicator of the effectiveness of an organisation. This has important implications for the field of industrial and organisational psychology, as the primary objective of this arena of study is the optimisation of factors in the work environment to ensure the organisation's effectiveness.

METHOD

Research design

A cross-sectional survey design was used to reach the research objectives. Information collected is used to describe the population at that time. This design can also be used to assess interrelationships among variables within a population.

Participants

The group identified were employees at a large financial services institution that predominantly were in administrative, call centre and IT divisions. The study population could be defined as an availability sample of employees in a financial services company. The total population of 1 100 employees in a financial services company was targeted. Only 192 respondents could be used.

Descriptive information of the sample is given in Table 1. The sample consisted mainly of English-speaking, married females with a grade 12 certificate. The mean age of the participants was 36,63 ($SD = 6,84$) years.

Table 1

Characteristics of the Participants (N=192)

Item	Category	Frequency (Percentage)
Education	Grade 10 (Standard 8)	26 (13,5)
	Grade 12	109 (56,8)
	Grade 12 + Diploma	33 (17,2)
	Grade 12 + Higher Diploma or Degree	14 (7,3)
	Grade 12 + Higher Diploma or Degree (Honours)	2 (1,0)
	Grade 12 + Higher Diploma or Degree (Master's)	2 (1,0)
Division	Administrative	116 (60,4)
	IT	53 (27,6)
	Call Centre	23 (12,0)
Role	Clerical	81 (42,2)
	Senior Clerical	39 (20,3)
	Specialist Senior	12 (6,3)
	Professional	4 (2,1)
	Management: First-Line Supervisor	12 (6,3)
	Management: Junior	30 (15,6)
	Management: Middle	10 (5,2)
	Management: Senior	2 (1,0)
	Length of service	1-5 years
	5-10 years	66 (34,4)
	10-15 years	54 (28,1)
	15-plus years	69 (35,9)
Marital status	Single	32 (16,7)
	Engaged / in a relationship	9 (4,7)
	Married	121 (63,0)
	Divorced	16 (8,3)
	Separated	6 (3,1)
	Remarried	7 (3,6)
Gender	Male	85 (44,3)
	Female	107 (55,7)
Race	Black	18 (9,4)
	White	88 (45,8)
	Coloured	78 (40,6)
	Asian	8 (4,2)
Home language	Afrikaans	72 (37,5)
	English	102 (53,1)
	Other	18 (9,4)

From the survey data, 57% of the participants indicated that they had encountered (a) major stressful event(s) over the previous 6 months which had had an important effect on them, whilst 43% had not had this type of encounter. Of the respondents, 17,7% had a significant

illness in the previous 6 months, whilst 82,3% had not had a significant illness. In total, 49,5% of the respondents rated their health good over the previous six months, 43,2% rated their health all right, and 7,3% rated it poor. With regard to the statement: “I consider quitting my current work and/or profession”, 9,9% of the respondents agreed, 15,6%, slightly agreed, 26,6% were neutral, 21,4% slightly disagreed and 26,6% disagreed.

Measuring battery

Six questionnaires were used in the study, namely the Maslach Burnout Inventory Survey (MBI-GS), the Utrecht Work Engagement Scale (UWES), the Health Subscales of the ASSET, the Job Demands-Resources Scale (JD-RS), the Organisational Commitment Subscales of the Asset, and a biographical questionnaire which included the following questions: age, education level, division, length of service, grade, gender, race, marital status, amount of leave taken per year, major stressful events in last six months, number of doctor’s visits in last six months, whether or not taken sick leave whilst ill, any chronic illnesses that are stress related, intention to leave, and frequency of consideration to leave.

The *Exhaustion* and *Cynicism* subscales of the *Maslach Burnout Inventory – General Survey* (MBI-GS) (Maslach, Jackson, & Leiter, 1996) were used to measure burnout. The Exhaustion subscale has five items, e.g. “I feel used up at the end of the workday”. The Cynicism subscale also has five items, e.g. “I have become less enthusiastic about my work”. These two subscales form the core components of burnout. Internal consistencies (Cronbach alpha coefficients) reported by Maslach et al. (1996) varied from 0,87 to 0,89 for Exhaustion and 0,73 to 0,84 for Cynicism. Test-retest reliabilities after one year were 0,65 (Exhaustion) and 0,60 (Cynicism) (Maslach et al., 1996). All items are scored on a seven-point frequency-rating scale ranging from 0 (never) to 6 (daily). The construct validity of the MBI-GS was confirmed in various studies (Coetzer & Rothmann, 2007; Storm, 2002). The following Cronbach alpha coefficients were obtained for the MBI-GS: Exhaustion: 0,86 to 0,88; Cynicism: 0,79 to 0,80 (Coetzer & Rothmann, 2007; Storm, 2002).

The *Vigour* and *Dedication* subscales of the *Utrecht Work Engagement Scale* (UWES) (Schaufeli et al., 2002) were used to measure work engagement. Initially, work engagement was viewed as the positive antithesis of burnout, but, according to the scale developers, it can be operationalised in its own right. The items are scored on a seven-point frequency-rating

scale, varying from 0 (never) to 6 (every day). The questionnaire consists of 17 questions and includes questions like “I am bursting with energy every day in my work”; “Time flies when I am at work” and “My job inspires me”. The alpha coefficients for the three subscales varied between 0,68 and 0,91. In a South African sample of police officers, Storm (2002) obtained the following alpha coefficients for the two subscales: Vigour: 0,78; Dedication: 0,89, while Naudé (2003) obtained the following alpha coefficients in a sample of emergency workers in South Africa: Vigour: 0,70; and Dedication: 0,83. Coetzer and Rothmann (2007) obtained alpha coefficients of 0,80 for Vigour and 0,87 for Dedication in a sample of employees in a financial services company.

The *Life Orientation Test – Revised* (LOT-R), a ten-item measure, was developed by Scheier et al. (1994) to measure dispositional optimism. Six items contribute to the optimism score and four items are fillers. The original Life Orientation Test (Scheier & Carver, 1985) consisted of a two-factor structure. The LOT-R was developed after the two-factor structure (optimism and pessimism) was questioned (Harju & Bolen, 1998). Follow-up analysis has demonstrated a one-factor structure, indicating that the LOT-R is measuring a continuum of high, average and low optimism/pessimism (Scheier et al., 1994). The LOT-R is measured on a five-point Likert Scale, ranging from 5 (*strongly agree*) to 1 (*strongly disagree*). The LOT-R was found to have adequate internal consistency (Cronbach $\alpha = 0,78$) and excellent convergent and discriminant validity (Scheier et al., 1994). Based on a sample of 204 college students, Harju and Bolen (1998) obtained a Cronbach alpha coefficient of 0,75.

The *Health Subscales of the ASSET* (which stands for ‘An Organisational Stress Screening Evaluation Tool’) were developed by Cartwright and Cooper (2002) to assess the respondents’ level of health. The Health subscales consist of 19 items arranged on two subscales: Physical health and Psychological well-being. All items on the Physical Health and Psychological well-being were scored on a scale varying from 1 (*never*) to 4 (*always*). Items on the Physical health subscale relate to physical symptoms of stress. The role of this subscale is to give an insight into physical health, not an in-depth clinical diagnosis. The items listed on the Psychological well-being subscale are symptoms of stress-induced mental ill health. Johnson and Cooper (2003) found that the Psychological well-being subscale has good convergent validity with an existing measure of psychiatric disorders, the General Health Questionnaire (GHO-12) (Goldberg & Williams, 1988).

The *Job Demands-Resources Scale* (JD-RS) was used to measure job demands and job resources of employees. The JD-RS was developed by Jackson and Rothmann (2005) consists of 48 items. The questions were rated on a four-point scale ranging from 1 (*never*) to 4 (*always*). The dimensions of the JD-RS include pace and amount of work, mental load, emotional load, work variety, opportunities to learn, work independence, relationships with colleagues, relationship with immediate supervisor, ambiguities of work, information, communication, participation, contact possibilities, uncertainty about the future, remuneration and career possibilities. Examples of the dimensions are amount of work (“Do you have too much work to do?”), mental load (“Do you have to give continuous attention to your work?”), and remuneration (“Can you live comfortably on your pay?”).

The *Organisational Commitment Subscales of the ASSET* consist of nine items, scored on a scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*) developed by Cartwright and Cooper (2002). The items include items such as “I feel valued and trusted by the organisation” and “I am proud of this organisation”. These items are meant to measure a respondent’s commitment to his/her department and it consists of two scales, namely individual commitment towards the organisation (referred to as affective commitment) and organisational commitment towards the individual (referred to as behavioural commitment). The alpha coefficients of these two scales are acceptable (Barkhuizen & Rothmann, 2008): $\alpha = 0,83$ (affective commitment) and $\alpha = 0,83$ (behavioural commitment).

Statistical analysis

The statistical analysis was conducted with the aid of the SPSS program (SPSS Inc., 2003). Descriptive statistics (means and standard deviations) were also computed to describe the data. Cronbach alpha coefficients were used to determine the internal consistency, homogeneity and unidimensionality of the measuring instruments (Clark & Watson, 1995).

Pearson product-moment correlation coefficients were used to specify the relationship between the variables. In terms of statistical significance, it was decided to set the value at a 95% confidence interval level ($p \leq 0,05$). Effect sizes (Stein, 1999) were used to decide on the practical significance of the findings. A cut-off point of 0,30 (medium effect) (Cohen, 1988) was set for the practical significance of correlation coefficients.

Multiple regression analyses were conducted to determine the proportion of variance in the dependent variable that is predicted by the independent variables. The value of R^2 is used to determine the proportion of the total variance of the dependent variable that is explained by the independent variables. The F-test is used to test if a significant regression exists between the independent and dependent variables.

RESULTS

The descriptive statistics, alpha coefficients and Pearson correlations of the measuring instruments, namely the MBI-GS, UWES, JD-R, the Health Subscales and the Organisation Commitment Subscales of the ASSET, and the LOT-R, are given in Table 2.

Table 2 shows that acceptable Cronbach alpha coefficients varying from 0,68 (Optimism) to 0,93 (Organisational Support) were obtained. It seems that the reliability of all the scales were in line with the guideline of $\alpha > 0,70$ (see Nunnally & Bernstein, 1994).

Table 2 also shows the sten scores of the total sample on all the scales included in this study, except for Optimism. These sten scores make it possible to compare the raw scores of participants against those of a normative sample in South Africa ($N = 10\ 000$). From Table 2 it is clear that the scores of participants in this study were higher than the average (Sten = 5,5) on the following scales: Exhaustion, Cynicism, Organisational Support, Social Support, Advancement, and Physical Ill Health. Participants obtained scores below average on the following scales: Vigour, Dedication, Growth Opportunities, Job Overload, Job Security, Psychological Ill Health, Affective Commitment and Behavioural Commitment. Compared to a normative sample, 40% of the participants in this sample showed very high levels of Exhaustion, while 46,6% showed very high levels of Cynicism. Furthermore, only 22% of the sample showed very high levels of Vigour, while 15,2% showed very high levels of Dedication.

Table 2

Descriptive Statistics, Alpha Coefficients and Pearson Correlations

	Mean	SD	Sten	α	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Exhaustion	14.75	6.75	6.38	0.86	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Cynicism	9.28	5.53	6.46	0.81	0.63 ⁺⁺⁺	-	-	-	-	-	-	-	-	-	-	-	-	-
3. Vigour	19.97	5.44	5.07	0.77	-0.46 ⁺⁺	-0.52 ⁺⁺⁺	-	-	-	-	-	-	-	-	-	-	-	-
4. Dedication	20.73	6.35	4.56	0.85	-0.38 ⁺⁺	-0.55 ⁺⁺⁺	0.76 ⁺⁺⁺	-	-	-	-	-	-	-	-	-	-	-
5. Organisational Support	43.61	9.07	6.19	0.93	-0.36 ⁺⁺	-0.46 ⁺⁺	0.40 ⁺⁺	0.47 ⁺⁺	-	-	-	-	-	-	-	-	-	-
6. Growth Opportunities	23.91	5.09	4.92	0.85	-0.32 ⁺⁺	-0.57 ⁺⁺⁺	0.50 ⁺⁺⁺	0.59 ⁺⁺⁺	0.61 ⁺⁺⁺	-	-	-	-	-	-	-	-	-
7. Social Support	19.27	3.12	6.85	0.76	-0.28 [*]	-0.22 [*]	0.24 [*]	0.17 [*]	0.55 ⁺⁺⁺	0.42 ⁺⁺	-	-	-	-	-	-	-	-
8. Advancement	11.98	4.05	6.00	0.87	-0.34 ⁺⁺	-0.48 ⁺⁺	0.37 ⁺⁺	0.42 ⁺⁺	0.58 ⁺⁺⁺	0.61 ⁺⁺⁺	0.36 ⁺⁺	-	-	-	-	-	-	-
9. Job Insecurity	7.87	2.78	5.25	0.92	0.15 [*]	0.18 [*]	-0.03	0.01	-0.16 [*]	-0.16 [*]	-0.11	-0.29 [*]	-	-	-	-	-	-
10. Overload	22.88	4.24	4.30	0.74	0.34 ⁺⁺	0.14	-0.03	0.00	-0.21 [*]	0.02	-0.20 [*]	-0.14	0.11	-	-	-	-	-
11. Physical Ill Health	14.77	4.47	6.21	0.82	0.42 ⁺⁺	0.46 ⁺⁺	-0.43 ⁺⁺	-0.28 [*]	-0.35 ⁺⁺	-0.36 ⁺⁺	-0.26 [*]	-0.38 ⁺⁺	0.19 [*]	0.29 [*]	-	-	-	-
12. Psychological Ill Health	22.44	6.99	5.15	0.93	0.54 ⁺⁺⁺	0.49 ⁺⁺	-0.49 ⁺⁺	-0.36 ⁺⁺	-0.35 ⁺⁺	-0.35 ⁺⁺	-0.24 [*]	-0.37 ⁺⁺	0.14	0.27 [*]	0.80 ⁺⁺⁺	-	-	-
13. Affective Commitment	21.06	4.58	5.29	0.84	-0.38 ⁺⁺	-0.57 ⁺⁺⁺	0.58 ⁺⁺⁺	0.66 ⁺⁺⁺	0.48 ⁺⁺	0.46 ⁺⁺	0.15 [*]	0.42 ⁺⁺	-0.07	-0.17 [*]	-0.31 ⁺⁺	-0.39 ⁺⁺	-	-
14. Behavioural Commitment	18.13	3.26	5.36	0.76	-0.24 [*]	-0.44 ⁺⁺	0.54 ⁺⁺⁺	0.60 ⁺⁺⁺	0.33 ⁺⁺	0.44 ⁺⁺	0.09	0.36 ⁺⁺	-0.09	0.00	-0.24 [*]	-0.25 [*]	0.77 ⁺⁺⁺	-
15. Optimism	21.24	4.28	NA	0.68	-0.32 ⁺⁺	-0.45 ⁺⁺	0.48 ⁺⁺	0.37 ⁺⁺	0.37 ⁺⁺	0.46 ⁺⁺	0.38 ⁺⁺	0.46 ⁺⁺	-0.23 [*]	0.06	-0.44 ⁺⁺	-0.46 ⁺⁺	0.34 ⁺⁺	0.31 ⁺⁺

NA - Not available

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

+ Practically significant correlation (medium effect): $0,30 \leq r \leq 0,49$

++ Practically significant correlation (large effect): $r \geq 0,50$

Inspection of Table 2 indicates that Exhaustion is practically significantly positively related to Overload (medium effect). Exhaustion is practically significantly negatively related to Organisational Support, Growth Opportunities, and Advancement (all medium effects). Cynicism is practically significantly negatively related to Organisational Support (medium effect), Growth Opportunities (large effect), and Advancement (medium effect). Vigour and Dedication are practically significantly positively related to Growth Opportunities (large effect), Organisational Support and Advancement (both medium effects).

Table 2 shows that Physical Ill Health is practically significantly positively related to Exhaustion and Cynicism (both medium effects), and negatively related to Vigour. Psychological Ill Health is practically significantly positively related to Exhaustion (large effect) and Cynicism (medium effect), and negatively related to Vigour and Dedication (both medium effects). Affective Commitment is practically significantly positively related to Vigour and Dedication (both large effects), and negatively related to Exhaustion (medium effect) and Cynicism (large effects).

Regarding job demands and job resources, Table 2 shows that Organisational Support, Growth Opportunities, and Advancement are practically significantly negatively related to Physical and Psychological Ill Health (all medium effects). Furthermore, Organisational Support, Growth Opportunities, and Advancement are practically significantly positively related to Affective and Behavioural Commitment (all medium effects).

It is evident from Table 2 that Optimism is practically significantly negatively related to Exhaustion, Cynicism, Physical and Psychological Ill Health (all medium effects), and positively related to Vigour, Dedication, Organisational Support, Growth Opportunities, Social Support, Advancement, Affective Commitment and Behavioural Commitment (all medium effects).

The results of multiple regression analyses with Exhaustion (as measured by the MBI-GS) as dependent variable, and job demands, job resources (as measured by the JD-RS) and dispositional optimism (as measured by the LOT-R) as independent variables are reported in Table 3.

Table 3

Multiple Regression Analyses with Exhaustion as Dependent Variable and Job Demands, Job Resources and Dispositional Optimism as Independent Variables

Model	Unstandardised Coefficients		Standardised Coefficients	<i>t</i>	<i>p</i>	<i>F</i>	<i>R</i> ²	ΔR^2
	B	SE	Beta					
1						23,94*	0,11	0,11*
	(Constant)	2,58	2,53	1,02	0,31			
	Overload	0,53	0,11	0,34	4,89	0,01*		
2						9,98*	0,25	0,14*
	(Constant)	16,52	4,37	3,78	0,01			
	Overload	0,46	0,11	0,29	4,23	0,01*		
	Organisational Support	-0,08	0,07	-0,11	-1,15	0,25		
	Growth Opportunities	-0,21	0,12	-0,16	-1,75	0,08		
	Social Support	-0,11	0,17	-0,05	-0,63	0,53		
	Advancement	-0,19	0,15	-0,12	-1,31	0,19		
	Job Insecurity	0,09	0,16	0,04	0,57	0,57		
3						9,98*	0,28	0,03*
	(Constant)	18,33	4,34	4,23	0,01			
	Overload	0,51	0,11	0,32	4,71	0,01*		
	Organisational Support	-0,08	0,07	-0,11	-1,16	0,25		
	Growth Opportunities	-0,16	0,12	-0,12	-1,33	0,19		
	Social Support	-0,00	0,17	0,00	-0,01	0,99		
	Advancement	-0,11	0,15	-0,06	-0,72	0,47		
	Job Insecurity	0,03	0,16	0,01	0,19	0,85		
	Optimism	-0,32	0,12	-0,21	-2,78	0,01*		

* $p < 0,05$ – statistically significant

Table 3 shows that job demands and resources (as measured by the JD-RS) and Optimism (as measured by the LOT-R) predict 28% of the variance in Exhaustion as measured by the MBI-GS. Two variables made a statistically significant contribution to the regression model as revealed by the *t* values: Overload ($t = 4,71$, $p < 0,01$), and Optimism ($t = -2,78$, $p < 0,01$). The standardised regression coefficients for each of the predictors were: Overload ($\beta = 0,32$),

and Optimism ($\beta = -0,21$). It is clear that overload and low optimism were the strongest contributors to exhaustion. This was confirmed through hierarchical regression analysis in which Overload was first entered into the regression equation. The change in R^2 for Overload was 14%, while a 3% change was found when Optimism was entered into the regression equation.

The results of multiple regression analyses with Cynicism (as measured by the MBI-GS) as dependent variable, and job demands, job resources (as measured by the JD-RS) and dispositional optimism (as measured by the LOT-R) as independent variables are reported in Table 4.

Table 4 shows that job demands and resources (as measured by the JD-RS) and Optimism (as measured by the LOT-R) predict 43% of the variance in Cynicism (as measured by the MBI-GS). Four variables made a statistically significant contribution to the regression model as revealed by the t values: Overload ($t = 2,58, p < 0,01$), Growth Opportunities ($t = -4,86, p < 0,01$), Social Support and ($t = 2,64, p < 0,01$) and Optimism ($t = -3,82, p < 0,01$).

The standardised regression coefficients for each of the predictors were: Overload ($\beta = 0,16$), Growth Opportunities ($\beta = -0,39$), Social Support ($\beta = 0,19$) and Optimism ($\beta = -0,26$). It is clear that overload, low growth opportunities, high social support and low optimism were the strongest contributors to Cynicism. This was confirmed through hierarchical regression analyses in which Overload was first entered into the regression equation. The change in R^2 for Overload was 2%, while changes of 36% and 5% respectively were found when Growth Opportunities and Optimism were entered into the regression equation.

Table 4

Multiple Regression Analyses with Cynicism as Dependent Variable and Job Demands, Job Resources and Dispositional Optimism as Independent Variables

Model	Unstandardised Coefficients		Standardised Coefficients	<i>t</i>	<i>p</i>	<i>F</i>	<i>R</i> ²	ΔR^2
	B	SE	Beta					
1						3,57	0,02	0,02
	(Constant)	5,24	2,18	2,41	0,02			
	Overload	0,18	0,09	0,14	1,89	0,06		
2						18,98*	0,38	0,36*
	(Constant)	18,36	3,24	5,67	0,01			
	Overload	0,15	0,08	0,12	1,90	0,06		
	Organisational Support	-0,09	0,05	-0,15	-1,72	0,09		
	Growth Opportunities	-0,48	0,09	-0,44	-5,33	0,01*		
	Social Support	0,22	0,13	0,13	1,78	0,08		
	Advancement	-0,20	0,11	-0,14	-1,79	0,08		
	Job Insecurity	0,10	0,12	0,05	0,83	0,41		
3						19,55*	0,43	0,05*
	(Constant)	20,17	3,16	6,39	0,01			
	Overload	0,20	0,08	0,16	2,58	0,01*		
	Organisational Support	-0,09	0,05	-0,15	-1,77	0,08		
	Growth Opportunities	-0,42	0,09	-0,39	-4,86	0,01*		
	Social Support	0,33	0,12	0,19	2,64	0,01*		
	Advancement	-0,11	0,11	-0,08	-1,01	0,31		
	Job Insecurity	0,04	0,12	0,02	0,32	0,75		
	Optimism	-0,32	0,08	-0,26	-3,82	0,01*		

* $p < 0,05$ – statistically significant

The results of multiple regression analyses with Vigour (as measured by the UWES) as dependent variable, and job demands, job resources (as measured by the JD-RS) and dispositional optimism (as measured by the LOT-R) as independent variables are reported in Table 5.

Table 5 shows that job demands and resources (as measured by the JD-RS) and Optimism (as measured by the LOT-R) predict 36% of the variance in Vigour (as measured by the UWES). Two variables made a statistically significant contribution to the regression model as revealed by the t values: Growth Opportunities ($t = 3,67, p < 0,01$) and Optimism ($t = 4,99, p < 0,01$). The standardised regression coefficients for each of the predictors were: Growth Opportunities ($\beta = 0,31$) and Optimism ($\beta = 0,36$). It is clear that growth opportunities and optimism were the strongest contributors to vigour. This was confirmed through hierarchical regression analyses in which Job Resources was first entered into the regression equation. The change in R^2 for Growth Opportunities was 27%, while changes of 9% were found when Optimism was entered into the regression equation.

Table 5

Multiple Regression Analyses with Vigour as Dependent Variable and Job Demands, Job Resources and Dispositional Optimism as Independent Variables

Model	Unstandardised Coefficients		Standardised Coefficients	<i>t</i>	<i>p</i>	<i>F</i>	<i>R</i> ²	ΔR^2
	B	SE	Beta					
1						13,71*	0,27	0,27*
	(Constant)	4,67	2,65	1,77	0,08			
	Organisational Support	0,09	0,06	0,14	1,57	0,12		
	Growth Opportunities	0,40	0,09	0,38	4,33	0,01*		
	Social Support	-0,04	0,13	-0,02	-2,29	0,77		
	Advancement	0,13	0,12	0,09	1,08	0,28		
	Job Insecurity	0,16	0,13	0,08	1,22	0,23		
2						11,37*	0,27	0,00
	(Constant)	5,03	3,46	1,45	0,15			
	Organisational Support	0,08	0,06	0,14	1,51	0,13		
	Growth Opportunities	0,41	0,10	0,37	4,24	0,01*		
	Social Support	-0,04	0,13	-0,02	-0,31	0,76		
	Advancement	0,12	0,12	0,09	1,06	0,29		
	Job Insecurity	0,16	0,13	0,08	1,22	0,22		
	Overload	-0,01	0,09	-0,01	-0,16	0,87		
3						14,56*	0,36	0,09*
	(Constant)	2,57	3,30	0,78	0,44			
	Organisational Support	0,08	0,05	0,14	1,59	0,11		
	Growth Opportunities	0,33	0,09	0,31	3,67	0,01*		
	Social Support	-0,18	0,13	-0,11	-1,42	0,16		
	Advancement	0,01	0,11	0,00	0,04	0,96		
	Job Insecurity	0,24	0,12	0,12	1,98	0,05		
	Overload	-0,08	0,08	-0,06	-1,01	0,32		
	Dispositional Optimism	0,44	0,09	0,36	4,99	0,01*		

* $p < 0,05$ – statistically significant

The results of multiple regression analyses with Dedication (as measured by the UWES) as dependent variable, and job demands, job resources (as measured by the JD-RS) and dispositional optimism (as measured by the LOT-R) as independent variables are reported in Table 6.

Table 6 shows that job demands and resources (as measured by the JD-RS) and Optimism (as measured by the LOT-R) predict 43% of the variance in Dedication (as measured by the UWES). Five variables made a statistically significant contribution to the regression model as revealed by the t values: Organisational Support ($t = 2,94, p < 0,01$), Growth Opportunities ($t = 5,77, p < 0,01$), Social Support ($t = -3,32, p < 0,01$), Job Insecurity ($t = 2,54, p < 0,01$) and Optimism ($t = 2,58, p < 0,01$). The standardised regression coefficients for each of the predictors were: Organisational Support ($\beta = 0,24$), Growth Opportunities ($\beta = 0,46$), Social Support ($\beta = -0,23$), Job Insecurity ($\beta = 0,15$) and Optimism ($\beta = 0,17$). It is clear that organisational support, growth opportunities, social support, job insecurity and optimism were the strongest contributors to dedication. This was confirmed through hierarchical regression analyses in which job resources was first entered into the regression equation. The change in R^2 was 41% when Job Resources were entered into the regression equation. When Overload was entered no increase in R^2 was found, while a 2%, change in R^2 was found when Optimism was entered into the regression equation.

Table 6

Multiple Regression Analyses with Dedication as Dependent Variable and Job Demands, Job Resources and Dispositional Optimism as Independent Variables

Model	Unstandardised Coefficients		Standardised Coefficients Beta	<i>t</i>	<i>p</i>	<i>F</i>	<i>R</i> ²	ΔR^2
	B	SE						
1						26,00*	0,41	0,41*
	(Constant)	2,13	2,77	0,77	0,44			
	Organisational Support	0,17	0,06	0,24	2,95	0,01*		
	Growth Opportunities	0,62	0,10	0,49	6,35	0,01*		
	Social Support	-0,39	0,14	-0,19	-2,81	0,01*		
	Advancement	0,14	0,12	0,09	1,16	0,25		
	Job Insecurity	0,29	0,14	0,13	2,18	0,03*		
2						21,55*	0,41	0,00
	(Constant)	2,13	3,63	0,59	0,56			
	Organisational Support	0,17	0,06	0,24	2,90	0,01*		
	Growth Opportunities	0,62	0,10	0,49	6,16	0,01*		
	Social Support	-0,39	0,14	-0,19	-2,77	0,01*		
	Advancement	0,14	0,12	0,09	1,15	0,25		
	Job Insecurity	0,29	0,14	0,13	2,17	0,03*		
	Overload	0,00	0,09	0,00	-0,00	1,00		
3						19,99*	0,43	0,02*
	(Constant)	0,73	3,62	0,20	0,84			
	Organisational Support	0,17	0,06	0,24	2,94	0,01*		
	Growth Opportunities	0,58	0,10	0,46	5,77	0,01*		
	Social Support	-0,47	0,14	-0,23	-3,32	0,01*		
	Advancement	0,07	0,12	0,05	0,60	0,55		
	Job Insecurity	0,34	0,14	0,15	2,54	0,01*		
	Overload	-0,04	0,09	-0,03	-0,44	0,66		
	Optimism	0,25	0,10	0,17	2,58	0,01*		

* $p < 0,05$ – statistically significant

The results of multiple regression analyses with Physical and Psychological Ill Health (as measured by the Health Subscales of the ASSET) as dependent variables and Exhaustion, Cynicism, Vigour and Dedication (as measured by the MBI-GS and UWES) as independent variables are reported in Table 7.

Table 7

Multiple Regression Analyses with Physical and Psychological Ill Health as Dependent Variables and Exhaustion, Cynicism, Vigour and Dedication as Independent Variables

Model	Unstandardised Coefficients		Standardised Coefficients Beta	<i>t</i>	<i>p</i>	<i>F</i>	<i>R</i> ²	ΔR^2
	B	SE						
Physical Ill Health								
1						30,20*	0,24	0,24*
	(Constant)	10,19	0,69	14,79	0,01			
	Exhaustion	0,15	0,05	0,22	2,71	0,01*		
	Cynicism	0,26	0,07	0,32	3,95	0,01*		
Psychological Ill Health								
1						46,09*	0,33	0,33*
	(Constant)	13,68	1,02	13,47	0,01			
	Exhaustion	0,40	0,08	0,38	4,99	0,01*		
	Cynicism	0,31	0,10	0,25	3,23	0,01*		

* $p < 0,05$ – statistically significant

Table 7 shows that Exhaustion and Cynicism (as measured by the MBI-GS) predict 24% of the variance in Physical Ill Health (as measured by the Health Subscales of the ASSET). Two variables made statistically significant contributions to the regression model as revealed by the *t* values: Exhaustion ($t = 2,71$, $p < 0,01$) and Cynicism ($t = 3,95$, $p < 0,01$). The standardised regression coefficients for each of the predictors were: Exhaustion ($\beta = 0,22$) and Cynicism ($\beta = 0,32$). It is clear that exhaustion and cynicism (burnout) contributed to physical ill health symptoms.

Table 7 also shows that Exhaustion and Cynicism (as measured by the MBI-GS) predict 33% of the variance in Psychological Ill Health (as measured by the Health Subscales of the

ASSET). Two variables made statistically significant contributions to the regression model as revealed by the t values: Exhaustion ($t = 4,99, p < 0,01$) and Cynicism ($t = 3,23, p < 0,01$). The standardised regression coefficients for each of the predictors were: Exhaustion ($\beta = 0,38$) and Cynicism ($\beta = 0,25$). It is clear that exhaustion and cynicism (burnout) contributed to psychological ill health symptoms.

The results of multiple regression analyses with Affective and Behavioural Commitment (as measured by the commitment Subscales of the ASSET) as dependent variables and Exhaustion, Cynicism, Vigour and Dedication (as measured by the MBI-GS and UWES) as independent variables are reported in Table 8.

Table 8

Multiple Regression Analyses with Normative and Behavioural Commitment as Dependent Variables and Exhaustion, Cynicism, Vigour and Dedication as Independent Variables

Model	Unstandardised Coefficients		Standardised Coefficients	<i>t</i>	<i>p</i>	<i>F</i>	<i>R</i> ²	ΔR^2
	B	SE	Beta					
Affective Commitment								
1						76,79*	0,45	0,45*
	(Constant)	10,20	0,96	10,64	0,01			
	Vigour	0,16	0,07	0,19	2,27	0,02*		
	Dedication	0,37	0,06	0,52	6,28	0,01*		
2						46,43*	0,50	0,05*
	(Constant)	14,81	1,53	9,66	0,01			
	Vigour	0,11	0,07	0,13	1,51	0,13		
	Dedication	0,30	0,06	0,41	4,99	0,01*		
	Exhaustion	0,01	0,05	0,01	0,19	0,85		
	Cynicism	-0,23	0,06	-0,28	-3,77	0,01*		
Behavioural Commitment								
1						56,59*	0,38	0,38*
	(Constant)	10,97	0,73	15,11	0,01			
	Vigour	0,13	0,05	0,21	2,41	0,02*		
	Dedication	0,22	0,05	0,44	4,97	0,01*		
2						30,68*	0,40	0,02*
	(Constant)	11,83	1,20	9,89	0,01			
	Vigour	0,13	0,05	0,22	2,39	0,02*		
	Dedication	0,19	0,05	0,37	4,04	0,01*		
	Exhaustion	0,06	0,04	0,13	1,75	0,08		
	Cynicism	-0,12	0,05	-0,21	-2,54	0,01*		

* $p < 0,05$ – statistically significant

Table 8 shows that Exhaustion and Cynicism (as measured by the MBI-GS) and Vigour and Dedication (as measured by the UWES) predict 50% of the variance in Affective Commitment (as measured by the Commitment Subscales of the ASSET). Two variables

made statistically significant contributions to the regression model as revealed by the t values : Dedication ($t = 4,99, p < 0,01$) and Cynicism ($t = -3,77, p < 0,01$). The standardised regression coefficients for each of the predictors were: Dedication ($\beta = 0,41$) and Cynicism ($\beta = -0,28$). It is clear that dedication and low cynicism contributed to affective commitment.

Table 8 also shows that Exhaustion and Cynicism (as measured by the MBI-GS) and Vigour and Dedication (as measured by the UWES) predict 40% of the variance in Behavioural Commitment (as measured by the Commitment Subscales of the ASSET). Three variables made statistically significant contributions to the regression model as revealed by the t values : Vigour ($t = 2,39, p < 0,01$), Dedication ($t = 4,04, p < 0,01$) and Cynicism ($t = -2,54, p < 0,01$). The standardised regression coefficients for each of the predictors were: Vigour ($\beta = 0,22$), Dedication ($\beta = 0,37$) and Cynicism ($\beta = -0,21$). It is clear that vigour, dedication and low cynicism contributed to behavioural commitment.

DISCUSSION

The aim of this study was to test a model of work wellness for employees in a financial services company, comprising burnout, engagement and job demands, job resources, dispositional optimism, ill health and organisational commitment. The study showed that overload and low optimism contributed to exhaustion. Overload, low growth opportunities, high social support and low optimism were strong contributors to cynicism. Growth opportunities and optimism contributed to vigour. Organisational support, growth opportunities, low social support, low job insecurity and optimism were contributors to dedication. Exhaustion and cynicism contributed to physical and psychological ill health. Dedication and low cynicism contributed to affective commitment, whilst vigour, dedication and low cynicism contributed to behavioural commitment.

Compared to a normative sample, 40% of the participants in this sample showed very high levels of Exhaustion, while 46,6% showed very high levels of Cynicism. Furthermore, only 22% of the sample showed very high levels of Vigour, while 15,2% showed very high levels of Dedication.

The results show that overload and low optimism were the best predictors of exhaustion in this study. This means that overload (i.e. pace and amount of work, mental load and

emotional load) lead to exhaustion (feelings of depleted physical and emotional resources and prompting actions in the worker to distance himself/herself emotionally and cognitively from his/her work). There were certain environmental demands which may have led to overload that the participants in this study were facing, specifically an increased focus on performance management (greater productivity and higher quality expectations), large backlogs of overdue work and the complexity of the financial services industry exacerbated by the need for multi-skilling which ultimately may have resulted in exhaustion. Research by Cordes and Dougherty (1993) supports the current findings. They found that exhaustion is primarily a response to demand stressors placed upon individuals, especially work overload. Stressors directly concerned with job demands like time pressure, meeting deadlines, dealing with difficult clients and work overload lead to adverse work consequences (Lai, Ko, & Boey, 2000); in this study, the adverse consequence was exhaustion. From this study, it would also appear that low optimism (defined as a person's negative outlook towards life events) would further increase the levels of exhaustion experienced. Harju and Bolen (1998) argue that there is significant support that an optimistic viewpoint helps to construe even difficult outcomes as feasible, by applying persistence. Given the prevalent environmental factors mentioned, it would seem that optimism is most needed when times are tough, and if missing, it exacerbates the levels of exhaustion experienced.

The results show that overload, low growth opportunities (i.e. having enough variety, opportunities to learn and independence in the job), high social support (i.e. contact opportunities with other people, and the quality of the support received from colleagues) and low optimism were strong contributors to cynicism (i.e. a negative attitude towards work). This supports an assumption of the JD-R model that states that work characteristics may elicit two psychologically different processes, namely an energetic process of wearing out in which high job demands (in this study it was Overload) exhaust the employee's energy, as well as a motivational process in which lacking resources (in this study it was Growth Opportunities) preclude dealing effectively with job demands and foster cynicism (Demerouti et al., 2001). When the external environment lacks resources, individuals find themselves unable to reduce the potentially negative influence of high job demands, and they may become unable to achieve their work goals.

High social support, when entered with other variables in the multiple regression analyses, contributed to cynicism and lower dedication (despite the fact that cynicism was negatively

related to cynicism and dedication positively related to social support). This could be a result of the contagious nature of burnout (Bakker & Schaufeli, 2000; Maslach, Schaufeli & Leiter, 2001; Schaufeli & Enzmann, 1998). It may be that people who are in the same work environment, that were initially unaffected, become influenced by those persons who are less resilient, and become increasingly cynical as a result of repeated interactions with their burnt-out colleagues. Maslach and Leiter (1997) also point out that burnout is more a crisis in a person's relationship with work than a crisis in the relationship with people at work, so high social support does not necessarily equate to positive outcomes. This finding challenges the natural assumption that social support is always beneficial. If divorce rates are any indication to go by, it would appear that not all social support relationships are positive, nor have positive outcomes.

The results showed that high growth opportunities and high optimism contributed to vigour (characterised by high levels of energy and mental resilience while working, as well as a willingness to exert effort and to persist even through difficult times). According to Carver and Scheier (2002), expectancy-value theories underlie optimism and pessimism. The first conceptual element of expectancy-value theories is behaviour, which is organised around the pursuit of goals. Goals are states or actions that people view as either desirable or undesirable. People try to match their behaviours with what they see as desirable, and they try to keep away from what they see as undesirable. The more important a goal is to someone, the greater its value will be with regard to the person's motivation levels (in this study it was growth opportunities). The second conceptual element in expectancy-value theories is expectancy – a sense of confidence or doubt about the attainability of the goal value may explain optimism's role in contributing to vigour. If an individual lacks confidence, there may be no action. When people are confident about an eventual outcome, effort will continue even in the face of adversity. Remembering that optimism is the person's positive outlook towards life events, and research indicates that optimists are more likely to take action and apply active strategies, as opposed to avoidance coping strategies, in dealing with demands. In addition, active coping has been found to be more effective than avoidance coping strategies in managing stressors (Orpen-Lyall, 1997).

The results showed that high organisational support (i.e. the relationship with supervisors and colleagues, flow of information, communication, role clarity and participation in decision-making), high growth opportunities, low social support, low job insecurity and high optimism

were contributors to dedication (i.e. a sense of significance in one's work, feeling enthusiastic, inspired, and proud and by viewing work as a challenge). The Conservation of Resources (COR) theory (Hobfoll, 1998) is a relevant theory for understanding the effects of job resources (or the lack thereof) on employees and the above-mentioned results. The COR theory's central tenet is that people strive to obtain, retain and protect what they value. Resources are those personal energies and characteristics, objects and conditions that are valued by individuals or that serve as means for the attainment of other objects, personal characteristics, conditions or energies. Examples of resources include social support, job enhancement opportunities, degree of participation in decision making, being psychologically well or having an optimistic personality, level of autonomy and established behaviour outcome contingencies (Hobfoll, 1989; Lee & Ashforth, 1996). The COR theory argues that personal resources affect each other and exist as a resource pool, and that an expansion of one is often associated with the other one being augmented (Hobfoll, 1998). When the external environment lacks resources, individuals cannot reduce the potentially negative influence of high job demands (e.g. overload) and they cannot achieve their work goals. In addition, they cannot develop themselves further in their job and organisation. The COR theory predicts that, in such a situation, employees will experience a loss of resources or failure to gain an investment (Hobfoll, 1989; Hobfoll & Freedy, 1993). Moreover, in order to reduce this discomfort of job stress, employees will attempt to minimise losses. With the intention of achieving equity without further negative consequences for themselves, they will most probably reduce their discretionary inputs.

Based on the holistic model of work-related well-being (Nelson & Simmons, 2003), it could be expected that perceptions of job demands and resources could result in negative psychological experiences (i.e. distress) or positive psychological experiences (i.e. eustress). Interestingly, in this study low social support led to higher levels of dedication, which is contrary to most research. It could be that in interacting less with other burnout colleagues, the individual does not experience the contagious nature of burnout, relative to those that have many interactions with their colleagues and become burnt out themselves.

Exhaustion and cynicism contributed to both physical and psychological ill health. The 'burnt-out' employee is likely to experience stress-related health problems since burnout is frequently linked with illness (see Kahill, 1988; Lee & Ashforth, 1990; Maslach, 1982). Heart disease, some forms of cancer, allergies, migraine, back problems, depression, and an

increased frequency of minor ailments such as colds and flu have been associated with stress and burnout (Ho, 1997; Ryff & Singer, 1998). According to Maslach et al. (1997), physical problems such as headaches, gastro-intestinal illness, high blood pressure, muscle tension, and chronic fatigue are caused by burnout.

The results showed that dedication and low cynicism contributed to affective commitment (feeling committed because like the organisation), whilst vigour, dedication and low cynicism contributed to behavioural commitment (feeling an obligation to the organisation, and a willingness to go beyond what is expected). Regarding work wellness, linkages with burnout research suggest that while organisational commitment seems to diminish in the presence of burnout (Leiter & Maslach, 1988), engagement is a useful indicator of commitment, and to such an extent that engaged employees are loyal and psychologically committed to the organisation (Blizzard, 2002). People who are engaged in their jobs tend to be committed to their organisations, and vice versa.

Overall, these findings support some but not all of the well-known research. This study does for example support Cooper, Dewe, and O'Driscoll (2001) who found that work overload contributes to burnout. This study also supports the findings of Seligman et al. (2000) in terms of the importance of optimism, and highlights the impact that optimism has on both burnout and engagement. Therefore, this study supports the assertion by Seligman et al. (2000) that optimism may act as a buffer against mental illness (Ebert et al., 2002; Scheier et al., 1994; Segerstrom, Taylor, Kemeny, & Fahey, 1998; Shea, Burton, & Girgis, 1993).

RECOMMENDATIONS

Given the pervasive nature of burnout, organisations, especially financial services companies that seem to experience higher than average levels of burnout, should implement planned interventions to prevent burnout in their employees and to increase the levels of work wellness. Although it is important to assist individual employees whose psychological well-being is affected by their work, an organisational approach is more likely to be effective than an individual approach, as most stressors were found to be at an organisational level. A more desirable strategy is therefore to make the organisation inherently less stressful. Since job demands play a central role in burnout and work engagement, it is necessary to implement preventive, organisationally-based strategies to tackle high job demands and to manage a lack of job resources. It is recommended that the organisation provide adequate resources and

encourage the use of problem-focused strategies, which in turn would result in the positive evaluation of professional competence and the prevention of the onset of burnout. Ultimately, this would impact on the work wellness of the individual, and increase the levels of experienced work engagement. Furthermore, demonstration of a positive evaluative orientation of employees in the financial services industry towards their work and recent experiences to deal with their problems actively, allied to the provision of job resources, specifically organisational support, growth opportunities and job security, would lead to employee engagement.

Future studies should investigate positive constructs such as work engagement as part of a work wellness model in other occupations in South Africa, and should be extended to the development of causal models. Consequently, information could be gleaned with regard to the experience of wellness in a positive paradigm of study, which could significantly expand research with regard to the financial services industry and other occupations, which was previously predominantly studied from a pathogenic framework.

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CHAPTER 3

RESEARCH ARTICLE 2

THE DEVELOPMENT OF A RESILIENCE MODEL

ABSTRACT

The objective of this study was to develop a resilience model. The model is a multidimensional, proactive coping approach that consistently strives to develop and enhance the individual's resilience coping reservoir pools (mental, spiritual, socio-emotional and physical), leading to improved resilience, wellness and quality of life. Each reservoir pool has activities that enhance the fitness of the individual, namely physical (rest and relaxation, exercise and nutrition), mental (stimuli, reflection and empowering thinking), spiritual (coat of arms, pay it forward and gratitude), and socio-emotional (breaking destructive relationships and nurturing relationships, responsibility). Future research recommendations include the provision of a universal definition of resilience, assessment of the model's efficacy and the compilation of a taxonomy of reliable adult resilience interventions for practitioners' utilisation.

OPSOMMING

Die doel van hierdie studie was om 'n veerkragtigheidsmodel te ontwikkel. Die model is 'n multidimensionele, proaktiewe coping-benadering wat konsekwent daarna streef om die individu se veerkragtigheids-coping-reservoir (geestelik, spiritueel, sosio-emosioneel en fisiek) te ontwikkel en te verbeter, wat lei tot verbeterde veerkragtigheid, welstand en lewenskwaliteit. Elke reservoir-poel beskik oor aktiwiteite wat die fisiesheid van die individu verbeter, naamlik fisiek (rus en ontspanning, oefening en voeding), geestelik (stimuli, besinning en bemagtigende denke), spiritueel (wapenskild, "pay it forward" en dankbaarheid), en sosio-emosioneel (beëindiging van destruktiewe verhoudings en koestering van verhoudings, verantwoordelikheid). Aanbevelings vir toekomstige navorsing sluit in die daarstel van 'n universele definisie van veerkragtigheid, assessering van die model se doeltreffendheid en die saamstel van 'n taksonomie van betroubare volwasse veerkragtigheidsintervensies vir gebruik deur praktisyns.

Keywords: Resilience, proactive coping, Synergistix resilience model, fitness, spiritual wellness, socio-emotional wellness, physical wellness, mental wellness.

The environment in which employees in South Africa and elsewhere in the world currently function demands more of them than did any previous period. The employment relationship has changed, altering the kind of work that people do, when they work and how much they deliver (Barling, 1999). The impacts of this changing work environment have been severely felt in the financial services sector. Some employees experience diminished choice and control in that they are forced to take on hours and working arrangements that are against their preferences (Turner, Barling, & Zacharatos, 2002). Increased unpredictability occurs as many employers drive greater flexibility by expanding and shrinking the work force to correspond with shifting production and service demands. This results in not only a loss of control over working hours, but also a sense of job insecurity (Martin, 1997). Coetzer and Rothmann (2004) and Orpen-Lyall (in press) identified very high levels of burnout and low levels of engagement in South African financial services employees, relative to a normative sample group.

Within industrial and organisational psychology, there is broad empirical evidence that stressful work situations are related to poor individual health and well-being (Danna & Griffin, 1999; Ganster & Schaubroek, 1991; Kahn & Byosiere, 1992; Lee & Ashforth, 1996; Van der Doef & Maes, 1999). However, at the same time, it is clear that this role is not fully understood nor, as a result, properly managed in relation to the protection and promotion of good mental health. International organisations and governmental institutions alike now recognise that the workplace is a key venue for improving public health (Department of Health, 1999; US Department of Health and Human Services, 1996). Burnout and engagement of employees are specific focus areas for research and intervention in this regard.

Schaufeli and Enzmann (1998) conducted a meta-analysis of burnout interventions. Their conclusions were that most interventions are rather general instead of being specifically tailored to reduce burnout (e.g. time management, job redesign, management development). Secondly, the focus of most interventions is biased towards the individual, whereas organisational-based interventions are rather scarce, despite the relevance of job characteristics for the development of burnout. Thirdly, there are only a very few well-designed studies that document the effectiveness of burnout interventions, usually burnout workshops. Lastly, these studies showed that the core

affective symptom of burnout, namely exhaustion, can be reduced by training employees to use particular coping skills, notably relaxation and cognitive restructuring.

Despite Schaufeli and Enzmann's (1998) findings, no general recipe has emerged for combating burnout so far, which is not surprising given its complex nature. Instead, the last 25 years have witnessed a very profitable, largely commercial anti-burnout business, which utilised numerous approaches, claiming effectiveness. Burnout research, however, has contributed little to current understanding between stress and health, but has more to say about the connection between stress and various job factors (Schaufeli, 2003). So, does the absence of promising results in combating burnout imply that no further research should be conducted? Not according to Strümpfer (in press), as well-being is perhaps the primary concern of positive psychology. A possible implication of the poor results of previous interventions is that more success may be achieved if there is a shift in focus, away from the obsession with the purely pathogenic approach (burnout) to a more salutogenic approach (resilience and engagement). Seligman and Csikszentmihalyi (2000) wrote about creating "a science of human strength" and about "a perspective focused on systematically building competency" (2000, p. 7). Wissing and Van Eeden (1997, p. 5) also contend: "that in this domain not only the origins of psychological well-being should/will be studied, but also the nature, manifestations, and consequently ways to enhance psychological well-being and develop human capacities."

In the literature, there is strong support for an increased focus on organisational-directed interventions. Bond (2004) agrees with this advocacy but states that it is crucial not to lose sight of the importance, and need, for individual-directed interventions. As Bond and Hayes (2002) observe, in addition to focusing on the organisation for stressor reduction, it seems relevant to also address the psychological styles, or approaches, workers bring to stressful work situations. It is also important to acknowledge certain realities of the working world. Firstly, some sources of stress may not be completely avoidable (e.g. client-determined deadlines, negative interactions). Secondly, people's efforts to reduce work stressors may themselves be undermined by poor psychological coping strategies (e.g. use of avoidance coping strategies). Thirdly, work-related stress does not occur in a vacuum and psychological styles that increase stress at home (e.g. being over-controlling) may also result in feeling stress at work. Finally, studies have shown that

individual-directed stress management interventions are effective in improving mental health and job performance (e.g. Bond & Bunce, 2000; Murphy, 2003), whilst research to date is fairly inconclusive relating to the effectiveness of organisational-directed interventions, in fairness, partly due to the difficulty of measuring the real impact on a complex entity.

As Cox and Tisserand observed (2005, p. 191): “It is clear for a long time to come researchers will continue to be interested in the nature and measurement of burnout. However, as occupational health psychologists we must not lose sight of the ultimate goal, which is its prevention, its treatment and the rehabilitation into the workplace of people who have been severely burned out.”

It is necessary to conceptualise a resilience model suitable for the South African context, necessitated by its very non-existence and need based on the current literature review. Furthermore, prevention of unwell-being of employees should be the primary concern of psychologists. There has been a disproportionate emphasis in research and practice on the negative aspects of well-being (e.g. burnout and depression), while recently the focus in psychology in general, and work and organisation psychology specifically has shifted from minimising of weaknesses to the development of strengths. With the clear conceptualisation of a resilience model, an individual-oriented intervention can be developed that will contribute to this new positive psychology approach.

The objective of this study was to develop a resilience model, which focuses more on a salutogenic approach, proactively building strengths, rather than the traditional burnout approach, which is more reactive and pathogenic in its orientation and only aims to rehabilitate once a serious condition is evident. This shift in focus aligns well with recent developments in the field of psychology.

Resilience model

The term “resilience” is applied to a variety of different responses. Resilience has frequently been defined as strength or good outcomes in the face of life adversity (Anthony, 1987; Cohler,

1987; Kaufman, Cook, Arny, Jones, & Pittinsky, 1994; Masten, 2001; Ryff & Singer, 2000). Resilience can also be defined as the process of coping not just with adversity, as mentioned previously, but change or opportunity in a manner that results in the identification, fortification, and enrichment of resilient qualities or protective factors (Richardson, 2002). It is not the absence of negative experiences or negative emotion that defines the good, well-lived, richly experienced life, but how challenges and difficulties are managed, responded to and dealt with. Richardson (2002) talks of “resilient reintegration” which is the reintegrative or coping process that results in growth, knowledge, self-understanding and increased strengthening of resilient qualities. This may be through planned disruptions or reacting to life events; people have the opportunity to choose consciously or unconsciously the outcomes of disruptions. Some authors use the term “thriving” for such development. These qualities of resilience may be developed or strengthened (e.g. during Special Forces training), not necessarily due to presently existing demands, but in anticipation of inevitable inordinate demands, a process also described as proactive coping (Strümpfer, 2002).

Traditionally, resilience is viewed as a broadly held characteristic, but there are problems with this assumption. Firstly, whilst showing impressive overall, overt competence, individuals can show considerable variation in their degree of resilience. Their adjustment levels could vary significantly across development stages and across different domains, for instance at work, as spouses, or as parents. Consequently, differences across spheres of adjustment must be carefully appraised, and discussions on resilience should be presented in terms of specific spheres of successful (and less successful) adaptation (Strümpfer, 2002). On these grounds, the idea of a single, overall resilience, actually seems oversimplified and of questionable utility. Instead, it becomes more meaningful to speak of various “resiliences”. Individuals’ natural reserves of resilience affect their performance at work, their physical and mental health, and the quality of their relationships. It is the basic ingredient for happiness and success, according to Reivich and Schatte (2002). The resilience model for the purposes of this study recognises that there are multiple resiliences at play, most notably in the individual’s spiritual, physical, mental and socio-emotional lives.

As Richardson (2002) points out, resilience and resiliency are meta-theories providing an umbrella for most psychological and educational theories. It is, however, imperative that some of the sub-components such as health, wellness, quality of life, proactive coping and resilience are conceptualised because of their central contributions to the more all-encompassing resilience model developed in this study.

The World Health Organisation (2002) defines health as follows: "... a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity." Explicit efforts to move beyond medical and disease models of health, such as attempts to measure multidimensional aspects of functioning (Engel, 1977; Machenbach, Van den Bos, Joung, Van de Mheen, & Stronks, 1994; Stewart & Ware, 1992; Ware, 1986) and quality of life (Bowling, 1991), provide important steps in the direction of construing health as states of well-being rather than ill-being. In the last decade psychologists have become increasingly concerned with prevention. What we have learnt over the last 50 years is that the disease model does not bring us closer to the prevention of serious problems. Indeed the major strides in prevention have come largely from a perspective of systematically building competency, not correcting weakness (Seligman & Csikszentmihalyi, 2000).

Ryff and Singer (1998) concluded that the key dimensions in life central to positive mental health are having purpose in life, quality connections to others, positive self-regard and personal mastery. According to Ryff and Singer (1998), three principles underlie positive mental health. Firstly, it is not, in the final analysis, a medical question but rather is a philosophical issue that requires articulation of the meaning of a good life. Secondly, it is about the mind and the body and their interconnections. Thirdly, it is best construed as a multidimensional, dynamic process rather than a discrete end state. That is, human well-being is ultimately an issue of engagement in living, involving expression of a broad range of human potentialities: intellectual, social, emotional, and physical (Ryff & Singer, 1998).

In 1961, Dr. Halbert Dunn (see Warner, 1984, pg. 34) coined the term wellness and defined it as: "An integrated method of functioning which is orientated towards maximising the potential of which the individual is capable." Dunn considered wellness as the style of living that permits or

facilitates an improved quality of life, human excellence and high energy life. In Dunn's view wellness and health are dynamic, not static. It is a lifetime process with no definite end or beginning (Palombi, 1992). Health can also be conceptualised as a way of living that helps us continuously uncover human potential. A wellness system intends to maximise good health (Ardell, 1977). In contrast, an illness system intends to minimise the impact of disease. In order to experience wellness, human beings need to become aware of where they need to develop, making conscious choices and moving towards a more balanced and healthy lifestyle.

Over the years, authors of widely used textbooks have characterised wellness as quality of life and sense of well-being (Breuss & Richardson, 1992; Corbin, Lindsey, & Welk, 2002; Eldin & Golanty, 1992; Payne & Hahn, 2000). Spirituality has been virtually ignored in contemporary models of well-being (e.g. Ryan & Deci, 2000), yet there are compelling empirical and theoretical reasons for its inclusion in any comprehensive account of human well-being (Emmons, 1999; Piedmont, 1999). Researchers have advocated including meaning (a core component of spirituality in this study) in conceptual models of quality of life and well-being (Compton, Smith, Cornish, & Qualls, 1996; Ryff & Keyes, 1995). Given the current body of knowledge, the dimensions of wellness could be classified as physical, social, emotional, intellectual (mental) and spiritual.

According to Ryff and Singer (2000), quality of life can be interpreted as the continual pursuit of enriching, stimulating and healthy activities. As burnout may be conceived as a long-term consequence of work (Shirom, 2003), it can be used as an indicator of the perceived quality of one's working life. Indeed, two recent studies found that life satisfaction is inversely related to negative outcomes of wellness such as exhaustion and disengagement (Demerouti, Bakker, Nachreiner, & Schaufeli, 2000; Lee, Hwang, Kim, & Daly, 2004).

The current quality of life approaches tend to emphasise basic morbidity and self-care capacities, along with effective management of treatment side-effects. Missing are the more health-giving aspects of functioning, such as positive self-regard, a sense of mastery, quality ties to others and purpose in life. Adding these elements of well-being offers a richer, more enlightened view of

health. Psychosocial strengths appear to be critical ingredients for understanding who stays well and why (Ryff & Singer, 2000).

Proactive coping consists of efforts undertaken in advance of a potentially stressful event to prevent it or to modify its form before it occurs. As such, proactive coping differs from coping with stressful events and from anticipatory coping in important ways. In the stress and coping literature, coping is defined as activities undertaken to master, tolerate, reduce or minimise environmental or intrapsychic demands perceived to represent potential threats, existing harm or losses (Folkman & Lazarus, 1985; Lazarus & Folkman, 1984). Anticipatory coping involves preparation for the stressful consequences of an upcoming event whose occurrence is likely or certain (Breznitz, 1983; Folkman & Lazarus, 1985). “It is important to note that proactive coping involves the accumulation of resources and the acquisition of skills that are not designed to address any particular stressor, but to prepare in general, recognising that stressors do occur and that to be forearmed is to be well prepared. In addition, from the positive health research perspective, proactive coping needs to include how people seek and sustain positive experiences.” (Ryff & Singer, 1998, p. 71). This approach might ultimately culminate in greater resilience and enhanced quality of life, due to the proactive accumulation and development of an array of multidimensional coping resources in advance of stressful encounters, thus decreasing the level of appraised threat in the appraisal phase.

Proactive coping is largely unstudied in the stress and coping literature (Aspinwall & Taylor, 1997). The majority of research on general stress and coping focuses on reactive coping, which by its nature happens after an individual exits a stressful situation. Given its post-hoc nature, reactive coping cannot explain how individuals approach potentially stressful situations or use strategies to reduce or eliminate negative consequences, before or during a potential stressful event. Proactive coping, on the other hand, allows us to expand the time frame of the stressful event to include how one might deal with a stressful event prior to it materialising or becoming fully defined (Aspinwall & Taylor, 1997).

Aspinwall and Taylor (1997) make the explicit assumption that proactive coping is generally beneficial to the individual. According to Aspinwall and Taylor (1997), there are four benefits:

Firstly, during an actual stressful encounter, proactive coping would minimise the degree of experienced stress. Secondly, if the stressor is tackled in its early stages, the ratio of coping resources spent to the magnitude of the stressor will be favourable. Thirdly, when a stressful event is still approaching, a range of options may be available, and that may not be the case after it starts developing or has already occurred. Lastly, the burden of chronic stress carried by the individual is likely to be smaller if stressful events can be minimised or even averted through proactive coping. Ashford and colleagues have provided evidence of several proactive strategies linked to success in the workplace (Ashford, 1986; Ashford & Cummings, 1983). However, despite these examples, much still remains to be known about the determinants of effective, proactive coping.

Fundamentally, the resilience model embraces the WHO's definition of health, but aligns itself more closely to the key principles of human health by focusing on developing comprehensive well-being as laid out by Ryff and Singer (1998).

Core components of a resilience model

For the purposes of this study, the researcher focused on spiritual, physical, mental and socio-emotional wellness. They will now be briefly reviewed.

Spiritual wellness

Whilst there is a variety of definitions relating to spirituality, which range from the best of that which is human (Twerski, 1998), to a quest for existential meaning (Doyle, 1992), to the transcendent human dimension (Mauritzen, 1988), it is doubtful that any single definition will satisfy everyone. The definition that most closely correlates to the researcher's definition is where spirituality is defined as the desire to find ultimate purpose in life and to live accordingly in order to find a deep sense of wholeness or connectedness to the universe (Frankl, 1969; Frankl, 1984; Myers, Sweeney, & Witmer, 2000). For Frankl, the striving to find overarching meaning and purpose in one's life was the primary motivational force; however, the meaning is unique and the satisfaction of the will to meaning can only happen when the individual directs his or her life

towards a personal, but vitally important goal (Strümpfer, in press). Angell, Dennis and Dumain (1998) have proposed that “spirituality is a fundamental form of resilience and serves as a modifiable resource that can be drawn upon during times of personal crisis” (p.616).

Emmons, Cheung and Tehrani (1998) found that spiritual strivings were more highly correlated with measures of well-being than any other type of striving. There also appears to be agreement on the central importance of meaning and purpose in life as a cornerstone of spiritual wellness (Beck, 1967; Chandler, 1992; Frankl, 1969; Frankl 1984; Westgate, 1996). Spirituality does seem to have a protection factor built in, and is attested to by research data on patients’ ability to cope with serious and chronic illnesses (e.g. Brady, Peterman, Fitchett, Mo, & Cella, 1999; Paragament, 1997; Roberts, Brown, Elkins, & Larson, 1997). Spirituality also has positive implications for a number of aspects of human functioning, including mental health (Koenig, 1998), drug and alcohol use (Benson, 1992), marital functioning (Mahoney, Paragament, Jewell, Swank, Scott, Emery, & Rye, 1999), and parenting (Ellison & Sherkat, 1993). Research by Dunn (1994) using structural equation modelling showed that physical and mental predictors of resilience reintegration paled compared to spiritual measures. Spiritual measures in Dunn’s research included purpose of life, religiousness and belief in a higher power. It would seem that research has proven that there is a spirituality-well-being correlation. A possible explanation for this may be as a result of the sense of meaning and purpose that many people derive from their spirituality. Seligman (1998) has contended that a loss of meaning feeds today’s high depression rate, and that finding meaning requires an attachment to something larger than the lonely self.

For the purposes of this study, three key spiritual activities have been identified, namely will to meaning, gratitude and community contribution. As far as will to meaning is concerned, O’Connor and Chamberlain (1996) have shown that people who lack meaning in their life tend to have more mental/emotional difficulties, more addictions, and more suicidal thoughts. Regarding gratitude, people who describe themselves as feeling grateful to others, and either to God or to Creation in general tend to have higher vitality and more optimism, suffer less stress, and experience fewer episodes of clinical depression than the population as a whole. These results hold even when researchers factor out such things as age, health and income, equalising for the fact that the young, the well-to-do, or the hale and hearty might have more to be thankful

for (Easterbrook, n.d.). Emmons and Shelton (2002) contend that gratitude enhances one's personal and relational well-being and is quite possibly beneficial to society as a whole. Concerning community contribution, there is evidence that personally helping someone makes people feel good, calm, self-satisfied and less stressed, something akin to a "runner's high". These benefits from helping others do not occur when a person merely gives money, pays taxes, helps without having close personal contact, or feels compelled to help (Luks, 1988).

The spiritual quadrant has synergistic (what happens in this quadrant has positive ripple effects on the other three quadrants, i.e. physical, mental and emotional) dynamics. A 1993 Israeli survey following 10 000 civil servants over 26 years found that Orthodox Jews were less likely to die of cardiovascular problems than "non-believers". Active religiosity amongst North Americans was associated with several positive mental health criteria, including less likelihood than irreligious people to become delinquent, to abuse drugs and alcohol, to divorce and to commit suicide (Batson, Schoenrade, & Ventis, 1993; Colasanto & Shriver, 1989). Research is showing that gratitude is not only one of our most important positive emotions, but one that links directly to physical and mental well-being (Emmons & Shelton, 2002).

Socio-emotional wellness

Social wellness is defined as the perception of having support available from family and friends in times of need, and the perception of being a valued support promoter. Emotional wellness is defined as possession of a secure self-identity and a positive sense of self-regard, both of which are facets of self-esteem (Adams, Bezner, & Steinhardt, 1997). For the purposes of this study, socio-emotional wellness is considered a combination of both social and emotional wellness.

According to Baumeister and Leary (1995), there is an impressive array of evidence that humans possess a fundamental need to belong. This need feeds various deep attachments, such as family units, faithful relationships and teams. Deficits in belongingness, they showed, were linked to a variety of ill effects for health, resilience and well-being.

For the purposes of this study, three key socio-emotional activities have been identified, namely nurturing relationships, breaking destructive relationships and responsibility. Regarding

nurturing relationships, Diener (2001), in a review of cross-national studies of the sources of subjective well-being, found that only one factor consistently predicted subjective well-being in every country studied, namely social relationships. When describing the factors that give life meaning, most people mention close relationships more so than other activities (Klinger, 1977). When afflicted with leukaemia or heart disease, those who experience extensive social support have higher survival rates (Colon, Callies, Popkin, & McGlave, 1991). When social ties break, through widowhood, divorce or dismissal from a job, immune defences weaken for a time, and rates of disease and death rise (Dohrenwend et al., 1982; Kapiro, Koskenvuo, & Rita, 1987). As far as breaking destructive relationships are concerned, troubled relationships are the most common presenting problem in psychotherapy (e.g. Pinkster, Nepps, Redfield, & Winston, 1985), and the loss of, or failure to attain, desired relationships is a major source of depression, loneliness, alienation and self-destructive behaviour at all stages of the life cycle. Destructive relationships also may have harmful health consequences as shown by the link between conflict/hostility and the resultant suppression of the immune system (Kiecolt-Glaser, 1999). Forgiveness is a central component for responsibility and it can lead to improved psychological and physical well-being and a deepening of the relationship with the transgressor (Carr, 2004).

The socio-emotional quadrant has certain synergistic dynamics, including the clearly demonstrated value of social connections and social support for health, recovery from illness, and physiological functioning (Cohen & Herbert, 1996). These effects are not slight. House, Landis and Umberson's (1988) review of five large-scale, long-term studies concluded that low social integration (e.g. not married, low involvement in community groups) is a major risk factor for premature death. The strength of the association is illustrated by the fact that this review and others (Atkins, Kaplan, & Toshima, 1991) concluded that the age-adjusted relative risk ratio between low social integration and mortality exceeds that of the highly publicised risks associated with smoking and obesity.

Physical wellness

Dienstbier (1989), Dienstbier, LaGuardia, Barnes, Tharp and Schmidt (1987), Dienstbier and Pytlik Zillig (2002), as well as Epel, McEwen and Ickovics (1998), argued that there are physical thriving responses that lead to enhanced health. These consist of physiological changes that

result from facing stressors that leave individuals with greater physiological resilience than they had before the experience. This was termed physical thriving, comparable to the researcher's conceptualisation of wellness.

According to the World Health Organisation (WHO) estimates (2002), 16,7 million people die every year of cardiovascular disease, this is about one-third of all deaths globally. By 2020, heart disease and stroke will become the leading cause of both death and disability worldwide (Heart disease and stroke statistics, 2008). Premature deaths in South Africa due to heart and blood vessel diseases in people of working age (35-64 years old) are expected to increase by 41% between 2007 and 2030 (Steyn, 2005). Interestingly, Paffenbarger, Hyde, Wing and Hsieh (1986) conducted a landmark study based on 17 000 Harvard graduates who attended Harvard between 1916 and 1950, and whose health was followed until 1978. They found a distinct relationship between exercise or activity levels and health, to the extent that regular exercise may extend life by 10-20 years. Long and Flood (1993) suggest that exercise (easy to strenuous) may increase employees' coping response to job stress. They state that exercise can be seen as both a coping response to stress and the development of coping resources.

For the purposes of this study, three key physical activities have been identified, namely exercise, nutrition and sleep. The fundamental importance of exercise and nutrition for physical health are best illustrated by comments from former Surgeon General Richmond (1992), who said that of the ten leading causes of illness and death in the USA, seven could be greatly reduced if the following lifestyle habits were modified: lack of exercise, poor diet, smoking, unhealthy maladaptive responses to stress and tension and alcohol abuse. As far as sleep is concerned, a sizable proportion of American adults (43%) report that they are so sleepy during the day that it interferes with their daily activities a few days per month or more; and 20% experience this level of daytime sleepiness at least a few days per week or more (National Sleep Foundation's 2000 Omnibus Sleep in America Poll, 2000). Studies have shown that without enough sleep, a person's ability to perform even simple tasks declines dramatically. Lack of sleep has also been shown to suppress the immune system, decrease lifespan and contribute to erratic behaviour as a result of sleep deprivation (Geldenhuys, 2003). Epel, McEwen and

Ickovics (1998) found that inadequate recuperation after acts of straining is a mediating mechanism in the relationship between stress and ill health.

The physical fitness quadrant has certain synergistic effects on some of the other quadrants, specifically the mental and socio-emotional quadrants. Exercise as a means of protecting health by decreasing the “organismic strain” resulting from stressful life events, such as divorce or a death in the family, has been explored with some success (Kobasa, Maddi, & Puccetti, 1982). Psychologists and psychiatrists, who on average had 17 years professional experience, rated exercise as the most effective technique for changing a bad mood and are most likely to use exercise more than other techniques to energise themselves (Thayer, Newman, & McLain, 1994). A cross-sectional study of 4 628 men concluded that physical fitness may act as a buffer against stress by fortifying the body and increasing “hardiness” (Tucker, Cole, Galen, & Friedman, 1986). Physical activity is associated with increased sense of mental well-being, alertness, vigour, clear thinking and energy (Berger & McInman, 1993; Berger, Owen, & Man, 1993; King, Taylor, Barr, & Haskell, 1993), improved health (Tudor & Bassett, 2004), physical functioning (Brach, Simonsick, Kritchevsky, Yaffe, & Newman, 2004), positive mood enhancement (Janisse, Nedd, & Nies, 2004), health-related quality of life (Brown et al., 2004) and lower mortality (Gregg et al., 2003).

Mental wellness

The Surgeon General defined mental health as “. . . a state of successful performance of mental function resulting in productive activities, fulfilling relationships with people, and the ability to adapt to change and to cope with adversity” (U.S. Public Health Service, 1999, p. 4). A different view on mental wellness, termed intellectual wellness, which more closely aligns to the researcher’s model, is defined as the perception of being internally energised by an optimal amount of intellectually stimulating activity (Adams et al., 1997).

Studies conducted across a broad range of settings have linked psychological well-being to numerous organisationally relevant benefits, including reduced absenteeism (Iverson, Olekans, & Erwin, 1998), increased cognitive flexibility and innovative problem solving (Ashby, Isen, &

Turken, 1999; Isen, Daubman, & Nowicki, 1987), improved negotiation style (Carnevale & Isen, 1986), creativity (Isen et al., 1987), decision-making (Isen, 2000), job performance (Staw & Barsade, 1993; Wright & Staw, 1999), job achievement (Staw, Sutton, & Pelled, 1994) and job satisfaction (Woodward & Chen, 1994).

For the purposes of this study, three key mental activities have been identified, namely stimulus, empowered thinking and reflection. According to Watson (2000), if one wants to experience joy, alertness, interest and confidence one needs to be “doing” (conceptualised as Stimulus by the researcher) rather than just thinking. Those that are high in the aforementioned characteristics tend to be physically, socially and mentally active (Thayer, 1996; Watson, 2000; Watson & Clark, 1997). Watson defines two broad classes of activity that are particularly conducive to elevated positive mood: socialising and interpersonal behaviour, similar to nurturing relationships in the socio-emotional quadrant of the resilience model; and exercise and physical activities, which is the same as the physical fitness quadrant in the resilience model. Empowered thinking is another key mental activity. People who learn to maintain an optimistic attitude may not only avoid depression, they may actually improve their physical health, according to a controlled study by Buchanan, Gardenschwartz and Seligman (1999). Their study showed that university freshmen that participated in a workshop on cognitive coping skills reported fewer adverse physical problems and took a more active role in maintaining their health. Self-confidence, ego strength, which is similar to high self-esteem (Worden & Sobel, 1978), and having a sense of humour (Cousins, 1979) are all internal personality resources that may provoke effective coping with stress. Elite performers have consistently been shown to make greater use of psychological skills and strategies than their non-elite counterparts (Mahoney & Avenier, 1977; Mahoney, Gabriel, & Perkins, 1987; Orlick & Paddington, 1988). One well-utilised psychological skill in sport is visualisation. Ian Robertson, a neuroscientist and author of *Mind Sculpture*, has found that individuals can literally reprogram the neural circuitry of the brain, directly improving performance (Loehr & Schwartz, 2001). Research has found that people who demonstrate self-understanding, an internal psychological process in which a person makes causal relationships or linkages between experiences in the world and his inner feelings (termed reflection by the researcher), are more resilient (Beardslee, 1989).

The mental quadrant has certain synergistic dynamics. A sense of humour helps the individual gain positive emotionality, no matter what the circumstances. Frankl (1963), based on personal experiences in concentration camps in World War 2, said: "Even in concentration camps there could be laughter." Lefcourt supports the view that humour is a particularly effective coping strategy, and has proven this conclusively in an extensive series of studies (Lefcourt, 2001). People who use humour tend to have less stress-related symptoms such as depression in response to stressful life events. Humour also aids recovery from illness and surgery. Research seems to indicate that reflection benefits establishing the individual's identity and affirming their self-worth (Baumeister & Wilson, 1996; McAdams, 1996).

DISCUSSION

Based on Seligman and Csikszentmihalyi's (2000) challenge that people need to develop the prevention competency, the resilience model's development focused not on the psychology of victimology, but rather the science of strengths, also known as psychofortology and positive psychology. The model is based on a multidimensional, proactive coping approach which consistently strives to develop and enhance the individual's resilience coping reservoir pools over time.

Resilience coping reservoir pools are similar to proactive coping, which involves the accumulation of resources and acquisition of skills that are not designed to address any particular stressor but to prepare in general, as defined by Aspinwall and Taylor (1997). For the purposes of this study, "resilience coping reservoir pools" are those coping resources that an individual can proactively exploit appropriately given the unique nature of the situation to cope with the present and potential challenges that life provides. This implies flexibility of responses (not reacting, which is reflexive, but rather responding, which requires conscious thought) and regular practice of the twelve activities which lead to enhanced quality of life, wellness and stress resilience.

In recognising the multiple resiliences at play in an individual's life, the consequent need arises for a repertoire of positive, proactive coping skills in the four quadrants of an individual's life, namely their mental, spiritual, socio-emotional and physical dimensions. In developing this

broad array of reservoir pools, individuals can synergistically convert challenges into opportunities, leading to improved quality of life and resilience. Hence, the researcher conceptualised the approach as the “Synergistix resilience” model. There is a long history in psychological theory of viewing the person as “a whole seeking reciprocal actions of the mind on the body, for both of them are parts of the whole with which we should be concerned” (Adler, 1956, p. 255). This integration was developed further by Jung (1958) and particularly by Maslow (1970), who argued that striving towards self-actualisation, growth and excellence is a universal tendency and overarching life purpose. The Synergistix resilience model’s core is based on the well-known wellness wheel, specifically Covey’s (1989) interpretation that refers to the mental, spiritual, socio-emotional and physical dimensions. An important premise relating to sustained resilience pertains to making regular, optimal deposits not only in individuals’ physical, but also in the mental, emotional and spiritual quadrants of their lives. Hence, the researcher talks of spiritual fitness, mental fitness, etc. Fitness, for the purposes of this study, is the capacity to meet and exceed the present and potential challenges of life in the four quadrants by structured, purposeful and repeated activities.

Resilient behaviour manifests at all levels of human functioning, from the molecular to the spiritual. At the molecular level, self-repair of DNA is an example; at a social level, the phenomenal growth of literature pertaining to social support is an example; whilst the spiritual level is only now beginning to attract serious attention (Strümpfer, 2003).

Traditional stress and lifestyle management approaches tend to focus on only one or two aspects of the wellness wheel, which is too simplistic and ineffective ultimately due to the inter-relatedness of human functioning. The Synergistix’s multidimensional approach provides broad utility by furnishing the participant with a variety of techniques and key areas to focus on, thus avoiding the erroneous assumption that participants all have the same challenges now or in the future. In addition, this takes cognisance of Strümpfer’s (2003) earlier assertion that people are not necessarily resilient across all spheres of their lives.

Research on the relationship between occupational stress and psychological adjustment has emphasised the importance of coping resources and strategies in reducing the negative effects of

stress (Ashford, 1988; Kirmeyer, 1988; Osipow, Doty, & Spokane, 1985; Parkes, 1990, 1994). Coping resources incorporates a range of strategies and tools for dealing with stressful situations and perceptions, and their use varies greatly among individuals (Israel, House, Schurman, Heaney, & Mero 1989; Lazarus & Folkman, 1984; Parkes, 1994). Coping resources and strategies may for example take a cognitive form by reframing and re-evaluation, or a behavioural form by engagement in recreational activities and self-care activities, or the seeking of social support (Osipow & Spokane, 1987).

The Synergistix resilience model incorporates certain central principles from health, wellness, well-being, quality of life, proactive coping and resilience literature mentioned earlier. The specific components that are adopted in the Synergistix resilience model are:

- Health: the multidimensional aspects of functioning in terms of mental, physical and social well-being and the meaning of life (spiritual); the importance of the philosophical articulation of the meaning of what is a good life; the acknowledgement that positive health is a dynamic process, not an end state; the mind-body inter-connectedness and, importantly, the focus on well-being, not just a focus on the absence of disease. It could be argued that the resilience model goes further than the WHO's (2003) health definition because it also includes a spiritual component. In doing so, the resilience model does not advocate a specific religion, but it does acknowledge the importance of the spiritual dimension, especially with regard to ascertaining the person's purpose and meaning in life.
- Wellness: like health, the recognition that wellness is a dynamic, not static, state; the focus on striving for an integrated method of functioning orientated towards maximising potential, not solely towards minimising the impact of disease; and that wellness results in high energy and quality of life.
- Quality of life: the continual pursuit of enriching, stimulating and healthy activities, including positive self-regard, sense of mastery, quality ties to others and purpose in life.

- Proactive coping: that major strides in prevention have come from systematically building competence, not correcting weaknesses; the importance of efforts undertaken in advance of potentially stressful events to prevent them, or to modify their form before they occur; the accumulation of resources and the acquisition of skills that are not designed to address any particular stressor but to prepare in general, not to mention the flexibility this approach provides.
- Resilience: how the individual responds, rather than the absence of negative experiences, emotions or stimuli determines the good, well-lived life; that individuals can have different resilience levels across different spheres of their lives; challenges can result in growth, knowledge, self-understanding, and increased strength of resilient qualities; this growth may occur through planned disruptions or reacting to life events. Resilience, for the purposes of this study, is the ability to overcome adversity (daily hassles and major stressors) and thrive by continually developing, maintaining and utilising the four major resilience reservoir pools (i.e. mental, socio-emotional, physical and spiritual).

The Synergistix resilience model is illustrated in Figure 1.

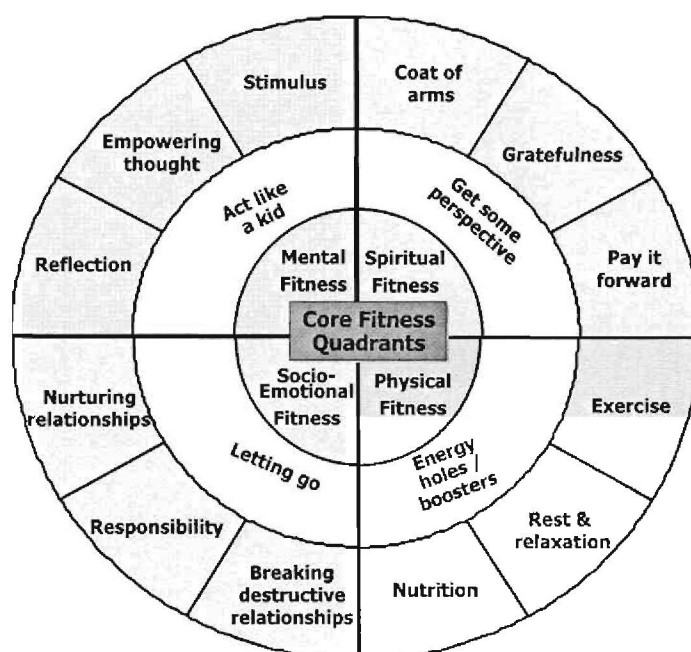


Figure 1. The Synergistix resilience model

When applying the Synergistix resilience model it is important to apply a fundamental change management principle for long-term behaviour change. Real change must first occur at the belief level, as beliefs ultimately drive behaviour. Once these new beliefs (called principles based on natural laws in this model) have been internalised, there is a greater likelihood for long-term, successful and consistent application of the twelve activities. The four principles – “Act like a kid” in the mental quadrant, “Get some perspective” in the spiritual quadrant, “Energy holes and energy boosters” in the physical quadrant, and “Letting go” in the socio-emotional quadrant – underpin the implementation of the twelve activities. By way of a practical illustration, take “Act like a kid” as an example of a principle. There are certain reasonably generic, positive characteristics of most young children, namely that they constantly seek stimuli as they are in a rapid learning phase; they tend to learn by trial and error (reflecting as well) on their experiences and mistakes; they are often fully present in the situation; and they generally experience a higher level of enjoyment than adults. By applying the “Act like a kid” principle and its associated characteristics, an adult will be better able to maximise his/her mental capabilities. These characteristics have been attested to by their importance in adult-based education practises, the well-known Kolb’s learning cycle and mindfulness-based relaxation.

The concept of oscillation was popularised by Groppe (2000), in his book *The Corporate Athlete*, where he developed interventions for organisations based on his many years training high performing Olympic athletes. Within each fitness quadrant there is oscillation (movement between extremes) between the activities in the specific quadrants, e.g. in the physical quadrant between exercise and rest and relaxation; in the mental quadrant between stimulus provided and reflection thereon; in the spiritual quadrant between the mental creation needed for determining the mission statement in the coat of arms and the physical creation of making good intentions happen in the pay it forward activity; and in the emotional quadrant between breaking and nurturing relationships.

Spiritual fitness

For the purposes of this study, spiritual fitness refers to the quality of the connection an individual has with his/her Creator (manifested in “Gratefulness”, prayer and meditation

activities), his/her fellow man (illustrated by “Pay it forward” activities) and the world (shown by the “Coat of arms” activities). The key principle that underpins the spiritual quadrant is “Get some perspective”. People often feel depressed, confused and/or frustrated in terms of key decisions they have to make and what direction they should take in life. By developing the “Get some perspective” principle, the individual learns to view his/her situation more objectively, and to make plans based on a positive picture of reality, not fear. It requires that the individual increase his/her awareness of what is important and identify his/her purpose, values and goals in life so that he/she can achieve his/her full potential.

Practical application includes the establishment of the individual’s own “Coat of arms”, which refers to identifying the individual’s purpose by developing a mission statement and associated goals to provide direction and meaning finding; “Gratefulness”, which is the vehicle for appreciation by the individual for his/her Creator and the world so that people, experiences, opportunities and things are not taken for granted, but affirmed and recognised for their uniqueness and value; and “Pay it forward”, which relates to taking community-directed action to better the lives of others without the expectation of reward or recognition for themselves, thereby translating good intentions into action and experiencing the power of making a positive difference.

Socio-emotional fitness

For the purposes of this study, socio-emotional fitness is the extent to which there is a healthy interplay between three components, namely “Nurturing relationships”, “Breaking destructive relationships” and taking “Responsibility”. “Nurturing relationships” refers to enhancing and maintaining an individual’s social infrastructure, i.e. family ties, marriage, children and other relationships. “Breaking destructive relationships” is about addressing the individual’s own emotion-invoking “baggage”, e.g. level of self-esteem that individuals bring to a relationship and self-forgiveness capacity; by acknowledging the individual’s innate ability to make choices and determine different ways of responding to life’s challenges, referred to as “Responsibility”.

The key principle that underpins this quadrant is “Letting go”. An individual cannot go forward positively until he or she has learnt to let go of past negative experiences, or at least come to terms with his/her past. The researcher has seen people achieve extraordinary financial success but they have exhibited low subjective well-being, they jealously hoard perceived slights, fear failure (low empowering thoughts) and are never satisfied with what they have (low gratitude). They constantly seek to acquire more to make them feel better about their past, but their past holds them captive. This principle requires the individual to learn from the past, live in the present and plan for the future.

Practical application includes “Responsibility”, which is when individuals take ownership of their actions and the direction their lives take by learning to respond (choice), not react (reflexive) through increased self-awareness, response regulation and being ‘fully present’ and focusing their time and energy on high impact opportunities. “Nurturing relationships” is creating the capacity to enjoy fulfilling relationships through the development of social support infrastructure by enhancing communication skills and sustainable marriage, family, children and friendship practises. “Breaking destructive relationships” is addressing those internalised, self-limiting beliefs (all individuals have a relationship with themselves, and they are often most critical with themselves) that hinder people from maximising their ability to enjoy healthy relationships by developing their own self-forgiveness and granting forgiveness to others capacity; improving their self-esteem through appreciative enquiry, affirmations, visualisation and other methods.

Physical fitness

For the purposes of this study, physical fitness refers to the creation of sustainable energy and health through optimising the energy triad generated by “Rest and relaxation”, “Exercise” and “Nutrition” activities. The key principle that underpins this quadrant is “Energy holes/boosters”. Everyone has a finite amount of time and energy before they burn out. Individuals need to ensure that they avoid and/or minimise those things, people, situations that drain their energy levels, e.g. unproductive meetings, junk mail, toxic people and destructive relationships. Instead, they should rather surround themselves with empowering, uplifting people and activities where

possible that boost their energy levels, e.g. exercise, healthy nutrition and appropriate levels of rest and relaxation.

Practical application includes “Nutrition”, which is about creating the optimal nutritional energy supply to sustain the individual in his/her endeavours by exercising healthy eating options and practices; “Rest and relaxation”, which is taking the time to rest and recuperate from the rigors of life, to ensure creativity and sustained stamina through optimal sleep, rest and relaxation techniques such as progressive muscular relaxation, visualisation and breathing; and “Exercise”, which is foundational to physical fitness and is achieved through an adaptable exercise regime that is not gym dependent.

Mental fitness

For the purposes of this study, mental fitness is the extent to which there is freedom from mediocrity and conformity through non-habitual thought manifested in “Reflection” and “Empowering Thoughts” activities, and opportunities generated by “Stimulus” activities. The key principle that underpins this quadrant is “Act like a kid”. When observing young children, the researcher noted a heightened level of curiosity, playfulness, laughter and ability to learn rapidly. In essence, this principle as children constantly apply it requires the individual to move out of routine thinking patterns and challenge his/her own paradigms. In addition, adults forget how to have fun, as they equate adulthood and responsibility with seriousness. As Richardson (2002) noted, people will have more zest for life if they are more childlike at work, home and when performing life’s responsibilities by doing so with adventure, playfulness and humour.

Practical application includes “Stimulus”, which is enhancing an individual’s curiosity, experiences, awareness and thinking capacity via exposure to a multitude of stimuli and experiences. “Empowering thought” links to thinking that liberates an individual’s potential to meet and overcome challenges that are often self-imposed by limiting thinking. Examples include rational thinking analysis and reframing. “Reflection” is the activity of critically thinking and creating meaning and learning from experiences generated by stimuli activities and the

individual's life in general. Examples include both a macro-review of their lives to date and reflection on a daily basis.

See the Appendix for an overview of the Synergistix resilience model in a workshop format.

RECOMMENDATIONS

Resilience is an umbrella term that has its origins in many disciplines, ranging from physics, biology, psychology, theology to mysticism. Even within a single discipline such as psychology, resilience is conceptualised differently. This variety creates an environment where there is a vibrant, varied conceptualisation of resilience. Unfortunately, it also results in unfocused research that cannot be integrated due to lack of agreement on the very nature/meaning of what is being researched. It is therefore recommended that a common, agreed upon conceptualisation of resilience is developed, much like the term “coping” conceptualised by Folkman and Lazarus in the 1980s. Measurement cannot be better than the constructs that are supposed to be measured. The clarification of concepts therefore needs to precede any attempt at proper assessment.

As Ryff and Keyes (1995, p.720) comment: “...the absence of theory-based formulations of well-being is puzzling”. By asking who is resilient and why, those engaged in the scientific pursuit of resilience can help society rethink its priorities and envision a world that enhances human well-being. Resiliency can provide hope and with practice, increase self-efficacy, as people gain more control and order in their lives and rely less on medications and outside support (Richardson, 2002). It may be worthwhile assessing this assumption, and conversely any negative implications that resilience may have for individuals, the so-called “Law of unintended consequences”.

Whilst it is still important to develop an integrated, proactive coping Synergistix resilience model it needs to have meaningful impact for adherents. It is therefore necessary to test the assumptions made in the model to see if it has made a meaningful contribution to the field of resilience interventions, and individuals in particular. It would also be necessary to assess the temporariness of these interventions, and identify methods to ensure long-term adoption of resilient behaviours

to effect meaningful change. In addition, it would be necessary within the South African context to ascertain if the Synergistix resilience model would be equally applicable across different races and belief groups, or whether it would have limited appeal to only a first-world, white population group. Given the nature of proactive coping, whereby coping resources are used in advance of the stressor becoming full blown, a new approach to assessing the efficacy of the resilience model will have to be developed.

The complexity of resilience ensures that whatever model is proposed, it is unlikely to be fully comprehensive. Future research should, however, endeavour to compile a taxonomy of reliable resilience interventions for practitioners to utilise. More research, specifically on adults in the work context needs to be conducted.

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APPENDIX

Synergistix Resilience workshop structure

TIME	ACTIVITY CONTEXT	METHODOLOGY	DESIRED OUTCOME
5 min	Visualisation exercise.	Practical, guided imagery and deep breathing to meditation music.	Gain participants' focus and teach relaxation exercise that can be applied in practice.
10 min	Expectations and agenda clarification.	Flipchart expectations of participants.	Participants understand objectives for the day and have identified what they desire from the session, thus greater buy-in.
5 min	Receive completed COPE, LOT-R, SOC tests from attendees.	Tests were sent prior to the workshop for completion, participants hand them in.	Will form basis of future follow-up discussion session that will enhance understanding of how they respond to stress.
90 min	Define stress, stress facts, physiological impact, burnout process, habits and how to break them and understand the Synergistix model.	PowerPoint slides presentation by facilitator.	Increase understanding, and create context for application of Synergistix resilience model.
MENTAL FITNESS			
20 min	Explain importance of mental fitness. Show video.	Show part of video comedy called Funny People 2, plus brainstorm how can make work/daily living fun, capture in workbook.	Participants laugh and relax, enhanced creativity as a result of this, plus re-affirms positive feelings experienced when laughing.
10 min	Discuss research findings relating to dream big vs. money chasing. Visualise their own big dream and mind map it or draw it.	Workbook, capture own aspirations using mind mapping approach.	Enhanced sense of meaning, purpose and benefit striving. Links to exercise later in session relating to creating their own mission statement.
15 min	Discuss distorted thinking, "shouldism", desensitisation and reframing techniques.	PowerPoint slides presentation by facilitator on the topic and then participants identify if they exhibit distorted thinking habits.	Increase participants' understanding and application of cognitive-behavioural skills that will lead to empowered thinking.
SOCIO-EMOTIONAL FITNESS			
20 min	Explain importance of socio-emotional fitness. Discuss what techniques can be used to enhance self-esteem.	PowerPoint slides presentation. Participants complete self-esteem questionnaire. Then Quasi-Appreciative enquiry journaling and identifying affirmations that appeal to participants, who then capture them in the workbook.	Increased self-worth.
45 min	Explain Lifegraph reflection exercise to participants. Then get participants to complete their own reflection graphs of their lives.	Participants complete exercise in workbook, capturing the key moments in their lives and what they learnt from them. Identify themes in their lives, any	Develop reflection skills, reframing, appreciative enquiry and enhanced self-insight/self-esteem.

developmental blockage points and strengths developed as a result of these challenging experiences.

SPIRITUAL FITNESS

10 min	Explain importance of spiritual fitness. Discuss how can develop their own level of gratitude.	Flipchart facilitation and PowerPoint slides. Reflect and share with group what grateful for i.t.o. the organisation, plus in their home life. Capture in workbook how they will reinforce gratitude concept in own personal lives.	Enhanced organisational commitment, appreciation of what have already and clarifying how to instil the gratitude habit.
20 min	Explain “pay it forward” concept.	Show participants a video with extracts from Pay it Forward movie that explains this concept, plus show the <i>Starfish</i> video.	Increased belief that individuals can make a difference in society.
60 min	Explain “coat of arms” concept and methodology that will be used to develop each participant’s own coat of arms.	PowerPoint slides and then completing exercises in the workbook. At the end a goal-setting document is finalised to ensure coat of arms becomes a reality. An additional copy of these goals is placed in sealed envelope and posted in a month to the participants.	Creates purpose and meaning for the participants. It ensures that the themes of the day are inter-connected and that they commit to a course of action.

PHYSICAL FITNESS

10 min	Explain importance of physical fitness.	PowerPoint slides.	Increase understanding of the psychological benefits of exercise.
20 min	Explore sleep hygiene techniques and education re sleep disorders.	PowerPoint slides, plus practical technique-Progressive Muscular Relaxation.	Education and practical technique to assist with sleep acquisition.
60 min	Explain components of physical fitness programme. Get participants to partake in physical education session.	PowerPoint slides. Conduct exercise session outside the classroom, stressing all the components needed.	Education and practical techniques taught and practiced under guidance of facilitator-learning is checked.
20 min	Conclusion; candidates reflect on what they have learnt from the session and evaluate the course.	Candidates share their learnings with each other. Complete course evaluation sheet.	Reinforce learning and assist in course assessment.

CHAPTER 4

RESEARCH ARTICLE 3

THE EVALUATION OF A RESILIENCE INTERVENTION IN A FINANCIAL SERVICES INSTITUTION

ABSTRACT

This study evaluated the effectiveness of a one-day, individually-focused resilience development intervention amongst predominantly administrative staff exhibiting burnout in a large financial services organisation. An experimental design was used, with a control ($n=51$) and an experimental group ($n=55$). Individuals were pre-/post-assessed using the Maslach Burnout Inventory-General Survey, Utrecht Work Engagement Scale, ASSET, Job Demands-Resources Scale, Life Orientation Test – Revised and a biographical questionnaire. The results showed that the resilience intervention resulted in a statistically significant decrease in psychological ill health. It is recommended that future research focus on longitudinal studies of primary, secondary and tertiary interventions both at the individual and organisational level, which are not purely self-report based and provide insights into intervention determinants for success.

OPSOMMING

Die doel van hierdie studie was om die doeltreffendheid van 'n eendag-, individueel gefokusde veerkrachtigheidsontwikkelingsintervensie onder hoofsaaklik administratiewe personeel wat tekens van uitbranding toon in 'n groot finansiële dienste-organisasie te evalueer. 'n Eksperimentele ontwerp is gebruik, met 'n kontrolegroep ($n=51$) en 'n eksperimentele groep ($n=55$). Individue is vóór sowel as ná die tyd geassesseer aan die hand van die Maslach-uitbrandingsvraelys – Algemene Opname, Utrecht-werk-begeesteringskaal, ASSET, Werkse-Hulpbronne-skaal, Lewensoriëntasietoets – Hersien en 'n biografiese vraelys. Die resultate het getoon dat die veerkrachtigheidsintervensie uitgeloop het op 'n statisties beduidende afname in psigologiese swak gesondheid. Dit word aanbeveel dat toekomstige navorsing fokus op longitudinale studies van primêre, sekondêre en tersiêre intervensies op die individuele sowel as die organisatoriese vlak, wat nie geheel en al op selfrapportering gebaseer is nie en wat insigte bied in intervensiedeterminante vir sukses.

Keywords: Resilience, proactive coping, intervention, workshop, burnout, work engagement

Most employers agree that the effectiveness and success of their organisations depend on the utilisation of their human resources (Boshoff & Arnolds, 1995). Ill health in the workplace is a threat to optimal productivity, reduced absenteeism, provision of sustainable employee benefits, a motivated workforce, retention of experienced and skilled staff, and the maximisation of profits. The cost of burnt-out employees is high, for both employees and organisations, because these employees do the bare minimum instead of their best (Maslach, Schaufeli, & Leiter, 2001). Employees' levels of wellness (evident from low levels of burnout and high levels of work engagement) are one indicator of the effectiveness of an organisation (Kreitner & Kinicki, 1998). Thus, burnout and engagement are important fields of investigation in the organisational development field. So far, no general recipe has emerged for combating burnout, which is not surprising given its complex nature. Instead, the past quarter of a century witnessed a booming, largely commercial anti-burnout business that used numerous approaches which are claimed to be effective (Schaufeli, 2003).

Effective training and development have been proven to lead to changes in individuals' resilience capabilities (see meta-analysis research by Van der Klink, Blonk, Schene, & Van Dijk, 2001). People development is thus a means to an end. Employers favour training and development when they believe it leads to improved job performance, increased compliance with organisational policies and procedures, or greater profits. Employees favour development when they believe it leads them further down the path towards their career goals (Rothwell & Kazanas, 1994).

There are a number of trends that have increased the interest in and use of evaluation of training programmes in South African organisations. These include the promulgation of certain legislation such as the Skills Development Act, the Skills Development Levies Act, (South African Department of Labour, n.d.); consequently, training budgets are growing. Specifically, additional training and development programmes are being implemented as part of companies' employment equity plans and workplace skills plans. The King Report on Corporate Governance (Institute of Directors, n.d.) states clearly that accountability must also be clearly reported in the area of human capital management, with training being an essential component of human capital management. In conjunction with this pressure, top management is exerting pressure on the training function to show accountability in terms of tangible business benefits, like other departments, with many companies moving in the direction of outsourcing some or most of their training. This has led to the realisation

amongst many training practitioners that measuring the effectiveness of training can justify their existence in the organisation (www.roionline.co.za/Roi-CostvsBenefits.htm). Given these dynamics, a compelling case can be made for the need for greater focus on the evaluation of the effectiveness of training interventions.

The three main reasons for doing intervention research are to identify strong causal evidence; to demonstrate the feasibility of prevention effectiveness and the power of the practical example (Kristensen, 2000). In those cases where an intervention is possible, the evidence usually is considered as strong support, or falsification of a causal hypothesis. However, bear in mind that causal evidence is of little practical importance if the intervention is not feasible. While etiologic studies try to answer the question of whether the intervention had the desired effect, feasibility studies answer the equally important question of whether participants use the new skills. Feasibility studies are particularly important in occupational settings, because of the large number of barriers against implementation of research findings in this environment (Kristensen, 2000). Therefore both etiologic and feasibility studies are of paramount importance in intervention research.

Training is but one type of activity that can be utilised to effect change in terms of resilience. Kompier and Cooper (1999) identify three levels of intervention strategies to deal with work-related well-being (including stress, burnout and work engagement), namely primary, secondary and tertiary intervention strategies. Due to the fact that resilience is aimed at enhancing well-being, and may mitigate the impact of stress and burnout, it was deemed appropriate for the purposes of this study to apply this classification system. Primary-level interventions are mainly concerned with modifying or eliminating the stressors inherent in the workplace in order to adapt the environment to better fit the individual, e.g. role design, organisational restructuring and job rotation. Secondary-level interventions focus on the individual and are concerned with increasing awareness and extending the physical and psychological resources of employees to enable them to minimise the damaging effects of stress and manage stress more effectively, e.g. stress-management programmes that use a cognitive behavioural approach are effective in reducing stress reactions, including burnout (see Schaufeli & Enzmann, 1998, pp. 146-168). The resilience intervention evaluated in this study is classified as a secondary-level intervention. Tertiary-level interventions are targeted at individuals, but their role is recuperative rather than preventative (e.g. employee assistance programmes and support groups). There is well-documented evidence (Kompier & Cooper,

1999) to suggest that counselling is effective in improving the psychological well-being of employees and has considerable cost benefits in terms of reduced sickness absence.

The researcher developed a resilience model that was aimed at enhancing the individual's wellness, quality of life and engagement levels whilst decreasing his/her burnout. It is important for the field of industrial psychology to ascertain if the conceptualised model, operationalised through a training intervention, can have an effective impact on these key dimensions of an employee.

Workshops to improve resilience

Researchers who evaluate interventions designed to improve the work organisation and reduce occupational stress face many challenges. Surprisingly few studies to date have reported positive results (Burke, 1993; Karasek, 1992; Landsbergis & Vivona-Vaughan, 1995; Parkes & Sparkes, 1998; Reynolds & Briner, 1994). In fact, there is reason to believe that many interventions are unsuccessful, and are therefore never reported in journals (Briner & Reynolds, 1999).

Unfortunately, intervention research studies that have been published frequently suffered from methodological limitations. These have included weaknesses in research design (particularly the scarcity of longitudinal studies), unclear links to theoretical models, inappropriate data analysis strategies, inattention to the effects of differences in the intervention process and insufficient recognition of contextual differences (Briner & Reynolds, 1999; Burke, 1993; Handy, 1988; Reynolds & Shapiro, 1991).

In studies where significant results are reported, there are still unanswered questions. Firstly, some studies do not report follow-up findings, thus the intervention may not produce long-term benefits. Of 64 stress management studies reviewed, only 58% included some type of follow-up (Murphy, 1996). Secondly, studies that have shown significant effects (Keyes & Dean, 1988) have not used appropriate control groups. Without an appropriate control group, it is unclear whether or not observed changes are due to specific treatment effects. A critique of research designs that have typically been used to study the transactional model of stress and coping has resulted in a call for new approaches, such as examining the stress process

closely, in-depth, longitudinally, and contextually (Lazarus, 2000; Somerfield & McCrae, 2000).

Schaufeli and Enzmann (1998) describe over 30 approaches pertaining to burnout interventions and classify them according to their focus (individual, individual-organisational interface and organisation) and their purpose (identification, primary prevention, secondary prevention, treatment, rehabilitation) (Schaufeli, 2003). From this study, Schaufeli and Enzmann (1998) concluded the following: Firstly, most interventions are rather general instead of being specifically tailored to reduce burnout (e.g. time management, job redesign, management development). Secondly, the focus of most interventions is biased towards the individual, whereas organisational-based interventions are rather scarce, despite the relevance of job characteristics for the development of burnout. Thirdly, there are only a very few well-designed studies that document the effectiveness of burnout interventions, usually burnout workshops. Fourthly, and most importantly, these studies showed that the core affective symptom of burnout – exhaustion – can be reduced by training employees to use particular coping skills, notably relaxation and cognitive restructuring. On the other hand, cynicism and reduced professional efficacy seem rather resistant to change, which is not so surprising since most techniques that are employed in those burnout workshops are aimed at reducing negative arousal and *not* at changing attitudes (cynicism) or enhancing professional skills or resources (efficacy) (Schaufeli, 2003).

The question then arises whether the conclusions of Schaufeli and Enzmann (1998) are still valid, or has the picture changed, particularly relating to the effectiveness of interventions? It would appear that the general picture still holds. Van der Klink et al. (2001) performed a meta-analysis of almost 50 (quasi-) experimental studies on the effectiveness of interventions for work-related stress (including burnout, overstrain, and distress) and they found, in terms of effect-size, ‘medium’ effects for cognitive-behavioural programmes and ‘small’ effects for relaxation programmes. In contrast, workplace interventions showed no significant effects. Workplace interventions are not only scarce (only 5 were detected in the meta-study), but they are also notoriously difficult to evaluate because instead of individuals or groups, organisations constitute the level of analysis (Schaufeli, 2003).

Does this mean in the absence of promising results no further research should be conducted? Not according to Strümpfer (in press), because well-being is perhaps *the* primary concern of

positive psychology. In addition, Wissing and Van Eeden (1997, p. 5) assert that not only where psychological wellbeing emanates from, but also the forms it takes and how it can be developed should be studied. If, as researchers, we are to stay true to Strumpfer and Wissing's mandate, we need to test the effectiveness of these interventions, to ensure efficacy.

The aim of this study was to evaluate the effectiveness of a resilience workshop in a financial services institution.

Interventions

According to Argyris (1970, p. 15), interventions entail "... to enter into an ongoing system of relationships, to come between or among persons, groups or objects for the purpose of helping them. The intervener exists independently of the system." French and Bell (1999) pointed out that an intervention can be viewed as a set of structured activities aiming at organisational improvement and individual development.

Certain characteristics of interventions identified by Rothwell and Sullivan (2005) can be added to the above-mentioned, namely it involves a change agent; and it requires valid information, free choice and a high degree of ownership by the client. In summary, interventions will therefore aim to change some aspects of the organisation, for instance its climate, employees and structure, and improve the health and functioning of the organisation (Burke, 2005).

From a pathogenic as well as a fortigenic perspective, burnout and work engagement are specific focus areas for research and intervention (Maslach, Schaufeli, & Leiter, 2001). According to Giga, Cooper, and Faragher (2003), proper methodical research involving scientific evaluation of interventions is extremely rare. According to Burke (2005), the purpose of the intervention is the most important aspect in intervention research and the objective is either the generation of knowledge or evaluation.

Taking into account the intervention classification definitions mentioned earlier, the resilience intervention in the present study would be classified as a secondary-level intervention. According to Dewe (1994), secondary-level interventions aim at equipping the individual with strategies, skills and techniques to cope better with job demands. These

interventions focus on the individual and are concerned with increasing awareness and extending the physical and psychological resources of employees to enable them to minimise the damaging effects of stress and manage stress more effectively.

Secondary-level interventions aim at the level of the individual's interaction with the work and include three main types, namely cognitive, somatic and multimodal methods (Le Fevre, Kolt, & Matheny, 2006). The cognitive type includes using mindfulness techniques such as affirmations and thought stopping. The somatic type includes using relaxation techniques, biofeedback and breathing techniques, whilst the multimodal type combines aspects of both the somatic and cognitive type (Le Fevre et al., 2006). Stress management programmes are more preventative in nature, aiming at addressing health and wellness, although they are not designed to eliminate workplace stressors (Dewe, 1994). Results from a study by Van der Klink et al. (2001) indicated that generally employees did benefit from stress reduction interventions. Furthermore, secondary interventions were more effective than primary interventions.

The following secondary-level interventions are relevant for this study (see Giga et al., 2003): a) health education to provide information to members concerning improvements in vitality and mood by means of moderate exercise and healthy lifestyle by visiting wellness centres; b) training and education programmes concerning skills development in areas such as stress prevention, time management, interpersonal skills and conflict management, thereby assisting members in reducing some of the pressures; and c) relaxation, meditation and biofeedback related to focus on breath and muscle calming, to reduce stress, anxiety and tension and to learn to respond to information relating to skin and muscle activity.

A resilience workshop

Content of a resilience workshop

This study focuses on the Synergistix resilience model, which was developed by the researcher (see Chapter 3). This model is based on the well-known wellness wheel, specifically Covey's (1989) interpretation that refers to mental, spiritual, socio-emotional and physical dimensions. An underlying premise relating to sustained resilience pertains to making regular, optimal deposits not only in participants' physical, but also in the mental,

emotional and spiritual quadrants of their lives. Hence, the researcher talks of spiritual fitness, mental fitness, etc. Fitness, for the purposes of this study, is the capacity to meet and exceed the present and potential challenges of life in the four quadrants by structured, purposeful and repetitive activities.

The Synergistix resilience approach is multidimensional in that it provides broad applicability by furnishing the participant with a variety of techniques and key areas to focus on, thus avoiding the erroneous assumption that participants all have the same issues now or in the future. In addition, this also links to Strümpfer's (2003) assertion that people are not necessarily resilient across all spheres of their lives.

“Resilience reservoir pools” are similar to proactive coping, which involves the accumulation of resources and acquisition of skills that are not designed to address any particular stressor but to prepare in general, as defined by Aspinwall and Taylor (1997). For the purposes of this study, “resilience reservoir pools” are those coping resources that an individual can proactively exploit appropriately given the unique nature of the situation to cope with the present and potential challenges that life provides. This implies flexibility of responses (not reacting, which is reflexive, but rather responding, which requires conscious thought) and regular practice of the twelve activities which lead to enhanced quality of life, wellness and stress resilience. A brief explanation of the four fitness quadrants and 12 associated activities that are covered in the intervention follows (see Chapter 3).

Spiritual fitness

For the purposes of this study, spiritual fitness refers to the quality of the interrelationships an individual has with his/her Creator (manifested in “Gratefulness”, prayer and meditation activities), his/her fellow man (illustrated by his/her “Pay it forward” activities) and the world (shown by the “Coat of arms” activities). The key principle that underpins the spiritual quadrant is “Get some perspective”. So often in life people feel depressed, confused and/or frustrated in terms of key decisions they have to make and what direction they should take in life. By developing the “Get some perspective” principle, the individual learns to view his/her situation more objectively, and to make plans based on a positive picture of reality, not fear. It requires that the individual increase his/her awareness of what is important and identify his/her purpose, values and goals in life so that he/she can achieve his/her full potential.

There are three activity components which make up spiritual fitness as defined by the researcher, namely “Coat of arms”, which refers to identifying one’s purpose; “Gratefulness”, which forms the foundation for relationship establishment between individuals, their Creator and the world; and “Pay it forward” – taking community action to better the lives of others without the expectation of reward or recognition for themselves.

Socio-emotional fitness

For the purposes of this study, socio-emotional fitness is the optimisation of the relationship between three components, namely “Nurturing relationships”, “Breaking destructive relationships” and taking “Responsibility”. “Nurturing relationships” refers to enhancing and maintaining an individual’s social infrastructure i.e. family, marriage, children and other relationships. “Breaking destructive relationships” is the individual’s emotion-invoking “baggage”, e.g. level of self-esteem that individuals bring to a relationship and forgiveness capacity; by acknowledging the individual’s innate ability to determine his/her choices and responses in life, referred to as “Responsibility”.

The key principle that underpins this quadrant is “Letting go”. An individual cannot go forward positively until he or she has learnt to let go of the past, or at least come to terms with his/her past. The researcher has seen people achieve extraordinary financial success but they have not been happy, they jealously hoard perceived slights, fear failure and are never satisfied with what they have. They constantly seek to acquire more to make them feel better about their past, but their past keeps them captive. This principle requires that the individual learn from the past, live in the present and plan for the future.

Physical fitness

Physical fitness refers to the creation of sustainable energy and health through optimising the energy triad generated by “Rest and relaxation”, “Exercise” and “Nutrition” activities. The key principle that underpins this quadrant is “Energy holes/boosters”. Everyone has a finite amount of time and energy before they burn out. Individuals need to ensure that they avoid and/or minimise those things that drain their energy levels, e.g. unproductive meetings, junk mail, toxic people and destructive relationships, and rather surround themselves with

empowering, uplifting people and activities that boost their energy levels, e.g. exercise, healthy nutrition and appropriate levels of rest and relaxation.

“Nutrition” is about creating the optimal nutritional energy supply to sustain the individual in his/her endeavours. “Rest and relaxation” relates to taking the time to rest and recuperate from the rigors of life, so as to ensure creativity and sustained stamina. “Exercise” is fundamental to physical fitness and pertains to physical activity that promotes health.

Mental fitness

Mental fitness is the freedom from mediocrity and conformity through non-habitual thought manifested in “Reflection” and “Empowering Thoughts” activities, and action generated by “Stimulus” activities. The key principle that underpins this quadrant is “Act like a kid”. When observing young children, the researcher noted a heightened level of curiosity, playfulness, laughter and ability to learn rapidly. In essence, this principle as children constantly apply it requires the individual to move out of routine thinking patterns and challenge his/her own paradigms. In addition, adults forget how to have fun, as they equate adulthood and responsibility with seriousness.

“Stimulus” refers to enhancing an individual’s curiosity, experiences, awareness and thinking capacity by exposing the individual to a multitude of stimuli. “Empowering thought” links to thinking that liberates an individual’s potential. “Reflection” is the activity of critically thinking about experiences from the stimuli activities and the individual’s life in general.

Methodology of a resilience workshop

The practice of health education involves broadly three major programme planning activities, namely: needs assessment, programme development, and evaluation (Bartholomew, Parcel & Kok, 1998). For the purposes of this study, the principles of Intervention Mapping, as outlined by Bartholomew, Parcel and Kok (1998), were adopted in structuring the intervention.

The planning process always begins with a needs assessment in which the researcher collaborates with the population group that is experiencing, or at risk of, a health problem and related quality-of-life consequences, to develop a description of both. This provides a comprehensive assessment of the problem and its causes. The research data generated from a research programme conducted by Coetzee and Rothmann (2004) on the target population group was used as a starting point for this study. Based on this research, participants who had high levels of stress and/or burnout were identified as possible participants. Completion of the needs assessment provided the foundation from which to begin intervention development.

Intervention mapping consists of five steps: creating a matrix of proximal programme objectives, selecting theory-based intervention methods and practical strategies, designing and organising a programme, specifying adoption and implementation plans, and generating programme evaluation plans. These five steps will now be elaborated on by way of the resilience research that was undertaken in this study.

- *Creating a matrix of proximal programme objectives.* This step provides the foundation for the steps that follow by specifying proximal programme objectives. These objectives analyse and explain who and what will change as a result of the intervention. As the most immediate objectives to be addressed by the intervention, they represent the starting point of change, leading to accomplishment of performance objectives and eventually changes in behavioural outcomes.
- *Selecting theory-based intervention methods and practical strategies.* The goal of this stage is to generate a list of intervention methods that are matched to the proximal programme objectives, and to think of practical ways of organising and delivering the intervention method to the target group.
- *Designing and organising a programme.* The outcome of this stage is a plan for the production and delivery of an organised programme. Evidence from social and health psychology demonstrates that unhealthy behaviour patterns are not amenable to change unless the persons involved perceive their current behaviours to be unhealthy, are convinced that change is necessary, believe that the intervention will have a positive effect, and are motivated to follow the advice concerning the intervention (Radley, 1994).

- *Specifying adoption and implementation plans.* A solid reinforcement process is vital to ensure sustainable programme success. Several stages are integral to the reinforcement process: dissemination of information, adoption of new skills taught, implementation in the “working world” and continued application of skills taught (Bandura, 1986; Goodman & Steckler, 1989; Rogers, 1983).
- *Monitoring and evaluation.* The products of the steps of intervention mapping are not only the basis for intervention development; they are tools for the evaluation of the process and effects of the intervention. The product of this step is a plan for evaluating the impact of the intervention on resilience behaviour and on health.

METHOD

Research design

An experimental design was used, with a control group and an experimental group (Montgomery, Peeters, Schaufeli, & Den Ouden, 2003). Individuals were tested both before and post the intervention. Only 20 of the 48 studies examined in a meta-analysis by Van der Klink et al. (2001) involved a follow-up assessment. In most cases follow-up was uncontrolled or reported in a way that allowed no retrieval of statistical metrics.

Participants

The study was conducted in a large financial institution that had undergone a number of key initiatives, such as listing on the stock exchange; implementing a variety of cost-cutting initiatives due to the low interest rate environment which impacted on its returns to investors; and its renewed focus on a high performance culture. This created an environment where expectations were high in terms of delivery, whilst available resources had diminished. This had in part given rise to the large demand by staff for stress and lifestyle management interventions as they became increasingly strained.

This study evaluated a one-day, individually-focused resilience development programme amongst predominantly administrative staff exhibiting burnout in a large financial services organisation. Only 55 participants were used in the experimental group, with 51 being utilised in the control group.

Assessment one was conducted in July 2003, and assessment two was conducted in July 2004. Workshops started in November 2003 and continued until the end of June 2004. The majority of the workshops were completed in the period January - end of March 2004. Only ninety workshop attendees were surveyed as fifty-seven attended after the feedback review cut-off, thus they were not eligible to provide feedback as they did not have an opportunity to exercise their new skills for at least a period of three to six months. Only sixty-six participants out of ninety participants completed the three-six month follow-up survey.

Table 1

Characteristics of the Participants in the Control Group (n=51) and the Experimental Group (n=55)

Item	Category	Frequency (Percentage)	
		Control Group	Experimental Group
Education	Grade 10 (Standard 8)	4 (7,8)	6 (10,9)
	Grade 12	32 (62,7)	33 (60,0)
	Grade 12 + Diploma	11 (21,6)	12 (21,8)
	Grade 12 + Higher Diploma or Degree	4 (7,8)	4 (7,3)
Division	Administrative	37 (72,5)	47 (85,5)
	IT	14 (27,5)	8 (14,5)
Role	Clerical Gr. 16-12	25 (50,0)	19 (34,5)
	Senior Clerical Gr. 12-8	10 (20,0)	14 (25,5)
	Specialist Gr. 7-5	3 (6,0)	3 (5,5)
	Management: Gr. 12-11	1 (2,0)	10 (18,2)
	Management: Gr.10-8	7 (14,0)	7 (12,7)
	Management: Gr. 7-5	3 (6,0)	2 (3,6)
	Management: Gr. 4-3	1 (2,0)	0 (0,0)
Length of service	1-5 years	0 (0,0)	6 (10,9)
	5-10 years	24 (47,1)	19 (34,5)
	10-15 years	7 (13,7)	16 (29,1)
	15-plus years	20 (39,2)	14 (25,5)
Marital status	Single	12 (24,0)	14 (25,5)
	Engaged / in a relationship	2 (4,0)	2 (3,6)
	Married	31 (62,0)	34 (61,8)
	Divorced	2 (4,0)	4 (7,3)
	Separated	1 (2,0)	1 (1,8)
	Remarried	2 (4,0)	0 (0,0)
Gender	Male	27 (52,9)	15 (27,3)
	Female	24 (47,1)	40 (72,7)
Race	Black	11 (21,6)	7 (12,7)
	White	22 (43,1)	23 (41,8)
	Coloured	16 (31,4)	22 (40)
	Asian	2 (4,0)	3 (5,5)
Home language	Afrikaans	18 (35,3)	20 (36,4)
	English	22 (43,1)	28 (50,9)
	Other	11 (21,6)	7 (12,7)
Age	<30	5 (10,0)	8 (14,5)
	30-39 years old	28 (54,0)	34 (65,5)
	40 + years old	18 (36,0)	13 (20,0)

From Table 1 it would appear that the experimental group (n=55) has a higher number of staff from Administration (85.5%) relative to the control group, which has 72% of its sample from Administration. There also seems to be a difference relating to roles distribution, with

34.5% fulfilling clerical roles in the experimental group and 50% being clerical in the control group. The experimental group has 18.2% Grade 12-11 (first level line managers) whilst only 2% of Grade 12-11 management are in the control group. In terms of length of service, 10.9% of the experimental group has 0-5 years experience, while the control group has 0% experience within this range; and this becomes more pronounced for the 10-15 year range which is 29% and 13.7% respectively, and at 15 + years it is 25% and 39%. From a gender perspective, only 27.3% of the experimental group are males, whilst 52.9% are males for the control group. Regarding age, there are also differences between the groups, most notably in the 30-39 year old category, where 65% of the experimental group are in this category, and 54% for the control group; and in the 40 + years category, this translates into 20% for the experimental group and 36% for the control group.

Measurement battery

Possible burned out individuals were identified from a cross-sectional survey study which was undertaken. They were also re-assessed as part of the longitudinal study post the intervention. A battery of self-report assessment questionnaires were completed that included: Maslach's Burnout Inventory-General Survey (MBI-GS) (Schaufeli, Leiter, Maslach, & Jackson, 1996), the Utrecht Work Engagement Scale (UWES) (Schaufeli et al., 2002), *ASSET* (An Organisational Stress Screening Tool) (Cartwright & Cooper, 2002), the Job Demands-Resources Scale (JD-RS) developed for the purpose of this study, LOT-R (Scheier, Carver, & Bridges, 1994), and a biographical questionnaire which included the following questions: age, education level, division, length of service, grade, gender, race, marital status, amount of leave taken per year, major stressful events in last six months, number of doctor's visits in last six months, whether or not taken sick leave whilst ill, any chronic illnesses that are stress related, intention to leave, and frequency of consideration to leave.

The *Maslach Burnout Inventory – General Survey* (MBI-GS) (Maslach, Schaufeli, & Leiter, 1996) was used to measure burnout. Two subscales of the MBI-GS, namely Exhaustion and Cynicism were used for the purposes of this study. Exhaustion consisted of five items (e.g. "I feel tired when I get up in the morning and have to face another day on the job"), and Cynicism consisted of four items (e.g. "I have become less enthusiastic about my work"). All items were scored on a seven-point frequency rating scale ranging from 0 (*never*) to 6

(*always/daily*). Schaufeli, Van Dierendonck, and Van Gorp (1996) reported that Cronbach coefficient alphas varied from 0,87 to 0,89 for Exhaustion, and 0,73 to 0,84 for Cynicism. The construct validity of the MBI-GS was supported by Storm and Rothmann (2003a) in a study conducted among members of the SAPS with alpha coefficients varying from 0,88 (Exhaustion) to 0,70 (Cynicism).

The *Utrecht Work Engagement Scale* (UWES) was used to measure participants' level of engagement. The UWES was developed by Schaufeli, Martinez, Pinto, Salanova and Bakker (2002) as a measure of engagement. Two subscales of the UWES, namely Vigour (e.g. "I am bursting with energy in my work") and Dedication (e.g. "My job inspires me") were used for the purposes of this study. The UWES was scored on a seven-point frequency rating scale ranging from 0 (*never*) to 6 (*always*). The alpha coefficients for the three subscales varied between 0,68 and 0,91 (Schaufeli et al., 2002). Rothmann and Storm (2003b) obtained adequate alpha coefficients for the two subscales Vigour (0,78) and Dedication (0,89). Naudé (2003) found values of 0,70 for Vigour and 0,83 for Dedication in a study conducted among emergency workers in South Africa.

The *Job Demands-Resources Scale* (JD-RS) was used to measure the specific job characteristics. The JD-RS comprises 48 items and the questions were rated on a four-point scale ranging from 1 (*never*) to 4 (*always*). The dimensions of the JD-RS include pace and amount of work, mental load, emotional load, variety in work, opportunities to learn, independence in work, relationships with colleagues, relationships with immediate supervisors, ambiguities about work, information, communication, participation, contact possibilities, uncertainty about the future, remuneration and career possibilities. Jackson and Rothmann (2005) found that seven factors of the JD-RS were reliable according to their alpha coefficients. These factors included Organisational Support ($\alpha = 0,88$); Growth Opportunities ($\alpha = 0,80$); Overload ($\alpha = 0,75$); Job Insecurity ($\alpha = 0,90$); Relationship with Colleagues ($\alpha = 0,76$); Control ($\alpha = 0,71$); and Advancement ($\alpha = 0,78$). Rothmann, Strydom, and Mostert (2006) also found acceptable alpha coefficients for the JD-RS that varied between Overload ($\alpha = 0,76$), Advancement ($\alpha = 0,83$), Growth Opportunities ($\alpha = 0,86$), Job Insecurity ($\alpha = 0,89$) and Organisational Support ($\alpha = 0,92$) in a South African sample.

The *Health Subscale of the ASSET* (Cartwright & Cooper, 2002) was used to assess respondents' level of health. The Health Scales consist of 19 items arranged on two subscales, namely Physical Ill Health and Psychological Ill Health. All items on the Physical Ill Health subscale were related to physical symptoms of stress and were scored on a scale varying from 1 (*never*) to 4 (*often*). The items listed on the Psychological Ill Health subscale were symptoms of stress-induced mental ill health.

The *Organisational Commitment Subscale of the ASSET* (Cartwright & Cooper, 2002) was used to measure the individual's attitude to the organisation. The first subscale, namely Individual Commitment (also referred to as Affective Commitment) consists of five items (e.g. "I am proud of this organisation"). The second subscale, namely Organisational Commitment (also referred to as Behavioural Commitment) consists of four items (e.g. "I feel valued and trusted by the organisation"). The items were scored on a six-point scale varying from 1 (*strongly disagree*) to 6 (*strongly agree*). The alpha coefficients of these two scales are acceptable (Barkhuizen & Rothmann, 2008): $\alpha = 0,83$ (affective commitment) and $\alpha = 0,83$ (behavioural commitment).

The *Life Orientation Test – Revised* (LOT-R), a ten-item measure, was developed by Scheier et al. (1994) to measure dispositional optimism. Six items contribute to the optimism score and four items are fillers. The original Life Orientation Test (Scheier & Carver, 1985) consisted of a two-factor structure. The LOT-R was developed after the two-factor structure (optimism and pessimism) was questioned (Harju & Bolen, 1998). Follow-up analysis has demonstrated a one-factor structure, indicating that the LOT-R is measuring a continuum of high, average and low optimism/pessimism (Scheier et al., 1994). The LOT-R is measured on a five-point Likert Scale, ranging from 5 (*strongly agree*) to 1 (*strongly disagree*). The LOT-R was found to have adequate internal consistency (Cronbach $\alpha = 0,78$) and excellent convergent and discriminant validity (Scheier et al., 1994). Based on a sample of 204 college students, Harju and Bolen (1998) obtained a Cronbach alpha coefficient of 0,75.

A workshop evaluation questionnaire and a 3-6 month follow-up evaluation questionnaire were developed for this study.

Intervention programme

According to Coetzer and Rothmann (2004), who conducted the initial research on the sample group, it was recommended that the organisation provide adequate resources and encourage the use of problem-focused strategies, which in turn would result in the positive evaluation of professional competence and the prevention of the onset of burnout, and increase the levels of experienced work engagement, ultimately impacting on the work wellness of the individual. Furthermore, demonstration of a positive evaluative orientation of employees in the insurance industry towards their work and recent experiences to deal with their problems actively, to share experiences in a social support setting and to recognise the value of religious support in understanding their environment would lead to employees experiencing prolonged fulfilment, dedication and intrinsic enjoyment in their work. The resilience intervention in this study aimed to incorporate and build on the above-mentioned ideas.

Candidates were sent an e-mail stating that, based on tests that they had completed in 2003, they were experiencing higher levels of stress than the norm and that they could volunteer to attend a one-day resilience workshop. Workshops started in November 2003 and continued until the end of June 2004. The majority of workshops were completed in the period January to the end of March 2004.

The content and the methodology of the individually-focused, proactive coping intervention programme are reported in Table 3.

Table 2

The Synergistix Resilience Workshop

TIME	ACTIVITY	METHODOLOGY	DESIRED OUTCOME
CONTEXT			
5 min	Visualisation exercise.	Practical, guided imagery and deep breathing to meditation music.	Gain participants focus and teach relaxation exercise that can be applied in practice.
10 min	Expectations and agenda clarification.	Flipchart expectations of participants.	Participants understand objectives for the day and have identified what they desire from the session, thus greater buy-in.
5 min	Receive completed COPE, LOT-R, SOC tests from attendees.	Tests were sent prior to the workshop for completion, participants hand them in.	Will form basis of future follow-up discussion session that will enhance understanding of how they respond to stress.
90 min	Define stress, stress facts, physiological impact, burnout process, habits and how to break them and understand the Synergistix model.	PowerPoint slides presentation by facilitator.	Increase understanding, and create context for application of Synergistix resilience model.
MENTAL FITNESS			
20 min	Explain importance of mental fitness. Show video.	Show part of video comedy called Funny People 2, plus brainstorm how can make work/daily living fun, capture in workbook.	Participants laugh and relax, enhanced creativity as a result of this, plus re-affirms positive feelings experienced when laughing.
10 min	Discuss research findings relating to dream big vs. money chasing. Visualise their own big dream and mind map it or draw it.	Workbook, capture own aspirations using mind mapping approach.	Enhanced sense of meaning, purpose and benefit striving. Links to exercise later in session relating to creating their own mission statement.
15 min	Discuss distorted thinking, “shouldism”, though ladders and reframing techniques.	PowerPoint slides presentation by facilitator on the topic and then participants identify if they exhibit distorted thinking habits.	Increase participants understanding and application of cognitive-behavioural skills that will lead to empowered thinking.

Table 2

The Synergistix Resilience Workshop

SOCIO-EMOTIONAL FITNESS			
20 min	<p>Explain importance of socio-emotional fitness.</p> <p>Discuss what techniques can be used to enhance self-esteem.</p>	<p>PowerPoint slides presentation. Participants complete self-esteem questionnaire. Then Quasi-Appreciative enquiry journaling and identifying affirmations that appeal to participants, who then capture them in the workbook.</p>	<p>Increased self-worth.</p>
45 min	<p>Explain Lifegraph reflection exercise to participants. Then get participants to complete their own Lifegraph.</p>	<p>Participants complete exercise in workbook, capturing the key moments in their lives and what they learnt from them. Identify themes in their lives, any developmental blockage points and strengths developed as a result of these challenging experiences.</p>	<p>Develop reflection skills, reframing, appreciative enquiry and enhanced self-insight/self esteem.</p>
SPIRITUAL FITNESS			
10 min	<p>Explain importance of spiritual fitness.</p> <p>Discuss how can develop their own level of gratitude.</p>	<p>Flipchart facilitation and PowerPoint slides. Reflect and share with group what grateful for i.t.o. the organisation, plus in their home life. Capture in workbook how they will reinforce gratitude concept in own personal lives.</p>	<p>Enhanced organisational commitment, appreciation of what have already and clarifying how to instil the gratitude habit.</p>
20 min	<p>Explain “pay it forward” concept.</p>	<p>Show participants a video with extracts from Pay it Forward movie that explains this concept, plus show the Starfish video.</p>	<p>Increased belief that individuals can make a difference in society.</p>
60 min	<p>Explain “coat of arms” concept and methodology that will be used to develop each participants own coat of arms.</p>	<p>PowerPoint slides and then completing exercises in the workbook. At the end, a goal-setting document is finalised to ensure coat of arms becomes a reality. An additional copy of these goals is placed in sealed envelope and posted in a month to the participants.</p>	<p>Creates purpose and meaning for the participants. It ensures that the themes of the day are inter-connected and that they commit to a course of action.</p>

Table 2

The Synergistix Resilience Workshop

PHYSICAL FITNESS			
10 min	Explain importance of physical fitness.	PowerPoint slides.	Increase understanding of the psychological benefits of exercise.
20 min	Explore sleep hygiene techniques and education re sleep disorders.	PowerPoint slides, plus practical technique-Progressive Muscular Relaxation.	Education and practical technique to assist with sleep acquisition.
60 min	Explain components of physical fitness programme. Get participants to partake in physical education session.	PowerPoint slides. Conduct exercise session outside the classroom, stressing all the components needed.	Education and practical techniques taught and practiced under guidance of facilitator-learning is checked.
20 min	Conclusion; candidates reflect on what they have learnt from the session and evaluate the course.	Candidates share their learnings with each other. Complete course evaluation sheet.	Reinforce learning and assist in course assessment.

There were three follow-up, 1-hour sessions that covered the following:

- First session: Feedback on tests they had completed, namely the Sense of Coherence (SOC) developed by Antonovsky (1979, 1983), COPE developed by Carver, Scheier and Weintraub (1989) and the Life Orientation Test-Revised (LOT-R) developed by Scheier, Carver, and Bridges (1994). Their action plans, where feedback on and stumbling blocks and solutions were discussed.
- Second session: Dietician presented to staff on healthy eating, weight management and myths of nutrition.
- Third session: Additional practical relaxation techniques were learnt, as were some cognitive behavioural and desensitisation techniques.

Fifteen weekly e-mails were sent out to course participants from the end of April 2004 till 12 July 2004 – each covering an element of the model, with suggested action options and a motivational component. Each participant was sent after one month a self-addressed envelope with their actions that they had committed to.

Statistical analysis

The statistical analysis was carried out using SPSS (SPSS Inc., 2005). Descriptive statistics (e.g. means and standard deviations) were used to analyse the data. Pearson product-moment correlations were used to specify the relationships between the variables. A cut-off point of 0,30 (medium effect, Cohen, 1988) was set for the practical significance of correlation coefficients. Paired-samples *t*-tests were used to determine the difference in results for year 1 and year 2.

RESULTS

Qualitative impressions

Based on requested email feedback, in general, comments were very positive from attendees with regard to the facilitation skills of the researcher/presenter and the fulfilment of their expectations. Specifically the practical exercise session and laughter components were most popular, with the least well received, relatively speaking, being the pay it forward and affirmations components. The programme was viewed as being particularly successful in highlighting the importance of resilience development and the identification of areas of development pertaining to coping strategies. It was less effective, relatively speaking, in enhancing action planning to improve work performance. Skills application was highest with friends and their own children, and lowest with their direct managers. Attendees reported a more positive attitude, increased self-confidence and greater sense of meaning in life. Conversely, attendees viewed the workshop as having less impact relative to the other potential outcomes in terms of absenteeism and commitment to the organisation. The respondents were almost universal in their appreciation of the 15 weekly follow-up e-mails; attendance of follow-up sessions was, however, sporadic.

Quantitative results

The descriptive statistics and alpha coefficients of the scales for the experimental and control groups in year 1 are reported in Table 3.

Table 3

Descriptive Statistics and Alpha Coefficients of the Scales for the Experimental Group (EG) and the Control Group (CG) in Year 1

	Mean		SD		Sten		α	
	EG (n=55)	CG (n=51)	EG (n=55)	CG (n=51)	EG (n=55)	CG (n=51)	EG (n=55)	CG (n=51)
Work-related well-being								
Exhaustion	18,36	18,83	6,74	6,44	7,75	7,96	0,84	0,85
Cynicism	9,96	11,94	5,79	4,97	6,64	7,74	0,79	0,74
Vigour	18,84	18,05	5,48	5,85	4,36	4,19	0,76	0,74
Dedication	20,04	19,17	7,18	6,87	4,38	3,94	0,88	0,87
Job demands and resources								
Organisational Support	42,65	40,94	8,72	7,95	5,91	5,37	0,92	0,90
Growth Opportunities	23,33	22,26	5,06	5,21	4,71	4,20	0,84	0,80
Social Support	18,16	18,72	3,39	3,62	5,89	6,31	0,79	0,80
Advancement	10,98	10,93	3,05	3,76	5,55	5,30	0,75	0,85
Insecurity	8,16	8,06	2,83	2,60	5,49	5,36	0,88	0,89
Overload	23,73	24,28	4,60	5,19	4,84	5,19	0,81	0,82
Ill health								
Physical Ill Health	16,84	16,59	3,82	4,50	7,62	7,30	0,69	0,83
Psychological Ill Health	24,38	25,52	6,47	7,13	5,87	6,31	0,89	0,92
Organisational commitment								
Affective Commitment	21,04	19,30	4,33	3,88	5,20	4,17	0,76	0,67
Behavioural Commitment	17,76	17,26	3,56	3,09	5,15	4,65	0,74	0,70
Optimism/Pessimism								
Optimism	10,93	11,04	2,72	2,58	-	-	0,69	0,62
Pessimism	9,42	9,31	2,93	3,03	-	-	0,69	0,71

Table 3 shows that in year 1 the alpha coefficients of all the scales were acceptable compared to the guideline of $\alpha > 0,70$ (Nunnally & Bernstein, 1994), except for the following scales in the control group: Affective Commitment and Optimism.

Table 3 also shows the sten scores for the experimental and control groups. These sten scores make it possible to compare the raw scores of participants against those of a normative sample in South Africa ($N = 10\ 000$). From Table 3 it is clear that the scores of participants in both the experimental and the control group were higher than the average (Sten = 5,5) on the following scales: Exhaustion, Cynicism, Physical Ill Health, and Psychological Ill Health. Participants in both the experimental and control group obtained scores below average on the following scales: Vigour, Dedication, and Growth Opportunities.

The descriptive statistics and alpha coefficients of the scales for the experimental and control groups in year 2 are reported in Table 5.

Table 4

Descriptive Statistics and Alpha Coefficients of the Scales for the Experimental Group (EG) and the Control Group (CG) in Year 2

	Mean		SD		Sten		α	
	EG (n=55)	CG (n=54)	EG (n=55)	CG (n=54)	EG (n=55)	CG (n=54)	EG (n=55)	CG (n=54)
Work-related well-being								
Exhaustion	14,40	16,06	6,48	6,48	6,42	6,91	0,88	0,89
Cynicism	7,51	10,22	5,04	4,25	5,53	7,13	0,84	0,67
Vigour	20,40	18,85	5,26	4,41	5,18	4,24	0,80	0,68
Dedication	22,27	19,35	5,68	5,99	5,27	3,80	0,89	0,84
Job demands and resources								
Organisational Support	44,18	43,42	6,81	7,50	6,38	6,08	0,86	0,88
Growth Opportunities	23,13	22,50	3,89	4,15	4,53	4,22	0,69	0,72
Social Support	15,20	15,71	2,48	2,88	3,36	3,98	0,50	0,57
Advancement	18,07	17,56	3,27	3,55	9,33	9,09	0,76	0,78
Insecurity	7,78	8,25	1,93	2,20	5,04	5,46	0,73	0,81
Overload	18,65	19,09	6,33	5,36	2,95	2,85	0,88	0,84
Ill health								
Physical Ill Health	24,25	23,92	3,62	3,62	9,58	9,59	0,57	0,45
Psychological Ill Health	35,26	33,46	5,77	6,03	9,19	8,86	0,74	0,72
Organisational commitment								
Affective Commitment	21,80	20,36	3,82	4,33	5,62	4,83	0,81	0,83
Behavioural Commitment	17,95	17,63	3,30	3,05	5,25	4,94	0,80	0,66
Optimism/Pessimism								
Optimism	10,98	10,43	2,53	2,14	-	-	0,69	0,51
Pessimism	7,53	8,17	2,95	3,00	-	-	0,69	0,74

Table 4 shows that the alpha coefficients of all the scales were acceptable compared to the guideline of $\alpha > 0,70$ (Nunnally & Bernstein, 1994), except for the following scales: Social Support and Physical Ill Health (in the experimental group), and Social Support, Physical Ill Health, Behavioural Commitment and Optimism (in the control group).

Table 4 also shows the sten scores for the experimental and control groups in year 2. These sten scores make it possible to compare the raw scores of participants against those of a normative sample in South Africa ($N = 10\ 000$). From Table 5 it is clear that the scores of participants in this study were higher than the average (Sten = 5,5) on the following scales: Exhaustion, Physical Ill Health and Psychological Ill Health in both groups, and Cynicism in the control group. Participants in the control group obtained scores below average on Vigour and Dedication while both groups obtained below-average scores on Growth Opportunities.

The results of t-tests to assess the differences between the pre- and post-measurement of the experimental group on work-related well-being, perceptions of job demands and resources, ill health, organisational commitment and occupational stress are reported in Table 6.

Table 5

Differences between the Pre- and Post-measurement Scores of the Experimental Group

	Year 1		Year 2		<i>t</i>	<i>p</i>	<i>d</i>
	Mean	<i>SD</i>	Mean	<i>SD</i>			
Work-related well-being							
Exhaustion	18,36	6,74	14,40	6,48	4,37	0,00*	0,59 ⁺
Cynicism	9,96	5,79	7,51	5,04	2,91	0,01*	0,42
Vigour	18,84	5,48	20,40	5,26	-2,03	0,05*	0,28
Dedication	20,04	7,18	22,27	5,68	-3,07	0,00*	0,05
Job demands and resources							
Organisational Support	42,65	8,72	44,18	6,81	-1,55	0,13	
Growth Opportunities	23,33	5,06	23,13	3,89	0,26	0,80	
Social Support	18,16	3,39	15,20	2,48	5,89	0,00*	0,87 ⁺⁺
Advancement	10,98	3,05	18,07	3,27	-13,35	0,00*	2,17
Insecurity	8,16	2,83	7,78	1,93	0,78	0,44	
Overload	23,73	4,60	18,65	6,33	5,75	0,00*	0,80 ⁺⁺
Ill health							
Physical Ill Health	16,84	3,82	24,25	3,62	-10,43	0,00*	1,94 ⁺⁺
Psychological Ill Health	24,38	6,47	35,26	5,77	-10,92	0,00*	1,68 ⁺⁺
Organisational commitment							
Affective Commitment	21,04	4,33	21,80	3,82	-1,31	0,20	0,18
Behavioural Commitment	17,76	3,56	17,95	3,30	-0,33	0,75	
Optimism/Pessimism							
Optimism	10,93	2,72	10,98	2,54	-0,14	0,89	
Pessimism	9,42	2,93	7,53	2,95	2,85	0,01*	0,64 ⁺

* $p < 0,05$

+ $d \geq 0,50$ practically significant, medium effect

++ $d \geq 0,80$ practically significant, large effect

The results in Table 5 show that the experimental group obtained statistically significantly lower scores on Exhaustion (practically significant, medium effect), Cynicism, Social Support (practically significant, large effect), Overload (practically significant, large effect), and Pessimism (practically significant, medium effect) in year 2 (compared with year 1). Furthermore, the experimental group obtained statistically significantly higher scores on Vigour, Dedication, and Advancement (practically significant, large effect) in year 2 (compared with year 1).

The results of t-tests to assess the differences between the pre- and post-measurement of the control group on work-related well-being, perceptions of job demands and resources, ill health, organisational commitment and occupational stress are reported in Table 6.

Table 6

Differences between the Pre- and Post-measurement Scores of the Control Group

	Year 1		Year 2		<i>t</i>	<i>p</i>	<i>d</i>
	Mean	<i>SD</i>	Mean	<i>SD</i>			
Work-related well-being							
Exhaustion	18,83	6,44	16,06	6,48	2,94	0,01*	0,43
Cynicism	11,94	4,97	10,22	4,25	1,97	0,05*	0,35
Vigour	18,05	5,85	18,85	4,41	-0,97	0,34	
Dedication	19,17	6,87	19,35	5,99	-0,18	0,86	
Job demands and resources							
Organisational Support	40,94	7,95	43,42	7,50	-2,26	0,03*	-0,31
Growth Opportunities	22,26	5,21	22,50	4,15	-0,28	0,78	
Social Support	18,72	3,62	15,71	2,88	5,41	0,00*	0,83 ⁺⁺
Advancement	10,93	3,76	17,56	3,55	-10,77	0,00*	1,76 ⁺⁺
Insecurity	8,06	2,60	8,25	2,20	-0,37	0,71	
Overload	24,28	5,19	19,09	5,36	6,11	0,00*	0,97 ⁺⁺
Ill health							
Physical Ill Health	16,59	4,50	23,92	3,62	-9,01	0,00*	1,61 ⁺⁺
Psychological Ill Health	25,52	7,13	33,46	6,03	-8,69	0,00*	1,09 ⁺⁺
Organisational commitment							
Affective Commitment	19,30	3,88	20,36	4,33	-1,63	0,11	
Behavioural Commitment	17,26	3,09	17,63	3,05	-0,86	0,39	
Optimism/Pessimism							
Optimism	11,04	2,58	10,43	2,14	1,86	0,07	
Pessimism	9,31	3,03	8,17	3,00	1,48	0,15	

* $p < 0,05$

+ $d \geq 0,50$ practically significant, medium effect

++ $d \geq 0,80$ practically significant, large effect

The results in Table 6 show that the control group obtained statistically significantly lower scores on Exhaustion, Cynicism, Social Support (practically significant, large effect), and Overload (practically significant, large effect) in year 2 (compared with year 1). Furthermore, the control group obtained statistically significantly higher scores on Organisational Support, Advancement (practically significant, large effect), Physical Ill Health (practically significant, large effect), and Psychological Ill Health (practically significant, large effect) in year 2 (compared with year 1).

The results of t-tests to assess the changes in scores between the pre- and post-measurement of the experimental and control groups on work-related well-being, perceptions of job demands and resources, ill health, organisational commitment and occupational stress are reported in Table 7.

Table 7

Differences between the Changes in the Pre- and Post-measurement Scores of the Experimental Group (EG) and Control Group (CG)

Item	CG Mean change	CG SD change	EG Mean change	EG SD change	<i>t</i>	<i>p</i>	<i>d</i>
Work-related well-being							
Exhaustion	2,77	6,93	3,96	6,73	-0,91	0,36	-
Cynicism	1,72	6,43	2,45	6,25	-0,60	0,55	-
Vigour	-0,80	6,11	-1,56	5,72	0,67	0,50	-
Dedication	-0,19	7,44	-2,24	5,41	1,64	0,10	-
Job demands and resources							
Organisational Support	-2,48	8,06	-1,53	7,29	-0,65	0,52	-
Growth Opportunities	-0,24	6,43	0,20	5,82	0,38	0,71	-
Social Support	3,01	4,09	2,96	3,73	0,07	0,95	-
Advancement	-6,63	4,52	-7,09	3,94	0,57	0,57	-
Job Security	-0,19	3,74	0,38	3,64	-0,81	0,42	-
Overload	5,19	6,24	5,07	6,55	0,10	0,93	-
Ill health							
Physical Ill Health	-7,30	5,90	-7,42	5,28	0,11	0,91	-
Psychological Ill Health	-7,90	6,43	-11,02	7,34	2,30	0,02*	0,43
Organisational commitment							
Affective Commitment	-1,06	4,80	-0,76	4,32	-0,34	0,73	-
Behavioural Commitment	-0,37	3,17	-0,18	4,12	-0,27	0,79	-
Optimism/Pessimism							
Optimism	0,61	2,33	-0,06	2,84	1,32	0,19	
Pessimism	1,15	5,53	1,89	4,92	-0,73	0,47	

* $p < 0,05$

The results in Table 7 show that the experimental group did not obtain practically significant difference at a medium or large level effect range compared to the control group, except for psychological ill health.

DISCUSSION

The aim of this study was to evaluate the effectiveness of a resilience workshop in a financial services institution. One control group and one experimental group participated. Both groups completed pre- and post-tests on LOT-R, UWES, MBI-GS, Organisational Commitment, ASSET, JDRS and a biographical questionnaire.

From this study it is clear that the participants' scores in year 1 in both the experimental and the control group were higher than the norm average on the following scales: exhaustion and cynicism (both components of burnout), physical and psychological ill health. Participants in both the experimental and control group in year 1 scored below average on the following scales: vigour and dedication (both components of engagement) and growth opportunities. Year 2 participants in this study scored higher than the average (Sten = 5,5) on the following scales: exhaustion, physical ill health and psychological ill health in both groups, and cynicism only in the control group. Participants in the control group obtained scores below average on vigour and dedication (components of engagement), while both groups obtained below-average scores on growth opportunities. It would therefore appear that the differences in results between year 1 and year 2 are that the experimental group in year 2, who participated in the resilience workshop, experienced less cynicism and increased engagement (as measured by Vigour and Dedication). The same changes were not seen for the control group, which indicates that the workshop had some impact on participants who did attend. This assumption, however, must be treated with caution, as the lack of statistically significant findings will show. In addition, the short-term effects on burnout and engagement may be due to non-specific 'feel good' factors (Briner, 1997) or the process of taking part (Bunce & West, 1996).

The study showed in the experimental group in year 2, compared with year 1, statistically significantly lower scores on exhaustion (feelings of depleted physical and emotional resources and prompting actions in the worker to distance himself/herself emotionally and cognitively from his/her work), which were practically significant (medium effect), cynicism (i.e. a negative attitude towards work), social support (i.e. contact opportunities with other people, and the quality of the support received from colleagues), which were practically significant (large effect), overload (i.e. pace and amount of work, mental load and emotional load), which were practically significant (large effect), and pessimism (defined as a person's

negative outlook towards life events), which were practically significant (medium effect). Furthermore, the experimental group obtained statistically significantly higher scores on vigour (characterised by high levels of energy and mental resilience while working, as well as a willingness to exert effort and to persist even through difficult times) and dedication (both components of engagement), and advancement (practically significant, large effect) in year 2, compared with year 1.

The results showed that the control group in year 2, compared with year 1, obtained statistically significantly lower scores on exhaustion, cynicism and social support (practically significant, large effect), and overload (practically significant, large effect) in year 2, compared with year 1. Furthermore, the control group obtained statistically significantly (practically significant, large effect) higher scores on organisational support, advancement, physical ill health (e.g. constant headaches, indigestion, and heartburn, nausea, muscular tension/aches and pains) and psychological ill health (e.g. inability to cope, concentration problems, panic or anxiety attacks, constant irritability, often angry, avoiding people and mood swings) in year 2, compared with year 1. The lower scores in both the experimental and control groups in year 2 in relation to year 1 may be as a result of the greater awareness, and sensitivity by management on the issue of burnout between year 1 and year 2 evaluations.

In comparing the experimental and control groups, the noticeable difference is that the experimental group had statistically significant increases in engagement, reflected in their vigour and dedication levels (i.e. a sense of significance in one's work, feeling enthusiastic, inspired, and proud and by viewing work as a challenge), advancement and pessimism between year 1 and year 2, whilst the control group did not. The control group had increases between year 1 and year 2 in organisational support, physical and psychological ill health, whilst the experimental group did not. It would therefore appear that the control group also experienced more ill health than the experimental group over the period of the study.

When comparing the experimental and control group changes as a result of the intervention, the findings were disappointing. The only statistically significant difference was psychological ill health, with a small effect of 0,43. The results from this study did not support Van der Klink et al.'s (2001) meta-analysis of almost 50 (quasi-) experimental studies on the effectiveness of interventions for work-related stress (including burnout, overstrain, and distress) where they found, in terms of effect-size, 'medium' effects for

cognitive-behavioural programmes and ‘small’ effects for relaxation programmes. Van der Klink et al. (2001) also found that interventions conducted with employees with high baseline stress appeared to be as effective as interventions conducted with low levels of baseline stress. However, only four studies involved participant selection to high baseline stress levels. Noting that the current study was based on participants presenting relatively high levels of burnout relative to the norms group, and the acknowledged link between continued stress and burnout, it would seem that this study does not support Van der Klink et al.’s assertion in this regard either. The current study was more in line with studies by Freedy and Hobfoll (1994), and Pines and Aronson (1983). It must be noted that the control group, relative to the experimental group’s ill health (both physical and psychological) declined.

The very notion of proactive coping (upon which the resilience intervention was based) refers to efforts undertaken in advance of a potentially stressful event to prevent it, or to modify its form before it occurs. Difficulty exists in trying to evaluate the efficacy of the intervention as the stressful event to apply these new found resources may not have occurred or been observed. The researcher therefore needs to be careful in assuming that the individual is not more resilient as a result of the intervention, but rather that the individual has not had an opportunity to apply these skills..

It is important that all organisational citizens take responsibility to ensure the successful implementation of interventions. The four models of helping and coping (Meyer, 2003) define taking responsibility for the problem and the solution in an organisation. Employees who blame their problems on others and take little responsibility in finding solutions to their problems often feel powerless and they would typically occupy the medical model. Employees in the moral model may run a risk of burnout due to taking high responsibility for solutions and problems. The enlightenment model occupies employees who blame themselves for problems but are powerless to find solutions – they then search for the right person to show them the solutions, which might lead to new disillusionment. Finally, employees in the compensatory model recognise external sources that generate problems while taking responsibility for finding their own solutions. As attendance at the resilience intervention was voluntary, it may have resulted in only employees with a certain model attending and others not, specifically the presence of the moral model in the mindset of intervention participants which may impact on the generalizability of the findings. Non-intervention participants who comprised the control group may have had the medical model mindset. Employees might for

example question why they should strengthen their resilience capacity as a result of work demands, when they feel little is being done to redesign jobs or organisational strategies such as downsizing which result in deliberate work intensification.

RECOMMENDATIONS

For interventions to make a real contribution, both individual and organisational participation is important (Dewe & O'Driscoll, 2001; De Frank & Cooper, 1987; Le Fevre et al., 2006). However, Kompier and Cooper (1999) found that most stress intervention practices tend to act on reducing the effect of stress on individuals and fail to reduce the actual workplace stressors. Addressing this concern requires that resilience interventions become part of an integrated and overall strategy. It requires that the organisation is ready to be part of the intervention and that internal and external resources are available.

According to Dewe and O'Driscoll (2001), one reason why many interventions fall short may be because little attempt has been made to find out what managers actually know of and understand by stress, and how they view their responsibility to address stress in the workplace. During the study, it became clear that all three levels of intervention (primary, secondary and tertiary) should be targeted for the organisation and individual to benefit. Unfortunately, because the sample group's environment was going through a major restructuring, it was hard to focus at these three levels as the primary organisational objective was cost containment; therefore a more individually-orientated, secondary-level intervention needed to be undertaken. However, as industrial psychologists, we should not lose sight of the ultimate, long-term goal, which is the enhancement of individuals, teams and the organisation capabilities so that they can meet their objectives.

Due to the relatively short duration of the intervention – one-day – it is recommended that more time over a longer period be spent on the skills transfer phase. This is supported by Rowe (2000) who found that long-term interventions had more prolonged effects for reducing burnout than a short-term intervention. In terms of this research, a noticeable gap was that there was only one post-hoc assessment interval, relatively shortly after the skills transfer programme was finished. It would probably be worthwhile having multiple evaluation points, which allows participants ample opportunity to practise and apply the skills before assumptions are prematurely made on the impact on engagement and burnout levels. When

interpreting stress management intervention research, attention must be paid to meaningful and reliable change. This encompasses selecting outcome measures to tap meaningful change dimensions, checking reliability of outcome measures, and calculating post-hoc meaningful and reliable change indices (Bunce & Stephenson, 2000). It is worth exploring other measurement tools that might provide greater insight into resilience, or the development of a resilience measurement instrument that is specifically aligned to the Synergistix resilience model. It may also be worthwhile for resilience interventions to be evaluated as a treatment rather than a preventative measure, as stress is so endemic in the workplace (Briner, 1997).

The sizes of the samples in this study were relatively small, which meant that gender, age, education status and race differences could not be properly examined. Larger samples show significance at a lower effect size, which may explain the lack of reportable findings. In not having a larger sample, the power to detect differences may have been too small, increasing the chances of faulty rejection of the resilience intervention as the preferred intervention for improved resilience, engagement and burnout management. Consequently, there is a need to replicate the findings with a larger sample. In addition, the assignment to experimental and control groups was not random. It was initially based on high burnout scores, and then, due to the voluntary nature of the workshops, certain groups may have been over-represented. These differences might therefore have influenced the results. Finally, participants' ratings were based only on self-report (Schwartz, 1999). This has implications for the validity of some of the findings, and future research should be replicated using other kinds of data sources, such as health-related indicators of burnout symptoms.

Researchers should examine explanatory mechanisms of how the interventions work, with cognisance being taken of the multi-disciplinary approach needed to address this complex issue that impacts the individual's psychological, physical, socio-emotional and spiritual wellness.

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CHAPTER 5 CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

The purpose of this chapter is to provide conclusions in respect of the findings from one model building and two empirical studies regarding the longitudinal study of burnout and engagement of staff at a financial services institution; the development of a resilience model; and the evaluation of a resilience intervention in a financial services institution.

The conclusions are based on the objectives of the three research articles. The limitations of the studies are discussed, followed by recommendations for the financial services institution. In addition, the specific outcomes of the study are presented.

5.1 CONCLUSIONS

The general objectives of this research were to assess the relationships between job demands, job resources, dispositional optimism, burnout, work engagement, ill health and organisational commitment, to conceptualise a resilience model and to evaluate a resilience intervention programme for financial services employees in a large corporate in South Africa.

The first objective of this study was to test a model of work-related well-being, comprising burnout, engagement, job demands, job resources, dispositional optimism, ill health and organisational commitment for financial services employees (predominantly administrative).

The results showed that overload and low optimism were the best predictors of exhaustion in this study. Research by Cordes and Dougherty (1993) supports these findings. They found that exhaustion is primarily a response to demand stressors placed upon individuals, especially work overload. Stressors directly concerned with job demands like time pressure, meeting deadlines, dealing with difficult clients and work overload lead to adverse work consequences (Lai, Chan, Ko, & Boey, 2000); in this study, the adverse consequence was exhaustion. From this study, it would also appear that low optimism would further increase the levels of exhaustion experienced. Harju and Bolen (1998) argue that there is significant support that an optimistic viewpoint helps to construe even difficult outcomes as feasible, by applying persistence.

The results showed that overload, low growth opportunities, high social support and low optimism were strong contributors to cynicism. This supports an assumption of the Job Demands-Resources (JD-R) model that states that work characteristics may elicit two psychologically different processes, namely an energetic process of wearing out in which high job demands (in this study it was overload) exhaust the employee's energy, as well as a motivational process in which lacking resources (in this study it was growth opportunities), preclude dealing effectively with job demands and foster cynicism (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). What is interesting to note is that high social support in this study leads to cynicism, which could be a result of the contagious nature of burnout (Bakker & Schaufeli, 2000; Maslach, Schaufeli, & Leiter 2001; Schaufeli & Enzmann, 1998). This finding challenges the natural assumption that social support is always beneficial.

The results showed that high growth opportunities and high optimism contributed to vigour. According to Carver and Scheier (2002), expectancy-value theories underlie optimism and pessimism. The first conceptual element of expectancy-value theories is behaviour, which is organised around the pursuit of goals. Goals are states or actions that people view as either desirable or undesirable. People try to match their behaviours with what they see as desirable, and they try to keep away from what they see as undesirable. The more important a goal is to someone, the greater its value will be with regard to the person's motivation levels (in this study it was growth opportunities). The second conceptual element in expectancy-value theories is expectancy – a sense of confidence or doubt about the attainability of the goal value may explain optimism's role in contributing to vigour. If an individual lacks confidence, there may be no action. When people are confident about an eventual outcome, effort will continue even in the face of adversity. Remembering that optimism is the person's positive outlook towards life events, and research indicates that optimists are more likely to take action and apply active strategies, as opposed to avoidance coping strategies, in dealing with demands. In addition, active coping has been found to be more effective than avoidance coping strategies in managing stressors (Orpen-Lyall, 1997).

The results showed that high organisational support, high growth opportunities, low social support, low job insecurity and high optimism were contributors to dedication. The Conservation of Resources (COR) theory (Hobfoll, 1998) is a relevant theory for understanding the effects of job resources (or the lack thereof) on employees and the above-mentioned results. In this study, low social support led to higher levels of dedication. It could be that in interacting less with other burnout colleagues, the individual does not experience the contagious nature of burnout, relative to those that have many interactions with their colleagues and become burnt out themselves.

Exhaustion and cynicism contributed to both physical and psychological ill health. The 'burnt-out' employee is likely to experience stress-related health problems since burnout is frequently linked with illness (see Kahill, 1988; Lee & Ashforth, 1990; Maslach, 1982).

The results showed that dedication and low cynicism contributed to affective commitment, whilst vigour, dedication and low cynicism contributed to behavioural commitment. Regarding work wellness, linkages with burnout research suggest that while organisational commitment seems to diminish in the presence of burnout (Leiter & Maslach, 1988), engagement is a useful indicator of commitment, and to such an extent that engaged employees are loyal and psychologically committed to the organisation (Blizzard, 2002). People who are engaged in their jobs tend to be committed to their organisations, and vice versa.

The second objective of this study was to develop a resilience model. The Synergistix resilience model is a multidimensional, proactive coping approach which consistently strives to develop and enhance the individual's resilience coping reservoir pools (mental, spiritual, socio-emotional and physical), leading to improved resilience, wellness and quality of life. Each reservoir pool has activities that enhance the fitness of the individual, namely physical (rest and relaxation, exercise and nutrition), mental (stimuli, reflection and empowering thinking), spiritual (coat of arms, pay it forward and gratitude), and socio-emotional (breaking destructive relationships and nurturing relationships, responsibility).

Resilience coping reservoir pools are similar to proactive coping, which involves the accumulation of resources and acquisition of skills that are not designed to address any particular

stressor but to prepare in general, as defined by Aspinwall and Taylor (1997). For the purposes of this study, “resilience coping reservoir pools” are those coping resources that an individual can proactively exploit appropriately given the unique nature of the situation to cope with the present and potential challenges that life provides. This implies flexibility of responses (not reacting, which is reflexive, but rather responding, which requires conscious thought) and regular practice of the twelve activities which lead to enhanced quality of life, wellness and stress resilience.

The Synergistix resilience models core is based on the well-known wellness wheel, specifically Covey’s (1989) interpretation that refers to the mental, spiritual, socio-emotional and physical dimensions. An important premise relating to sustained resilience pertains to making regular, optimal deposits not only in individuals’ physical, but also in the mental, emotional and spiritual quadrants of their lives. Hence, the researcher talks of spiritual fitness, mental fitness etc. Fitness, for the purposes of this study, is the capacity to meet and exceed the present and potential challenges of life in the four quadrants by structured, purposeful and repeated activities.

Traditional stress and lifestyle management approaches tend to focus on only one or two aspects of the wellness wheel, which is too simplistic and ineffective ultimately due to the inter-relatedness of human functioning. The Synergistix’s multidimensional approach provides broad utility by furnishing the participant with a variety of techniques and key areas to focus on, thus avoiding the erroneous assumption that participants all have the same challenges now or in the future. In addition, this takes cognisance of Strümpfer’s (2003) assertion that people are not necessarily resilient across all spheres of their lives. Research on the relationship between occupational stress and psychological adjustment has emphasised the importance of coping resources and strategies in reducing the negative effects of stress (Ashford, 1988; Kirmeyer, 1988; Osipow, Doty, & Spokane, 1985; Parkes, 1990, 1994).

The Synergistix resilience model incorporates certain central principles from health, wellness, well-being, quality of life, proactive coping and resilience literature. For the purposes of this study, the fitness component’s definitions were developed. Spiritual fitness refers to the quality of the connection an individual has with his/her Creator (manifested in “Gratefulness”, prayer

and meditation activities), his/her fellow man (illustrated by “Pay it forward” activities) and the world (shown by the “Coat of arms” activities). Socio-emotional fitness is the extent to which there is a healthy interplay between three components, namely “Nurturing relationships”, “Breaking destructive relationships” and taking “Responsibility”. “Nurturing relationships” refers to enhancing and maintaining an individual’s social infrastructure, i.e. family ties, marriage, children and other relationships. “Breaking destructive relationships” is about addressing the individuals own emotion-invoking “baggage”, e.g. level of self-esteem that individuals bring to a relationship and self-forgiveness capacity; by acknowledging the individual’s innate ability to make choices and determine different ways of responding to life’s challenges, referred to as “Responsibility”. Physical fitness refers to the creation of sustainable energy and health through optimising the energy triad generated by “Rest and relaxation”, “Exercise” and “Nutrition” activities. Mental fitness is the extent to which there is freedom from mediocrity and conformity through non-habitual thought manifested in “Reflection” and “Empowering Thoughts” activities, and opportunities generated by “Stimulus” activities.

When applying the Synergistix resilience model it is important to apply a fundamental change management principle for long-term behaviour change. Real change must first occur at the belief level, as beliefs ultimately drive behaviour. The four principles – “Act like a kid” in the mental quadrant, “Get some perspective” in the spiritual quadrant, “Energy holes and energy boosters” in the physical quadrant, and “Letting go” in the socio-emotional quadrant – underpin the implementation of the twelve activities.

Within each fitness quadrant there is oscillation (movement between extremes) between the activities in the specific quadrants, e.g. in the physical quadrant between exercise and rest and relaxation.

The last objective of this study was to evaluate the effectiveness of a one-day, individually-focused resilience development intervention amongst predominantly administrative staff exhibiting burnout in a large financial services organisation.

From this study it is clear that the participants scores in year 1 in both the experimental and the control group were higher than the norm average on the following scales: exhaustion and cynicism (both components of burnout), physical and psychological ill health. Participants in both the experimental and control group in year 1 scored below average on the following scales: vigour and dedication and growth opportunities. Year 2 participants in this study scored higher than the average (Sten = 5,5) on the following scales: exhaustion, physical ill health and psychological ill health in both groups, and cynicism only in the control group. Participants in the control group obtained scores below average on vigour and dedication (components of engagement), while both groups obtained below-average scores on growth opportunities. It would therefore appear that the differences in results between year 1 and year 2 are that the experimental group in year 2, who participated in the resilience workshop, experienced less cynicism, and increased engagement. The same changes were not seen for the control group, which indicates that the workshop had some impact on participants who did attend. This assumption, however, must be treated with caution, as the lack of statistically significant findings will show. In addition, the short-term effects on burnout and engagement may be due to non-specific 'feel good' factors (Briner, 1997) or the process of taking part (Bunce & West, 1996).

The study showed in the experimental group in year 2, compared with year 1, statistically significantly lower scores on exhaustion, which were practically significant (medium effect), cynicism, social support and overload, which were practically significant (large effect), and pessimism (defined as a person's negative outlook towards life events), which were practically significant (medium effect). Furthermore, the experimental group obtained statistically significantly higher scores on vigour, dedication and advancement (practically significant, large effect) in year 2, compared with year 1. The results showed that the control group in year 2 compared with year 1, obtained statistically significantly lower scores on exhaustion, cynicism, social support and overload (practically significant, large effect) in year 2, compared with year 1. Furthermore, the control group obtained statistically significantly (practically significant, large effect) higher scores on organisational support, advancement, physical ill health and psychological ill health in year 2, compared with year 1. In comparing the experimental and control groups, the noticeable difference is that the experimental group had statistically significant increases in engagement, reflected in their vigour, dedication levels, advancement and

pessimism between year 1 and year 2, whilst the control group did not. The control group had increases between year 1 and year 2 in organisational support, physical and psychological ill health, whilst the experimental group did not.

When comparing the experimental and control group changes as a result of the intervention, the findings were disappointing. The only statistically significant difference was psychological ill health, with a small effect of 0,43. The results from this study did not support Van der Klink, Blonk, Schene, and Van Dijk's (2001) meta-analysis of almost 50 (quasi-) experimental studies on the effectiveness of interventions for work-related stress (including burnout, overstrain, and distress) where they found, in terms of effect-size, 'medium' effects for cognitive-behavioural programmes and 'small' effects for relaxation programmes. Van der Klink et al. (2001) also found that interventions conducted with employees with high baseline stress appeared to be as effective as interventions conducted with low levels of baseline stress. However, only four studies involved participant selection to high baseline stress levels. Noting that the current study was based on participants presenting relatively high levels of burnout relative to the norms group, and the acknowledged link between continued stress and burnout, it would seem that this study does not support Van der Klink et al.'s assertion in this regard either. The current study was more inline with studies by Freedy and Hobfoll (1994), and Pines and Aronson (1983).

The very notion of proactive coping (upon which the resilience intervention was based) refers to efforts undertaken in advance of a potentially stressful event to prevent it, or to modify its form before it occurs. Difficulty exists in trying to evaluate the efficacy of the intervention as the stressful event to apply these new found resources may not have occurred or been observed. The researcher therefore needs to be careful in assuming that the individual is not more resilient as a result of the intervention, but rather that the individuals have not had an opportunity to apply these skills.

5.2 LIMITATIONS OF THE STUDY

This study had various limitations. The samples sizes in this study pertaining to the efficacy of the resilience intervention were relatively small, which meant that gender, age, education status

and race differences could not be properly examined. Larger samples show significance at a lower effect size, which may explain the lack of reportable findings. In not having a larger sample, the power to detect differences may have been too small, increasing the chances of faulty rejection of the resilience intervention as the preferred intervention for improved resilience, engagement and burnout management. Consequently, there is a need to replicate the findings with a larger sample. In addition, the assignment to experimental and control groups was not random. It was initially based on high burnout scores and then, due to the voluntary nature of the workshops, certain groups may have been over-represented. These differences might have therefore influenced the results. Finally, participant's ratings were based only on self-report (Schwartz, 1999). This has implications for the validity of some of the findings, and future research should be replicated using other kinds of data sources, such as health-related indicators of burnout symptoms.

When interpreting stress management intervention research, attention must be paid to meaningful and reliable change. This encompasses selecting outcome measures to tap meaningful change dimensions, checking reliability of outcome measures, and calculating post-hoc meaningful and reliable change indices (Bunce & Stephenson, 2000).

For interventions to make a real contribution, both individual and organisational participation is important (De Frank & Cooper, 1987; Dewe & O'Driscoll, 2001; Le Fevre, Kolt, & Matheny, 2006). However, Kompier and Cooper (1999) found that most stress intervention practices tend to act on reducing the effect of stress on individuals and fail to reduce the actual workplace stressors. During the study, it became clear that all three levels of intervention (primary, secondary and tertiary) should be targeted for the organisation and individual to benefit. To address this concern requires that resilience interventions become part of an integrated and overall strategy. It requires that the organisation is ready to be part of the intervention and that internal and external resources are available. Unfortunately, because the sample group's environment was going through a major restructuring, it was hard to focus at these three levels as the primary organisational objective was cost containment, and therefore a more individually-orientated, secondary-level intervention needed to be undertaken. However, as industrial

psychologists, we should not lose sight of the ultimate, long-term goal, which is the enhancement of individuals, teams and the organisation capabilities so that they can meet their objectives.

Lastly, according to Dewe and O'Driscoll (2001), one reason why many interventions fall short may be because little attempt has been made to find out what managers actually know of and understand by stress, and how they view their responsibility to address stress in the workplace.

5.3 RECOMMENDATIONS

Recommendations in respect of the financial services organisation, as well as recommendations for future research, are made in this section.

5.3.1 Recommendations for the organisation

Given the pervasive nature of burnout, organisations, especially financial services companies that seem to experience higher than average levels of burnout, should implement planned interventions to prevent burnout in their employees and to increase the levels of work wellness. Although it is important to assist individual employees whose psychological well-being is affected by their work, an organisational approach is more likely to be effective than an individual approach, as most stressors were found to be at an organisational level. A more desirable strategy is therefore to make the organisation inherently less stressful. Since job demands play a central role in burnout and work engagement, it is necessary to implement preventive, organisationally-based strategies to tackle high job demands and to manage a lack of job resources. It is recommended that the organisation provide adequate resources and encourage the use of problem-focused strategies, which in turn would result in the positive evaluation of professional competence and the prevention of the onset of burnout. Ultimately, this would impact on the work wellness of the individual, and increase the levels of experienced work engagement. Furthermore, demonstration of a positive evaluative orientation of employees in the financial services industry towards their work and recent experiences to deal with their problems actively, allied to the provision of job resources, specifically organisational support, growth opportunities and job security, would lead to employee engagement.

Due to the relatively short duration of the intervention – one day – it is recommended that more time over a longer period be spent on the skills transfer phase. This is supported by Rowe (2000) who found that long-term interventions had more prolonged effects for reducing burnout than a short-term intervention. In terms of this research, a noticeable gap was that there was only one post-hoc assessment interval, relatively shortly after the skills transfer programme was finished; it would be worthwhile having multiple evaluation points, which allows participants ample opportunity to practise and apply the skills before assumptions are prematurely made on the impact on engagement and burnout levels.

5.3.2. Recommendations for future research

Although some limitations exist in the study, the findings may have some important implications for future research.

Resilience is an umbrella term that has its origins in many disciplines, ranging from physics, biology, psychology, theology to mysticism. Even within a single discipline such as psychology, it has esteemed writers such as Jung, Moore, Rogers, Maslow, Seligman, Bandura, Csikszentmihalyi and many more speaking of resilience in different semantics. This variety creates an environment where there is a vibrant, varied conceptualisation of resilience. Unfortunately, it also results in unfocused research that cannot be integrated due to lack of agreement on the very nature/meaning of what is being researched. It is therefore recommended that a common, agreed upon conceptualisation of resilience is developed, much like the term “coping” conceptualised by Folkman and Lazarus in the 1980s. Measurement cannot be better than the constructs that are supposed to be measured. The clarification of concepts therefore needs to precede any attempt at proper assessment.

As Ryff and Keyes (1995, p. 720) comment: “...the absence of theory-based formulations of well-being is puzzling”. By asking who is resilient and why, those engaged in the scientific pursuit of resilience can help society rethink its priorities and envision a world that enhances human well-being.

Future studies should investigate not only resilience, but also other positive constructs such as work engagement as part of a work wellness model in other occupations in South Africa, and should be extended to the development of causal models. Consequently, information could be gleaned with regard to the experience of wellness in a positive paradigm of study, which could significantly expand research with regard to the financial services industry and other occupations, which was previously predominantly studied from a pathogenic framework.

Further longitudinal research regarding the causal relationships between burnout, work engagement, health and organisational commitment in the financial services industry should also be undertaken. This will facilitate the development of more effective intervention strategies to address the work-related well-being of the members of one of South Africa's most important services.

It is recommended that future studies should not depend solely on self-report measures, but that appropriate designs should be considered in order to prevent data from being contaminated by common method variance, because both the dependent and independent variables tend to rely only upon the information from the respondents.

Whilst it is still important to develop an integrated, proactive coping resilience model, it needs to have meaningful impact for adherents. It is therefore necessary to appropriately test the assumptions made in the model to see if it has made a meaningful contribution to the field of resilience interventions, and individuals in particular. It would also be necessary to assess the temporariness of these interventions, and identify methods to ensure long-term adoption of resilient behaviours to effect meaningful change. In addition, it would be necessary within the South African context to ascertain if the Synergistix resilience model would be equally applicable across different races and belief groups, or whether it would have limited appeal to only a first-world, white population group. Given the nature of proactive coping, whereby coping resources are used in advance of the stressor becoming full blown, a new approach to assessing the efficacy of the resilience model would have to be developed. Resiliency can provide hope and with practice, increase self-efficacy, as people gain more control and order in their lives and

rely less on medications and outside support (Richardson, 2002). It would be worthwhile investigating this assumption, and conversely any negative implications that resilience may have for individuals, the so-called “Law of unintended consequences”.

The complexity of resilience ensures that whatever model is proposed, it is unlikely to be fully comprehensive. Future research should, however, endeavour to compile a taxonomy of reliable resilience interventions for practitioners to utilise. More research, specifically on adults in the work context therefore needs to be conducted.

It is worth exploring other measurement tools that might provide greater insight into resilience, or the development of a resilience measurement instrument that is specifically aligned to the Synergistix resilience model. It may also be worthwhile for resilience interventions to be evaluated as a treatment rather than a preventative measure, as stress is so endemic in the workplace (Briner, 1997).

The lack of resilience intervention research in the financial services industry posed a major problem. Because this is the only study that has been undertaken to date in this field in the financial services, it is recommended that future research should be conducted in this area with larger samples.

Researchers should examine explanatory mechanisms of how the interventions work, with cognisance being taken of the multidisciplinary approach needed to address this complex issue that impacts the individual’s psychological, physical, socio-emotional and spiritual wellness.

Research over the last 20 years has identified a range of variables that might be important in interventions’ effectiveness, including expectancy of therapeutic benefits and quality of the relationship between the participants and the professional provider. Additionally, the way the intervention is implemented and the quality of the intervention have also been suggested to be linked to intervention effectiveness (Murta, Sanderson, & Oldenburg, 2007). Surely now is the time to move from suggestion to certainty?

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