DAILY HASSLES, RESILIENCE, AND BURNOUT OF CALL CENTRE STAFF

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COMMENTS

The reader's attention is drawn to the following:

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

- The thesis is submitted in the form of three research articles. The name of the promoter appears with each research article as it was submitted for publication in national and international journals. The editorial style specified by the *South African Journal of Industrial Psychology* (which agrees largely with the APA style) is used, but the APA guidelines were followed in constructing tables.

DEDICATION

This thesis is dedicated to the memory of my mother and father who, in their selfless commitment to their children, gave everything that we might succeed in life.

Janet (1931-2007) and Frikkie (1928-2003) Visser

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SUMMARY

Topic: Daily hassles, resilience, and burnout, of call centre staff.

Key terms: Call Centres, Customer Service Representatives (CSRs), burnout, work overload, electronic performance monitoring, lack of career and promotion opportunities, lack of skill variety, emotional labour, daily hassles, resilience

Internationally, as well as locally, the trend is for companies to use call centres as their preferred method of service delivery. The increase in the use of call centres as a service delivery mechanism thus provides many more employment opportunities. Within call centres, service is primarily delivered by frontline employees referred to as customer service representatives (CSRs). While nothing seems to stop the growth of call centres and the increase of employment opportunities within them, working in call centres is not necessarily experienced as pleasant. Working in a call centre is frequently seen as stressful and the work in such a centre can foster burnout. Burnout is considered to be a pathogenic construct.

The first purpose of this study was to describe and investigate the contribution of six central characteristics (antecedents) of call centre work environments and their influence on burnout, affective commitment and turnover intentions. These characteristics were work overload; electronic performance monitoring; lack of career and promotion opportunities, lack of skill variety and emotional labour. An incidental sample of customer service representatives (N=146) was obtained from the inbound service call centre of a large financial company. All six independent variables were found to be significantly related to the experience of burnout, affective commitment and turnover intentions. Multiple regression analysis made it possible to establish that work overload, lack of career and promotion opportunities and skill variety, and emotional labour were the most important predictors of burnout, whereas lack of career and promotion opportunities was the most significant predictors of both affective commitment and turnover intentions. Burnout had a direct effect on turnover intentions and was not mediated by affective commitment.

One antecedent that is often associated with the development of burnout is daily hassles, but daily hassles as an antecedent of burnout in call centres has not been studied before. The second purpose of this study was to develop a short Call Centre Daily Hassle Diagnostic

Questionnaire that could be used to identify the most common daily hassles that call centre agents experience in their working lives, both within the work environment and within their day-to-day personal lives, and to determine the relationship between it and burnout. A cross-sectional survey research design was used with an accidental sample (N=394) taken from a service and sales call centre. An exploratory factor analysis of the data resulted in a six-factor model of daily hassles within call centres that significantly predicted exhaustion. The factors were daily demands, continuous change, co-worker hassles, demotivating work environment, transportation hassles and inner concerns.

In the third part of this research thesis there is a shift away from the pathogenic paradigm towards a more salutogenic/fortigenic paradigm. Very little previous research has been done on adult resilience. The purpose of the third study was to explore the concept of adult resilience and to identify and describe the protective and vulnerability factors that play a role in adult resilience. Through the use of an exploratory factor analysis, eight factors were identified that played a role in adult resilience. They were Confidence and Optimism, Positive Reinterpretation, Facing Adversity, Support, Determination, Negative Rumination, Religion and Helplessness.

Based on the findings of this research, some practical recommendations were made for the management of call centres to reduce the development of burnout and turnover intentions, on how to utilise the Hassle-based Diagnostic Scale and on how to apply the Adult Resilience Indicator in the training and development of resilience.

OPSOMMING

Onderwerp: Daaglikse lastighede, veerkragtigheid, en uitputting, van oproepsentrum personeel.

Sleutelwoorde: Oproepsentrums, Kliëntediensverteenwoordigers (KDV's), uitputting, werkoorlading, elektroniese monitering van werklewering, gebrek aan loopbaan- en bevorderingsgeleenthede, gebrek aan vaardigheidsvariëteit, emosionele werk, daaglikse lastighede, veerkragtigheid

Internasionaal, en ook plaaslik, is daar 'n neiging in maatskappye om oproepsentrums as voorkeurmetode vir dienslewering te gebruik. Die toename in die gebruik van oproepsentrums as diensleweringsmeganismes verskaf daarvolgens veel meer werkgeleenthede. In oproepsentrums word dienste hoofsaaklik deur frontwerknemers bekend as kliëntediensverteenwoordigers (KDV's), gelewer. Terwyl daar geen keer aan die groei van oproepsentrums en die toename van werkgeleenthede in hierdie sentrums blyk te wees nie, word die werk daarbinne nie noodwendig as aangenaam ervaar nie. Die werk in 'n oproepsentrum is dikwels spanningsvol en dit kan uitputting in die hand werk. Uitputting word as 'n patogeniese konstruk beskou.

Die doel van hierdie studie was eerstens om die bydrae van ses sentrale eienskappe (antesendente) van oproepsentrum-werkomgewings en hulle invloed op uitputting, affektiewe toewyding en omsetvoornemens te beskryf en te ondersoek. Hierdie eienskappe was werkoorlading, elektroniese monitering van werklewering, gebrek aan loopbaan- en bevorderingsgeleenthede, gebrek aan vaardigheidsvariëteit; en emosionele werk. 'n Toevallige monster van oproepsentrum diensverteenwoordigers (N=146) is uit 'n inkomende diensoproepsentrum van 'n groot finansiële instansie verkry. Die bevinding was dat al ses onafhanklike veranderlikes betekenisvol aan die ervaring van uitputting, affektiewe toewyding en omsetvoornemens verwant was. Veelvuldige regressie-analise het dit moontlik gemaak om te bepaal dat werkoorlading, gebrek aan loopbaan- en bevorderingsgeleenthede en vaardigheidsvariëtieit, en emosionele werk die belangrikste voorspellers van uitputting was, terwyl gebrek aan loopbaan- en bevorderingsgeleenthede die belangrikste voorspeller vir beide affektiewe toewyding en omsetvoornemens was. Uitputting het omsetvoornemens direk geaffekteer en is nie deur affektiewe toewyding bemiddel nie.

Een antesedent wat dikwels met die ontstaan van uitputting in verband gebring word, is daaglikse lastighede. Die rol van daaglikse lastighede as 'n oorsaak van uitputting binne oproepsentrums is nie voorheen nagevors nie. Die doel van hierdie studie was om 'n bondige Diagnostiese Vraelys oor Daaglikse Lastighede in 'n Oproepsentrum te ontwikkel, wat gebruik kan word om die mees algemene daaglikse lastighede wat Kliëntediens-verteenwoordigers binne hulle werksomgewing sowel as in hulle privaat lewe ervaar, te identifiseer en die verwantskap tussen hierdie lastighede en uitputting te bepaal. 'n Dwarsdeursnee-opname ontwerp vir navorsing is met 'n toevallige steekproef (N=394) wat vanuit 'n diens- en verkope-oproepsentrum bekom is, gebruik. Verkennende faktorontleding van die data het 'n ses-faktor model van daaglikse lastighede binne oproepsentrums tot gevolg gehad, waardeur uitputting betekenisvol voorspel is. Die faktore was daaglikse eise, voortdurende verandering, lastighede met medewerkers, 'n demotiverende werksomgewing, vervoerprobleme en innerlike kwellings.

In die derde deel van hierdie tesis is daar 'n verskuiwing weg van die patogeniese paradigma na 'n meer salutogeniese/fortigeniese paradigma. Daar is weinig vroeëre navorsing oor volwassse veerkragtigheid. Die doel van die derde studie was om die konsep van volwasse veerkragtigheid te verken en om die beskermende en kwesbaarheidsfaktore wat by volwasse veerkragtigheid ter sprake is, te identifiseer en te beskrywe. Agt faktore wat 'n rol in volwasse veerkragtigheid speel, is met behulp van verkennende faktorontleding geïdentifiseer. Hierdie faktore was Selfvertroue en Optimisme; Positiewe Hervertolking; die Konfrontering van Teenspoed, Sosiale Ondersteuning, Vasberadenheid, Negatiewe Oorpeinsing, Godsdiens en Hulpeloosheid.

Praktiese aanbevelings is op grond van die bevindings van die navorsing vir die bestuur van oproepsentrums gemaak om die ontwikkeling van uitputting en omsetvoornemens te verminder, en oor hoe om die Diagnostiese Vraelys oor Daaglikse Lastighede te gebruik en die Volwasse Veerkragtigheidsaanwyser by die onderrig en ontwikkeling van veerkragtigheid aan te wend.

CHAPTER 1

INTRODUCTION

The research undertaken for this thesis pivots around the work environments of call centres and this environment's contribution to the development of burnout. Working in call centres can deplete the strength of people and the question of what can be done to strengthen their inner resources can be asked. The work in this thesis takes the first step in that direction by investigating and defining adult resilience.

Chapter 1 provides an overview of the problem statement, research objectives and the research methodology used in this research.

1.1 PROBLEM STATEMENT

Internationally and locally the trend is for companies to use call centres as their preferred method of service delivery. This makes sense from an economic perspective as the use of call centres has a tremendous cost saving advantage through which a competitive position in the market place can be improved (Deery & Kinnie, 2004). The increase in the use of call centres as service delivery mechanism, thus provide many more employment opportunities. This increase in employment in call centres has been reported in the USA, the UK, Europe and South Africa (Briggs, 1998; Deery et al., 2004; Durr, 1996; Taylor & Bain, 1999).

Frontline employees referred to as customer service representatives (CSRs) primarily deliver the service in call centres. They occupy boundary-spanning positions in which they represent the company that they work for to the customer (they are seen as the "personality" of the company) and they provide the customer with a contact point to the company. Being a boundary-spanning employee is not easy, particularly when it involves working as a CSR in a call centre. It is seen as a very stressful job in which the occupants may be highly susceptible to burnout (Holdsworth & Cartwright, 2003; Malhotra & Mukherjee, 2004; Singh & Goolsby, 1994). The above raises reasons for concern, especially as more and more people are employed in call centres.

Burnout can be seen as a kind of a stress that develops over time in response to stressful work conditions (Cordes & Dougherty, 1993). It is seen as a chronic affective response syndrome consisting of three interrelated constructs consisting of Emotional Exhaustion, Depersonalisation and Reduced Personal Accomplishment. The first of these constructs, Emotional Exhaustion, is relevant to this study as it is seen as the most important construct (Cordes et al., 1993; Maslach, Schaufeli, & Leiter, 2001). Emotional Exhaustion is the first response and develops as a result of many and ever-present role stressors, which cumulatively overwhelm the coping resources of the individual (Singh, 2000). It can be described as feelings of emotional depletion, extreme tiredness, a lack of energy and a feeling of being drained of emotional resources to cope with continuing demands (Cordes et al., 1993; Maslach et al., 2001; Schutte, Toppinen, Kalimo, & Schaufeli, 2000).

Exhaustion develops in response to stressful working conditions and is recognised as a function of the work environment in which the individual finds himself/herself today, and is no longer regarded as an "individual weakness", as in previous times (Leiter & Maslach, 1988; Maslach & Leiter, 1997).

The work environment and work in call centres have been described derogatively as "electronic sweat shops", "dark satanic mills" and "assembly lines in the head", which points to the adverse working conditions within call centres (Deery et al., 2004; Taylor et al., 1999). When employees experience their work environment as negative, it will influence their commitment to their company and their willingness to remain with their company. As previously stated, working in a call centre is associated with stress and burnout. It was found that emotional exhaustion is a strong predictor of both organisational commitment and turnover intentions (Burke & Richardsen, 2001). Turnover rates for call centres are reported to be above average in comparison to equivalent office type of working environments (Holdsworth et al., 2003).

Six salient characteristics that define the nature of call centre work environments were chosen on theoretical grounds to determine their influence on the development of burnout, affective commitment and turnover intentions. They were work overload (Cordes et al., 1993; Maslach et al., 2001); electronic performance monitoring and surveillance (Holdsworth et al., 2003; Holman, 2004; Taylor et al., 1999; Wallace, Eagleson, & Waldersee, 2000); competing management goals (Deery, Iverson, & Walsh, 2002; Deery et al., 2004; Holman, 2004;

Wallace et al., 2000); lack of career and promotion opportunities (Cordes et al., 1993; Deery et al., 2002; Maslach et al., 2001; Taylor et al., 1999); lack of skill variety (Frenkel, Tam, Korczynski, & Shire, 1998; Grebner, Semmer, Faso, Gut, Kälin, & Elfering, 2003; Taylor et al., 1999; Wallace et al., 2000; Zapf, Isic, Bechtoldt, & Blau, 2003) and emotional labour (Deery et al., 2004; Erickson & Wharton, 1997; Lewig & Dollard, 2003; Singh et al., 1994; Zapf et al., 2003).

In summary, the first research problem is that there is an increase in the number of call centres with a commensurate increase in employment in them. Call centres are seen as stressful places to work in and factors within the work environment can lead to the development of burnout, which would influence the commitment and turnover level within the call centre. Six salient characteristics of call centre work environments were chosen on theoretical grounds to explore its influence on burnout, affective commitment and turnover intentions.

The second research problem is related to the first problem, in which it was seen that there are many factors within the work environment of call centres that relate to the development of burnout. One factor that is frequently mentioned as a good predictor of burnout in the general burnout literature concerns daily hassles (Grebner et al., 2003; Lazarus, 1999; Lu, 1991; Steward & Barling, 1996; Zohar, 1999).

Daily hassles can be defined as minor everyday events, experiences, encounters, conditions and/or thoughts that occur in daily living and are seen as obstacles that disrupt goal-directed behaviour. Thus they act as a barrier between a person and his/her goals (Zohar, 1999). The presence and overcoming of daily hassles burn up additional energy over and above the energy used for goal achievement. Daily hassles are therefore associated with symptoms of physical health, wellbeing and mood; symptoms of illness, immune functioning; job performance, absenteeism, mental health, psychological distress and stress (Barling & Kryl, 1990; Chamberlain & Zika, 1990; De Longis, Folkman, & Lazarus, 1988; Eckenrode, 1994; Lu, 1991; Steward et al., 1996; Zohar, 1999).

The second research problem can be formulated from the above. People working in call centres are prone to developing burnout. Daily hassles have been cited as a cause of burnout, but its presence in and predictive value on burnout in call centres have not been investigated.

The research problem is thus formulated as an exploration of daily hassles in call centres and investigating their influence on burnout.

In the third research problem there is a shift away from the pathogenic paradigm towards a more salutogenic/fortigenic paradigm. Burnout is considered to be a pathogenic construct (Strümpfer, 2002). At present, psychology is searching to transform itself towards a more fortigenic paradigm – or a more positive psychology – with a focus on the strength and resilience of people (Seligman, 2002; Seligman & Csikszentmihalyi, 2000). In line with this movement, Strümpfer (2002) argues that consideration needs to be given to psychological constructs that could help us to understand alternatives to burnout. One such a construct is resilience, which, if present in an individual, can be drawn on as "... a source of strength in averting burnout..." (Strümpfer, 2002, p. 2).

Little is known about adult resiliency as most of the research on resilience was conducted on children and young adults facing risk factors during their childhood. The theory of resilience in this population is well understood and extensive knowledge is available on the assets and protective factors that promote positive development in the face of risk and adversity (Harvey & Elfabbro, 2004; Johnson & Wiechelt, 2004; Masten & Reed, 2002; Miller, 2003; Yates & Masten, 2004).

Three attempts have been made recently to measure adult resiliency. They include the Resilience Scale for Adults, the Connor-Davidson Resilience Scale and the Ego-Resiliency Scale (Connor & Davidson, 2003; Friborg, Hjemdal, Rosenvinge, & Martinussen, 2003; Friborg, Barlaug, Martinussen, Rosenvinge, & Hjemdal, 2005; Hjemdal, Friborg, Stiles, Rosenvinge, & Martinussen, 2006; Klohnen, 1996; Yu & Zhang, 2007). The study and understanding of what makes a difference with regard to adult resiliency is therefore in its infancy. Thus the third research problem that this research paper tries to address is an inquiry into the nature of adult resiliency.

The above-mentioned problem statements supply the basis for the following research questions:

- What is the predictive value of six salient call centre work environment variables for the development of burnout (as defined by emotional exhaustion), affective commitment and turnover intentions?

- What daily hassles are present in a call centre work environment and which of these hassles can be predictive in the development of burnout (as defined by emotional exhaustion)?
- What are the protective qualities (assets and resources) found in resilient adults? What vulnerability factors make them less resilient?

This research will contribute to the study of Industrial Psychology in the following way:

- It will improve our understanding of the work environment of call centres and how this can contribute to the development of burnout by providing a reliable burnout measure for call centres and a reliable measuring instrument for measuring six salient variables found in the work environment of call centres.
- It will develop a brief diagnostic instrument for the measuring of daily hassles within the call centre working environment.
- It will develop a new measure, the Adult Resilience Indicator, which will indicate the presence or absence of protective and vulnerability factors in adults in a reliable way.

1.2 RESEARCH OBJECTIVES

The research objectives of the study relate to the three problem statements and can be defined as follow:

- Describe and investigate the contribution of six central characteristics (antecedents) of call centre work environments and their influence on burnout; affective commitment and turnover intentions; investigate whether burnout mediates their influence on affective commitment and determine whether affective commitment mediates the effect of burnout with regard to turnover intentions.
- Develop a brief Call Centre Daily Hassle Diagnostic Questionnaire that can be used to identify the most common daily hassles that call centre agents experience, both within the work environment and in their personal day-to-day life. A secondary aim would be to determine the relationship between daily hassles and burnout in call centres.
- Develop an adult resilience scale (Adult Resilience Indicator) that could be used as an indicator of the presence or absence of resilience promoting and vulnerability factors and to support the identified factors with appropriate theory.

1.3 RESEARCH METHOD

The research method entailed a literature review on the different subjects, as well as empirical research.

1.3.1 Literature review

A thorough literature review was done to learn as much as possible from other scholars and to establish grounded knowledge of all the variables used in the research. This knowledge formed the background for the formulation of the research problem, research objectives and hypothesis. Primary resources were used as much as possible. The purpose of the literature review was to gain a high level of current knowledge about the subject; to position the research within a theoretical framework; to clearly define the research problem, objectives and hypothesis; and to define and operationalise the key constructs.

1.3.2 Empirical study

To achieve the stated objectives of the study, the empirical study was conducted in the following manner.

1.3.2.1 Research design

The processes by which answers are gained about real-life problems involve the process of science and the aim of science is to: "...generate truthful (valid and reliable) descriptions, models and theories of the world." (Mouton, 2001, p.138). To achieve the aims of science, a researcher needs to select and use an appropriate research design. The purpose of the research design is to ensure that the findings of the research are valid and as close to the truth as possible. The appropriate research design leads to the achievement of maximum validity through the elimination of possible errors. A good research design will enable the researcher to give answers to the research question with confidence (Kerlinger, 1986; Mouton, 1996).

The current study is an empirical study using primary numerical data collected by means of surveys (questionnaires) in a natural field setting. A cross-sectional research design was

chosen to provide satisfactory answers to the research questions. Cross-sectional research takes a single measure at a single point in time (Sulsky & Smith, 2005).

1.3.2.2 Participants

The selected sample theoretically should represent a work environment that is conducive to the development of burnout. The unit of analysis in this research is represented by individuals (customer service representatives) working in call center environments. The samples selected were non-probability samples, purposely selected to be as representative as possible of the CSR population in the call centre industry.

To reduce the risk of CSRs failing to complete the questionnaires, permission was sought from the participating call centre managers to allow employees to complete the questionnaires during working hours, so that CSRs would not perceive the completion of the questionnaires as another stressful burden. The CSRs received letters of endorsement for the study from management. All participants were promised anonymity.

Two incidental samples from two different call centres were obtained for the purpose of this research. The first sample was obtained from the call centre of a large financial company in the Western Cape. This was a mostly inbound call centre with CSRs taking service-related calls and queries from customers. Only the CSRs of this call centre took part in this project; back office workers were excluded. To improve the response rate; management agreed to reschedule the working times of the CSRs over the course of two weeks to free them for 45 minutes to complete the survey. The surveys were completed in small groups under the supervision of a team leader. The surveys were completed anonymously. Of the 200 surveys handed out, 146 (N=146) were returned, giving a response rate of 73%.

The sample was mostly made up of White (41,8%) and Coloured (44,5%) employees, representing the demographic profile of the Western Cape. The participants were mostly female (70,1%), spoke English (69,9%) or Afrikaans (27,4%) and were mostly between the ages of 31 and 40 years (42,2%) and 20 and 30 years (35,6%). The majority of the participants had an educational level of Grade 12 (46,6%) or some type of higher education in the form of a Technikon qualification (43,8%). With regard to years of employment, the majority of the participants had more than two years' experience in this call centre (63,7%)

while 14,4% had 1-2 years of employment and 20,5% had less than one year's experience in this call centre.

The second sample was taken from a large outsourcing call centre business, one of the biggest in the call centre industry in South Africa. A total of 500 questionnaires were given out and 394 were returned (N=394), giving a response rate of 78,8%. To ensure a good response rate, participants were given time off during their working day to complete the questionnaire.

Most of the participants were located in Cape Town (52,8%) while the rest came from Durban (47,2%). The majority worked in a service oriented call centre (64,7%), was on a consultant organisational level (84%) taking inbound calls (53,6%). The greater part of the participants was female (61,8%), Black (51%) and Coloured (38,1%), temporarily employed (55,1%), aged between 21 and 30 years (74,2%) and had between 1 and 2 years of employment (74%). Most had an educational level of grade 12 (55,1%). English (35%) and Zulu (21,3%) were the most frequently used home languages.

1.3.2.3 Measuring instruments

The measuring instruments used in this study comprised a burnout scale developed for use in call centres; a turnover intention scale; an affective commitment scale; a questionnaire measuring six salient variables of a call centre work environment; a newly developed Call Centre Daily Hassle Scale; the exhaustion subscale of the Maslach Burnout Inventory-General Survey; and the newly developed Adult Resilience Indicator.

The Burnout Scale – a seven-item scale (α = 0,93) specifically developed for the role of the CSR, was used to measure burnout in call centres,. The items were developed to capture the emotional exhaustion component of the burnout construct as it is seen as the most relevant and important part of burnout. Item development was based on theory, and on extensive qualitative interviews with CSRs (40) and their immediate team leaders. The response format ranged from 0 – 6 and was as follows: never (0), sporadic (1), now and then (2), regularly (3), often (4), very often (5), daily (6). Respondents were asked to indicate how often, if ever, they experienced each of the situations presented in the statements. Sample items were: "I

feel tired – worn out from my work", "I feel my work depletes my emotional strength" and "I feel I do not want to do this work anymore." In a subsequent study (N=394), the convergent validity of the scale was tested by correlating the scale with the Emotional Exhaustion subscale of the Maslach Burnout Indicator – General Survey (MBI-GS). The scale was positively correlated with the Emotional Exhaustion subscale of the Maslach Burnout Indicator (r = 0,850, p < 0,01). All of the items of both scales loaded on one factor in a principal components factor analysis of the data. The factor had an eigenvalue of 7,157 and 59,65% of the cumulative variance was explained by this factor.

Turnover intentions were measured with the use of a four-item scale based on the work of Mobley, Homer and Hollingsworth (1978) as reported in Bozeman and Perrewé (2001) and Mowday, Steers, and Porter (1984). Four of the five items were used. Three of the negatively worded items were changed into positively worded items. Examples of these items are: "I am seriously considering leaving my job" and "I will probably look for a new job in the near future." The calculated Cronbach reliability coefficient of this scale was $\alpha = 0,94$.

Affective commitment was measured, using a five-item scale based on the work of Allen & Meyer's (1990) three-component model of commitment as reported in Malhotra et al. (2004) and Dunham, Grube, and Castañeda (1994). Three of the negatively worded items were changed to positively worded items. Examples of the items are: "I would be very happy to spend the rest of my career with this organisation", "I feel 'emotionally attached' to this organisation". The calculated Cronbach reliability coefficient of this scale was $\alpha = 0,88$.

The independent variables were measured with one questionnaire consisting of six subscales. The subscales were work overload; electronic performance monitoring; lack of career and promotion opportunities; lack of skill variety; emotional labour; and competing management goals.

Work overload was measured by means of six items, including items like: "I feel that the pace of work is too high." The calculated Cronbach reliability coefficient for this subscale was $\alpha = 0,87$. **Electronic performance monitoring** was measured with five items measuring CSRs' perceptions about being constantly monitored. It included items like: "I experience the way in which we do performance monitoring as invasive". The development of these items

was based on work by Holman (2004). The calculated Cronbach reliability coefficient of this scale was $\alpha = 0,85$. **Lack of career and promotion opportunities** was operationalised by five items. It measured the views of the CSRs about their future career and promotion prospects within the call centre. Example item: "There are few career opportunities in the call centre." The calculated Cronbach reliability coefficient of this scale was $\alpha = 0,87$. Five items measured **lack of skill variety**. It captured the views of the CSRs on whether their work provided them with enough variety as far as skills were concerned, whether they saw their work as a challenge and whether their work utilised their skills and abilities. Example item: "I am bored at work." The calculated Cronbach reliability coefficient of this scale was $\alpha = 0,84$. **Emotional labour** was operationalised by four items which measured the emotional dissonance component of emotional labour as it was thought to play a major role in the development of emotional exhaustion (Deery et al., 2004; Lewig et al., 2003; Zapf et al., 2003). The scale included items like: "I often have to keep myself from expressing my true feelings". The calculated Cronbach reliability coefficient of this scale was $\alpha = 0,84$. **Competing management goals** was assessed with five items measuring to what degree the CSRs perceived the goals that management espoused and focused on to be in conflict with one another. Example item: "Management talk a lot about good customer service but in the end the really important thing is the average number of calls taken". The calculated Cronbach reliability coefficient of this scale was $\alpha = 0,88$.

The Call Centre Daily Hassle Scale (CCDHS) was specifically developed for the purpose of this study. It consisted of 43 items of which 30 items measured daily hassles in the call centre work environment and 13 items measuring daily hassles as experienced in the personal lives of call centre agents. The participants were asked to indicate how frequently they had encountered the identified hassles over the preceding six months on a 5-point scale ranging from 1 (*never*) to 5 (*fairly often*). Then they were to indicate how stressful they experienced the specific hassle to be on a 5-point scale ranging from 1 (*not at all stressful*) to 5 (*extremely stressful*). The reasons for using this way of measuring were the following: Asking participants to focus on a shorter recall period of six months presumably enables a more reliable estimate of the frequency with which the hassles occur. The frequency and stressfulness scores were combined to give a hassle density score, which provides an improved prediction of burnout over and above the frequency and or the stressfulness scores on their own (Zohar, 1999).

Exhaustion was measured by using five items from the Exhaustion subscale of the Maslach Burnout Indicator – General Survey (MBI-GS) The response format that was used ranged from 0 (*never*) to 6 (*daily*). Respondents were asked to indicate how often, if ever did they experience each of the statements. Sample items are: "I feel emotionally drained from my work", "I feel used up at the end of the workday", and "Working all day is really a strain for me." The reliability of the scale was calculated, using the Cronbach alpha coefficient (α = 0,87).

The Adult Resilience Indicator (ARI) was specifically developed for this study. The instructions provided participants with a definition of adversity (risk factors) that was possible in anybody's life. They were asked to think about the definition and examples of adversity and then to provide 2-3 examples of adversity that they had experienced in their own lives during the two preceding years.

They were then instructed to bear the examples in mind and to indicate to what extent the statements were true of their characteristic way of thinking, feeling and doing when they face adversity by means of a 4-point Likert response scale ranging between (1) almost never true of me; (2) sometimes true of me; (3) often true of me; and (4) almost always true of me. The scale instructions were developed in such a way that it elicited a more dispositional response from the participants.

Cronbach alpha reliability coefficients were calculated for the ARI and for each of the subscales, which gave and indication of the internal consistency of the scales. The alpha coefficient for the ARI was 0,92. For each of the subscales, the alpha coefficients (in brackets) were: confidence and optimism (0,93); positive reinterpretation (0,87); facing adversity (0,89); social support (0,87); determination (0,88); negative rumination (0,81); religion (0,78); and helplessness (0,73). All the alpha coefficients are acceptable when compared to the guideline of ($\alpha > 0,07$) given by Nunnally & Bernstein (1994).

1.3.2.4 Statistical analysis

All statistical analyses were carried out with SPSS version 14 (SPSS, 2007). Basic descriptive statistic like the mean and standard deviation of scores on items, scales and subscales were reported.

Factor analysis was used to test the internal structure of the measuring instruments. Exploratory factor analysis was used with the purpose of identifying and examining the underlying factor structure. The method used was a principal component factor analysis with a varimax rotation. The principal component factor analysis is the most appropriate method to use for exploratory purposes as well as data reduction and is seen as a psychometrically sound procedure (De Vet, Adèr, Terwee, & Pouwer, 2005; Field, 2000), while the varimax rotation helps to make the interpretation of the data easier by rotating the factors into uncorrelated factors. It also helps to simplify the interpretation process (Field, 2000; Pohlmann, 2004).

The criteria used for retaining the factors were the Kaiser-Guttman rule in which factors with an eigenvalue of greater than one are retained. A secondary decision rule was based on the visual interpretation of the scree plot. A visual interpretation of the scree plot is seen as a fairly reliable method of selecting factors when the sample size is more than 200 (Field, 2000; Pohlmann, 2004).

Cronbach alpha coefficients (α) were calculated to assess the internal consistency and reliability of the measuring instrument and Pearson correlation coefficients were used to examine the relationships between the dependent and independent variables in the different studies, as well as to determine the relationship between the different subscales of each instrument. All correlations reported on are significant at the p = 0,01 level (2-tailed). The effect size of the correlations was measured against the following guidelines: large effects were considered to be in the order of 0,50 or higher, medium effects in the order of 0,30 and small effects near to the level of 0,10 (Steyn, 1999).

Correlational analysis was supplemented with multiple regression analysis to test the relative contribution of independent variables on the dependent variables. It was also used for testing

for mediating effects. Mediating effects were tested in line with the described procedure as set out by Baron and Kenny (1986). According to them, three different regression equations should be calculated and three conditions should be adhered to. In the first regression, the independent variable and the mediator should be significantly related. In the second regression, the dependent variable and the independent variable should be significantly related. In the third regression, both the independent variable and the mediator are regressed on the dependent variable. In the third regression the effect of the independent variable on the dependent variable should be less than in the second regression.

1.4 DIVISION INTO CHAPTERS

The chapters in this thesis are presented in the following way:

Chapter 1: Introduction
Chapter 2: Exploring antecedents and consequences of burnout in call centres
Chapter 3: The development of a hassle-based diagnostic scale predicting burnout in call centres
Chapter 4: The development of the adult resilience indicator
Chapter 5: Conclusions, limitations and recommendations

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CHAPTER 2

ARTICLE 1

EXPLORING ANTECEDENTS AND CONSEQUENCES OF BURNOUT IN CALL CENTRES

ABSTRACT

The purpose of this study was to describe and investigate the contribution of six central characteristics (antecedents) of call centre work environments and their influence on burnout, affective commitment and turnover intentions. These characteristics were work overload; electronic performance monitoring; lack of career and promotion opportunities; lack of skill variety; and emotional labour. An incidental sample of customer service representatives (N=146) was obtained from an inbound service call centre of a large financial company. All six independent variables were significantly related with the experience of burnout, affective commitment and turnover intentions. Through multiple regression analysis it was established that work overload, lack of career and promotion opportunities, skill variety and emotional labour were the most important predictors of burnout whereas lack of career and promotion opportunities was the most significant predictor of both affective commitment and turnover intentions. Burnout had a direct effect on turnover intentions and was not mediated by affective commitment.

OPSOMMING

Die doel van hierdie studie was om die bydrae van ses sentrale eienskappe (antesendente) van oproepsentrum-werkomgewings en hulle invloed op uitputting, affektiewe toewyding en omsetvoornemens te beskryf en te ondersoek. Hierdie eienskappe was werkoorlading, elektroniese monitering van werklewering, gebrek aan loopbaan- en bevorderingsgeleenthede, gebrek aan vaardigheidsvariëteit; en emosionele werk. 'n Toevallige monster van oproepsentrum diensverteenwoordigers (N=146) is uit 'n inkomende diensoproepsentrum van 'n groot finansiële instansie verkry. Al ses onafhanklike veranderlikes is betekenisvol met die ervaring van uitputting, affektiewe toewyding en omsetvoornemens verbind. Veelvuldige regressie-analise het bepaal dat werkoorlading, gebrek aan loopbaan- en bevorderingsgeleenthede en vaardigheids-variëtieit, en emosionele werk die belangrikste voorspellers van uitputting was, terwyl gebrek aan loopbaan- en bevorderingsgeleenthede die belangrikste voorspeller vir beide affektiewe toewyding en omsetvoornemens was. Uitputting het omsetvoornemens direk geaffekteer en is nie deur affektiewe toewyding bemiddel nie.

All over the world, there has been a shift away from the traditional industrial economy towards the service economy. In the USA, where the service industries employ more workers than ever before, it is estimated that over 80% of all workers are employed in the service economy and that the service sector contributes up to 76% (nearly up to three quarters) of the USA domestic product. As many as six out of the ten top employers in the USA are service firms (McCammon & Griffin, 2000). All of these statistics serve to emphasise the tremendous growth in the service sector of the economy and the fact that more workers are employed in this sector than ever before.

Within the service industry, call centres have become a very popular method of delivering service, mostly because of financial benefits (cost savings implications) to the organisations that make use of them. Call centres replace the need for extensive and expensive branch networks with face-to-face service interaction. A large proportion of service work is now done through call centres, which explains why increasing numbers of people are employed in these centres (Deery & Kinnie, 2004).

A recent estimation suggested that more than a 100 000 call centres have already been established in the USA, with the implementation of new call centres continuing each year (Durr, 1996). Comparable growth, both in the number of call centres and the people that work in them, has also been reported in the UK, where it is estimated that 2,3% of the total UK workforce are employed in call centres (Taylor & Bain, 1999). Other estimations for the UK are that about two out of every one hundred workers are employed in call centres, while approximately 3% of the USA and 1% of the European workforce are employed in call centres (Deery et al., 2004).

A similar pattern of call centre growth is seen in South Africa. It is estimated that there are plus minus 250 call centres in this country, with an estimated growth of 20% per year. In South Africa, as in the rest of the world, call centres are fast replacing the traditional service channel of branch infrastructures in the financial services sector, which accounts for approximately 35% of all the call centres in South Africa (Briggs, 1998).

In the service economy, specifically within call centres, a special type of service employee needs to be mentioned. They are referred to as customer service representatives (CSRs). They occupy boundary-spanning roles in representing the organisation to the customer and mostly

perform emotional labour. The literature on organisational burnout in relation to boundary-spanning roles – specifically the role of the CSR – is very clear. CSRs are highly susceptible to elevated levels of stress and burnout, more so than in any other work environment. The work of a CSR is seen as one of the ten most stressful jobs in present-day world economy (Holdsworth & Cartwright, 2003; Malhotra & Mukherjee, 2004; Singh & Goolsby, 1994).

Burnout can be seen as a chronic affective response syndrome, a type of stress that develops in response to stressful working conditions (Cordes & Dougherty, 1993). It does not develop overnight. When people experience burnout they usually experience a gradual sense of loss that develops over an extended period of time. With the onset of burnout, an engaged, positive and energetic relationship with one's work progressively turns into disengagement, a loss of energy, limited commitment and a sense of ineffectiveness, which, over time, becomes real in the form of reduced accomplishment (Maslach & Leiter, 1997).

The most accepted definition of the condition describes burnout as consisting of three separate but interrelated constructs consisting of emotional exhaustion, depersonalisation and reduced personal accomplishment (Maslach, Schaufeli, & Leiter, 2001). The first of these constructs, emotional exhaustion, is thought to be the most important and is the first response to develop. It is characterised by feelings of emotional depletion, extreme tiredness, a lack of energy and a feeling of being drained of emotional resources to cope with continuing demands (Cordes et al., 1993; Maslach et al., 2001; Schutte, Toppinen, Kalimo, & Schaufeli, 2000). When employees reach this point of extreme tiredness, they act to conserve their levels of energy. To regulate their energy resources, they reduce their emotional and cognitive involvement with the work; in other words, they withdraw from their work. This leads to the second component of burnout, namely depersonalisation (Maslach et al., 2001). Depersonalisation can be seen as a coping response that will protect the employee from further emotional depletion. This form of coping has serious implications for a company that makes use of service workers to provide their services. When service employees use depersonalisation as a form of coping in response to high levels of emotional exhaustion, they will tend to be less responsive to and involved with the needs of their customers (Maslach et al., 2001; Singh et al., 1994; Singh, 2000).

In the final phase of burnout – reduced personal accomplishment – employees compare their current levels of competence with their previous levels of competence before emotional

exhaustion and depersonalisation had set in. In this self-evaluation, they see that they are not as competent and efficient as they used to be and feelings of incompetence, lack of achievement and lower productivity follow (Cordes et al., 1993; Maslach, 2001; Schutte et al., 2000).

Traditionally, burnout has been seen as an "individual weakness", without giving consideration to the role that the work environment plays in developing it. According to Maslach et al. (1997), this reasoning is flawed in that it only looks at the individual and not the individual within the working context. Research on burnout indicates that the environment within which individuals find themselves, specifically the characteristics of the work environment, are more related to burnout than personal and or personality factors (Leiter & Maslach, 1988; Maslach et al., 1997).

This point of view is very valid when it comes to call centres. In general, call centres are not seen as rosy places to work in. They have been given many different names such as "electronic sweatshops", "dark satanic mills" and "assembly lines in the head" (Deery et al., 2004; Taylor et al., 1999). Various studies conducted on the work environment of call centres by key researchers of this topic, indicate that many different variables inherent to the nature of call centre work and work environment have been linked to the development of burnout. These include high levels of workload (work overload); pressure from management to maximise client throughput linked to contradictory demands form management with regard to quality client service as well as client throughput; tenure; the repetitive nature of the work; lack of task variety; management focus on throughput; lack of supervisor and co-worker support; lack of training to deal with job requirements; CSRs' perception that customers are becoming more difficult to satisfy; tightly scripted telephone conversations; emotional demands of labour; continuous monitoring of performance; perceived lack of job and promotion opportunities; number of calls taken per day; pressure from management to reduce wrap-up time; role conflict; role ambiguity; and lack of job control (Deery, Iverson, & Walsh, 2002; Deery et al., 2004; Holman, 2004; Singh et al., 1994; Singh, 2000; Taylor et al., 1999; Wallace, Eagleson, & Waldersee, 2000).

Burnout and organisational commitment

Organisational commitment is viewed as a psychological state that will define and influence an employee's relationship with his or her organisation. This defined relationship will determine decisions to stay with, or leave the organisation (Meyer, 2001). Organisational commitment has been defined in many ways but one of the more influential perspectives comes from the work of Meyer and Allen, who conceptualise organisational commitment as consisting of three components, namely affective commitment, continuance commitment and normative commitment (Malhotra & Mukherjee, 2004; Meyer, 2001; Somers, 1995). For the purpose of this study, the focus will be on affective commitment, which is defined as: "... [the] employee's emotional attachment to, identification with, and involvement in the organisation." (Malhotra et al., 2004, p. 166).

Allen and Meyer labelled each one of the components of commitment. The label they chose for affective commitment was emotional attachment (Meyer, 2001). Intuitive reasoning would suggest that emotional exhaustion, which is an affective response from people towards their working environment, would influence their emotional attachment to their organisation. It was found that emotional exhaustion tends to erode organisational commitment (Lee & Ashford, 1996). For this reason, this study will focus on the relationship between burnout and affective commitment. It is hypothesised that there will be a strong negative relationship between burnout and affective commitment.

An important finding from previous research on organisational commitment that has implications for this study is that organisational commitment is a function of the characteristics of the job and the work environment rather than a function of personal characteristics (Meyer, 2001). Leiter et al. (1988) hold a similar view with regard to the development of burnout. They propose that characteristics of the work environment are more strongly related to burnout than personal factors such as personality variables (Maslach et al., 1997). One of the purposes of this study therefore is to determine which of the six salient work characteristics within a call centre work environment would contribute to burnout and commitment. The same variables that influence the development of burnout might potentially influence the development of organisational commitment.

Turnover as a consequence of burnout and organisational commitment

Call centre work has been highly associated with stress and burnout, with resultant high levels of absenteeism and turnover. Turnover rates for call centres are reported to be above average in comparison with equivalent office type working environments (Holdsworth & Cartwright, 2003).

Emotional exhaustion was found to be a strong predictor of both organisational commitment and turnover intentions. When individuals experience higher levels of emotional exhaustion, they will be more likely to leave their jobs and positive correlations have been found between emotional exhaustion and turnover intentions. Several studies reviewed by Burke and Richardsen (2001) have found that turnover intention was significantly related to burnout.

Turnover intentions and actual turnover are well-known consequences of a lack of organisational commitment. When employees experience lower levels of organisational commitment, they will be more prone to leave their organisations. This link between organisational commitment and turnover intentions is well established through research and Meyer's review has shown that affective commitment, specifically, correlates negatively with turnover intentions and/or actual turnover (Meyer, 2001). It has been found that burnout plays a mediating role between organisational demands like work overload and organisational commitment. This mediating effect is influenced specifically by emotional exhaustion (Burke et al., 2001).

Turnover intentions can be described as an inclination to leave an organisation voluntarily and is seen as the best predictor of actual turnover. Thus turnover intentions can be used as a reliable indicator of actual quitting (Janssen, de Jonge, & Nijhuis, 2001; Maertz & Campion, 2001).

The average turnover in call centres is high. It was reported that call centres in the UK face a turnover rate of up to 49% or more, which means that nearly half of their staff resign during a year (Malhotra et al., 2004). A similar finding was made by Deery et al. (2004), namely that the annual turnover rate in call centres in the UK is in the region of 30%.

In general high staff turnover is considered to have a negative influence on organisations. Associated negative consequences of high levels of turnover are added staffing and training costs, operational disruption and, ultimately, lost production capacity as well as lower levels of customer service (Maertz et al., 2001). It is therefore important to understand the predictors of turnover to enable the management of a call centre to manage the impact on the organisation.

It has been shown, in previous studies, that organisational commitment is an important predictor of intention to leave. With higher levels of organisational commitment, turnover intentions are reduced (Low, Cravens, Grant, & Moncrief, 2001). A study investigating the relationship between the organisational commitment of salespeople (who fulfil a boundary spanning role in the same way as CSRs) and their turnover intentions found support for the notion that higher levels of organisation commitment have a negative impact on the intention to leave (Low et al., 2001).

A negative relationship between affective commitment and turnover intentions was reported in a call centre study by De Ruyter (2001, cited in Bakker, Demerouti, & Schaufeli, 2003).
A second important predictor of turnover intentions is a lack of career opportunities – it was found to be a more important predictor than general job satisfaction (Janssen et al., 2001).

Antecedents of burnout in call centre work environments

Work overload – there is a well-established link between heavy work demand in the form of work overload and the development of burnout (Maslach et al., 2001). Work overload is directly related to the development of emotional exhaustion (Cordes et al., 1993). Some of the more common aspects of work overload involve high levels of client contact (high frequency of contact); not being able to take a break between calls; receiving calls on a continuous basis; perceived high target levels; time pressure (inability to do all the work in the time allocated per customer and brief call cycles); pressure to reduce wrap up time; and continuous versus alternating demands (Cordes, et al., 1993; Deery et al., 2002; Deery et al, 2004; Holman, 2004; Taylor, Hyman, Mulvey, & Bain, 2002; Singh, 2000; Zapf, Isic, Bechtoldt, & Blau, 2003).

Monitoring and surveillance of employees is seen as a very prominent and pervasive call centre practice, specifically in call centres with a strategic focus of maximising efficiency and customer throughput at the lowest possible unit cost per customer interaction. In such call centres, the management emphasis is on monitoring and measuring employees and technology is used as a control device to manage the workplace, to ensure compliance with work procedures, to monitor the speed of production, to regulate the level of downtime, to assess the quality of customer interactions, to reduce variability in service delivery and to enforce high production standards (Deery et al., 2004; Holdsworth et al., 2003; Holman, 2004; Taylor et al., 2002).

Monitoring and surveillance of employees through technology provides management with productivity statistics, which often form the basis for the performance evaluation of CSRs (Holdsworth et al., 2003). This information can be applied, firstly, as a punitive measure to enforce performance standards: the information gained from the monitoring process is used for disciplinary purposes and is perceived as threatening because it directly affects CSRs' remuneration. When used in a punitive manner, monitoring is viewed as a job demand in its own right and is associated with negative employee wellbeing. Secondly, the information gained through the monitoring process can be used as part of the employee's development process. In such cases, performance statistics are used as feedback, to enable the CSR to improve performance and to upgrade skill levels. When viewed in this way, the wellbeing of employees can be improved as it results in greater job satisfaction (Holman, 2004; Taylor et al., 1999).

Excessive long-term monitoring can have a negative effect on employees. Electronic performance monitoring is highly associated with stress (Holdsworth et al., 2003; Wallace et al., 2000). It causes employees to become more depressed and to develop higher levels of anxiety, which may cause them to devote more of their cognitive resources to dealing with the anxiety. Employee monitoring is therefore also linked to higher levels of emotional exhaustion, specifically in the case of employees who dislike having their performance scrutinised continuously (Holman, 2004).

Competing management goals is a type of role conflict endemic to call centres. It is seen as a source of stress by call centre employees. This conflict finds its expression in dual goal demands when management, on the one hand focuses on and espouses quality service and

high levels of customer satisfaction, while, on the other hand, demanding high levels of customer processing and throughput. Employees are constantly monitored and pressurised to ensure high levels of productivity in the form of high call volumes, brief talk times with customers and short wrap-up time, while simultaneously the quality of their customer interactions are monitored with the purpose of improving customer service. Although management may talk about the importance of both of these goals, the perception of call centre employees is that the focus is more on throughput than on customer service. This creates internal conflict for employees who see these dual goals (demands) as incompatible and incongruent. The pressure for higher productivity in the form of call volumes and brief talking times with clients impedes the ability and will to provide quality customer service. Trying to fulfil both of these goals result in high levels of frustration and emotional distress. It is therefore postulated that conflicting management goals are positively associated with the development of burnout (Deery et al., 2002; Deery et al., 2004; Holman, 2004; Wallace et al., 2000).

Upward career movement is seen as an organisational resource that acts as a buffer against the development of stress. It is seen as a powerful predictor of emotional exhaustion; if it is perceived to be present in organisations, it will be associated with lower levels of burnout (Cordes et al., 1993; Deery et al., 2002). When people experience greater upward career movement relative to their peers, it may serve as a form of feedback indicating that they are making a positive contribution to the organisation in the form of valued accomplishments. Upward promotions are also associated with reduced client contact, which removes one of the necessary conditions for the development of emotional exhaustion by reducing the frequency and intensity of client interaction (Cordes et al., 1993; Maslach et al., 2001).

Call centres are mostly designed to be cost effective replacements for face-to-face branch networks. To achieve cost effectiveness, call centres are designed to have a flat organisational structure, which leads to the perception of limited career and developmental opportunities. In general, call centres are perceived to be low status "dead-end" jobs (Deery et al., 2004; Taylor et al., 1999).

Lack of skill variety – call centre jobs are often compared to factory jobs or assembly lines based on Tayloristic principles of job design (Zapf et al., 2003). They can be highly routinised, with a lack of skill variety designed into the work.

The work is often perceived as repetitive in nature: agents do the same thing over and over again. The characteristics of the work that contribute to the assembly line perception are: Conversations are forced to be brief and routinised because of being scripted and controlled; the work is often viewed as unskilled work – it involves a low level of complexity; CSRs have no opportunity to use their skills and abilities; the division of labour only allows a CSR to do a limited piece of the work before it is passed it on to the back office where specialists deal with the queries. The work, lastly, is seen as monotonous, as CSRs are required to continuously repeat the same activity. Experienced monotony is one of the most frequently cited reasons when CSRs leave their jobs (Grebner, Semmer, Faso, Gut, Kälin, & Elfering, 2003; Frenkel, Tam, Korczynski, & Shire, 1998; Taylor et al., 2002; Taylor et al., 1999; Wallace et al., 2000; Zapf et al., 2003).

Earlier research has indicated that a lack of complexity and low utilisation of qualifications and skills are related to low levels of affective commitment while experienced monotony, low variety and low levels of complexity predicted employee's intentions to quit (Grebner et al., 2003).

Emotional labour – working in the service industry and in call centres involves the performance of emotionally taxing labour. Providing the particular service requires the employee's frequent and competent interaction with customers requiring some form of service. Such high levels of social interaction involve the performance of emotional labour (Erickson & Wharton, 1997). Service employees engaged in emotional labour deal directly with the customers of their organisations and are in frequent face-to-face or voice-to-voice contact with them (Kruml & Geddes, 2000). As it is estimated that face-to-face customer contact through branch networks will be completely replaced by call centres in the future, voice-to-voice customer contact will become the most salient form of customer contact. Indeed, two-thirds of all customer contact in the UK already occurs through call centres (Barker, 1998, as cited in Malhotra et al., 2004).

Service organisations try to direct and control the quality of service interactions so that employees will create a positive emotional state in the recipient of the service. This requires that the behaviour of employees conform to organisationally established norms (Morris & Feldman, 1996).

Emotional labour can thus be defined as the expression of appropriate emotions, as defined by the organisation, during interaction with customers. Employees are expected to express socially desired emotions, to appear happy and glad to serve the customer, to display positive emotions and suppress negative emotions (Deery et al., 2002; Maslach et al., 2001). This can be seen as a type of job demand (Zapf et al., 2003).

The important factor playing a role in the development of burnout is the emotional dissonance component of emotional labour. Emotional dissonance develops when employees display positive emotions but feel quite differently within themselves. It makes them feel inauthentic (Deery et al., 2004; Lewig & Dollard, 2003; Zapf et al., 1999). Call centre employees, customer service representatives (CSRs) specifically, are more prone to burnout for they mostly perform emotional labour and occupy boundary-spanning roles in representing the organisation to the customer (Singh et al., 1994).

Purpose of study

The purpose of this study was, firstly, to describe and investigate the contribution of six central characteristics (antecedents) of call centre work environments and their influence on burnout, affective commitment and turnover intentions and, secondly to determine whether the influence of these variables on affective commitment were mediated by burnout, in other words whether these variables influence affective commitment directly or indirectly. The third purpose was to determine whether burnout affected turnover intentions directly or indirectly or whether it was mediated by affective commitment?

Apart from investigating the influence of the six salient variables on burnout, the following hypotheses were to be tested:

Hypothesis 1	The experience of burnout in call centres significantly predicts affective commitment.
Hypothesis 2	Burnout mediates the effect of a lack of career and promotion opportunities on affective commitment.
Hypothesis 3	Burnout significantly predicts turnover intentions.
Hypothesis 4	Lack of career and promotion opportunities significantly predicts turnover intentions.

Hypothesis 5 Affective commitment significantly predicts turnover intentions.

Hypothesis 6 Affective commitment mediates the effect of lack of career and promotion opportunities on turnover intentions.

METHOD

Participants

An incidental sample of customer service representatives was obtained from the call centre of a large financial company in the Western Cape. This call centre was mostly inbound, with CSRs taking service-related calls and queries from customers. Only the CSRs of this call centre took part in the research, back office workers were excluded. To improve the response rate, management agreed to reschedule the CSRs over the course of two weeks to free them for 45 minutes to complete the survey. The surveys were completed anonymously in small groups under the supervision of a team leader. Of the 200 surveys handed out, 146 (N =146) were returned, giving a response rate of 73%.

Table 1

Characteristics of Participants (N=146)

Item	Category	Frequency	Percentage
Race Group	White	61	41,8
	Black	8	5,5
	Coloured	65	44,5
	Indian	2	1,4
	MV	10	6,9
Gender	Male	40	27,4
	Female	102	70,1
	MV	4	2,5
Language	Afrikaans	40	27,4
	English	102	69,9
	Xhosa	-	-
	Zulu	-	-
	MV	4	2,7
Age	20-30 years	52	35,6
	31-40 years	63	42,2
	41-50 years	19	13,0
	51 and older	9	6,0
	MV	3	3,2
Educational Level	Grade 12	68	46,6
	Technikon Qualification	64	43,8
	University Degree	6	4,1
	College Qualification	6	4,1
	MV	2	1,4
Years of Employment	Less than one year	30	20,5
	1-2 years	21	14,4
	More than two years	93	63,7
	MV	2	1,4

Table 1 gives a summary of the key characteristics of the sample, which mostly consisted of White (41,8%) and Coloured (44,5%) employees, representing the demographic profile of the Western Cape. Participants were mostly female (70,1%), spoke English (69.9%) or Afrikaans (27.4%) and were mostly between the ages of 31-40 years (42,2%) and 20-30 years (35,6%). The majority of the participants had an educational level of Grade 12 (46,6%) or some form of higher education in the form of a Technikon qualification (43,8%). The majority had more than two years of employment in this call centre (63,7%), while 14,4% had between employed for 1-2 years and 20,5% had less than one year's experience in this call centre.

Measuring instruments

All the measuring instruments, apart from the Affective Commitment and Turnover Intention scales, were specifically developed for this study. The items in the questionnaire, with the exception of the Burnout Scale, were measured with a five-point Likert type scale, with responses ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Respondents had to indicate the extent of their agreement with each statement. The reliability of each scale was calculated using the Cronbach Alpha coefficient. The reliabilities of the scales varied between $\alpha = 0,84$ to $\alpha = 0,94$ and were all above the recommended alpha coefficient of 0,70 (Nunnally & Bernstein, 1994).

A 7-item burnout scale ($\alpha = 0,93$) was developed to measure burnout in call centres – specifically for the role of the CSR. The items were developed to capture the emotional exhaustion component of the burnout construct as this was seen as the most relevant and important part of burnout. Item development was based on theory as well as extensive qualitative interviews with CSRs (40) and their immediate team leaders. The response format ranged from 0 – 6 and was as follows: never (0), sporadic (1), now and then (2), regularly (3), often (4), very often (5), daily (6). Respondents were asked to indicate how often, if ever, they experienced each of the situations described in statements. Sample items were: "I feel tired – worn out from my work", "I feel my work depletes my emotional strength" and "I feel I do not want to do this work anymore." In a subsequent study (N=394) tested the convergent validity of the scale by correlating it with the Emotional Exhaustion subscale of the Maslach Burnout Indicator – General Survey (MBI-GS). The scale was positively correlated with the Emotional Exhaustion subscale of the Maslach Burnout Indicator. (Pearson $r = 0,85$, $p <$

0,01). All of the items of both scales loaded on one factor in a principle components factor analysis of the data. The factor had an eigenvalue of 7,157 and 59,65% of the cumulative variance was explained by this factor.

Turnover intentions were measured using a four-item scale based on the work of Mobley, Homer, and Hollingsworth (1978) as reported in Bozeman & Perrewé (2001) and Mowday, Steers, & Porter (1984). Four of the five items have been used. Three of the negatively worded items were changed into positively worded items. Examples are: "I am seriously considering leaving my job" and "I will probably look for a new job in the near future".

Affective commitment was measured using a five-item scale based on Allen and Meyer's (1990) three-component model of commitment as reported in Malhotra et al. (2004) and Dunham, Grube, and Castañeda (1994). Three of the negatively worded items were changed to positively worded items. Examples are: "I would be very happy to spend the rest of my career with this organisation", "I feel emotionally attached to this organisation".

The independent variables were measured with one questionnaire consisting of six subscales. The subscales were work overload; electronic performance monitoring; lack of career and promotion opportunities; lack of skill variety; emotional labour; and competing management goals. Work overload refers to the experience of quantitative overload. It measures the CSRs' perceptions of their workload, whether they have enough time to wrap up a call, whether they feel that they work under continuous time pressure and whether they feel that the pace of work is too strenuous for them. Work overload was measured using six items and included items like: "I feel that the pace of work is too high." Electronic performance monitoring was measured with five items measuring CSRs' perceptions about constant monitoring. It included items like: "I experience the way in which we do performance monitoring as invasive". The development of these items was based on the work of Holman (2004). Lack of career and promotion opportunities was operationalised by five items. It measured the views of the CSRs concerning future career and promotion prospects within the call centre. Example item: "There are few career opportunities in the call centre." Five items measured lack of skill variety. It captured the views of the CSRs about whether their work provided them with a sufficient variety of skills, whether they saw their work as a challenge and whether their work utilised their skills and abilities. Example item: "I am bored at work." Emotional labour was operationalised through four items. It measured the emotional

dissonance component of emotional labour as it was thought to play a major role in the development of emotional exhaustion (Deery et al., 2004; Lewig et al., 2003; Zapf et al., 1999). The scale included items like: "I often have to keep myself from expressing my true feelings". Competing management goals was assessed with five items. It measured the degree to which the CSRs perceived management's espoused goals and focus to be in conflict with one another. Example item: "Management talk a lot about good customer service but in the end the really important thing is the average number of calls taken."

Statistical analysis

All statistical analysis was carried out with SPSS version 14 (SPSS, 2007). Firstly, Cronbach alpha coefficients (α) for each of the scales were calculated to assess the internal consistency and reliability. Secondly, Pearson correlation coefficients were used to examine the relationships between the six salient work characteristics within call centres and the dependent variables of burnout, affective commitment and turnover intentions. Thirdly, correlational analysis was supplemented with multiple regression analysis to test the relative contribution of each variable to burnout, and to test for possible mediating effects. Mediating effects were tested in line with the described procedure as set out by Baron and Kenny (1986). According to them, three different regression equations should be calculated and three conditions should be adhered to. In the first regression, the independent variable and the mediator must be significantly related. In the second regression, the dependent variable and the independent variable must be significantly related. In the third regression both the independent variable and the mediator are regressed on the dependent variable. In this regression the effect of the independent variable on the dependent variable should be less than in the second regression.

RESULTS

Descriptive statistics, the calculated Cronbach alpha coefficients of each of the measurement scales and the Pearson Product correlation coefficients of the variables used in the study are reported in Table 2.

The questionnaire measuring the independent variables was subjected to a principal component (varimax) factor analysis. Six factors were retained. They accounted for 66% of

the variance. The factor names, eigenvalues and percentages of the variance that they explained (in brackets) are reported in descending order. The first factor was competing management goals (eigenvalue: 9,77, percentage variance: 33%); the second factor, work overload (eigenvalue: 2,80, percentage variance: 9%); the third factor, electronic performance monitoring (eigenvalue: 2,40, percentage variance: 8%); the fourth factor, lack of career and promotion opportunities (eigenvalue: 1,70, percentage variance: 6%); the fifth factor, lack of skill variety (eigenvalue: 1,61, percentage variance: 5%); and the sixth factor was emotional labour (eigenvalue: 1,48, percentage variance: 5%).

Table 2

Descriptive Statistics and Product-Moment Correlations

Scale	Items	Mean	*SD*	α	1	2	3	4	5	6	7	8	9
1. Competing Management Goals	5	15,89	4,79	0,88	-								
2. Work Overload	6	17,55	5,31	0,87	0,49*++	-							
3. Electronic Performance Monitoring	5	14,68	4,5	0,85	0,43*+	0,52*++	-						
4. Lack of Career and Promotion Opportunities	6	20,32	5,19	0,87	0,40*+	0,52*++	0,49*++	-					
5. Lack of Skill Variety	5	15,15	4,38	0,84	0,33*+	0,40*+	0,41*+	0,57*++	-				
6. Emotional Labour	4	11,91	3,69	0,84	0,12	0,36*+	0,33*+	0,32*+	0,25*	-			
7. Burnout	7	14,65	9,40	0,93	0,34*+	0,60*++	0,43*+	0,61*++	0,53*++	0,43*+	-		
8. Turnover Intentions	4	10,77	4,53	0,94	0,27*+	0,44*++	0,32*+	0,66*++	0,46*++	0,31*+	0,64*++	-	
9. Affective Commitment	5	16,32	4,70	0,88	-0,40*+	-0,35*+	-0,30*+	-0,46*++	-0,39*+	-0,29*+	-0,50*++	-0,51*++	-

* Correlation is significant at the 0,01 level (1-tailed)

+ $r > 0{,}30$ – practically significant (medium effect)

++ $r > 0{,}50$ – practically significant (large effect)

As seen in Table 2, the Cronbach alpha coefficients of the measurement scales varied between 0,84 to 0,94, which is higher than the recommended guideline of 0,70 (Nunnally et al., 1994).

From Table 2 it is evident that burnout is positively and significantly related to lack of career and promotion opportunities (r = 0,61, large effect), work overload (r = 0,60, large effect) and lack of skill variety (r = 0,53, large effect.) In descending order, the following independent variables had medium effects in their association with burnout: emotional labour (r = 0,43), electronic performance monitoring (r = 0,43) and competing management goals (r = 0,34).

All the independent variables were negatively related to affective commitment as expected. With regard to the magnitude of the correlations, it is clear that lack of career and job opportunities correlated most with affective commitment (r = -0,46, large effect). The following medium effects can be reported. In descending order: competing management goals (r = -0,40), lack of skill variety (r = -0,39), work overload (r = -0,35), electronic performance monitoring (r = -0,30) and emotional labour (r = -0,29).

Positive correlations were found between the independent variables and turnover intentions. The variables that had the greatest influence on turnover intentions were lack of career and promotion opportunities (r = 0,66, large effect), lack of skill variety (r = 0,46, large effect) and work overload (r = 0,44, large effect). The variables with a medium effect were electronic performance monitoring (r = 0,32), emotional labour (r = 0,31) and competing management goals (r = 0,27).

With regard to correlation among the dependent variables, significant large effects were found between burnout and affective commitment (r = -0,50) and burnout and turnover intentions (r = 0,64). A large negative correlation was found between affective commitment and turnover intentions (r = -0,51).

Multiple regression analysis

Multiple regression analysis was used to assist our understanding of the relative influence that each of the six independent variables had on the dependent variables. In the first

regression analysis, all six independent variables were entered simultaneously into the regression model to determine their predictive ability on burnout. The aim was to determine the most significant predictors, so that those that did not relate significantly could be eliminated from subsequent analysis.

Table 3 shows that the specified model predicts 54% of the variance in burnout. Four variables made a significant contribution to the regression model as revealed by the t values: work overload ($t = 4,07$, $p < 0,001$), lack of career and promotion opportunities ($t = 3,61$, $p < 0,001$), skill variety ($t = 2,89$, $p < 0,005$) and emotional labour ($t = 2,92$, $p < 0,005$). The standardised regression coefficients for each of the predictors were: work overload ($\beta = 0,31$), lack of career and promotion opportunities ($\beta = 0,28$), skill variety ($\beta = 0,21$), and emotional labour ($\beta = 0,19$). The conclusion, based on the t and β values, is that work overload and lack of career and job opportunities are the strongest contributors to burnout. This was confirmed through hierarchical regression analysis in which each of the four independent predictors was entered separately in the order of their standardised β values, to determine their relative predictive value with regard to burnout. The R^2 – change for work overload was 35%, followed by lack of career and promotion opportunities (13%), skill variety (3%) and emotional labour (3%).

Table 3

Regression Analysis with Burnout as Dependent Variable

Model		Unstandardised Coefficients		Standardised Coefficients	t	p	F	R	R^2	ΔR^2
		B	SE	Beta						
1	Summary						27,38*	0,74	0,54	0,54
	(Constant)	-17,20	2,74		-6,28					
	Competing management goals	-0,01	0,14	-0,01	-0,07	0,942				
	Work overload	0,55	0,14	0,31	4.07	0,000*				
	Electronic performance monitoring	-0,03	0,15	-0,02	-0,22	0,828				
	Lack of career and promotion opportunities	0,51	0,14	0,28	3,61	0,000*				
	Skill variety	0,44	0,15	0,21	2,89	0,004*				
	Emotional labour	0,47	0,16	0,19	2,92	0,004*				

* $p < 0,05$ – statistically significant

In the following analysis, the attention shifts to the predictive value of the independent variables on the other two dependent variables, namely affective commitment and turnover intentions. As noted earlier, organisational commitment can also be seen as a function of the characteristics of the work environment. For this reason, the effect of the six independent variables on affective commitment will be examined. The same procedure will be followed to determine the effect on turnover intentions. Non-significant predictors will be eliminated from further analysis.

When all six independent variables were entered simultaneously into the regression model to determine their predictive value with regard to affective commitment, the coefficient of determination was 0,27. The regression model, in other words, explained 27% of the variation in affective commitment. Based on the standardised coefficient β, the t value and the level of significance ($p < 0,05$), the only significant contributor to affective commitment was lack of career and promotion opportunities ($\beta = -0,27$) ($t = -2,75$, $p < 0,007$).

For turnover intentions, the regression model (all six independent variables entered simultaneously) explained 46,7% of the variance. Lack of career and promotion opportunities once again emerged as the single significant predictor, based on the standardised coefficient β, the *t* value and a level of significance ($p < 0,05$). Lack of career and promotion opportunities: ($\beta = 0,55$) ($t = 6,505, p < 0,000$).

The next question we wanted to answer concerned determining whether burnout played a mediating role between career and promotion opportunities and affective commitment and turnover intentions. To answer this question, four conditions had to be met for a variable to be considered as a mediator (Baron & Kenny, 1986, as cited in Holmbeck, 1997). Hypotheses numbers 1 – 6 will be tested in the calculation of these four conditions.

In the first of the conditions, the predictor (lack of career and promotion opportunities), had to be significantly related with the hypothesised mediator (burnout) (Baron & Kenny, 1986, as cited in Holmbeck, 1997). This relationship was tested by means of a simple regression analysis. The analysis indicated that lack of career and promotion opportunities was significantly related to burnout, predicting 37,6% of the variance in burnout ($\beta = 0,61$) ($t = 9.317, p < 0,001$).

In the second condition, the predictor (lack of career and promotion opportunities) had to be significantly associated with the dependent measure (affective commitment) (Baron & Kenny, 1986, as cited in Holmbeck, 1997). This relationship was tested by means of a simple regression analysis. The analysis indicated that lack of career and promotion opportunities was significantly related to affective commitment. It predicted 21,5% of the variance in burnout ($\beta = -0,46$) ($t = 6,283, p < 0,001$).

In the third condition, the mediator (burnout) had to be significantly associated with the dependent variable (affective commitment) (Baron & Kenny, 1986, as cited in Holmbeck, 1997). This relationship was by means of a simple regression analysis. The analysis revealed that burnout was significantly related to affective commitment, as it predicted 25,4% of the variance in burnout. ($\beta = -0,504$) ($t = 6,99$, $p < 0,001$). These results therefore support Hypothesis 1.

In the fourth condition, the impact of the predictor (lack of career and promotion opportunities) on the dependent measure (affective commitment) had to be less after controlling for the mediator (burnout) (Baron & Kenny, 1986, as cited in Holmbeck, 1997).

Table 4 shows that 22% of the variance in affective commitment can be explained by lack of job and career opportunities. When burnout is entered into the model, the prediction ability of the model increases to 29%. Based on the standardised coefficient β, the *t* value and a significance level of ($p < 0,05$), the initial value of lack of career and promotion opportunities in model 1 ($\beta = -0,46$) ($t = -6,28$, $p < 0,001$) is reduced to ($\beta = -0,25$) ($t = -2,79$, $p < 0,006$) in model 2, but remains a significant predictor of affective commitment. The standardised coefficient β of burnout is –0,35 at ($t = -3.94$, $p < 0,001$), which is higher than lack of career and job opportunities. It is therefore concluded that burnout acts only as a partial mediator between lack of career and job opportunities and affective commitment. These results partially support Hypothesis 2.

Table 4

Regression Analysis with Lack of Career and Promotion Opportunities as Independent Variable and Affective Commitment as Dependent Variable

Model		Unstandardised Coefficients		Standardised Coefficients	*t*	*p*	*F*	*R*	R^2	ΔR^2
		B	SE	Beta						
1	Summary						39.48*	0,46	0,22	0,22
	(Constant)	24,84	1,40		17.74					
	Lack of Career and Job Opportunities	-0,42	0,07	-0,46	-6.28	0,000*				
2	Summary						29,51*	0,54	0,29	0,29
	(Constant)	23,45	1,38		16,99					
	Lack of Career and Job Opportunities	-0,23	0,08	-0,25	-2.79	0,006*				
	Burnout	-0,18	0,04	-0,35	-3.94	0,000*				

* $p < 0,05$ – statistically significant

The same steps and procedure were followed to see whether burnout mediates the influence of lack of career and promotion opportunities on turnover intentions. From Table 5, we can conclude that lack of career and promotion opportunities contributes to 44% of the variance in turnover intentions. When burnout is added to the model, the predictive value of the model increase to 53%. Based on the standardised coefficient β, the *t* value and a significance level of ($p < 0,05$), the initial value of lack of career and job opportunities in model 1 ($\beta = 0,66$) ($t = 10,54$, $p < 0,001$) is reduced to ($\beta = 0,43$) ($t = 5,85$, $p < 0,001$) in model 2, but remains a significant predictor of turnover intentions. We can therefore conclude that lack of career and job opportunities is not mediated by burnout ($\beta = 0,38$) ($t = 5,21$, $p < 0,000$) and in its own right remains a significant predictor of turnover intentions. Support for Hypothesis 4 was gained on the basis of these results.

Table 5

Regression Analysis with Lack of Career and Promotion Opportunities and Burnout as Independent Variables and Turnover Intentions as Dependent Variable

Model		Unstandardised Coefficients		Standardised Coefficients	*t*	*p*	*F*	*R*	R^2	ΔR^2
		B	SE	Beta						
1	Summary						111,08*	0,66	0,44	0,44
	(Constant)	-0,92	1.15		-0,81					
	Lack of Career and Job Opportunities	0,58	0,06	0,66	10,54	,000*				
2	Summary						27,14	0,73	0,53	0,09
	(Constant)	0,53	1,09		0,49					
	Lack of Career and Job Opportunities	0,37	0,06	0,43	5,85	.000*				
	Burnout	0,18	0,04	0,38	5,21	,000*				

* $p < 0,05$ – statistically significant

The same procedure was also followed to test Hypotheses 5 and 6 to assess whether affective commitment mediates between lack of career opportunities and turnover intentions. From

Table 6, we can conclude that lack of career and promotion opportunities contributes to 43% of the variance in turnover intentions. Adding affective commitment to the model increases the predictive value of the model to 49%. On the basis of the standardised coefficient β, the *t* value and a significance level of ($p < 0,05$), the initial value of lack of career and promotion opportunities in model 1 ($\beta = 0,66$) ($t = 10,54$, $p < 0,001$) is reduced to ($\beta = 0,54$) ($t = 8.00$, $p < 0,001$) in model 2, but remains a significant predictor of turnover intentions. Thus we can conclude that lack of career and job opportunities is not mediated by affective commitment ($\beta = -0,26$) ($t = -3,81$, $p < 0,001$) and in its own right remains a significant predictor of turnover intentions. These results support Hypothesis 5 but no support was found for Hypothesis 6.

Table 6

Regression Analysis with Lack of Career and Promotion Opportunities and Affective Commitment as the Independent Variables and Turnover Intentions as the Dependent Variable

Model		Unstandardised Coefficients		Standardised Coefficients	*t*	*p*	*F*	*R*	R^2	ΔR^2
		B	SE	Beta						
1	Summary						111,08*	0,66	0,43	0,43
	(Constant)	-0,92	1,15		-0,81					
	Lack of Career and Job Opportunities	0,58	0,06	0,66	10,54	0,000*				
2	Summary						14,50	0,70	0,49	0,05
	(Constant)	5,24	1,95		2,68					
	Lack of Career and Job Opportunities	0,47	0,06	0,54	8,00	.000*				
	Affective Commitment	-0,25	0,07	-0,26	-3,81	0,000*				

* $p < 0,05$ – statistically significant

The third purpose of this study was to investigate the relationship between burnout and affective commitment with regard to the dependent variable of turnover intentions. From Table 7, we can conclude that burnout contributes 41% of the variance in turnover intentions. When affective commitment is added to the model, the predictive value of the model

increases to 46%. Based on the standardised coefficient β, the *t* value and a significance level of ($p < 0,05$), the initial value of burnout in model 1 ($\beta = 0,64$) ($t = 10,04$, $p < 0,001$) is reduced to ($\beta = 0,52$) ($t = 7,25$, $p < 0,001$) in model 2, but remains a significant predictor of turnover intentions. Therefore we can conclude that burnout is not mediated by affective commitment ($\beta = -0,25$) ($t = -3,48$, $p < 0,001$) and in its own right remains a significant predictor of turnover intentions. Based on these results, support was found for Hypothesis 3.

Table 7

Regression Analysis with Affective Commitment and Burnout as the Independent Variables and Turnover Intentions as the Dependent Variable

Model		Unstandardised Coefficients		Standardised Coefficients	*t*	*p*	*F*	*R*	R^2	ΔR^2
		B	SE	Beta						
1	Summary						100,82*	0,64	0,41	0,41
	(Constant)	6,25	0,54		11,68*					
	Burnout	0,31	0,03	0,64	10,04	0,000*				
2	Summary						60,33*	0,68	0,46	0,46
	(Constant)	11,03	1,47		7,51*					
	Burnout	0,25	0,03	0,52	7,25	0,000*				
	Affective Commitment	-0,24	0,07	-0,25	-3,48	0,001*				

* $p < 0,05$ – statistically significant

DISCUSSION

The first objective of this study was to describe and to assess the relative influence of six salient work characteristics that are typical of call centres, together with their influence on burnout.

All six independent variables were significantly associated with the experience of burnout. Burnout in this call centre is therefore associated with lack of career and promotion opportunities, work overload, lack of skill variety, emotional labour, electronic performance

monitoring and competing management goals. With regard to their unique and independent contribution it was found that work overload, lack of career and promotion opportunities, skill variety and emotional labour were the most important predictors of burnout.

Work overload was consistently found to be a very strong predictor of burnout in call centres (Bakker et al., 2003). The perception of having too many demands to attend to can exhaust an individual's energy (Maslach et al., 2001). In call centres, many things accumulatively work together to create these perceptions. There is consistent pressure to take on more calls, which increase the frequency of interpersonal interactions; to complete calls within a given time (limited average call handling time can lead to the perception that the client interaction cannot be completed in the allocated time); and to reduce wrap-up time so that more calls can be taken. CSRs also have to deal with periods of uncontrollable high call traffic during which they need to face clients without a break or time out. This can result in high demands being placed on the role they play, which could deplete their energy (Cordes et al., 1993; Deery et al., 2002; Deery et al., 2004; Holman, 2004; Singh, 2000; Zapf et al., 2003)

The different analyses all point to the central role that the lack of career and promotion opportunities plays in call centres. The correlational analysis indicated that this had a marked effect on burnout, affective commitment and turnover intentions. It even had a stronger association with burnout than work overload, which is commonly accepted as one of the major contributors to burnout.

Lack of career and job opportunities and its association with burnout within call centres was corroborated in previous research (Deery et al., 2002). Its presence in call centres is due to the relatively flat organisational structure of call centres, which could contribute to the perception of limited career opportunities. Career advancement and development can be seen as a resource and, if present, would be a buffer against the development of burnout (Deery et al., 2002; Deery et al., 2004). Another possible explanation that could account for its powerful influence on burnout is found in the work of Ayala Pines. Her argument is that people tend to look for existential purpose in their lives. As religion does not fulfil this purpose any more, people seek meaning through their involvement in their work. Thus they have very high expectations of their work. When these expectations are not met, it can contribute to the development of burnout (Pines, 1993).

Lack of skill variety – previous research has shown that jobs that are perceived to be repetitive and routinised with little task variety are linked to the development of burnout. This is specifically true in call centres where job routinisation was linked with burnout (Deery et al., 2002; Zapf et al., 2003). This study supports the idea that call centre jobs with a low level of skill variety are positively linked to the development of burnout.

Emotional labour, and more specifically the emotional dissonance component of emotional labour, was previously linked with burnout in call centres (Zapf, et al., 2003). Erickson et al. (1997) provide a general explanation of the process by which emotional labour leads to burnout. According to their explanation, emotional labour can be seen as a type of organisational stressor that can eventually lead to the development of burnout (Erickson et al., 1997). To perform emotional labour requires a degree of effort. The effort comes from the requirement (it could be viewed as a form of demand) to display expected emotions, which could involve the suppression of inappropriate emotions, or even to change the emotions that the CSR is currently experiencing. As Ericson et al. state: "... there is effort involved in directing and managing feeling..." (1997, p.190).

According to Hochschild's initial conceptualisation, emotional work causes service employees to become alienated or estranged from their genuine feelings, with harmful consequences to their psychological wellbeing (Erickson et al., 1997). The harmful consequences are thought to be brought about through the depletion of psychological energy and therefore are usually associated with higher levels of emotional exhaustion, one of the core concepts of job burnout. Thus burnout is thought to be one of the major psychological risk factors associated with the performance of emotional labour (Erickson et al., 1997).

According to Zapf et al. (2003), CSRs are expected to avoid showing any form of negative emotion towards customers and to keep on being friendly and polite in spite of what they really feel. Emotional dissonance therefore seems to be higher in call centres. Lewig et al. (2003) made a similar finding, namely that emotional dissonance is the most stressful aspect of emotional work and that emotional exhaustion is predicted via emotional dissonance.

Electronic performance monitoring and surveillance associated positively with burnout (medium effect) but did not emerge as an independent predictor in the regression analysis. One possible explanation for this result is that CSRs do not experience its application as

invasive and punitive but rather as part of a development process in which the information is used as feedback for them to improve their performance (Holman, 2004). Another possible explanation might be that CSRs see this as a possible work demand and a form of role overload, hence the relatively high association between role overload and electronic performance monitoring ($r = 0,52$).

Competing management goals, although positively and significantly associated with burnout (medium effect), did not emerge as a significant predictor of burnout in this sample. A possible explanation for this could be that CSRs see management's demands for higher customer throughput (increased number of calls) and for the reduction of wrap-up time at the cost of service quality more like a job demand in the form of role overload, hence the high association between work overload and competing management goals ($r = 0,49$). Therefore it is speculated that the influence of competing management goals on burnout might be seen as a demand that would increase perceptions of work overload rather than contribute independently to burnout.

The second purpose of the study was to examine the contribution of the six call centre work environment variables and the effect on organisational commitment. A further purpose was to determine whether this effect was direct mediated by burnout.

When the predictive value of the variables was calculated for effect on affective commitment, only lack of career and promotion opportunities explained a significant proportion of the variance in affective commitment. Previous research showed that the upward movement of employees – specifically their perceptions of upward movement – played a role in the development of organisational commitment. Commitment was found to be higher among employees who had been promoted recently. It also increased when there was a perception that the company had a policy of promoting from within (Gaertner & Nollen, 1989, cited in Meyer, 2001). From this information, it makes reasonable sense to infer that a perception of limited career progress due to a flat hierarchical structure could be reflected in the affective commitment of the CSR's. This reasoning might explain the significant link between lack of career and promotion opportunities and affective commitment. This research also led to the conclusion that lack of career and promotion opportunities was only partially mediated through burnout in its effect on affective commitment.

A similar situation was found when the effect of the six working conditions on turnover intention was established. Once again, only lack of career and promotion opportunities explained a significant proportion of the variance in turnover intention. The significant contribution of this variable on turnover intention has been corroborated by previous research. It was found to be a more important predictor of turnover intentions than general job satisfaction (Janssen et al., 2001). Lack of career and promotion opportunities were not mediated by either burnout or affective commitment, but had a direct effect on turnover intentions.

The third and final purpose of the study was to see whether affective commitment mediated burnout in its influence on turnover intentions. Based on the results of this study, it can be concluded that burnout has a direct effect on turnover intention and is not mediated by affective commitment.

RECOMMENDATIONS

Based on the findings of this research, some practical recommendations can be made for the management of call centres to reduce the development of burnout and turnover intentions.

The first recommendation is to redesign the work of CSRs according to sound principles of job design and job enrichment to create meaningful tasks with different levels of skill variety built into the work. This will facilitate challenging and interesting work. It will also provide employees with the opportunity to vary their work and to do other types of tasks as well (Frenkel et al., 1998; Zapf et al., 2003).

The second recommendation is to allow CSRs more time with their customers on the phone (increase average handling time) to reduce the perception of work overload in the form of time pressure. This has been found to reduce the development of burnout (Deery et al., 2002).

The third recommendation is to define a career path for CSRs, which should not be based on upward career movement only, but also on lateral movement, so that they can gain experience in different departments of the organisation or the call centre. A probable career cycle of two years on the phone and one year off the phone could be tried and could be beneficial for the

reduction of burnout and turnover intentions. The company could promote an internal promotion policy simultaneously, which might influence affective commitment.

This study was not without its limitations. The measurement of variables was based on self-report measures, which could lead to common method variance between predictor variables and outcome variables. The study was also restricted in its scope, as it only focused on six of the more salient characteristics that reflect the inherent nature of call centre work. Many other variables that have been suggested in previous research play a role in the development of burnout in call centres.

The sample size in the present study was small and came from one call centre only. The research should be replicated with a bigger sample ranging across different call centres. This will increase the generalisability of the results. It is therefore suggested that these results be used cautiously.

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CHAPTER 3

ARTICLE 2

THE DEVELOPMENT OF A HASSLE-BASED DIAGNOSTIC SCALE FOR PREDICTING BURNOUT IN CALL CENTRES

ABSTRACT

The work of CSRs (Customer Service Representatives) within a call centre environment is often seen as stressful and could lead to the development of burnout. One factor that is often associated with burnout, is daily hassles. Daily hassles as a cause of burnout in call centres have not been studied before. The purpose of this study was to develop a brief Call Centre Daily Hassle Diagnostic Questionnaire that could be used to identify the most common daily hassles that call centre agents experience in their working lives, both in the work environment and in their day-to-day personal lives, and to determine the relationship between it and burnout. A cross-sectional survey research design was used with an accidental sample (N=394) taken from a service and sales call centre. An exploratory factor analysis of the data resulted in a six-factor model of daily hassles in call centres that significantly predicted exhaustion.

OPSOMMING

Die werk van 'n KDV (Kliëntediensverteenwoordiger) binne in 'n oproepsentrum word dikwels gesien as spanningsvol en kan tot die ontwikkeling van uitputting lei. Een faktor wat dikwels met uitputting in verband gebring, word is daaglikse lastighede. Die rol van daaglikse lastighede as 'n oorsaak van uitputting binne oproepsentrums is nie voorheen nagevors nie. Die doel van hierdie studie was om 'n bondige Diagnostiese Vraelys oor Daaglikse Lastighede in 'n Oproepsentrum te ontwikkel, wat gebruik kan word om die mees algemene daaglikse lastighede wat Kliëntediensverteenwoordigers binne hulle werksomgewing sowel as hulle privaat lewe ervaar te identifiseer en die verwantskap tussen hierdie lastighede en uitputting te bepaal. 'n Dwarsdeursnee-opname ontwerp vir navorsing is met 'n toevallige steekproef (N=394) vanaf 'n diens- en verkope-oproepsentrum gebruik. Verkennende faktorontleding van die data het 'n ses-faktor model van daaglikse lastighede binne oproepsentrums tot gevolg gehad, waardeur uitputting betekenisvol voorspel is.

A worldwide economic shift from the traditional industrial economy to the service economy has taken place with the boom in the employment of service workers (McCammon & Griffin, 2000). One popular method that companies use for the delivery of service – specifically companies within the financial sector, travel industry and the telecommunications industry – involves the use of call centres. Call centres were mostly created as an alternative, more cost effective, service model to replace the high cost of branch infrastructure where face-to-face client interaction was the order of the day (Taylor & Bain, 1999).

With the growth of the service economy and with call centres becoming one of the preferred ways of delivering service, the call centre industry experienced unprecedented growth, becoming one of the fastest growing employment sectors in the world. It is estimated that 2,3% of the UK population is working in call centres and that two thirds of al customer interaction takes place through call centres. The same trends can be seen in the USA and Europe (Durr, 1996; Malhotra & Mukherjee, 2004; Taylor et al., 1999). Similar trends can be observed in South Africa (Briggs, 1998).

In call centres, service is rendered by Customer Service Representatives (CSRs). They are the frontline employees whose primary task is to interact with customers by means of the telephone, hence the name call centre. A CSR is described as someone sitting at a table in front of his/her computer, wearing a headset, talking to customers while simultaneously entering data into the computer, if needed (Zapf, Isic, Bechtoldt, & Blau, 2003).

CSRs are often referred to as boundary-spanning employees, for they represent the company to the customers – they represent "... the personality of the firm to the customer over the telephone..." and the customers to the company (Deery, Iverson, & Walsh, 2004, p. 8). They are often placed in a difficult position when their clients want something of the company, but they cannot provide it to the customers (Singh & Goolsby, 1994).

While nothing seems to stop the growth of call centres and the increase of employment opportunities within them, working in call centres is not always experienced as pleasant. In fact, call centres have often been referred to in derogatory terms such as "dark satanic mills", "electronic sweatshops" or "assembly lines in the head" (Deery & Kinnie, 2004; Taylor et al., 1999). For example, one study conducted in German call centres found that call centre agents had poorer working conditions and experienced more psychosomatic complaints than

employees in comparable but more traditional workplaces, e.g. bank and administrative clerks (Isic et al., 1999 as cited in Grebner, Semmer, Faso, Gut, Kälin, & Elfering, 2003).

Building on the idea that working in call centres is not always pleasant, it has been found that call centres are frequently seen as stressful workplaces and that working in them can foster burnout. In their review on job burnout, Cordes and Dougherty identified the nature of employee-client relationships as a critical factor contributing to burnout, specifically with regard to the frequency and intensity of client contact. Employees such as service representatives, who fulfil boundary spanning roles, have frequent and intense interpersonal contact with clients and will be more prone to the development of burnout than other employees who have less frequent and intense client contact (Cordes & Dougherty, 1993).

The stressful nature of call centre work and its contribution to burnout has been corroborated by other research. The service job in call centres was seen as one of the ten most stressful jobs in today's economy. (Ruyter et al., 2001, cited in Malhotra et al., 2004) Korczyniski (2002), as cited in Deery et al. (2004), found that the levels of job stress among call centre staff were high, with two thirds of the sample reporting a degree of stress. A high level of stress and emotional exhaustion was also reported for call centre staff in Australia (Deery, Iverson, & Walsh, 2002). In another study conducted in call centres, the authors found high levels of stress, with 80% of the employees requesting training in stress management. They quote an ACA research study, which claims that call centre agents have a stress profile higher than that of coal miners (Wallace, Eagleson, & Waldersee, 2000). A study on empowerment, stress and satisfaction found that CSRs found all aspects of their job more stressful than the general working population (Holdsworth & Cartwright, 2003). Examining the effect of emotional labour on emotional exhaustion in call centres revealed that call centre workers experienced a moderate level of emotional exhaustion (Lewig & Dollard, 2003). In similar vein, Singh and Goolsby also noted that employees working in call centres are highly prone to burnout, more so than in any other work environment; working in call centres has been identified as one of the ten most stressful jobs in the USA (Singh et al., 1994).

Burnout has been linked to negative organisational outcomes like low job satisfaction, low morale, and high levels of absenteeism and turnover. On the individual level, the emotional consequences of burnout are even more serious. It leads to a decline in mental health, which is characterised by a lowering of self-esteem, increased depression, irritability,

helplessness, anxiety and sleep disturbances (Maslach & Leiter, 1997; Singh, 2000; Singh et al., 1994).

Many different factors have been associated with the development of burnout in call centres. Some of the key factors noted by the main researchers in this terrain are high levels of workload (work overload); pressure from management to maximise client throughput which is linked to contradictory demands from management with regard to quality client service as well as client throughput; tenure; repetitive nature of the work; lack of task variety; management focus on throughput; lack of supervisor and co-worker support; lack of training to deal with job requirements; CSRs who perceive that customers are becoming more difficult to satisfy; tightly scripted telephone conversations; emotionally exhausting labour; continuous monitoring of performance; perceived lack of job and promotion opportunities; number of calls taken per day; pressure from management to shorten wrap-up time; role conflict; role ambiguity; and lack of job control. (Bakker, Demerouti, & Schaufeli, 2003; Deery et al., 2002; Deery et al., 2004; Frenkel, Tam, Korczynski, & Shire, 1998; Holman, 2004; Singh et al., 1994; Singh, 2000; Taylor et al., 1999; Wallace et al., 2000)

Daily hassles and burnout

From the above, it is clear that there is an extensive list of factors within the work environment of call centres that can result in burnout. Burnout can be seen as a kind of a stress that develops over time in response to stressful work conditions (Cordes et al., 1993). It develops as a result of many and ever-present role stressors, which cumulatively overwhelm the coping resources of the individual (Singh, 2000).

Conceptually, burnout consists of three separate but interrelated constructs, namely emotional exhaustion, depersonalisation and reduced personal accomplishment. The first construct, emotional exhaustion, is thought to be the most important factor in burnout and is usually the first reaction to set in. It refers to feelings of emotional depletion and extreme tiredness in which the individual do not have the resources to cope with the emotional demands of the work (Cordes et al., 1993; Maslach, Schaufeli, & Leiter, 2001; Schutte, Toppinen, Kalimo, & Schaufeli, 2000).

One of the factors often associated with burnout is daily hassles, which have not been listed as a cause of burnout in call centres. Daily hassles can be defined as minor everyday events (little things), experiences, encounters, conditions and/or thoughts that occur in daily living and are harmful to the wellbeing of the people that experience them – in the sense that they irritate and distress people (Lazarus, 1999; Lu, 1991; Maybery & Graham, 2001). Daily hassles are chronic, that is, constantly recurring, role-related stressors. They are obstacles that disrupt goal-directed behaviour. They act as a barrier between a person and his/her goals (Zohar, 1999).

Steward and Barling (1996) and Zohar (1999) aptly describe the hypothesised link to burnout. Daily hassles function as a source of stress and require the use of additional energy. The additional consumption of energy results in cognitive fatigue, lowered performance and a decrease in helping behaviour (Steward et al., 1996). The disruption of goal directed behaviour is the mechanism by which daily hassles lead to the depletion of energy. People invest energy in the achievement of their goals. Daily hassles are disruptions or obstacles that stand in the way of goal achievement. To cope with the disruption, people need to invest additional energy to find a solution through the development of action plans, problem solving and decision making. Coping by means of energy expenditure consumes energy supplies that are not unlimited, which lessens the available energy for the achievement of the original goal. This process results in fatigue and negative mood, which will deteriorate even further without successful coping and energy replenishment (Steward et al., 1996; Zohar, 1999).

Hassles are thus seen as "annoying episodes" – regulation obstacles – that prevent the achievement of goals and increase the demand on personal energy, as they make daily tasks more difficult to complete. If people cannot reach their goals because of obstacles that stand in their way, they become stressed and need to invest additional energy to overcome such obstacles, which can lead to the depletion of energy resources (Grebner et al., 2003). Thus daily hassles can be regarded as an additional demand stressor (Zohar, 1999).

Daily hassles are considered harmful. Their harmful effect has been demonstrated in many research settings. Such daily hassles, and especially their accumulated effect, are related and associated with symptoms related to physical health, wellbeing, mood, illness, functioning of the immune system, job performance, absenteeism, mental health, psychological distress and stress (Barling & Kryl, 1990; Chamberlain & Zika, 1990; De Longis, Folkman, & Lazarus,

1988; Eckenrode, 1994; Greene & Nowack, 1995; Lu, 1991; Steward et al., 1996; Zohar, 1999).

In summary, it is evident that the call centre industry is growing, with more and more people employed in call centres. They are seen as stressful environments to work in and is conducive to the development of burnout. Many factors that contribute to burnout are cited. One of these factors involves daily hassles, which are considered to be a good predictor of burnout, but are not mentioned as a cause of burnout in call centres. The effect of daily hassles on the development of burnout in call centres has not been studied yet.

The purpose of this study therefore was to develop a short Call Centre Daily Hassle Diagnostic Questionnaire to be used to identify the most common daily hassles that call centre agents experience in their working lives, both within the work environment and within their day-to-day personal lives. A secondary aim was to determine the relationship between daily hassles and burnout in call centres.

METHOD

Research design

A cross-sectional survey research design was used to accomplish the objectives set out for this research. Such a research design is appropriate to exploratory and descriptive research with the aim of developing and validating new questionnaires (Mouton, 2001).

Participants

An accidental sample of call centre workers was obtained. Participants in the study were taken from a service and sales call centre situated in the Western Cape and Durban. A total of 500 questionnaires were distributed and 394 (N=394) were returned, giving a response rate of 78,8%. To ensure a good response rate, participants were allowed time off to complete the questionnaire during their working day.

More of the participants were located in Cape Town (52,8%), with the rest coming from Durban (47,2%). The majority worked in a service-oriented call centre (64,7%), on a

consultant organisational level (84%) taking inbound calls (53,6%). The greater part of the participants was female (61,8%), Black (51%) and Coloured (38,1%), temporarily employed (55,1%), aged between 21 and 30 years (74,2%) and had between 1 and 2 years of employment (74%). Most had attained an educational level of grade 12 (55,1%). English (35%) and Zulu (21,3%) were the most frequently used home languages.

Table 1

Characteristics of Participants (N=394)

Item	Category	Frequency	Percentage
Call Centre Location	Cape Town	208	52,8
	Durban	186	47,2
Type of work in CC	Customer Service	255	64,7
	Sales	128	33,4
	MV	11	2,8
Organisational Level	Consultant	331	84,0
	Supervisor	32	8,1
	Leadership	2	0,5
	MV	29	7,4
Type of Call Centre	Inbound	211	53,6
	Outbound	120	30,5
	Combination	52	13,3
	MV	11	2,8
Employment Status	Permanent	155	39,3
	Temp Assignment	217	55,1
	MV	22	5,6
Race Group	White	8	2,0
	Black	201	51,0
	Coloured	150	38,1
	Indian	23	5,8
	MV	12	3,1
Gender	Male	144	36,5
	Female	243	61,8
	MV	7	1,8
Language	Afrikaans	23	5,8
	English	138	35
	Xhosa	59	15
	Zulu	84	21,3
	Sotho	14	3,6
	Other Combinations	65	16,5
	MV	11	2,8
Age	18-20 years	25	6,4
	21-30 years	292	74,2
	31-40 years	45	11,4
	40-50 years	13	3,6
	MV	19	4,8
Educational Level	Grade10, 11, 12	217	55,1
	Technikon Degree	120	30,5
	University Degree	28	7,1
	Post Graduate	16	4,1
	MV	13	3,3
Years of Employment	1-2 years	291	74
	3-4 years	32	8,2
	5 years and more	5	1,5
	MV	66	16,8

Measuring instruments

Two measuring instruments were used in this study: the Call Centre Daily Hassle Scale (CCDHS), which was specifically developed for the purpose of this study, and the Exhaustion subscale of the Maslach Burnout Inventory-General Survey (MBI-GS).

The CCDHS was developed in two phases. The first was a qualitative phase in which call centre agents were asked to identify the daily hassles that they encountered on a regular basis, both within the call centre and in their own personal lives. In the second phase, the qualitative information was used to develop the CCDHS. As part of an organisational diagnostic process, data was gathered from call centre agents (Customer Service Representatives – CSRs) receiving client queries on the phone within a large South African Financial Services Company. Each CSR was given a brief structured questionnaire to complete. The questionnaire supplied a definition of daily hassles, as well as some examples of what would be regarded as daily hassles. They were then asked to think of daily hassles that they encountered on a regular basis during the previous six months, both in the work environment and in their personal lives. The content of the returned questionnaires was analysed. Daily hassles were grouped together according to themes, based on the frequency of such hassles being mentioned. The content analysis resulted in 30 themes involving daily hassles occurring in the work environment and 13 themes involving daily hassles occurring in their personal life. The identified themes were then used to develop a measurement instrument for daily hassles in call centres. Each identified theme was phrased in a short descriptive statement covering a broad range of daily stresses that a person working in a call centre might experience.

The CCDHS consisted of 43 items, 30 of which measured daily hassles in the call centre work environment and 13 items measuring daily hassles as experienced in the personal lives of call centre agents. The participants were asked to indicate how frequently they had encountered the identified hassles over the previous six months, on a 5-point scale ranging from 1 (*never*) to 5 (*fairly often*). Then they were to indicate how stressful they found the specific hassle on a 5-point scale ranging from 1 (*not at all stressful*) to 5 (*extremely stressful*). The reasons for using this way of measuring were the following: Asking participants to focus on the shorter recall period of six months presumably enables a more reliable estimate of the frequency with which the hassles occur. The frequency and

stressfulness scores were combined to provide a hassle density score. The hassle density score provides an improved prediction of burnout than the frequency and/or stressfulness scores on their own (Zohar, 1997).

Exhaustion was measured by using five items from the Exhaustion subscale of the Maslach Burnout Indicator – General Survey (MBI-GS) The response format that was used ranged from 0 (*never*) to 6 (*daily*). Respondents were asked to indicate how often, if ever, they experienced each of the situations described in the statements. Sample items were: "I feel emotionally drained by my work", "I feel used up at the end of the workday" and "Working all day is really a strain for me." The reliability of the scale was calculated, using the Cronbach alpha coefficient ($\alpha = 0,87$).

Statistical analysis

All statistical analyses were carried out with SPSS version 14. (SPSS, 2007) Basic descriptive statistics (means and standard deviations) were used to determine the densest daily hassles. Various multivariate data analysis techniques were used: To determine the underlying factor structure, an exploratory factor analysis was undertaken, using the principal component method with a varimax rotation. Eigenvalues of one and higher, as well as the scree plot, were used to determine which factors to retain. This was followed with principal axis factor analysis, the results of which are reported. To determine the internal consistency of the measurement scales, Cronbach alpha coefficients were calculated for each scale. Product-moment correlation coefficients were used to determine the relationships between the different variables and multiple regression analysis was used to determine the predictive value of daily hassles on emotional exhaustion.

RESULTS

One of the outcomes of this study was to develop a short diagnostic scale of daily hassles occurring in the lives of call centre agents. To achieve this outcome, the data was analysed and screened to determine which daily hassles occurred most frequently, as well as which hassles were seen as the most stressful. These two indicators were combined to give a density score (the sum of frequency and stressfulness). Only those hassles with a density score of 5 or

more out of a possible 10 were used for further analysis as they represent the more meaningful hassles (See Table 2).

Table 2

Descriptive Statistics for the Densest Daily Hassles

Rank Order	DENSEST DAILY HASSLES	Mean	*SD*
1	System problems (e.g. slow response times, system errors and computer downtime)	7,63	1,99
2*	My general financial situation	7,30	2,51
3	Pressure to meet daily production target	6,45	2,56
4	Continuous changes in work procedures and work environment	6,43	2,74
5	Noisy co-workers - people that talk too loudly	6,34	2,81
6*	Traffic jams	6,34	3,01
7	Ineffective business processes/work procedures	6,19	2,56
8	Continuous changes in work processes and procedures	6,17	2,59
9	Time pressure	6,15	2,78
10	The quality evaluation system that we use	6,08	2,52
11*	Time pressure – too many things to do – not enough time to do the things that you need to do	6,08	2,69
12	Difficult customers (e.g. rude, unreasonable or dissatisfied customers)	6,07	2,20
13	Co-workers not doing their work properly	5,90	2,66
14	High production targets – targets set too high	5,85	2,74
15	Complaining co-workers	5,82	2,68
16*	Transportation to and from work	5,81	3,02
17	Lack of cooperation, assistance and support from other departments	5,77	2,86
18	Cannot get hold of customers	5,5	2,88
19	Mistakes made by colleagues	5,50	2,50
20	Managerial behaviour	5,48	2,80
21	Continuous interruptions	5,46	2,61
22	Adhering to strict work schedule	5,39	2,55
23*	Day-to-day household responsibilities like washing, preparing meals (cooking) and cleaning	5,29	2,79
24	Unchallenging and boring work	5,22	2,74
25	Insufficient training	5,13	2,73
26	Unnecessary e-mails	5,10	3,09
27	Continuous changes in products	5,09	2,62
28*	Unemployed close family member	5,07	2,89

* Refer to daily hassles in (P) Personal Life

According to Table 2, the top five daily hassles experienced by call centre employees in their work environment related to system problems, pressure to meet production targets, continuous changes in work procedures, noisy co-workers and ineffective business processes/work procedures. The top five hassles in personal life related to their general

financial situation, traffic jams, time pressures (having too many things to do in limited time available), transportation to and from work and day-to-day household responsibilities like washing, preparing meals and cleaning.

The 28 densest hassles were subjected to a principal components exploratory factor analysis with a varimax rotation to determine the underlying factor structure, which was followed by a principle axis factor analysis. The Kaiser-Meyer-Olkin Measure of sampling adequacy was 0,87, which indicates a sufficient sample size in relation to the number of variables (N=394) to yield distinct and reliable factors (Field, 2000). Based on the Kaiser-Guttman rule of eigenvalues with one and more, as well as a visual interpretation of the scree plot, 6 factors were retained. The 6-factor solution accounted for 39% of the variance. From the initial 28 items used in the factor analysis, 11 items were discarded on the basis of significant cross-loadings and individual KMO values of below 0,50 on the Anti-image matrix (Field, 2000).

Factor 1, labelled **Daily Demands**, consisted of 3 items, had an eigenvalue of 6,90 and contributed to 24,64% of the variance. This factor included hassles that could be seen as demands that were made on call centre agents and included items like: "High production targets – targets set too high", "Pressure to meet daily production targets", and "Time pressure".

Factor 2 was labelled **Continuous Change** and consisted of 3 items. It had an eigenvalue of 7,92 and contributed to 7,92% of the cumulative variance. This factor indicated the fast changing nature of the work and products in call centres. Examples included: "Continuous changes in the work processes and procedures" and "Continuous changes in products".

Factor 3 was labelled **Co-worker hassles.** It consisted of 3 items, had an eigenvalue of 1,7 and contributed 6,22% of the variance. Example items included: "Co-workers not doing their work properly", "Mistakes made by colleagues" and "Continuous interruptions".

Factor 4 was described as **Demotivating Work Environment** and consisted of 3 items. This factor had an eigenvalue of 1,34 and contributed 4,84% of the variance. Sample items included: "Managerial behaviour", "Lack of cooperation, assistance and support from other departments" and "Unchallenging and boring work". This factor was difficult to label because of the seemingly disparate items grouping together.

Factor 5 was labelled **Transportation Hassles** and consisted of 2 items. This factor had an eigenvalue of 1,30 and explained 4,66% of the variance. It reflects the transportation difficulties that employees experience every day. The two items that made up this factor was: "Traffic jams" and "Transportation to and from work".

Factor 6, labelled **Inner Concerns,** consisted of 3 items. It had an eigenvalue of 1,16 and explained 4,14% of the variance. The factor reflected the inner concerns that people have during their working day. All of these inner concerns come from the agent's personal life and are outside of the working domain. Example items were: "Day-to-day household responsibilities like washing, preparing meals and cleaning", "My general financial position" and "Unemployed close family member".

The six subscales of the CCDHS were subjected to a second order factor analysis, using the subscale totals as raw data to determine the relationships among the subscales. The factor analysis (principle component with varimax rotation) yielded two factors with eigenvalues of 2,50 and 1 respectively. The factors explained 59% of the variance. The first factor had to do with daily hassles in the work environment and explained 42% of the variance. The component loadings for this factor were "Continuous Change" (0,82), "Co-worker hassles" (0,77), "Demotivating Work Environment" (0,73) and "Daily Demands" (0,53). The second factor had to do with daily hassles in the personal life of the agents and explained 17% of the variance. The component loadings for this factor were "Transportation Hassles" (0,83) and "Inner Concerns" (0,78).

Descriptive statistics and correlations

The descriptive statistics, number of items used in each scale, Cronbach alpha coefficients and correlation coefficients of the scales are displayed in Table 3.

Table 3

Descriptive Statistics and Product-Moment Correlations

Scale		Items (n)	Mean	*SD*	α	1	2	3	4	5	6	7
1.	Exhaustion	5	8,46	6,72	0,87	-						
2.	Daily Demands	3	18,45	6,61	0,75	0,35*++	-					
3.	Continuous Change	3	17,71	6,49	0,75	0,32*++	0,38*++	-				
4.	Co-worker Hassles	3	16,87	6,11	0,69	0,27*++	0,28*++	0,48*+++	-			
5.	Demotivating Work Environment	3	16,48	6,39	0,64	0,32*++	0,22*++	0,44*+++	0,49*+++	-		
6.	Transportation Hassles	2	12,15	5,26	0,68	0,23*+	0,25*++	0,19*+	0,24*+	0,21*+	-	
7.	Inner Concerns	3	17,67	6,00	0,56	0,16*+	0,18*+	0,24*++	0,23*+	0,26*++	0,36*++	-
8.	Daily Hassle Total	17	99,33	23,72	0,82	0,44*+++						

* Correlation is significant at the 0,01 level (1-tailed)
+ $r > 0,10$ – practically significant (small effect)
++ $r > 0,30$ – practically significant (medium effect)
+++ $r > 0,50$ – practically significant (large effect)

In Table 3 it is clear that the scale reliabilities vary between 0,56 and 0,87. The Cronbach alpha coefficient for Inner Concerns ($\alpha = 0,56$) was particularly low in comparison to the guideline of 0,70 (Nunnally & Bernstein, 1994). Acceptable reliability coefficients were obtained for Emotional Exhaustion (0,87), Daily Demands (0,75) and Continuous Change (0,75). The reliability coefficients for Co-worker Hassles (0,69), Demotivating Work Environment (0,64) and Transportation Hassles (0,68) can be considered acceptable if it is taken into consideration that the scales consist of only 3, 3 and 2 items respectively. A reliability coefficient of 0,82 was calculated for the total daily hassle scale, which consisted of 17 items.

A statistically significant correlation was found between the full (all 17 items) Daily Hassle Scale (r = 0,44) and Exhaustion. This correlation can be viewed as a large effect (Large effects are defined as correlations in the order of 0,5 or higher, Steyn, 1999). All the subscales of the Daily Hassle Scale are significantly (p < 0,01) related to Emotional Exhaustion. In descending order, the correlations are Daily Demands (0,35, medium effect), Continuous Change (0,32, medium effect), Demotivating Work Environment (0,32, medium

effect), Co-worker Hassles (0,27, medium effect), Transportation Hassles (0,23, small effect) and Inner Concerns (0,16, small effect).

Other interesting correlations are Daily Demands, which are significantly related with Continuous Change (0,38, medium effect), whereas Continuous Change is significantly correlated with Co-worker Hassles (0,48, large effect) and Demotivating Work Environment (0,44, large effect). Co-worker Hassles and Demotivating Work Environment are significantly related to each other (0,49, large effect) and Transportation Hassles are significantly related to Inner Concerns (0,36, medium effect).

Multiple regression analysis

To add to our understanding, the influence of the subscales was examined on exhaustion through multiple regression analysis. Based on the alpha values of the subscales ($\alpha > 0,60$), it was decided to include five of the subscales in the regression model. These variables were entered simultaneously into the regression model to determine the most significant predictors of exhaustion.

On the basis of the multiple regression procedure, four of the daily hassle subscales contributed significantly to the variance in emotional exhaustion. The results in Table 4 show that approximately 21% of the variance in Exhaustion (as measured by the Exhaustion Subscale of the Maslach Burnout Inventory – General Survey) is predicted by four of the daily hassle subscales. All four of the subscales made a significant contribution to the regression model, as can be seen by the t values. Daily Demands ($t = 4,64$ $p < 0,05$), Demotivating Work Environment ($t = 3,40$ $p < 0,05$), Continuous Change ($t = 1,97$ $p < 0,50$) and Transport Hassles ($t = 2,19$ $p < 0,50$). The standardised regression coefficients for each of the predictors were: Daily Demands ($\beta = 0,23$), Demotivating Work Environment ($\beta = 0,18$), Continuous Change ($\beta = 0,11$) and Transport Hassles ($\beta = 0,10$). Based on both the t and β values, it was concluded that Daily Demands is the strongest predictor of Exhaustion, followed by Demotivating Work Environment with Continuous Changes as the third best predictor, and Transport Hassles in the fourth place.

Table 4

Regression Analysis with Daily Demands, Continuous Change, Co-Worker Hassles, Demotivating Work Environment and Transport Hassles as Independent Variables and Burnout as Dependent Variable

Independent variables: Daily Demands, Continuous Change, Co-worker Hassles, Demotivating Work Environment, Transport Hassles

Model		Unstandardised Coefficients		Standardised Coefficients	*t*	*p*	*F*	*R*	R^2	ΔR^2
		B	SE	Beta						
1	Summary						20,92	0,46	0,21	0,21
	(Constant)	-3,54	1,24		-2,87	0,004*				
	Daily Demands	0,24	0,05	0,23	4,64	0,000*				
	Continuous Change	0,11	0,06	0,11	1,97	0,049*				
	Co-worker Hassles	0,05	0,06	0,05	0,09	0,386				
	Demotivating Work Environment	0,19	0,06	0,18	3,40	0,001*				
	Transport Hassles	0,13	0,06	0,10	2,19	0,029*				

* $p < 0,05$ – statistically significant

DISCUSSION

The purpose of this research was twofold. The first goal was to develop a short diagnostic questionnaire that could be used to measure the occurrence of the most common and stressful daily hassles in call centres. The second goal was to determine whether the instrument could measure the relative influence of daily hassles on emotional exhaustion, which is seen as the most important aspect of burnout (Cordes et al., 1993; Maslach, 2001; Schutte et al., 2000).

To achieve the first goal, a principle axis factor analysis based on the 28 densest hassles was conducted, which resulted in a factor structure of six factors. Eleven of the initial 28 items used in the factor analysis were discarded for various reasons, leaving a final measure of 17 items. The reliability of the overall scale (17 items) was high ($\alpha = 0,82$). Three of the subscales had reliability scores lower that the recommended 0,70 (Nunnally et al., 1994), but it was decided to include these scales in the subsequent analysis. They were Co-worker Hassles ($\alpha = 0,69$), Transportation Hassles ($\alpha = 0,68$) and Demotivating Work Environment

($\alpha = 0,64$). One subscale, namely Inner Concerns ($\alpha = 0,56$), was left out of further analysis on the basis of the reliability score of the scale.

The first factor was labelled Daily Demands and accounted for the most variance (24,64%) in the factor solution. This factor correlated significantly with Emotional Exhaustion ($r = 0,35$ $p < 0,01$) and was also the most significant predictor of Exhaustion, based on the standardised β coefficient of 0,23. The hassles that made up this factor referred to daily demands experienced by call centre agents, such as high levels of production targets, continuous pressure to meet targets and time pressure. The relatively high contribution of this hassle to exhaustion is not surprising, as previous research have consistently found the following work demands to predict burnout: work pressure, heavy workload and time pressure under which individuals feel that they cannot do all the work that they need to do in the allocated time (Cordes et al., 1993; Maslach et al., 2001; Schaufeli & Bakker, 2004; Zapf et al., 2003) and high workload levels (Deery et al., 2002).

High levels of production targets in call centres can refer to a heavy client load with high levels of client contact and interaction, with no or little time out. Perceptions of too much work, experienced as too many demands made on the individual, can exhaust the energy levels of an individual (Maslach et al., 2001).

In qualitative interviews with the CSRs, heavy work pressure was attributed to a lack of capacity (not enough CSRs to do all the work); constantly having to take calls without a break and taking calls at a fast tempo. They attributed high levels of production targets to high targets levels set by management, high quality standards that need to be met and that are enforced by quality checkers and targets that are set on the basis of performance levels (standards) of top performers.

The second factor was labelled Continuous Change and accounted for 7,92% of the cumulative variance in the factor structure. This factor referred to changes in the work environment, changes in the work processes and procedures, and to changes in the products that the call centre agents needed to sell or for which they had to provide after sales service. Previous research indicated that organisational change, like going through a downsizing process or merger, could be linked to the development of burnout (Maslach et al., 2001).

Although these are more macro, organisation-wide changes, it would seem that small day-to-day changes in work requirements and processes are also linked to the development of exhaustion. This is not unlikely, as the assimilation of such changes require individual effort. On the basis of the standardised β coefficient, this factor was shown to be the third best predictor of exhaustion in the regression model.

Factor 3, Co-worker Hassles, emerged as separate factors in the factor solution, which means that the items that loaded on this factor was seen as hassles that occur frequently and are perceived as stressful by call centre agents. Although this factor correlated significantly with exhaustion (Co-worker Hassles $r = 0,27$, $p < 0,01$) it failed to be classed as a significant contributor to exhaustion in the regression model.

Factor 4, labelled Demotivating Work Environment, contributed 4,84% of the variance in the factor model. This factor consisted of three items of disparate nature, linking Managerial Behaviour, Lack of Cooperation, Assistance and Support from other Departments, and Unchallenging and Boring Work with each other in one factor. The factor in total formed a significant part of the prediction model and can be seen as the second largest contributor to the explanation of exhaustion.

Several researchers noted the influence of managerial behaviour on burnout. Maslach and Leiter refer to it as "The Burden of Micromanagement" in which every move of employees is managed by detailed policies (Maslach et al., 1997). It is well known in call centres that management espouse micromanagement techniques in which every move of the employees are controlled and evaluated. Management's focus on production and customer service also leads to a form of role conflict within employees who feel that these demands are incompatible with each other, and result in frustration and emotional distress (Deery et al., 2002).

A multiple case study of four call centres conducted by Wallace et al. (2000) supported this view in finding that the primary management priority was productivity, which was constantly monitored by IT systems producing productivity statistics. The statistics were used to "drag the CSR over the coals" if he/she did not meet their targets (Wallace et al., 2000, p. 177). This type of management behaviour can be seen as very demotivating, as described by some

CSRs in qualitative interviews. They saw managers and team leaders as people who did not care for their staff, who did not support them, who did not include them in any form of participative management practices, and who focused too much on statistics to manage them. In all, the CSRs felt as if they were treated like machines and not like humans, or like numbers, not like people.

No doubt this view could be true, but more enlightened management processes (supportive styles) have been reported in call centres, with a reduced effect on emotional exhaustion. In such cases team leaders were seen as managers who listened to and helped employees solve problems and who helped them to ease the tensions of call centre work (Deery et al., 2002).

From previous research, it is known that call centre agents often see their work as boring and unchallenging. Agents perceive their work as lacking in variety as far as skills are concerned and which requires them to do the same thing over and over again – monotonous work (Holman, 2004). A significant positive relationship was found between routinisation of work – defined as a job, which involved repetitive tasks – and emotional exhaustion (Deery et al., 2002).

Lack of cooperation, assistance and support from other departments was also seen as something that contributed to reduced motivation. In qualitative interviews, the CSRs spoke about the frustration resulting from the lack of cooperation between different departments within the call centre. They pointed fingers at the "back-office" and blamed them for not "going the extra mile" for the clients. They referred to "accountabilities" within processes that were not clear, as well as a "lack of ownership" within the other departments. No previous research could be found that linked this with the development of emotional exhaustion.

It is difficult to determine which of the three items on this subscale contribute most to exhaustion. From the factor loadings of the items it seems that "Managerial behaviour", which loaded highest on the factor with a factor loading of 0,61, might play a more significant role in this factor.

Factor 5 was labelled Transportation Hassles and contributed 4,66% of the variance in the factor model. This factor consisted of two items that reflected the transportation problems

that employees had in this call centre. Transportation hassles either referred to getting stuck in the traffic or having difficulty in getting transport to and from work. This factor probably reflected the general situation in South Africa today, with millions of people working in the city centres while living in suburban areas and making use of public transport or driving into the city on congested highways. The connection between commuting and the development of stress reactions has already been identified earlier. Stokols and Nacaco (1981), cited in an overview in Graig (1993), found that commuters are routinely exposed to traffic congestion and that this is experienced as goal blocking (by the same mechanism as daily hassles). They also found that the users of public transport are subject to stress occurring from crowding, delays in travelling and threats of victimisation.

In summary, a significant proportion of the variance of emotional exhaustion, as evident in the foregoing discussion, can be explained by a newly developed instrument (The Call Centre Daily Hassle Scale), which measures the presence and occurrence of daily hassles in call centres.

The scale is in the infancy of its development and several recommendations for further research can be made. The scale needs to be refined by eliminating weak items and items with ambiguous meanings. More qualitative research needs to be done to determine whether there are other significant hassles that have not been captured yet. It needs to be tested in different call centres to determine its test-retest reliability and its convergent validity.

RECOMMENDATIONS

With this research, an attempt was made to develop a daily hassle diagnostic scale for use in call centres. The final version of the CCDHS – a short scale – consists of 17 items. Such a short scale, which is easy and quick to complete, will fit in with the fast and unrelenting pace of a call centre where time is always of the essence. It is a useful tool for management to use for quick diagnostic purposes – to feel the pulse – of what is going on in the areas of influence. Because of the scale's briefness and easy application, it could be used on a more frequent basis and the data could form part of the balance scorecard of the call centre. The information gained from the instrument could be used to drive organisational development and change interventions by means of a cycle of measuring (getting the data), giving feedback to the participants, organising focus groups to generate solutions, implementing the

solutions, and re-measuring down the line to assess the impact of changes, with regard to the occurrence of hassles, as well as their impact on burnout.

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CHAPTER 4

ARTICLE 3

THE DEVELOPMENT OF THE ADULT RESILIENCE INDICATOR

ABSTRACT

Specific factors that are associated with resilient children are well defined in decades of research on the subject. However, very little previous research has been done on adult resilience and it is not known whether the same factors that play a role in the resilience of children also play a role in the resilience of adults. The purpose of this study was to explore the concept of adult resilience and to identify and describe the protective and vulnerability factors that play a role in adult resilience. Through the use of an exploratory factor analysis, eight factors that played a role in adult resilience were identified. They were Confidence and Optimism, Positive Reinterpretation, Facing Adversity, Support, Determination, Negative Rumination, Religion and Helplessness.

OPSOMMING

Spesifieke faktore wat met veerkragtige kinders geassosieer word, is goed gedefinieer in tientalle jare se navorsing op hierdie gebied. Min navorsing is egter rondom die veerkragtigheid van volwassenes gedoen en dit is nie bekend of dieselfde faktore wat 'n rol by die veerkragtigheid van kinders speel ook 'n rol by volwassenes se veerkragtigheid speel nie. Die doel van hierdie studie was om die konsep van volwasse veerkragtigheid te ondersoek en om die beskermende en kwesbaarheids-faktore wat 'n rol speel by volwasse veerkragtigheid te identifiseer en te beskrywe. Agt faktore wat 'n rol in volwasse veerkragtigheid speel, is met behulp van verkennende faktorontleding geïdentifiseer. Hierdie faktore was Selfvertroue en Optimisme; Positiewe Hervertolking; die Konfrontering van Teenspoed, Sosiale Ondersteuning, Vasberadenheid, Negatiewe Oorpeinsing, Godsdiens en Hulpeloosheid.

The field of psychology is transforming itself through the development of a new focus. It is moving away from an almost exclusive focus on pathology – the identification and fixing of problems – to identifying and developing strengths and competencies that will act as a buffer against psychopathology. This new development is aptly referred to as Positive Psychology. The mission of Positive Psychology is to develop and build scientific theory focused on building strength and resilience in people and it has prompted an abundance of new research and a new emphasis in psychology (Seligman, 2002a; Seligman & Csikszentmihalyi, 2000). The study of resiliency falls within this new paradigm, as it is considered to be a study of strengths rather than deficits and of positive adaptation and competence in the face of adversity (Fergus & Zimmerman, 2005; Yates & Masten, 2004).

Little is known about adult resiliency. Most of the research on psychological resiliency comes from the world of developmental psychology and was focused primarily on the resiliency of young adults and children facing some risk factors during their childhood. The primary focus of this early research on resilience in disadvantaged children was based on identifying the trait-like characteristics of resilient children (Harvey & Elfabbro, 2004; Johnson & Wiechelt, 2004; Masten & Reed, 2002; Miller, 2003). After decades of research on a variety of at-risk populations, specific factors that are constantly associated with resiliency in children were delineated. These factors are well known, well defined and are well described (Yates et al., 2004). Hardly any lists of well-defined factors that contribute to adult resiliency exist for adult populations.

Only recently, three attempts have been made to measure adult resiliency. They include the Resilience Scale for Adults, the Connor-Davidson Resilience Scale and the Ego-Resiliency Scale (Connor & Davidson, 2003; Friborg, Hjemdal, Rosenvinge, & Martinussen, 2003; Friborg, Barlaug, Martinussen, Rosenvinge, & Hjemdal, 2005; Hjemdal, Friborg, Stiles, Rosenvinge, & Martinussen, 2006; Klohnen, 1996; Yu & Zhang, 2007). Therefore the study and understanding of what makes a difference with regard to adult resiliency is in its infancy.

Resilience has been defined variously. Common to the various definitions, resilience can be seen as an ability of people to adapt and cope successfully (Johnson & Howard, 2002; Miller, 2003), to overcome or "bounce back" from disadvantaged life circumstances, risk, serious threats and adversity (Fergus et al., 2005; Johnson et al., 2002; Johnson et al., 2004; Tusaie &

Dyer, 2004), an ability of people to draw on their inner strengths, skills and support (Johnson et al., 2004) and the maintenance of psychological wellbeing and health despite risks, threats and adversity (Johnson et al., 2002; Fergus et al., 2005). Thus resilience can be defined as: "...the process of, capacity for, or outcome of successful adaptation despite challenging or threatening circumstances" (Masten, Best, & Garmezy, 1990, p. 426, as cited in Yates et al., 2004).

Implicit in the definition of resilience are two conditions that need to be present before someone can be considered resilient. The first condition is that a person experiences some type of hardship or faces some or other adverse condition, which could impair his or her functioning and result in negative outcomes. Examples of this type of hardship come from everyday life. Children grow up under adverse conditions like having parents who are ill or who have some form of psychopathology, or adults go through difficult divorces, become disabled, become sick and do not reach their professional goals (O'Leary, 1998; Masten et al., 2002; Sutcliffe & Vogus, 2003). Such hazards could come to an individual one at a time or more than one adverse condition could be present simultaneously. In such an instance, the effect on the individual is accumulative and is referred to as accumulative risk (Masten et al., 2002).

The second condition is that, despite the presence of risk factors (singular or accumulative), the individual still manages to adjust positively without impaired functioning or the development of negative outcomes. Good outcomes have been described as academic and social achievements, the presence of happiness, life satisfaction and positive psychological wellbeing, the absence of disabling emotional distress and problems and undesirable behaviour like criminal and risk-taking behaviours (Masten et al., 2002).

Resilience comes into play where there is interaction between several concepts that are related to one another (Yates et al., 2004). The first of these related concepts that go together is the interaction between adversity, risk and protective factors (Yates et al., 2004; Tusaie et al., 2004). Adversity can be defined as a negative experience that is faced by a person with the capacity to significantly diminish the adaptive potential of the individual, both in the long and the short term (Yates et al., 2004). Along with adversity, risk factors are identified as critical events in the life of a person, which can derive from several life stressors, a single traumatic event or an accumulation of stressors such as a death in the family, divorce or some

other form of trauma. The presence of risk factors in the lives of people can prevent normal functioning, which could lead to distress. Risk factors predispose (predict negative outcomes) individuals to the development of negative outcomes (Johnson et al., 2004; Masten et al., 2002).

The development of negative outcomes can be reduced or prevented by means of protective mechanisms. Protective factors predict better outcomes in the presence of high-risk conditions (Masten et al., 2002). Such mechanisms can be located both externally (extrinsic) and internally (intrinsic) to the individual. Internal protective mechanisms are called assets. Assets are defined as: "... the positive factors that are found within the individual such as competence, coping skills and self-efficacy." (Fergus et al., 2005, p. 399; Masten et al., 2002).

External protective factors can be found in the social or external environment of the individual and are called resources. Resources are defined as positive factors that help the individual to overcome exposure to risk but are located outside or external to the individual. Examples of external resources include parental support and adult mentoring. Both assets and resources add to the probability of good outcomes irrespective of the presence of risk factors. When faced with adversity and risk, resilient people make use of use their assets or resources to overcome their exposure to risk factors (Masten et al., 2002; Yates et al., 2004; Tusaie et al., 2004).

The development of negative outcomes in the presence of risk factors can be augmented by vulnerability factors. Vulnerabilities are defined as factors that make people more susceptible to negative outcomes for example someone with a history of drug abuse. In the face of adversity, the effect of vulnerability factors will become more prominent because the influence of adversity on the negative outcome will be magnified (Fergus et al., 2005; Johnson et al., 2004; Oswald, Johnson, & Howard 2002; Masten et al., 2002; Yates et al., 2004). On the individual level, both protective mechanisms and vulnerability mechanisms moderate the effect of adversity and risk on the development of outcomes (Yates et al., 2004).

Different conceptual models facilitate our understanding of resilience. Historically, research on resilience started out with listing the qualities, assets and protective factors that enabled

people to develop good outcomes despite the presence of adversity and or risk factors. This research was identified as the first wave of resiliency inquiry (Richardson, 2002).
Contemporary researchers, however, have moved on and focus more on the process of resilience. They have realised that resilience is not a single pattern of adaptation but rather the function of multiple mechanisms operating synergistically over time to get to good outcomes (Yates et al., 2004).

In summary, to support positive psychology in its mission and quest to build scientific theory that will promote strength and resilience in people, the purpose of this research would be to inquire into adult resiliency as little is known about adult resiliency. The study falls into what Richardson calls the first wave of resilience inquiry, which has to do with identifying the qualities of resilient individuals who will thrive in the face of risk factors or adversity. It will answer the research question of: "Which resilient qualities will help people to recover, cope or "bounce back" after setbacks?"

The primary purpose of this study was to develop an adult resilience measurement instrument (scale) that could be used as an indicator of the presence or absence of resilience-promoting and vulnerability factors and to support the identified factors with appropriate theory.

Although falling into the more historical approach to the study of resilience, this is appropriate because of the relative novelty of the study of adult resilience. This approach is supported by Yates et al. (2004, p. 524), who state that: "Identifying assets, risks, protective factors, and vulnerabilities is an important first step in understanding resilience".

METHOD

Research design

A survey research design was used to accomplish the objectives set out for this research. This type of research design is appropriate in exploratory and descriptive research with the aim of developing and validating new questionnaires (Mouton, 2001).

Participants

An accidental sample of call centre workers was obtained. Participants in the study were taken from a service and sales call centre in the Western Cape and Durban. A total of 500 questionnaires were distributed and 394 (N=394) were returned, giving a response rate of 78,8%. To ensure a good response rate, participants were allowed time off to complete the questionnaire during their working day.

More of the participants were located in Cape Town (52,8%) while the rest came from Durban (47,2%). The majority worked in a service-oriented call centre (64,7%), on a consultant organisational level (84%) taking inbound calls (53,6%). The greater part of the participants was female (61,8%), Black (51%) and Coloured (38,1%), temporarily employed (55,1%), aged between 21 and 30 years (74,2%) and had between 1 and 2 years of experience (74%). Most had achieved an educational level of grade 12 (55,1%). English (35%) and Zulu (21,3%) were the most frequently used home languages (See Table 1).

Table 1

Characteristics of Participants (N=394)

Item	Category	Frequency	Percentage
Call Centre Location	Cape Town	208	52,8
	Durban	186	47,2
Type of work in CC	Customer Service	255	64,7
	Sales	128	33,4
	MV	11	2,8
Organisational Level	Consultant	331	84,0
	Supervisor	32	8,1
	Leadership	2	0,5
	MV	29	7,4
Type of Call Centre	Inbound	211	53,6
	Outbound	120	30,5
	Combination	52	13,3
	MV	11	2,8
Employment Status	Permanent	155	39,3
	Temp Assignment	217	55,1
	MV	22	5,6
Race Group	White	8	2,0
	Black	201	51,0
	Coloured	150	38,1
	Indian	23	5,8
	MV	12	3,1
Gender	Male	144	36,5
	Female	243	61,8
	MV	7	1,8
Language	Afrikaans	23	5,8
	English	138	35
	Xhosa	59	15
	Zulu	84	21,3
	Sotho	14	3,6
	Other Combinations	65	16,5
	MV	11	2,8
Age	18-20 years	25	6,4
	21-30 years	292	74,2
	31-40 years	45	11,4
	40-50 years	13	3,6
	MV	19	4,8
Educational Level	Grade10, 11, 12	217	55,1
	Technikon Degree	120	30,5
	University Degree	28	7,1
	Post Graduate Qualification	16	4,1
	MV	13	3,3
Years of Employment	1-2 years	291	74
	3-4 years	32	8,2
	5 years and more	5	1,5
	MV	66	16,8

Measuring instruments

The measuring instrument used in this study, namely The Adult Resilience Indicator (ARI), was specifically developed for the study. The instructions to the participants included a definition of adversity (risk factors) that could occur in anybody's life. Participants were asked to think about the definition and about examples of adversity and then to provide 2-3 examples of adversity that they had experienced in their own lives during the preceding two-year period. They were then instructed to bear the examples in mind and to indicate to what extent the provided statements were true of their characteristic way of thinking, feeling and doing when they faced adversity. A 4-point Likert response scale, where (1) corresponded to almost never true of me; (2) meant sometimes true of me; (3) often true of me; and (4) represented almost always true of me. The scale instructions were developed in such a way that it elicited a more dispositional response from the participants.

Statistical analysis

All statistical analysis, which included calculating means, standard deviations, alpha reliability coefficients, split-half reliability coefficients, correlations and exploratory factor analysis were carried out with SPSS version 14 (SPSS, 2007). The ARI (Adult Resilience Indicator) was subjected to an exploratory factor analysis with the purpose of identifying and examining the underlying factor structure. The method that was used was a principal component factor analysis with a varimax rotation. The principal component factor analysis is the most appropriate method to use for exploratory purposes as well as data reduction and is seen as a psychometrically sound procedure (De Vet, Adèr, Terwee, & Pouwer, 2005; Field, 2000). Even though correlation among the factors was expected, the varimax method of rotation was chosen over the oblique method of rotation to keep the identified factors as separate as possible from one another. The varimax rotation helps to make the interpretation of the data easier by rotating the factors into uncorrelated factors. It also helps to simplify the interpretation process (Field, 2000; Pohlmann, 2004).

The criteria used for the retaining of the factors involved the Kaiser-Guttman rule, in which factors with an eigenvalue of greater than one are retained. A secondary decision rule was based on the visual interpretation of the scree plot. A visual interpretation of the scree plot is

seen as a fairly reliable method of selecting factors when the sample size is more than 200 (Field, 2000; Pohlmann, 2004).

To assess the internal consistency and reliability of the measuring instrument, the Cronbach alpha coefficient (α) as well as the split-half reliability was calculated. Pearson correlation coefficients were used to examine the relationships between the different factors. A decision rule of ($p < 0,05$) was used to determine the significance levels of the correlations.

RESULTS

The ARI was developed in two phases. The first phase was a qualitative phase. In this phase resilience was defined from the perspective of "normal" working people. In other words, how do ordinary lay people view resilience and what do they attribute to it. An uncomplicated definition of resilience was given to 63 small groups consisting of plus minus 5-7 participants per group in a workshop setting. The groups were of mixed gender and race. The definition defined resilience as the ability of an individual to "jump back" after facing hardship or adversity. They were asked to identify someone from their own experience (it could be a historical figure or someone they knew personally) who showed resilience despite serious setbacks (adversity) in life. They were asked to describe the circumstances that the focal individual experienced and then to focus on how this person went about overcoming his/her setbacks. They were specifically informed that resilient people have some habitual qualities – the tendency to act or to think in a particular way that enabled them to overcome their problems/adversity. They were to think about how the focal person approached adversity and what enabled him/her to overcome it. The participants in the group were then asked to share their stories with one another and to write down their combined answers on flip chart.

The various answers were presented from flip charts to facilitate group discussion about resilience. The answers from all the flip charts were captured word for word and then content analysed. During the analysis, the answers were grouped into similar themes. Different words with more or less the same meaning were grouped together to form a theme of resilience. A frequency count was conducted to see how many times a specific theme was mentioned in the groups (see Table 2)

Table 2

Resilience Themes

No.	Resilience theme	Frequency
1	Determination	60
2	Positive thoughts, attitudes and optimism	54
3	Faith/religion	39
4	Support	39
5	Belief in self	34
6	Willpower	31
7	No negative affect and rumination	27
8	Set goals	25
9	Change of perspective	23
10	Decision/took responsibility	22
11	Took action	18
12	Motivated	16
13	Emotional Regulation	13
14	Overcame challenges	13
15	Courage	13

The second phase was quantitative and involved the following: The meanings of the theme words were looked up in the dictionary. Based on the meanings of the words, as well as a theoretical scan of literature on these themes, items were constructed that attempted to capture the meaning of these themes. As the themes were defined, and from the literature review, considerable conceptual overlap (sameness of meaning) could be seen among the themes. In some cases, one or two themes were integrated into one definition because of conceptual overlap. A total of 82 items were developed.

The first ARI version, with 82 items, was given to 146 call centre employees to complete. The data obtained was subjected to an exploratory factor analysis. A principal components factor analysis with a varimax rotation was used. The purpose of this procedure was to examine the underlying factor structure of the ARI and to see which items could be eliminated. Following the guidelines set out by Stevens and described by Field in Discovering Statistics (Field, 2000), a decision rule of 0,500 or higher was used to retain items). According to this rule the significance of factor loading will depend on the sample

size used. In a sample size of a 100 the factor loading of the item should be greater than 0,512 and in a sample size of 200 it should be greater than 0,364 (Field, 2000). The sample in this pilot study was 146 and it was decided to use 0,500 as a cut-off point. In this process, 30 items were eliminated. A final factor solution of 8 factors consisting of 50 items was retained. This version of the ARI was used in the current study.

Factor analysis

The Kaiser-Meyer-Olkin Measure of sampling adequacy was 0,92, which indicates a sufficient sample size in relation to the number of variables (N=394) to yield distinct and reliable factors (Field, 2000). On the basis of the Kaiser-Guttman rule, nine factors with an eigenvalue of more than one were extracted. After a visual inspection of the scree plot, it was decided to retain eight factors (which explained 61% of the variance). After the 8th factor, there was a clear inflection in the trend line.

See Table 3 for the factors and item loadings on the factors. Factor loadings lower than 0,10 have not been reported on and have been replaced with zeros. With a sample size of N = 394 factor loadings of 0,30 and higher can be considered as significant. However, for this study the general rule to use items with a factor loading of 0,40 and higher for interpretative purposes were used (Field, 2000; Ford, MacCullum, & Tait, 1986). The items that loaded on each factor are listed in descending order based on their factor loadings.

The variables were well defined by this factor solution as all 50 items were represented in the factor solution. Eight of the items had significant cross-loadings of 0,30 and higher on one or more of the factors. They were items 35, 40, 15, 14, 17, 10, 12 and 13. It was decided to keep these items in the initial study for interpretation purposes, a practice that is not inconsistent with the recommendations of Ford et al., 1986, p. 306, which states that: "...it is completely consistent with the common factor model and the principle of simple structure for a variable to have more than one high loading (i.e., to be affected by more than one factor)." The results suggest however, that the items of factor 5 should be reworded in a subsequent study to define the factor more accurately.

Table 3

Exploratory Factor Analysis of ARI

Items	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8
38	**0,75**	0,24	0,20	0,14	0,23	0,00	0,11	0,00
35	**0,75**	0,30	0,24	0,12	0,18	0,00	0,00	0,00
34	**0,75**	0,24	0,18	0,14	0,14	0,00	0,00	0,00
39	**0,75**	0,21	0,19	0,19	0,20	0,00	0,00	0,00
36	**0,74**	0,26	0,24	0,14	0,16	0,00	0,00	0,00
37	**0,65**	0,24	0,24	0,11	0,21	0,00	0,00	0,00
40	**0,64**	0,31	0,25	0,13	0,19	0,00	0,00	0,00
33	**0,63**	0,20	0,13	0,15	0,19	0,00	0,00	0,00
6	0,16	**0,75**	0,15	0,00	0,12	0,00	0,10	0,00
4	0,19	**0,72**	0,23	0,00	0,13	0,00	0,00	0,00
9	0,28	**0,71**	0,00	0,14	0,16	0,00	0,00	0,00
2	0,19	**0,68**	0,18	0,00	0,00	0,00	0,00	0,00
1	0,17	**0,64**	0,00	0,00	0,13	0,00	0,00	0,00
5	0,20	**0,63**	0,22	0,11	0,00	0,00	0,00	-0,14
7	0,14	**0,62**	0,12	0,00	0,00	0,00	0,00	-0,12
8	0,16	**0,52**	0,00	0,20	0,13	0,00	0,00	0,00
3	0,11	**0,51**	0,13	0,14	0,23	0,00	0,00	0,00
49	0,25	0,28	**0,76**	0,00	0,13	0,00	0,12	0,00
48	0,13	0,17	**0,76**	0,00	0,21	0,00	0,12	0,00
47	0,11	0,18	**0,75**	0,12	0,24	0,00	0,00	0,00
46	0,20	0,15	**0,72**	0,13	0,11	0,00	0,00	0,00
51	0,23	0,23	**0,69**	0,00	0,13	0,00	0,00	0,00
50	0,27	0,24	**0,65**	0,00	0,16	0,00	0,00	0,00
45	0,28	0,14	**0,58**	0,12	0,00	0,00	0,00	0,00
20	0,00	0,13	0,00	**0,79**	0,00	0,00	0,00	0,00
23	0,61	0,00	0,00	**0,77**	0,00	0,00	0,00	0,00
21	0,14	0,13	0,00	**0,76**	0,22	0,00	0,00	0,00
19	0,00	0,00	0,00	**0,73**	0,00	0,00	0,16	0,00
18	0,15	0,17	0,00	**0,71**	0,00	0,00	0,00	0,00
22	0,13	0,00	0,11	**0,71**	0,21	0,00	0,00	0,00
15	0,32	0,12	0,20	0,17	**0,69**	0,00	0,00	0,00
11	0,22	0,35	0,16	0,11	**0,67**	0,00	0,00	0,00
17	0,35	0,15	0,20	0,18	**0,63**	0,00	0,10	0,00
14	0,23	0,26	0,22	0,16	**0,62**	0,00	0,10	0,00
10	0,27	0,35	0,16	0,13	**0,55**	0,00	0,00	0,00
12	0,12	0,40	0,24	0,00	**0,55**	0,00	0,19	0,00
13	0,34	0,30	0,11	0,00	**0,52**	0,00	0,14	0,00
26	0,00	0,00	-0,11	0,00	0,00	**0,77**	0,00	0,16
27	0,00	-0,12	0,00	0,00	0,00	**0,77**	0,00	0,19
25	0,00	0,00	0,00	0,00	0,00	**0,76**	0,00	0,20
28	0,00	-0,14	0,00	0,00	0,00	**0,71**	0,00	0,14
24	0,00	0,00	0,00	0,00	0,00	**0,67**	0,00	0,00
30	0,00	0,00	0,00	0,14	0,15	0,00	**0,84**	0,00
31	0,17	0,13	0,00	0,16	0,17	0,00	**0,81**	0,00
32	0,28	0,00	0,00	0,16	0,00	0,00	**0,74**	0,00
29	-0,11	0,00	0,12	0,00	0,00	0,22	**0,62**	0,11
43	0,00	0,00	0,00	0,00	0,00	0,18	0,00	**0,82**
44	0,00	0,00	0,00	0,00	-0,16	0,25	0,00	**0,73**
42	0,00	-0,13	0,00	0,00	0,00	0,27	0,00	**0,67**
41	0,00	0,00	0,00	0,00	0,11	0,00	0,00	**0,63**
Eigenvalue	14,38	3,95	2,96	2,23	2,00	1,94	1,60	1,25
Variance explained %	28,77	7,90	5,93	4,46	4,00	3,87	3,19	2.50

As can be seen from Table 3, the eigenvalues and the percentage of the variance for each of the factors were: factor 1 (14,38, 28,77%), factor 2 (3,95, 7,90%), factor 3 (2,96, 5,93%), factor 4 (2,23, 4,46%), factor 5 (2,0, 4,0%), factor 6 (1,94, 3,87%), factor 7 (1,60, 3,19%) and factor 8 (1,25, 2,50%) respectively.

The factors could be interpreted in the following manner.

The first factor was named Confidence and Optimism and consisted of eight items. It describes resilient people as people who have confidence in themselves and their abilities to overcome the adversity that they face, even if the going gets tough. They also have an optimistic view of the future, expect that all will end well and maintain a positive outlook during their duress. Example items: "Be sure I will be successful" (Confidence) and "Stay optimistic about the future" (Optimism). The qualitative resilience themes of positive thoughts, optimism and belief in self (confidence) integrated into this scale.

The second factor was called Positive Reinterpretation and consisted of nine items. This factor describes resilient individuals as people who have the ability to reinterpret their current situation in a positive way. They try to make the best of a bad situation, try to turn it around into something positive and try to find some meaning in what has happened to them. They also tend to learn from their experiences. Example items: "Make the best of a bad situation" and "Turn my bad experience into something positive".

The third factor was named Facing Adversity and consisted of seven items. This factor relates to the willingness of resilient people to face their adversity – that is, to have the courage to face up to it – even when it seems to be unpleasant. It also refers to making a deliberate choice to do something about the situation, as well as to regulating their emotions while doing so. They do not allow their own emotions to overwhelm them. Example items: "Make a conscious decision to do something about the situation" (Conscious Decision), "Take control of my emotions and do not allow it to overwhelm me" (Emotion Regulation), and "Confront the situation even though it is unpleasant" (Courage). The qualitative resilience themes of making a conscious decision, emotion regulation and courage integrated into this scale.

The fourth factor was called Support and was made up of six items. This factor describes resilient people as people who make use of and actively seek out the support of their friends and family. They ask for help, talk to someone about their problems and make use of support offered by other people. Example items: "Ask for help and support from people that I know well" and "Make use of the support that friends and family provide me during difficult times." This scale reflects the qualitative resilience theme of social support.

The fifth factor was called Determination and consisted of seven items. This factor describes resilient people as people who are very determined. They refuse to accept failure as an option, persevere with their efforts even if there are setbacks and they overcome the obstacles that they face one by one. Because of this process, they have confidence in the future, even when things seem unclear in the present. They also set goals, pursue those goals and remain focused on them when the going gets tough. Example items are: "Overcome my obstacles one by one" (Determination) and "Set goals for myself" (Goal-setting). The qualitative resilience themes of setting goals and determination integrated into this scale.

The sixth factor was called Negative Rumination and consisted of five items. This is not a protective factor but rather a factor that would make people more vulnerable to the influence of adversity. The higher people score on this factor, the less resilient they would be. Therefore this factor was reverse scored to get to the total resilience score. This factor describes resilient people as people who do not engage in negative thoughts about the adversity that they face. They do not harbour negative emotions about it and they do not ruminate about it. Example items are: "Feel resentful about what happened to me" and "Have recurring negative thoughts about what took place." This scale reflects the qualitative resilience theme of negative affect and rumination.

The seventh factor was called Religion and it consisted of four items. This factor describes resilient people as people who have faith in a Higher Hand and who rely on that faith to get them through difficult times. Example items are: "Rely on my religious faith to help me in tough situations" and "Have an unshakable belief that God will help me." This scale reflects the qualitative resilient theme of religion.

The eighth and final factor was called Helplessness and consisted of four items. When people engage in this type of behaviour, it does not act as a protective factor but as a vulnerability

factor. Engaging in helplessness makes people less resilient and more prone to the negative effects of risk factors. When people engage in helplessness they feel that there is no use in doing something about their situation, they feel that they are stuck and they feel passive and unmotivated to do something about the problems that they face. High scores on this factor will presume less resilience. This factor was reverse scored to get a total resilience score. Example items: "Feel that it is no use trying to do something about my situation" and "Feel passive and unmotivated to do something about the problems that I face." This scale reflects the qualitative resilient themes of taking action and motivation.

A second order factor analysis, using the subscale totals as raw data was run to investigate the relationships among the subscales. This analysis yielded two factors with eigenvalues greater than one explaining 59% of the variance. The factor loadings of the two factors were: Factor 1: Determination (0,85), Confidence and optimism (0,85), Positive reinterpretation (0,80), Facing adversity (0,76), Social support (0,58) and Religion (0,45) and for Factor 2: Helplessness (0,81) and Negative rumination (0,81).

Descriptive statistics

The descriptive statistics, alpha coefficients and correlation coefficients of the ARI are reported in Table 4.

Table 4

Descriptive Statistics, Reliabilities and Correlations

	Variable	Mean	SD	Nr Items	α	2	3	4	5	6	7	8
1.	Confidence and Optimism	27.55	4,54	8	0,93	0,62*++	0,60*++	0,40*+	0,69*++	-0,09	0,29*+	-0,04
2.	Positive Reinterpretation	27,63	5,46	9	0,87	1	0,52*++	0,34*+	0,70*++	-0,16*	0,26*+	-0,10
3.	Facing Adversity	22,51	4,35	7	0,89		1	0,30*+	0,59*++	-0,14*	0,25*+	-0,00
4.	Social Support	18,26	4,36	6	0,87			1	0,40*+	-0,01	0,27*+	-0,09
5.	Determination	27,55	4,54	7	0,88				1	-0,08	0,31*+	-0,12
6.	Negative Rumination	9,36	3,34	5	0,81					1	0,09	0,41*+
7.	Religion	12,24	3,01	4	0,78						1	0,11
8.	Helplessness	7,79	2,83	4	0,73							1

* Correlation is significant at the 0,01 level (2-tailed)

+ $r > 0,30$ – practically significant (medium effect)

++ $r > 0,50$ – practically significant (large effect)

Cronbach alpha reliability coefficients were calculated for the ARI and for each of the subscales, which give an indication of the internal consistency of the scales. The alpha coefficient for the ARI is 0,92. For each of the subscales, the alpha coefficients are 0,93, 0,87, 0,89, 0,87, 0,88, 0,81, 0,78 and 0,73 respectively. The split-half reliability for the scale was $\alpha = 0,89$ for part one and $\alpha = 0,86$ for part two. All the alpha coefficients are acceptable in comparison with the guideline of ($\alpha > 0,07$) given by Nunnally and Bernstein, (1994).

The correlation matrix in Table 4 gives us information regarding the association and relationship between the different factors on the ARI. Correlations are reported at a significance level of 0,01 (2-tailed). No directional hypotheses are made (Field, 2000). The effect size of the correlations is taken into consideration and is measured against the guidelines developed by Steyn (1999). Large effects are considered to be in the order of 0,5 or higher, medium effects in the order of 0,3 and small effects near to t-he level of 0,1 (Steyn, 1999). Only large and medium effects are reported.

Confidence and optimism is significantly and positively related to determination (r = 0,69, large effect); positive reinterpretation (r = 0,62, large effect); facing adversity (r = 0,60, large effect); social support (r = 0,40, large effect); as well as religion (r = 0,29, medium effect).
Positive reinterpretation is significantly and positively related to determination (r = 0,70, large effect); confidence and optimism (r = 0,62, large effect); facing adversity (r = 0,52, large effect); and social support (r = 0,34, medium effect).

Facing adversity is significantly and positively related to confidence and optimism (r = 0,60, large effect); determination (r = 0,59, large effect); positive reinterpretation (r = 0,52, large effect); social support (r = 0,30, medium effect); and religion (r = 0,25, medium effect).

Determination is significantly and positively related to positive reinterpretation (r = 0,70); confidence and optimism (r = 0,69, large effect); facing adversity (r = 0,59, large effect); social support (r = 0,40, medium effect); and religion (r = 0,31, medium effect).

Social support is significantly and positively related to confidence and optimism (r = 0,40, large effect); determination (r = 0,40, medium effect); positive reinterpretation (r = 0,34, medium effect); and facing adversity (r = 0,30, medium effect).

Religion is significantly and positively related to determination (r = 0,31, medium effect); confidence and optimism (r = 0,29, medium effect); positive reinterpretation (r = 0,26, medium effect); and facing adversity (r = 0,25, medium effect).

Negative rumination is significantly and positively related to helplessness (r = 0,41, medium effect).

DISCUSSION

The objective of this study was to develop an adult resilience scale that could be used as an indicator of the presence or absence of resilience-promoting and vulnerability factors. The approach used in this discussion will be one of providing theoretical support for the identified factors where possible.

In the first factor, resilient people were seen as people who keep on having positive thoughts (maintain a positive outlook) despite the difficulty that they face; they had confidence in themselves and an optimistic view of the future.

From this factor it can be seen that resilient people keep on having positive thoughts during difficult times. The positive thoughts that resilient people have can be instrumental in the development of positive emotions. One of the fundamental notions underlying cognitive therapy is that an individual's thoughts cause his or her feelings and underlying emotions (Beck, 1995).

It has been shown that positive emotions promote resiliency in the face of adversity (Fredrickson, Tugade, Waugh, & Larkin, 2003). Research on trait resiliency found that positive emotions act as a buffer against the development of depression in the aftermath of a serious crises for resilient people and that it can even help them to thrive after experiencing a crisis. The mechanism by which positive emotions play this role is explained in the broaden-and-build theory, which stipulates that positive emotions broaden people's momentary thought-action repertoires (produce a broader thought-action repertoire as opposed to negative emotions that will produce a narrower thought-action repertoire). This, in turn, will build their psychological (personal) resources (Fredrickson et al., 2003). According to this theory, positive emotions help a person to think of different ways of how to deal with a problem and also help to undo the lingering effect of negative emotions (Frederickson, 2002).

This factor also shows resilient people to be people who are **confident**. In the field of positive organisational behaviour, self-efficacy is seen as a human resource and strength and is equated with the word confidence. The development of confidence is entrenched in a person's belief that he/she has the ability to produce desired outcomes (Luthans, 2002a, 2002b). Generalised self-efficacy or confidence can be defined as a person's belief in his or her own capability to perform a specific action to attain a desired outcome. It refers to a person's belief that they have the personal competence to deal effectively with difficult and stressful situations. People with a high level of confidence set more goals for themselves and are more persistent in pursuing their goals. Self-efficacy is linked with positive affective states and a low level of negative emotions, which is instrumental in overcoming difficult situations. Generalised self-efficacy was also found to be positively related to a more active coping style (Luszczynska, Scholz, & Schwarzer, 2005). Self-efficacy becomes important for

a person's ability to be resilient, for people who believe that they have the ability to deal with difficult situations will approach those situations calmly and without apprehension and will not be thrown off track by obstacles or unexpected difficulties (Maddux, 2002).

Confidence is closely related to the concept of dispositional optimism, in which a person has a generalised expectancy of a good outcome in the face of a threat or adversity. Optimists approach their problems with confidence, even if progress is slow and difficult, they will invest effort into achieving their goals, whereas people without this favourable expectancy approach it with doubt and hesitancy while disengaging from effort towards achieving their goals. Having confidence is thus a function of being optimistic (Carver & Scheier, 2002).

Optimism – When optimistic people face adversity, difficulty and stressful situations, they believe that they can deal with it successfully and they expect that things will work out well for them in the end. They approach misfortune and hardship in a different way to pessimists who expect that things will not work out for them. Pessimists believe that it is difficult to overcome adversity, therefore they are more tentative in dealing with it. They also tend to be unconvinced that they can successfully deal with it, therefore it is easier for them to give up on their efforts as opposed to optimists who tend to tackle adversity with confidence and persistence, even when there are difficulties (Carver & Scheier, 1999).

In the literature, optimism is thought of and measured in two different ways. In the one approach, optimism is thought of as a dispositional trait and is closely linked to the expectancy-value model of motivation. In their conceptualisation of optimism, Carver and Scheier see dispositional optimism as related to the goals that people value. According to this view, most of the behaviour that people engage in can be explained in relation to the goals that they adopt. They engage in action to pursue their goals – that is, they regulate their behaviour in relation to their chosen goals. People are considered to be optimistic when they, in spite of difficulties and obstacles, still believe that they can achieve their goals. That is why they continue to invest effort into goal achievement and tend not to give up (Carver et al., 1999; Peterson, 2000).

Both optimism and pessimism have been linked to different outcomes for individuals. Optimism seems to have a positive influence on individual health and psychological wellbeing, as well as on the ability to cope with stress and burnout (Harish, 1999; Strassle,

McKee, & Plant, 1999). Important in the light of this study, is the effect of optimism on adaptation, coping, resilience and stress. In general it was found that optimism relates positively to individual coping strategies. Optimists tend to reinterpret negative events in a positive way, have a more positive perception of daily hassles, try to learn something when they face adversity, make more use of social support than pessimists, are more resilient when they confront stress and deal with it more effectively and actively (Cowley, Underwood, & Kalb, 1999; Harish, 1999; Strassle et al., 1999).

A large body of research supports the positive benefits of optimism and its links to positive outcomes. Optimism has been linked to positive mood, perseverance and effective problem solving (Peterson, 2000). Optimists tend to experience more positive emotions and less distress during adversity because of their expectation of a positive outcome (Carver et al., 1999). They are engaged in a more active coping style when faced with stressful situations, which makes them less likely to disengage from the pursuit of their goals (Carver & Scheier, 2003; Aspinwall & Brunhart, 2000).

In the second factor, **Positive Reinterpretation**, resilient people are seen as people who changed their perspective or outlook on life as a result of the difficulty that they experienced. They undertook a positive reinterpretation of their situation. They saw that the experience strengthened them and that they had the ability to change something negative into something positive. They learned from their experience and they saw their problems in relation to other people's problems, which gave them a different perspective on their own problems. They also found meaning in dealing with their problems. Many different sources from among the resiliency and coping literature describe resilient people as people who have the ability to find something positive in distressing circumstances.

In the coping literature, this is called positive reappraisal (Edwards & Baglioni, 1993; Folkman & Lazarus (1988) as cited in Lazarus, 1999) positive framing (Cignac & Cottlieb, 1997 as cited in Lazarus, 1999) and positive reinterpretation and growth (Carver, Scheier & Weintraub, 1989). This type of coping is seen as a form of emotion-focused coping in which distressing emotions that accompany adversity or stress are managed as opposed to dealing with the sources of stress directly. Positive reappraisal enables someone to continue with active problem-focused coping actions (Carver et al., 1989). When people find benefit in their trying circumstances, it is thought to promote their wellbeing. One of the mechanisms

through which it is achieved is the cultivation of positive emotions. Positively reinterpreting a situation generates positive emotions, which in turn broadens thinking, which in turn would increase the ability to find positive meaning in adverse events (Fredrickson et al., 2003).

In the third factor, resilient people are described as people who have the **courage** to face their difficulties and who have the ability to **regulate their emotions**, specifically their negative emotions.

Courage is defined as "[t]he power or quality of dealing with or facing danger, fear or pain". (Collins English Dictionary & Thesaurus, p.262, 2000) If someone possesses this quality, it is seen as a virtue because it helps people to confront (deal with) their inner and outer challenges. Courage can be seen as an essential component of the coping process and can therefore be viewed as a dimension that plays a role in resilience (Lopez, O'Byrne, & Petersen, 2003).

Resilient people are seen as people who can regulate negative emotions when they experience it. That they can overcome their own fears is an example of this. In "The Resilience Factor", the authors, Reivich and Shatté, identified emotional regulation as one of the skills that resilient people possess. They describe emotional regulation as the ability of people to monitor and regulate their own emotions without being distracted from solving their problems (Reivich & Shatté, 2002). This ability to regulate emotions, specifically negative emotions, plays a role in goal-directed behaviour. Emotions (positive or negative) change the way in which people think and behave. It prepares them to act in a certain way. When people experience negative emotions, it tends to reduce their thought-action repertoires. It reduces their ability to focus their attention and it promotes pessimistic thinking, which, if entertained, will lead to even more negative affect, which could reduce the ability to deal with adversity even further, thus creating a downward spiral of negativity and inability to think creatively about problems (Fredrickson & Joiner, 2002).

The fourth factor shows that resilient people make use of social **support**, which can be present in the form of friends and/or family. They go to friends or family and talk to them about their difficulties. They actively try to find support, get help from others, reach out to them and ask them for support. From the qualitative descriptions given, it could be seen that

resilient people have a support base that carries them through difficult times, but they also engage in an active process in which they go out and look for support.

In the general literature dealing with stress, one of the ways in which social support can be viewed is as a resource that acts as buffer against the harmful effects of stress. The key component that plays a role in this resource is an individual's perception of whether social support is available or not. Perceived social support rather than actual social support plays a key role as a predictor of health and wellbeing outcomes (Sulsky & Smith, 2005). In literature on resilience, social support similarly is seen as a protective resource that promotes health and wellbeing (Ong & Bergeman, 2004). The way in which resilient people are described as actively seeking social support is more or less the same as the "Seeking social support" construct in Folkman and Lazarus's Ways of Coping Questionnaire. In this construct, people seeking social support talk to someone to find out more about the situation that they face; they talk to someone who can do something about their problem and/or they ask for advice from a friend or relative (Lazarus, 1999).

The fifth factor was called **determination**. The words used to describe this theme in the qualitative research were determination, perseverance, not giving up and keeping on going. The idea that was conveyed was to carry on doing something despite opposition or the encountering of obstacles. Determination and the theme of overcoming challenges were essentially conveying the same meaning. The overcoming of challenges referred to overcoming of obstacles, not losing heart and refusing to accept failure.

Perseverance is seen as one of the signature strengths – a strength of character – by which a person can become a virtuous person. It is used to describe someone who finishes that which is started, who takes on difficult projects and finishes it, as well as someone with the ability to avoid getting sidetracked when working (Seligman, 2002b).

In another description of human strengths, perseverance is seen as a well-known human strength. According to the authors, perseverance is cultivated when a person commit to a goal and when they are confident about its achievement. When commitment and confidence interact, perseverance is developed even in the face of adversity. Persistence is seen as a prerequisite for the achievement of goals and/or accomplishing anything. Someone who gives up when encountering obstacles will find it difficult to achieve anything (Carver et al., 2003).

In a description of character strengths, Peterson and Seligman define persistence as the voluntary continuation of goal-directed action in spite of obstacles, difficulties and/or discouragement (Peterson & Seligman, 2004). Someone with persistence will refuse to quit even when he or she is faced with opposition and disappointment. Perseverance also implies that a person can focus and stay focused on what they do (Peterson et al., 2004).

Linked to this factor, was the ability of resilient people to set goals for themselves to overcome their adversity. Once they have set a goal, they stay focused on it and actively pursue it. It is said that the behaviour of people is closely related to their goals. If they did not have goals, there would be no reason for them to act. Goals form the impetus for action. Having goals is related to happiness and self-esteem (Locke, 2002; Snyder, 1994).

The sixth factor, **negative rumination**, was a factor that reduces the resiliency of people if they engage in it. Therefore it is thought of as a vulnerability factor (Yates et al., 2004). This factor of resiliency refers to people who do not harbour negative feelings about the difficulties that they face, they do not become bitter, they work through their sadness, they do not feel sorry for themselves (no self-pity) and they do not moan and become negative about their problems. Implied in this factor is that resilient people do not dwell on their problems by feeling sorry for themselves. Neither do they engage in self-pity. They tend not to dwell on the negative side of what happens to them.

This factor is supported by the theory of **negative affectivity** – a relatively stable dispositional attribute that could make individuals more vulnerable as opposed to resilient. Negative affectivity refers to a person's predisposition to experience negative emotional states. It also incorporates a tendency to focus on the negative aspects of the environment. These characteristics tend to make individuals more vulnerable in stressful environments (Cooper, Dewe, & O'Driscoll, 2001; Sulsky, et al., 2005).

Rumination is seen as a "repetitive and passive focus on one's negative emotions" and is associated with the development of depression (Treynor, Gonzalez, & Nolen-Hoesema, 2003 p. 247). When people ruminate, they keep on thinking about their personal losses and failures (Papageorgiou, 2006). This type of repetitive thinking promotes negative affect; poor problem solving; induces reduced motivation; increases stress and prevents people from engaging in goal-directed behaviour, that is, developing plans to do something about their

situation (Papageorgiou, 2006). Rumination can be seen as something that will make individuals more vulnerable and not resilient.

The seventh factor was called **religion** and included the qualitative themes of faith and religion. Faith can be defined as a strong or unshakable belief in something, a specific system of religious beliefs and or a trust in God and in His actions and promises (Collins English Dictionary, 2000). The theme of resilience highlights resilient people as people who have faith in God and a strong belief that God will help them during difficult times. They also engage in some form of religious practice, like praying.

Religion and faith in God can be seen as an important way in which people cope with stress. It is a commonly used coping mechanism and provides people with some comfort during difficult times. Previous research has reported a positive association between religious beliefs and positive emotions such as wellbeing, life satisfaction and happiness (Koenig, 2002).

The eighth factor was called **Helplessness**. Engaging in this type of behaviour does not act as a protective factor but as a vulnerability factor. The factor reflects the opposite of the qualitative resilient themes of taking action and motivation. Taking action and being motivated to do something about the difficulty that you face is more or less the same as the "active coping" response in the coping literature. In "active coping" people take action to overcome their problems and they concentrate their efforts on doing something about their situation (Carver et al., 1989). In this factor, non-resilient people are seen as passive, as people who do not take action and do not do something about their situation, hense called helplessness.

Being motivated to do something about your problem or the difficult situation that you face is the opposite of a dysfunctional coping propensity named "behavioural disengagement" in which people decrease their effort to deal with the stressor. In a way it is seen similar to being helpless, like when people give up on their ability to do anything about the situation (Carver et al., 1989).

On the basis of the theory of resilience, the second order factor analysis can be interpreted in the following way: The first factor can be defined as protective mechanisms, which, if present, can prevent or reduce the development of negative outcomes. Within the protective

mechanisms, the first four factors can be labelled as assets (determination, confidence and optimism, positive reinterpretation and facing adversity) and the last two (social support and religion) can be labelled as resources. The second factor can be labelled as vulnerabilities (helplessness and negative rumination) for they, if present, can increase the development of negative outcomes (Yates et al., 2004).

With regard to the correlations among the factors of the ARI, is it interesting to note that four factors (confidence and optimism; positive reinterpretation; facing adversity; and determination) are highly correlated to one another. This makes it difficult to study their effects separately. Conceptually, though, they relate in meaningful ways. They seem to form part of a wider resilience concept that can be labelled as resilience "assets". The factor loadings of these factors in the second order factor analysis seem to support this. Directional influences cannot be made.

The two vulnerability factors (negative rumination and helplessness) are highly correlated. The link between negative rumination and helplessness (lack of motivation to do something) has been reported before in research that has found that the key consequences associated with rumination are negative affect and depressive symptoms; negative thinking; poor problem-solving; impaired motivation; and impaired concentration and cognition (Lyubomirsky & Tkach, cited in Papageorgiou, 2006). Social support and religion, which are seen as "resources" (it is external to the individual) correlate with a medium effect with the four "assets".

The question of how these findings relate to other similar studies can be asked. In her work on ego resiliency, Klohnen (1996) developed a scale to measure ego resiliency. Similar factor components were found. Her first factor was named "confident optimism", which describes a resilient person as someone with an optimistic, positive and energetic approach to life versus someone who is anxious, neurotic with self-handicapping negative and preoccupying thoughts – tending to ruminate. Her second factor was labelled "productive and autonomous activity", which describes a resilient person who persists in the face of adversity, who is productive and gets things done as opposed to "[Giving] up and [withdrawing] from frustration, adversity." Other items in this factor, like: "Sometimes I just can't seem to get going" relate to the helplessness construct of the present study. Her third factor was labelled

"Capacity for close relationships" and relates to the social support factor of the present study (Klohnen, 1996, p. 1071).

Some of the factors and factor content of the Chinese version of the Conner-Davidson Resilience scale, relate to the present study. Some of the similarities in their scale measured adult resilience as tenacity (perseverance), a tendency to look on the positive side of things and optimism, measuring a person's confidence in overcoming adverse events (Yu et al., 2007).

Friborg et al. (2003) found similar constructs in their rating scale for adult resilience. They labelled their first factor "personal competence", which is more or less the same as the confidence and optimism factor of this study. Their study also included a factor named "social support" which is more or less the same as social support in this study.

The protective factors of confidence and optimism, facing adversity and social support are comparable with the protective factors of a positive outlook on life, good self-regulation of emotional arousal and impulses and close relationships with caregiving adults, which plays a role in the resilience of children and youth (Masten et al., 2002).

RECOMMENDATIONS

This study on adult resilience is the first small step towards improved understanding of adult resilience and is not without its limitations. From a theoretical perspective, one of the first limitations of this research is the singular focus of its scope. The intention of this study was to delineate and measure the protective and vulnerability factors that play a role in adult resilience. More contemporary perspectives on resilience, view resilience as a process and not as a single trait or characteristic of the individual (Masten et al., 2002). Fergus et al. (2005, p. 404) support this view, stating "...resilience is defined by the context, the population, the risk, the promotive factor, and the outcome." Therefore studies that examine the relationships among these variables are needed to promote our further understanding.

More research needs to be done to address the current limitations of the present study. Some of the items defining the factors need to be refined. After the refinement of the items the

study should be replicated with a confirmatory factor analysis with different samples. The test-retest reliability, convergent validity and discriminant validity should be determined in subsequent studies. Convergent validity can be measured by using the ARI with other well-known measures of resilience like Kobasa's Hardiness Scale and Antonovsky's Sense of Coherence Scale.

A practical application of the ARI in its current form can be used in training and development interventions in which resilience is developed. Participants could use the instrument to measure themselves against the identified resiliency factors. By exploring their own scores participants will form an awareness of the protective and vulnerability factors operating in their own lives. Thus they can fully engage in their own development by gaining access to their own resilient qualities. It will facilitate a conscious choice with regard to resiliency – a process that Richardson refers to as resilient reintegration (Richardson, 2002). Resilient reintegration refers to the process of resiliency in which resilient people consciously choose their actions and reactions to minimise possible negative outcomes after facing disruption and adversity.

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CHAPTER 5

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

This chapter presents the conclusions drawn from the three articles that formed part of this study. The conclusions are related to the research problem and the objectives of the study. This study, however, is not without limitations and this is discussed, along with possible solutions to overcome such limitations in subsequent studies. Recommendations for the practical use of the research are made, as well as recommendations for future research.

5.1 CONCLUSIONS

The following conclusions can be made with regard to the research:

Call centre work environments

The first research objective in this study was to describe and investigate the contribution of six central characteristics (antecedents) of call centre work environments and their influence on burnout, affective commitment and turnover intentions, to investigate whether burnout mediates their influence on affective commitment, as well as to determine whether affective commitment mediates the effect of burnout on turnover intentions.

It was found that all six independent variables were significantly associated with the experience of burnout. Burnout in this call centre can be associated with lack of career and promotion opportunities, work overload, lack of skill variety, emotional labour, electronic performance monitoring and competing management goals.

It was found, through multiple regression analysis, that work overload, lack of career and promotion opportunities, lack of skill variety and emotional labour were the most important predictors of burnout.

This study supports previous findings that work overload is a strong predictor of burnout in call centres (Bakker, Demerouti, & Schaufeli, 2003). Lack of career and promotional opportunities had practical and significantly large effects (r = > 0,50) on burnout, affective

commitment and turnover intentions. Its association with burnout in call centres is corroborated in previous research and is probably due to the relatively flat organisational structure of call centres, which can contribute to the perception of limited career opportunities. Career advancement and development can be seen as a resource and, if present, would provide a buffer against the development of burnout (Deery, Iverson, & Walsh, 2002; Deery, Iverson, & Walsh 2004).

This study also supports the idea that call centre jobs with a low level of skill variety are positively linked to the development of burnout, specifically in jobs that are perceived to be repetitive and routine, with little task variety (Deery et al., 2002; Zapf, Isic, Bechtoldt, & Blau, 2003). It also linked emotional labour, more specifically the emotional dissonance component of emotional labour, with the development of burnout, which also is supported by previous studies (Zapf et al., 2003).

Electronic performance monitoring and surveillance, as well as competing management goals, associated positively with burnout (medium effect) but did not emerge as independent predictors in the regression analysis.

With regard to the predictive value of the six independent variables concerning affective commitment, only lack of career and promotion opportunities explained a significant proportion of the variance in affective commitment. The effect of lack of career and promotion opportunities on affective commitment was only partially mediated by burnout. A similar situation was found when the effect on turnover intentions of the six working conditions was established. Once again, only lack of career and promotion opportunities explained a significant proportion of the variance in turnover intention. Lack of career and promotion opportunities was not mediated by either burnout or affective commitment, but had a direct effect on turnover intentions.

Daily hassles in call centres

The second research objective was to develop a brief Call Centre Daily Hassle Diagnostic Questionnaire that can be used to identify the most common daily hassles that call centre agents experience, both within the work environment and within their personal day-to-day lives and to determine the relationship between daily hassles and burnout in call centres.

The results of the study show that the five densest daily hassles experienced in their work environment by call centre employees related to system problems, pressure to meet production targets, continuous changes in work procedures, noisy co-workers and ineffective business processes/work procedures. The five densest hassles in their personal lives related to their general financial situation, traffic jams, time pressures (having too many things to do in limited available time), transportation to and from work and day-to-day household responsibilities like washing, preparing meals and cleaning.

The 28 densest hassles were subjected to an exploratory factor analysis by which six factors were retained. These factors respectively were labelled daily demands, continuous change, co-worker hassles, demotivating work environment, transportation hassles and inner concerns. A second order factor analysis grouped the labelled factors under two factor headings. One factor had to do with daily hassles in the work environment and the other with daily hassles in the personal lives of the agents.

This study found a statistically significant (large effect) correlation between the Daily Hassle Scale and Exhaustion. All the subscales of the Daily Hassle Scale were significantly related to Emotional Exhaustion.

To understand the influence of the subscales on exhaustion, a multiple regression analysis was performed. Based on the results, four of the daily hassle subscales contributed significantly to the variance in emotional exhaustion. The four subscales explained approximately 21% of the variance in Exhaustion. Daily Demands was the strongest predictor of Exhaustion, followed by Demotivating Work Environment, with Continuous Changes as the third best predictor, and Transport Hassles in the fourth place.

The **Daily Demands** subscale emerged as the most significant predictor of Exhaustion. The hassles that made up this factor referred to daily demands experienced by call centre agents, such as high levels of production targets, continuous pressure to meet targets and time pressure. The relatively high contribution of this hassle to exhaustion is not surprising, as previous research have consistently found the following work demands to predict burnout: work pressure, heavy workload and time pressure under which individuals feel that they cannot do all the work that they need to do in the allocated time (Cordes & Dougherty, 1993;

Maslach, Schaufeli, & Leiter, 2001; Schaufeli & Bakker, 2004; Zapf et al., 2003) and high workload levels (Deery et al., 2002).

The **Demotivating Work Environment** subscale was the second largest contributor to the explanation of exhaustion in the regression model. It consisted of three items of disparate nature, linking Managerial Behaviour, Lack of Cooperation, Assistance; Support from other Departments; and Unchallenging and Boring Work with each other in one subscale. From the factor loadings of the items it seems that "Managerial behaviour", which loaded highest on the factor, might play a more significant role in this subscale.

Many aspects of managerial behaviour have the potential to play a role in contributing to burnout. One aspect is called "micromanagement", in which every move of employees is managed by detailed policies (Maslach et al., 1997). It is well known in call centres that management espouse micromanagement techniques in which every move of the employees are controlled and evaluated through the use of technology (Wallace Eagleson, & Waldersee, 2000). A second aspect of managerial behaviour that can potentially contribute to burnout is the dual and simultaneous focus on production and customer service, which leads to a form of role conflict within employees who feel that these demands are incompatible with each other, and result in frustration and emotional distress (Deery et al., 2002).

Continuous Change was shown to be the third best predictor of exhaustion in the regression model. This factor refers to changes in the work environment, changes in the work processes and procedures, and to changes in the products that the call centre agents needed to sell or for which they had to provide after sales service. Previous research indicated that organisational change, e.g. going through a downsizing process or merger, could be linked to the development of burnout (Maslach et al., 2001). Although these are more macro, organisation-wide changes, it would seem that small day-to-day changes in work requirements and processes are also linked to the development of exhaustion. This is not unlikely, as the assimilation of such changes require individual effort.

Transport hassles were shown to be the fourth best predictor of exhaustion in the regression model. It referred to getting stuck in the traffic or having difficulty in getting transport to and from work. This factor probably reflected the general situation in South Africa today, with millions of people working in the city centres while living in suburban areas and making use

of public transport or driving into the city on congested highways. The connection between commuting and the development of stress reactions has already been identified earlier. Stokols and Nacaco (1981), cited in an overview in Graig (1993), found that commuters suffer routine exposure to traffic congestion and that this is experienced as goal blocking (by the same mechanism as daily hassles). They also found that the users of public transport are subject to stress generated by overcrowding, delays in travelling and threats of victimisation.

In summary, a significant proportion of the variance of emotional exhaustion can be explained by the newly developed Call Centre Daily Hassle Scale, which measures the presence and occurrence of daily hassles in call centres.

Adult resilience

The third research objective was to develop an adult resilience scale (Adult Resilience Indicator) that could be used as an indicator of the presence or absence of resilience-promoting and vulnerability factors and to support the identified factors with appropriate theory.

The measuring instrument consisted of 50 items and had a reliability coefficient of 0,92. In an exploratory factor analysis, eight factors were identified. They were Confidence and Optimism; Positive Reinterpretation; Facing Adversity; Social Support; Determination; Negative Rumination; Religion and Helplessness.

Confidence and Optimism – On the basis of this research, resilient people can be seen as people who keep on having positive thoughts (maintain a positive outlook) despite the difficulties that they face; they have confidence in themselves and have an optimistic view of the future.

Positive Reinterpretation – resilient people change their perspective or outlook on life as a result of the difficulties that they experience. They undertake a positive reinterpretation of their situation. They are strengthened by adversities that they face. They have the ability to change something negative into something positive, they learn from their experience and view their problems in relation to other people's problems, which gives them a different perspective on their own problems. They also find meaning in dealing with their problems.

Facing Adversity – resilient people have the courage to face their difficulties and the ability to regulate their emotions, specifically their negative emotions while facing difficulties.

Social Support – resilient people make use of social support, which can be present in the form of friends and/or family. They go to friends or family and talk to them about their difficulties. They actively try to find support, get help from others, reach out to them and ask them for support.

Determination – resilient people were seen as people who are determined, who have perseverance and who do not give up when they face difficulties but keep going despite opposition or encountered obstacles.

Negative Rumination – this is a factor that reduces the resilience of people if they engage in it. It is therefore thought of as a vulnerability factor (Yates & Masten 2004). This factor of resiliency characterises people who do not harbour negative feelings about the difficulties that they face, they do not become bitter, they work through their sadness, they do not feel sorry for themselves (they do not indulge in self-pity) and they do not moan and become negative about their problems. Implied in this factor is that resilient people refuse to dwell on their problems through feeling sorry for themselves. Neither do they engage in self-pity. They tend not to dwell on the negative aspects of what happens to them.

Religion – the theme of resilience also identifies resilient people as people who have faith in God and adhere to a strong belief that God will help them during difficult times. They engage in some form of religious practice, like praying

Helplessness – this factor reduces resiliency and makes people more vulnerable to the influence of risk factors and adversity. The factor reflects the opposite of the qualitative resilient themes of action and motivation. With this resiliency factor, resilient people are not seen as passive, but as people who take action and do something about their situation.

5.2 LIMITATIONS

This research was subject to limitations. The discussion of these limitations will commence from a broad conceptual view of the limitations and then focus on more specific discussion of the limitations of the research design and the limitations of the specific instruments used.

Conceptually, the first two studies suffered from a constricted view of the work environment in call centres. The focus firstly was on the development of burnout in call centres, which is a pathogenic construct (Strümpfer, 2003). Although aiding our understanding of the working conditions in call centres from a paradigmatic perspective, this narrow focus was not in line with the general movement in psychological and organisational research in which there is a move towards a more fortigenic view of the workplace.

This movement towards the more fortigenic view of the workplace can be seen in recent developments within the fields of psychology and organisational psychology.
Psychology is moving away from an almost exclusive focus on pathology – the identification and fixing of problems – to the identification and development of strengths and competencies that will act as a buffer against psychopathology. This new development is referred to as Positive Psychology. The mission of Positive Psychology is to develop and build scientific theory focused on building strength and resilience in people and has prompted an abundance of new research (Seligman, 2002; Seligman & Csikszentmihalyi, 2000).

Positive Psychology is gradually finding its way into related fields. Positive organisational behaviour (POB) is a term developed by Fred Luthans to keep the world of organisational psychology abreast with the recent developments in psychology. POB can be defined as: "...the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today's workplace" (Luthans, 2002, p. 59).

In another development, following the lead of Positive Psychology, the University of Michigan's business school – the department of organisational behaviour and human resource management – instituted a branch of research called Positive Organisational Scholarship. The focus of this research is to extend the research done in positive psychology to the field of organisational behaviour and performance. Its mission is to focus

on the positive side of organisational performance. It examines the ways in which organisations build and develop human strengths and how these strengths can foster extraordinary organisational performance (Cameron, Dutten, & Quinn, 2003).

Therefore it is argued that, while the first two research studies were undertaken from a predominantly pathogenic viewpoint in studying burnout in call centres, the focus of future research concerning call centres should include a broader conceptual view of organisational and individual health within call centres. By doing this, future research will be in line with the recent developments in the fields of psychology and organisational psychology.

Organisational health refers to and includes a focus on the "bottom line" performance of an organisation (Griffin, Hart, & Wilson-Evered, 2000, as cited in Hofmann & Tetrick, 2003). This "bottom line" performance implies more than the concept of organisational effectiveness in that it adds the notion of a people dimension to the concept of effectiveness, which includes the way in which an organisation treats its employees (Jaffe, 1995, as cited in Hofmann et al., 2003). Organisational health thus implies that the organisation is able to optimise its effectiveness as well as the wellbeing of its employees (Lindström, Schrey, Ahonen, & Kaleva, 2000, as cited in Hofmann et al., 2003).

Individual health refers to more than the absence of illness; it ranges from disease to wellbeing (Adkins, Quick, & Moe, 2000, as cited in Hoffman et al., 2003). The World Health Organisation refers to health as a state of physical, mental and social wellbeing (World Health Organization, 1998, as cited in Hoffman et al., 2003).

In the context of call centres, the concept of organisational and individual health would not only refer to the reduction of stress and burnout but would also focus on the creation of employee wellbeing. From this perspective, the focus of any call centre should be to create the best possible "bottom line" performance for the call centre, as well as optimise employee wellbeing.

The two constructs that play a central role in employee wellbeing are burnout and engagement. Both of these constructs are seen as core elements of work-related wellbeing (Rothman, 2003).

Engagement is seen as the positive antithesis to burnout, whereas burnout is seen as the gradual erosion of engagement (Maslach et al., 2001; Schutte, Toppinen, Kalimo, & Schaufeli, 2000). When employees are highly engaged with their work, they have abundant levels of energy and they do not mind spending time and effort on the completion of their tasks. They feel that their work is pleasant, fulfilling and meaningful. They feel fully absorbed, involved (caught up) and immersed in their work and experience a sense of accomplishment, which leads to feelings of competence and effectiveness. Engaged employees are committed to high standards in their work performance and they have confidence in their own efficacy (Maslach & Leiter, 1997; Maslach et al., 2001). According to Maslach et al. (2001), engagement can be defined by energy, involvement and efficacy which are the direct opposites of the three burnout dimensions of exhaustion, depersonalisation and reduced personal accomplishment. As such, engagement can be measured by the opposite pattern of scores on the MBI dimensions. Maslach makes a distinction between engagement and other constructs found in organisational psychology. She sees engagement as a more complex and complete construct than organisational commitment, job satisfaction and/or job involvement in describing the relationship between the individual and his/her work (Maslach et al., 2001).

In another approach, Schaufeli and his colleagues have defined engagement as a separate construct from burnout. They view engagement as the opposite of burnout and argue that it should be measured independently of one another and by different instruments (Schaufeli, Salanova, González-Romá, & Bakker, 2002). They define engagement as a positive work-related state of mind that is characterised by vigour, dedication and absorption. Engagement refers to a more persistent and pervasive affective-cognitive state (Schaufeli, Martínez, Pinto, Salanova, & Bakker, 2002).

Vigour refers to high levels of energy and mental resilience while at work. Employees with vigour also show a willingness and ability to invest effort in their work. They persist in their work even in the face of difficulties and they are not easily fatigued (Rothmann, 2003; Schaufeli et al., 2002 a, 2002b).

Dedication refers to employees who get a sense of significance from doing their work, who are enthusiastic about their work, who are inspired by their work, have pride in and are challenged by their work (Rothmann, 2003; Schaufeli et al., 2002a, 2002b).

Absorption refers to employees who are so wrapped up (engrossed) in their work that time seems to pass by quickly. Absorption also means that they are able to fully concentrate on their work in such a way that they seem to forget about everything else around them (Rothmann, 2003; Schaufeli et al., 2002a, 2002b).

Vigour (high energy) and dedication (strong identification) seen as the core constructs of engagement, with absorption as a less central. Vigour and dedication also appear to be the positive counterparts of exhaustion and mental distancing as measured by the MBI (Jackson, Rothmann, & Van de Vijver, 2006).

Thus the study of both burnout (exhaustion and mental distancing) and engagement (vigour and dedication) would cover the entire continuum of work-related experiences ranging from the negative to the positive to give a more balanced and complete picture of work-related wellbeing in call centres (Jackson et al., 2006).

A second conceptual limitation of this study that relates to the first one was its exclusive focus on the contributors to the development of burnout, which included work overload, lack of career and promotion opportunities, lack of skill variety, emotional labour and daily hassles.

Although several studies identified the causes of burnout in call centres (covered extensively in Chapter 2), there is no current study that identifies the causes of engagement in call centres. Previous research has found that different sets of causal factors play a role in the development of burnout and engagement (Naudé & Rothmann, 2003, as cited in Rothman, 2003; Storm & Rothmann, 2003).

From previous research conducted by Schaufeli and Bakker (2002) as cited in Rothmann (2003, the Job Demand-Resources model), it seems that job demands are more related to the development of exhaustion and that the lack of job resources are more associated with the development of disengagement and mental withdrawal. In an extension of the JD-R model, Schaufeli and Bakker included engagement in the model and developed the COBE model (Comprehensive Burnout and Engagement Model). The COBE-model is based on two underlying psychological processes. The one is an energetic process which links job demands with health problems via burnout. The other is a motivational process which links job

resources via engagement with organisational outcomes. This model was confirmed in a study in the Netherlands where it was corroborated that job demands are associated with exhaustion and job resources are related to engagement (Rothmann, 2003).

Thus other researchers think that a distinctly different set of factors plays a role in the development of engagement. Therefore, in future research it becomes necessary to differentiate between the factors that cause burnout from the factors that cause engagement to enable proper interventions.

The following discussion covers the general limitations of the research design that was used.

Cross-sectional research designs have some major drawbacks. As a non-experimental research design, it suffers from some serious drawbacks. Firstly, it does not have the powerful control techniques that experimental research designs have and it often cannot control for confounding variables or alternative explanations (Sulsky & Smith, 2005). Extra care should be therefore taken with the development and measuring of the variables and it is vital to specify with great care the measurement procedures before data are collected (Grazanio & Raulin, 2000).

A second drawback of this type of design is that it does not establish causality, and it is more difficult to make causal inferences about the effect of the independent variable(s) on the dependent variable(s) (Sulsky et al., 2005). It is, however, thought to be a good design to use when the intention of the researcher is to do predictions about variables and to validate or invalidate theories (Grazanio et al., 2000).

A third and more conceptual drawback of this type of research is that the self-report instrument that is used limits the responses of the subjects to the items used in the scale and might not be able to capture the richness and variety of the responses that are possible (Sulsky et al., 2005).

The use of self-report measures is subject to response biases. Subjects may respond to questions in socially appropriate ways. Another shortcoming of self-report measures is that they are retrospective by nature, which means that the respondents might have forgotten how

they reacted under certain conditions that may have occurred too long ago (Sulsky et al., 2005).

Possible solutions for the problems inherent in cross-sectional studies have been suggested. One of them is to use negative affectivity – a relatively stable personality trait – as a controlling variable. A second solution is to use longitudinal research designs, which would lead to a richer understanding of the variables and their relationships (Sulsky et al., 2005).

The purpose of the third study was to develop an indicator of adult resilience. This was one of the first early steps towards the understanding, definition and measurement of the protective and vulnerability factors that play a role in adult resilience. Three previous attempts have been made. They include the Resilience Scale for Adults, the Connor-Davidson Resilience Scale and the Ego-Resiliency Scale (Connor & Davidson, 2003; Friborg, Hjemdal, Rosenvinge & Martinussen, 2003; Friborg, Barlaug, Martinussen, Rosenvinge & Hjemdal, 2005; Hjemdal, Friborg, Stiles, Rosenvinge, & Martinussen, 2006; Klohnen, 1996; Yu & Zhang, 2007). The study and understanding of what makes a difference with regard to adult resiliency is therefore in its infancy.

Developing a measuring instrument of this nature and importance is an iterative process in which this research was only the first small step. This, therefore, explains some of its limitations, most of which centre on the question of validity. Three types of validity need to be determined.

The first type of validity that needs to be examined is construct validity (convergent validity), to determine whether this measure of adult resilience (ARI) relates to other measures with which it is theoretically associated. Some of the constructs that are related to the more fortigenic psychological well-being paradigm is considered to be optimism (both dispositional optimism and attributional optimism), hope and self-efficacy and the question of how the ARI, or some of its subscales, could be related to these concepts could be asked.

Dispositional optimism has been described as having generalised positive outcome expectancies in which people believe that good things, as opposed to bad things, will happen to them. The way in which optimism influences psychological wellbeing is hypothesised to be through positive reinterpretation by which people try to find benefit or meaning when they

face adversity. Dispositional optimism is measured by the Life Orientation Test – Revised (LOT-R), which has been developed by Carver and Scheier. It is a brief measure consisting of six items with adequate evidence of internal consistency and reliability (Bryant & Cvengros, 2004; Carver & Scheier, 1999; Peterson, 2000; Scheier & Carver, 1987).

In general, one would expect the LOT to be positively related to the ARI as a whole but also specifically to the two subscales of confidence and optimism, as well as positive reinterpretation.

Optimism has also been conceptualised as an attributional style. In this approach, optimism is seen as an attribution and, within this formulation of optimism, the concept of explanatory style plays an important role. Explanatory style comes into play when people face adversity. According to the Collins English Dictionary (2000), adversity can be described as anything that causes a person distress, affliction and hardship. It can be any unfortunate event, mishap or some form of misfortune or bad luck that happens to people.

People approach adversity in different ways. How they approach adversity, what they think about it and how they react to it is all determined by the way in which they habitually explain things to themselves – their explanatory style.

Explanatory style does not refer to a single explanation for one negative or positive event, but has to do with the habitual ways in which people explain events in their lives (Schulman, 1999). It refers to a consistent way in which people explain both the good and the bad events that occur in their lives. There are basically two different habitual explanatory styles that people use. The one is a more optimistic explanatory style and the other is a more pessimistic explanatory style.

People with a predominantly optimistic explanatory style tend to explain the reasons for their adversity as originating outside of themselves (external). They see that the cause of their adversity is not permanent – it won't last for long – and that the cause of their adversity can be contained – that is, that it has a very specific cause.

On the other hand, people with a predominantly pessimistic explanatory style tend to blame themselves for their adversity (internal), they see that the reason for their adversity is going to

last for a very long time (permanent) and that it is going to affect – spread out to – all areas of their life (global).

Explanatory style is the biggest predictor of how people would act and feel about events in their lives. It will predict how they will respond to adversity and pressure and what their expectations of the future would be (Corr & Gray, 1996; Dixon, 2001; Peterson, 2000). An optimistic explanatory style makes people stronger in the face of adversity; they recover more quickly (resilient); they cope more effectively; and they believe that they will be successful in the future (Corr et al., 1996). A pessimistic explanatory style tends to make people more prone to experiencing helplessness; to lose their motivation and confidence in taking action and to give up when things are not going that well for them (Schulman, 1999).

Both optimism and pessimism have been linked to different outcomes for individuals. Optimism seems to have a positive influence on individual health and psychological well-being, as well as their ability to cope with stress and burnout (Harish, 1999; Strassle, McKee, & Plant, 1999). Important in the light of this study is the effect of optimism on adaptation, coping, resilience and stress. In general, it was found that optimism relates positively to individual coping strategies. Optimists tend to reinterpret negative events in a positive way; have a more positive perception of daily hassles; try to learn something when they face adversity; make more use of social support than pessimists; are more resilient when they confront stress and deal with it more effectively and actively (Cowley, Underwood, & Kalb, 1999; Harish, 1999; Strassle et al., 1999).

There are a number of options for measuring the habitual explanatory style of people. These are the Seligman Attributional Style Questionnaire (SASQ), the Extended Attributional Style Questionnaire and the Occupational Attributional Style Questionnaire. All of these instruments are widely used in different research settings and have adequate reliability and validity (Furnham, Sadka, & Brewin, 1992; Peterson, 2000).

It is expected that the ARI would relate positively to an optimistic attributional style and that the two subscales of the ARI that are linked with vulnerability factors – those factors that make people less resilient, namely negative rumination and helplessness – would relate positively with a pessimistic attributional style.

The hope construct is based on the view (tenet) that most human behaviour is goal-directed behaviour. Hope theory revolves around people's cognitions (thoughts) about their goals. Hope, as defined by Snyder (1995), consists of the two interdependent constructs of agency (willpower) and pathways (waypower). Agency refers to the drive, willpower and energy that people have to move towards their goals, while pathways refer to people's ability to develop more than one way – more than one route – to achieve their goals.

Although the two constructs are factorially related, they are not identical, but mutually influence each other. Together, the two constructs combine to give meaning to the construct of hope. Having one of the two is not sufficient to instil high hope in people. Having high levels of hope is characteristic of people who have both the will and the waypower to pursue their goals (Magaletta & Oliver, 1999; Snyder, 1995).

In relation to people who are characterised by low hope, individuals who have high hope display very distinctive behaviour. They know what their goals are; they have many goals and more difficult goals; they do not get overwhelmed by their goals, but are challenged by them. In comparison to low hope people they approach their goals in a positive emotional state. Their thoughts are on the successful achievement of their goals rather than on failure and they approach their goals with confidence and not with hesitancy. Their way of thinking helps them to persist in the face of adversity (Luthans, 2002; Snyder, 1994, 1995).

The benefits of having high levels of hope are numerous and have been shown in many research settings. Higher levels of hope have been related to successful achievements in a variety of settings in academic as well as athletic achievement. It is also strongly related to mental and physical health. One very relevant study closely related to the current study, found that higher levels of hope act as a buffer in stressful working environments with the effect of less burnout, more job satisfaction and less turnover (Luthans, 2002). High hope people are also considered to be more resilient than low hope people, especially when they face adversity in the form of obstacles to goal achievement. What distinguishes them from lower hope people when facing adversity is their ability to play down the effect of the negative. They ruminate less about themselves and focus instead on what needs to be done. They have an outward focus and rather think about what they need to do (pathways) to overcome the adversity. They also tend to make more use of social support, exercise more

and keep more of an eye on their own health than lower hope people. Hope is usually measured with The Hope Scale (Snyder, 1994).

A high positive correlation is expected between the measurements of hope and resilience as measured by the ARI, specifically the willpower subscale of the hope construct should relate positively with the subscale of determination.

In the third instance of construct validity, the ARI, can be correlated with generalised self-efficacy , which is based on the work of Albert Bandura. Previously self-efficacy has been likened to confidence, where confidence signifies a conviction that one has the ability and power to bring about desired results (Luthans, 2002).

Resilience, as measured by the ARI, and specifically the confident subscale, is expected to be positively related to the concept of self-efficacy.

The second type of validity that needs to be determined is concurrent validity. Concurrent validity is a type of criterion-related validity that measures how well the newly developed measure relates to existing measures that measure the same construct (Durrheim, 1999).

Two well-known measures of resilience that can be used for this purpose are the Sense of Coherence measure of Antonovsky and the Hardiness measure of Kobasa. Positive relations between these measures and the ARI are expected.

The third, and a very important, type of validity that still needs to be tested for is the discriminant validity or external validity of the instrument. Several approaches can be used. One approach, set out by Klohnen (1996), compared resiliency (in her case ego resiliency) to a comprehensive index of adult adjustment, which provided a measure of effective adult functioning and adjustment. Adult resilience should be able to predict overall adult adjustment. Following the example of Friborg et al. (2003) could provide another approach. They tested for differences among groups that were known to differ on selected variables. People with psychiatric problems, who are known to have fewer protective factors, for example, will score differently on the resilience measure than a randomly selected sample drawn from the population as a control group.

5.3 RECOMMENDATIONS

Based on the broad conceptual limitations that have been discussed, it is possible to make a practical recommendation with regard to a fuller understanding of the work environment in call centres.

Call centre managers realise that the work in a call centre working environments can be very stressful and that it could lead to the development of burnout with the resultant impact on important organisational outcomes like affective commitment, turnover intentions and service delivery. Unfortunately, they do not have a systematic framework by means of which to understand and manage it.

The goal of future research could be to provide management with a diagnostic tool by means of which they could obtain an understanding of organisational and individual health in call centres. This would provide them with a framework and a language that would facilitate their understanding and consequent intervention practices. Using such a diagnostic instrument would standardise the approach that is used to measure and explain organisational and individual health in call centres.

If any diagnostic model is to be of use to management with regard to organisational and individual health in call centres, it should, however, provide the following: an indicator of the level of burnout and engagement in the call centre; an indicator of the causes of both burnout and engagement; an indication of the consequences of burnout and engagement on the organisational and individual level; as well as an indication of individual strength factors (resilience) that could help prevent the development of burnout and could assist with the development of engagement.

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